MEP

2016 - 2017
PRODUCT CATALOGUE

MaxMotion

marathon Motors

Lenze AC Tech

DELTA

MASTERDRIVE®

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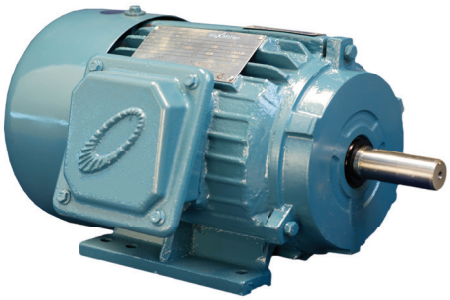
EPACT DESIGN C, NEMA 12-11

CAST IRON CONSTRUCTION TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- NEMA Design C • VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Roller Bearing 4 & 6 Pole frames 404T to 449T
- Service Factor 1.15 • IP55 Protection
- Factory Certified Division 2 Class I Groups A, B, C, D Class II Groups F&G. Meets Temp Code T2B
- C and D Flanges are available, see Motor Accessories



HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
1	1800	143T	MQC-2W	MPC-2W	40	12.6
	1200	145T	MQC-3W	MPC-3W	48	12.6
1.5	1800	145T	MQC-7W	MPC-7W	48	13.6
	1200	182T	MQC-8W	MPC-8W	85	16.1
2	1800	145T	MQC-12W	MPC-12W	51	13.6
	1200	184T	MQC-13W	MPC-13W	93	17.1
3	1800	182T	MQC-17W	MPC-17W	89	17.1
	1200	213T	MQC-18W	MPC-18W	136	18.9
	900	215T	MQC-19W	MPC-19W	160	20.4
5	1800	184T	MQC-22W	MPC-22W	101	17.1
	1200	215T	MQC-23W	MPC-23W	162	20.4
7.5	1800	213T	MQC-27W	MPC-27W	136	18.9
	1200	254T	MQC-28W	MPC-28W	249	25
10	1800	215T	MQC-32W	MPC-32W	160	20.4
	1200	256T	MQC-33W	MPC-33W	274	25
15	1800	254T	MQC-37W	MPC-37W	270	25
	1200	284T	MQC-38W	MPC-38W	350	28
20	1800	256T	MQC-42W	MPC-42W	306	25
	1200	286T	MQC-43W	MPC-43W	372	28.1
25	1800	284T	MQC-47W	MPC-47W	372	28.1
	1200	324T	MQC-48W	MPC-48W	508	31.3
30	1800	286T	MQC-52W	MPC-52W	387	28.1
	1200	326T	MQC-53W	MPC-53W	529	31.3
40	1800	324T	MQC-57W	MPC-57W	521	31.3
	1200	364T	MQC-58W	MPC-58W	697	33.5
50	1800	326T	MQC-62W	MPC-62W	565	31.3
	1200	365T	MQC-63W	MPC-63W	752	33.5
60	1800	364T	MQC-67W	MPC-67W	730	33.5
	1200	404T	MQC-68W	MPC-68W	950	38.2
75	1800	365T	MQC-72W	MPC-72W	774	33.5
	1200	405T	MQC-73W	MPC-73W	1078	38.2
100	1800	405T	MQC-77W	MPC-77W	1063	38.2
	1200	444T	MQC-78W	MPC-78W	1315	44.3
125	1800	444T	MQC-82W	MPC-82W	1364	44.3
	1200	445T	MQC-83W	MPC-83W	1443	47.8
150	1800	445T	MQC-87W	MPC-87W	1694	47.8
	1200	447T	MQC-88W	MPC-88W	1978	47.8
200	1800	447T	MQC-97W	MPC-97W	1792	47.8
	1200	449T	MQC-98W	MPC-98W	2024	52.8
250	1800	449T	MQC-102W	MPC-102W	2120	52.8
300	1800	449T	MQC-107W	MPC-107W	3200	52.8

PREMIUM DESIGN B, NEMA 12-12

CAST IRON CONSTRUCTION TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- NEMA Design B
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Roller Bearing 4 & 6 Pole frames 404T to 449T
- Service Factor 1.25 1-50HP, 1.15 60-300HP
- IP55 Protection
- Factory Certified Division 2 Class I Groups A, B, C, D Class II Groups F&G. Meets Temp Code T2B
- C and D Flanges are available, see Motor Accessories

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
1	3600	143T	MQP-1	MPP-1	41	12.6
	1800	143T	MQP-2	MPP-2	47	12.6
	1200	145T	MQP-3	MPP-3	52	12.6
1.5	3600	143T	MQP-6	MPP-6	46	13.6
	1800	145T	MQP-7	MPP-7	55	13.6
	1200	182T	MQP-8	MPP-8	95	16.1
2	3600	145T	MQP-11	MPP-11	52	13.6
	1800	145T	MQP-12	MPP-12	56	13.6
	1200	184T	MQP-13	MPP-13	103	17.1
3	3600	182T	MQP-16	MPP-16	90	17.1
	3600	145T	MQP-16S	MPP-16S	90	15.1
	1800	182T	MQP-17	MPP-17	97	17.1
	1200	213T	MQP-18	MPP-18	136	18.9
5	3600	184T	MQP-21	MPP-21	110	17.1
	1800	184T	MQP-22	MPP-22	112	17.1
	1200	215T	MQP-23	MPP-23	162	20.4
7.5	3600	213T	MQP-26	MPP-26	145	18.9
	3600	184T	MQP-26S	MPP-26S	134	18.9
	1800	213T	MQP-27	MPP-27	150	18.9
	1200	254T	MQP-28	MPP-28	272	23.2
10	3600	215T	MQP-31	MPP-31	167	20.4
	1800	215T	MQP-32	MPP-32	167	20.4
	1200	256T	MQP-33	MPP-33	293	25
15	3600	254T	MQP-36	MPP-36	286	23.2
	3600	215T	MQP-36S	MPP-36S	162	23.2
	1800	254T	MQP-37	MPP-37	297	23.2
	1200	284T	MQP-38	MPP-38	363	26.6
20	3600	256T	MQP-41	MPP-41	315	25
	1800	256T	MQP-42	MPP-42	315	25
	1200	286T	MQP-43	MPP-43	394	28.1
25	3600	284TS	MQP-46	MPP-46	385	25.2
	1800	284T	MQP-47	MPP-47	392	26.6
	1200	324T	MQP-48	MPP-48	508	29.8
30	3600	286TS	MQP-51	MPP-51	409	26.7
	1800	286T	MQP-52	MPP-52	418	28.1
	1200	326T	MQP-53	MPP-53	537	31.3
40	3600	324TS	MQP-56	MPP-56	510	28.3
	1800	324T	MQP-57	MPP-57	519	29.8
	1200	364T	MQP-58	MPP-58	697	32.5

CHART CONTINUES ON NEXT PAGE

PREMIUM DESIGN B, NEMA 12-12

CAST IRON CONSTRUCTION TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- NEMA Design B
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Roller Bearing 4 & 6 Pole frames 404T to 449T
- Service Factor 1.25 1-50HP, 1.15 60-300HP
- IP55 Protection
- Factory Certified Division 2 Class I Groups A, B, C, D Class II Groups F&G. Meets Temp Code T2B
- C and D Flanges are available, see Motor Accessories

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HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
50	3600	326TS	MQP-61	MPP-61	548	29.8
	1800	326T	MQP-62	MPP-62	594	31.3
	1200	365T	MQP-63	MPP-63	752	33.5
60	3600	364TS	MQP-66	MPP-66	705	30.4
	1800	364T	MQP-67	MPP-67	766	32.5
	1200	404T	MQP-68	MPP-68	1000	36.7
75	3600	365TS	MQP-71	MPP-71	766	31.4
	1800	365T	MQP-72	MPP-72	783	33.5
	1200	405T	MQP-73	MPP-73	1120	38.2
100	3600	405TS	MQP-76	MPP-76	1040	35.2
	1800	405T	MQP-77	MPP-77	1058	38.2
	1200	444T	MQP-78	MPP-78	1320	44.3
125	3600	444TS	MQP-81	MPP-81	1247	40.6
	1800	444T	MQP-82	MPP-82	1342	44.3
	1200	445T	MQP-83	MPP-83	1400	44.3
150	3600	445TS	MQP-86	MPP-86	1408	40.6
	1800	445T	MQP-87	MPP-87	1672	44.3
	1200	447T	MQP-88	MPP-88	1800	47.8
200	3600	447TS	MQP-96	MPP-96	2185	44.1
	1800	447T	MQP-97	MPP-97	2260	47.8
	1200	449T	MQP-98	MPP-98	3100	52.8
250	3600	449TS	MQP-101	MPP-101	2700	49.1
	1800	449T	MQP-102	MPP-102	2750	52.8
300	3600	449TS	MQP-106	MPP-106	2900	49.1
	1800	449T	MQP-107	MPP-107	3220	52.8

PREMIUM DESIGN B, NEMA 12-12

ALUMINUM CONSTRUCTION TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- NEMA Design B
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Sealed bearings for Maximum performance
- Service Factor 1.25
- Removable base
- IP55 Protection
- Factory Certified Division 2 Class I Groups A, B, C, D Class II Groups F&G. Meets Temp Code T2B
- C Flanges are available, see Motor Accessories

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
1	3600	143T	MQA-1	MPA-1	29	13.95
	1800	143T	MQA-2	MPA-2	38	13.95
	1200	145T	MQA-3	MPA-3	42	15.13
1.5	3600	143T	MQA-6	MPA-6	36	13.95
	1800	145T	MQA-7	MPA-7	42	15.13
	1200	182T	MQA-8	MPA-8	70	15.58
2	3600	145T	MQA-11	MPA-11	39	15.13
	1800	145T	MQA-12	MPA-12	44	15.13
	1200	184T	MQA-13	MPA-13	75	16.61
3	3600	145T	MQA-16S	MPA-16S	42.5	15.13
	3600	182T	MQA-16	MPA-16	68	15.58
	1800	182T	MQA-17	MPA-17	71	15.58
	1200	213T	MQA-18	MPA-18	122	18.15
5	3600	184T	MQA-21	MPA-21	84	15.58
	1800	184T	MQA-22	MPA-22	83	15.58
	1200	215T	MQA-23	MPA-23	148	19.65
7.5	3600	184T	MQA-26S	MPA-26S	85	15.58
	3600	213T	MQA-26	MPA-26	119	18.15
	1800	213T	MQA-27	MPA-27	122	18.15
10	3600	215T	MQA-31	MPA-31	141	19.65
	1800	215T	MQA-32	MPA-32	133	19.65
15	3600	215T	MQA-36S	MPA-36S	144	19.65

PREMIUM DESIGN B, NEMA 12-12

ROLLED STEEL & CAST IRON CONSTRUCTION ODP OPEN DRIP PROOF

MaxMotion

Features:

- NEMA Design B
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Rolled Steel 140-210T, Cast Iron 250T and larger
- Roller Bearing 4 & 6 Pole frames 404T to 449T
- Service Factor 1.15
- IP23 Protection
- C and D Flanges are available, see Motor Accessories

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
1	1800	143T	MQOP-2	MPOP-2	47	11.2
	1200	145T	MQOP-3	MPOP-3	52	12
1.5	3600	143T	MQOP-6	MPOP-6	46	11.2
	1800	145T	MQOP-7	MPOP-7	55	12
	1200	182T	MQOP-8	MPOP-8	95	14.1
2	3600	145T	MQOP-11	MPOP-11	52	12
	1800	145T	MQOP-12	MPOP-12	56	12
	1200	184T	MQOP-13	MPOP-13	103	14.9
3	3600	145T	MQOP-16	MPOP-16	90	12
	1800	182T	MQOP-17	MPOP-17	97	14.1
	1200	213T	MQOP-18	MPOP-18	136	16.5
5	3600	182T	MQOP-21	MPOP-21	110	14.1
	1800	184T	MQOP-22	MPOP-22	112	14.9
	1200	215T	MQOP-23	MPOP-23	162	17.5
7.5	3600	184T	MQOP-26	MPOP-26	145	14.9
	1800	213T	MQOP-27	MPOP-27	150	16.5
	1200	254T	MQOP-28	MPOP-28	272	22.1
10	3600	213T	MQOP-31	MPOP-31	167	16.5
	1800	215T	MQOP-32	MPOP-32	167	17.5
	1200	256T	MQOP-33	MPOP-33	293	22.1
15	3600	215T	MQOP-36	MPOP-36	286	17.5
	1800	254T	MQOP-37	MPOP-37	297	22.1
	1200	284T	MQOP-38	MPOP-38	363	23.4
20	3600	254T	MQOP-41	MPOP-41	315	22.1
	1800	256T	MQOP-42	MPOP-42	315	22.1
	1200	286T	MQOP-43	MPOP-43	394	24.8
25	3600	256T	MQOP-46	MPOP-46	385	22.1
	1800	284T	MQOP-47	MPOP-47	392	23.4
	1200	324T	MQOP-48	MPOP-48	508	25.7
30	3600	284TS	MQOP-51	MPOP-51	409	23.4
	1800	286T	MQOP-52	MPOP-52	418	24.8
	1200	326T	MQOP-53	MPOP-53	537	27.2
40	3600	286TS	MQOP-56	MPOP-56	510	24.8
	1800	324T	MQOP-57	MPOP-57	519	25.7
	1200	364T	MQOP-58	MPOP-58	697	29.3
50	3600	324TS	MQOP-61	MPOP-61	548	25.7
	1800	326T	MQOP-62	MPOP-62	594	27.2
	1200	365T	MQOP-63	MPOP-63	752	29.3

CHART CONTINUES ON NEXT PAGE

PREMIUM DESIGN B, NEMA 12-12

ROLLED STEEL & CAST IRON CONSTRUCTION ODP OPEN DRIP PROOF

MaxMotion

Features:

- NEMA Design B
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Rolled Steel 140-210T, Cast Iron 250T and larger
- Roller Bearing 4 & 6 Pole frames 404T to 449T
- Service Factor 1.15
- IP23 Protection
- C and D Flanges are available, see Motor Accessories

CHART CONTINUED FROM PREVIOUS PAGE

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
60	3600	326TS	MQOP-66	MPOP-66	704	25.7
	1800	364T	MQOP-67	MPOP-67	766	29.3
	1200	405T	MQOP-68	MPOP-68	1000	33.5
75	3600	364TS	MQOP-71	MPOP-71	766	27.2
	1800	365T	MQOP-72	MPOP-72	783	29.3
	1200	405T	MQOP-73	MPOP-73	1120	33.5
100	3600	365TS	MQOP-76	MPOP-76	1040	27.2
	1800	404T	MQOP-77	MPOP-77	1058	33.5
	1200	444T	MQOP-78	MPOP-78	1320	39.8
125	3600	404TS	MQOP-81	MPOP-81	1247	30.5
	1800	405T	MQOP-82	MPOP-82	1342	33.5
	1200	445T	MQOP-83	MPOP-83	1400	39.8
150	3600	405TS	MQOP-86	MPOP-86	1408	30.5
	1800	444T	MQOP-87	MPOP-87	1672	39.8
	1200	447T	MQOP-88	MPOP-88	1800	39.2
200	3600	444TS	MQOP-96	MPOP-96	1584	36
	1800	445T	MQOP-97	MPOP-97	1782	39.8
	1200	449T	MQOP-98	MPOP-98	2100	44.2
250	3600	445TS	MQOP-101	MPOP-101	1870	36
	1800	447T	MQOP-102	MPOP-102	2150	39.8
300	3600	447TS	MQOP-106	MPOP-106	2002	39.1
	1800	449T	MQOP-107	MPOP-107	2220	44.2
350	3600	449T	MQOP-112	MPOP-112	2500	44.2

EPACT DESIGN B, NEMA 12-11

CLOSE COUPLED PUMP MOTORS JM & JP STYLE

CAST IRON CONSTRUCTION TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- NEMA Design B
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 V
- Meets or exceeds MG1 Part 31
- Service Factor 1.15
- IP55 Protection
- Factory Certified Division 2 Class I Groups A, B, C, D Class II Groups F&G. Meets Temp Code T2B

JM SERIES NEMA CLOSED COUPLED PUMP STYLE

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
1	1800	143JM	JMQ-2	JMP-2	40	15.2
1.5	1800	145JM	JMQ-7	JMP-3	48	16.2
2	3600	145JM	JMQ-11	JMP-11	46	16.2
	1800	145JM	JMQ-12	JMP-12	51	16.2
3	3600	145JM	JMQ-16S	JMP-16S	88	16.2
	3600	182JM	JMQ-16	JMP-16	88	17.5
	1800	182JM	JMQ-17	JMP-17	89	17.5
5	3600	184JM	JMQ-21	JMP-21	101	18.5
	1800	184JM	JMQ-22	JMP-22	101	18.5
7.5	3600	184JM	JMQ-26S	JMP-26S	101	18.5
	3600	213JM	JMQ-26	JMP-26	136	20.8
	1800	213JM	JMQ-27	JMP-27	136	20.8
10	3600	215JM	JMQ-31	JMP-31	152	22.3
	1800	215JM	JMQ-32	JMP-32	160	22.3
15	3600	215JM	JMQ-36S	JMP-36S	162	22.3
	3600	254JM	JMQ-36	JMP-36	253	26.2
	1800	254JM	JMQ-37	JMP-37	270	24.7
20	3600	256JM	JMQ-41	JMP-41	304	26.5
	1800	256JM	JMQ-42	JMP-42	306	26.5
25	3600	256JM	JMQ-46S	JMP-46S	365	26.5
	3600	284JM	JMQ-46	JMP-46	385	27.5
	1800	284JM	JMQ-47	JMP-47	372	29.1
30	3600	286JM	JMQ-51	JMP-51	387	29.1
	1800	286JM	JMQ-52	JMP-52	387	29.1
40	3600	286JM	JMQ-56S	JMP-56S	435	29.1
	3600	324JM	JMQ-56	JMP-56	435	30
	1800	324JM	JMQ-57	JMP-57	521	30
50	3600	326JM	JMQ-61	JMP-61	532	31.5

JP SERIES

2	1800	145JP	JQP-2	JPP-2	51	19.3
3	1800	182JP	JQP-17	JPP-17	89	20.5
5	1800	184JP	JQP-22	JPP-22	101	21.5
7.5	1800	213JP	JQP-27	JPP-27	136	24.7
10	3600	215JP	JQP-31	JPP-31	160	26.2
	1800	215JP	JQP-32	JPP-32	160	26.2
15	3600	215JP	JQP-36S	JPP-36S	162	24.7
	3600	254JP	JQP-36	JPP-36	253	27.6

PREMIUM DESIGN B, NEMA 12-12

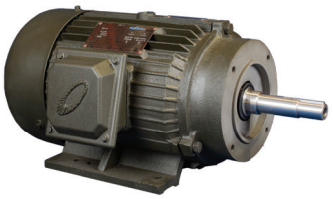
CLOSE COUPLED PUMP MOTORS JM & JP STYLE

CAST IRON CONSTRUCTION TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- NEMA Design B
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Service Factor 1.25
- IP55 Protection
- Factory Certified Division 2 Class I Groups A, B, C, D Class II Groups F&G. Meets Temp Code T2B



JM SERIES NEMA CLOSED COUPLED PUMP STYLE

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
1	1800	143JM	JMQP-2	JMPP-2	47	12.6
	1200	145JM	JMQP-3	JMPP-3	52	13.6
1.5	1800	145JM	JMQP-7	JMPP-7	55	13.6
	1200	182JM	JMQP-8	JMPP-8	95	15.1
2	3600	145JM	JMQP-11	JMPP-11	52	13.6
	1800	145JM	JMQP-12	JMPP-12	56	13.6
	1200	182JM	JMQP-13	JMPP-13	103	16.1
3	3600	145JM	JMQP-16S	JMPP-16S	90	15.1
	3600	182JM	JMQP-16	JMPP-16	90	15.1
	1800	182JM	JMQP-17	JMPP-17	97	15.1
	1200	213JM	JMQP-18	JMPP-18	136	19.9
5	3600	184JM	JMQP-21	JMPP-21	110	16.1
	1800	184JM	JMQP-22	JMPP-22	112	16.1
	1200	215JM	JMQP-23	JMPP-23	162	20.4
7.5	3600	184JM	JMQP-26S	JMPP-26S	134	18.9
	3600	213JM	JMQP-26	JMPP-26	145	19.9
	1800	213JM	JMQP-27	JMPP-27	150	18.9
	1200	254JM	JMQP-28	JMPP-28	272	23.2
10	3600	215JM	JMQP-31	JMPP-31	167	20.4
	1800	215JM	JMQP-32	JMPP-32	167	20.4
	1200	256JM	JMQP-33	JMPP-33	293	25
15	3600	215JM	JMQP-36S	JMPP-36S	162	23.2
	3600	254JM	JMQP-36	JMPP-36	286	23.2
	1800	284JM	JMQP-37	JMPP-37	297	23.2
	1200	284JM	JMQP-38	JMPP-38	363	26.6
20	3600	256JM	JMQP-41	JMPP-41	315	25
	1800	256JM	JMQP-42	JMPP-42	315	25
25	3600	256JM	JMQP-46S	JMPP-46S	365	25.2
	3600	284JM	JMQP-46	JMPP-46	385	25.2
	1800	284JM	JMQP-47	JMPP-47	392	26.6
30	3600	286JM	JMQP-51	JMPP-51	409	26.7
	1800	286JM	JMQP-52	JMPP-52	418	28.1
40	3600	286JM	JMQP-56S	JMPP-56S	455	28.3
	3600	324JM	JMQP-56	JMPP-56	510	28.3
	1800	324JM	JMQP-57	JMPP-57	519	29.8
50	3600	326JM	JMQP-61	JMPP-61	548	29.8

JP SERIES

2	1800	145JP	JQPP-2	JPPP-2	56	13.6
3	1800	182JP	JQPP-17	JPPP-17	97	15.1
5	1800	184JP	JQPP-22	JPPP-22	112	16.1
7.5	1800	213JP	JQPP-27	JPPP-27	150	18.9
10	3600	215JP	JQPP-31	JPPP-31	167	20.4
	1800	215JP	JQPP-32	JPPP-32	167	20.4
15	3600	215JP	JQPP-36S	JPPP-36S	167	23.2
	3600	254JP	JQPP-36	JPPP-36	286	23.2

EPACT EFFICIENT DESIGN C

304 GRADE STAINLESS STEEL IP66

TENV TOTALLY ENCLOSED NON-VENTILATED TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- NEMA Design C
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Service Factor 1.15
- Round Terminal Box with encapsulated lead wires
- Viton Seal installed on both shaft ends, with Stainless Steel shaft slinger
- Bonded Stainless Steel Washers
- IP66 Protection
- Removable base 56C, 56HC. Rigid Base 143T, Larger

EPACT EFFICIENT 0.33HP TO 20HP

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
0.33	1800	56C	MQS-134	MPS-134	27	11.59
	1800	56C	MQS-134FC	MPS-134FC	28	11.59
0.50	3600	56C	MQS-122	MPS-122	28	11.59
	1800	56C	MQS-124	MPS-124	28	11.59
	1800	56C	MQS-124FC	MPS-124FC	29	11.59
	1200	56C	MQS-126	MPS-126	30	12.57
0.75	3600	56HC	MQS-342	MPS-342	34	12.57
	1800	56HC	MQS-344	MPS-344	31	12.57
	1800	56HC	MQS-344FC	MPS-344FC	33	12.57
	1200	56HC	MQS-346	MPS-346	34	12.68
1	3600	56HC	MQS-102	MPS-102	35	13.68
	1800	56HC	MQS-104	MPS-104	36	13.68
	1800	143TC	MQS-104T	MPS-104T	36	13.68
	1200	143TC	MQS-106T	MPS-106T	42	13.68
1.5	3600	56HC	MQS-152	MPS-152	39	12.63
	1800	56HC	MQS-154	MPS-154	39	12.63
	1800	145TC	MQS-154T	MPS-154T	42	13.68
	1200	182TC	MQS-156T	MPS-156T	79	16.41
2	1800	56HC	MQS-204	MPS-204	51	13.68
	1800	145TC	MQS-204T	MPS-204T	51	13.68
	1200	184TC	MQS-206T	MPS-206T	95	16.41
3	1800	56HC	MQS-304T-56C	MPS-304T-56C	68	19.22
	1800	182TC	MQS-304T	MPS-304T	78	16.4
	1200	213TC	MQS-306T	MPS-306T	160	21.5
5	1800	184TC	MQS-504T	MPS-504T	99	16.4
	1200	215TC	MQS-506T	MPS-506T	197	22.3
7.5	1800	213TC	MQS-704T	MPS-704T	179	21.5
10	1800	215TC	MQS-1004T	MPS-1004T	210	22.3
15	1800	254TC	MQS-1504T	MPS-1504T	286	23.7
20	1800	256TC	MQS-2004T	MPS-2004T	352	25.3

PREMIUM EFFICIENT

304 GRADE STAINLESS STEEL IP66

TENV TOTALLY ENCLOSED NON-VENTILATED TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- NEMA Design B
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Service Factor 1.15
- Round Terminal Box with encapsulated lead wires
- Viton Seal installed on both shaft ends, with Stainless Steel shaft slinger
- Bonded Stainless Steel Washers
- IP66 Protection
- Removable base 56C, 56HC. Rigid Base 143T, Larger

PREMIUM EFFICIENT 1HP TO 20HP

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
1	3600	143TC	MQSP-102T	MPSP-102T	36	13.68
	1800	143TC	MQSP-104T	MPSP-104T	42	12.63
1.5	3600	145TC	MQSP-152T	MPSP-152T	39	12.63
	1800	145TC	MQSP-154T	MPSP-154T	42	12.63
	1200	182TC	MQSP-156T	MPSP-156T	79	16.41
2	3600	145TC	MQSP-202T	MPSP-202T	45	13.68
	1800	145TC	MQSP-204T	MPSP-204T	51	13.68
	1200	184TC	MQSP-206T	MPSP-206T	95	16.41
3	3600	145TC	MQSP-302TS	MPSP-302TS	65	16.41
	3600	182TC	MQSP-302T	MPSP-302T	77	16.41
	1800	213TC	MQSP-304T	MPSP-304T	78	16.41
	1200	213TC	MQSP-306T	MPSP-306T	160	21.5
5	3600	184TC	MQSP-502T	MPSP-502T	95	16.41
	1800	184TC	MQSP-504T	MPSP-504T	99	16.41
	1200	215TC	MQSP-506T	MPSP-506T	197	22.31
7.5	3600	213TC	MQSP-702T	MPSP-702T	151	21.5
	1800	213TC	MQSP-704T	MPSP-704T	179	21.5
10	3600	215TC	MQSP-1002T	MPSP-1002T	166	22.3
	1800	215TC	MQSP-1004T	MPSP-1004T	210	22.3
15	1800	254TC	MQSP-1504T	MPSP-1504T	286	23.7
20	1800	256TC	MQSP-2004T	MPSP-2004T	352	25.3

THREE PHASE ALL-IN-ONE 56HC AC MOTORS

HEAVY GAUGE ROLLED STEEL CONSTRUCTION IP55

TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 5:1 CT ~ 10:1 VT
- Meets or exceeds MG1 Part 31
- Service Factor 1.15
- NEMA C-Face Output
- Removable bolt-on Rigid Base
- Locked DE Bearings
- Brake Provision NDE Side
- Neoprene Double lip Seal DE and NDE Side
- IP55 Protection

BRAKE KITS

HP	RPM	FRAME	CATALOGUE NUMBER		WEIGHT LBS.	"C" DIMENSION	CATALOGUE NUMBER		FT. LBS.
			208-230/460/60 ~ 190/380-415/3/50	575/3/60			230/460	575	
0.33	3600	56HC	MQR-132CW	MPR-132CW	20.72	12.25	A301	A297	3
	1800	56HC	MQR-134CW	MPR-134CW	21.38	12.25	A301	A297	3
	1200	56HC	MQR-136CW	MPR-136CW	22.8	12.25	A301	A297	3
0.50	3600	56HC	MQR-122CW	MPR-122CW	20.72	12.25	A301	A297	3
	1800	56HC	MQR-124CW	MPR-124CW	23.92	12.25	A301	A297	3
	1200	56HC	MQR-126CW	MPR-126CW	24.3	12.25	A302	A298	6
0.75	3600	56HC	MQR-342CW	MPR-342CW	22.49	12.25	A301	A297	3
	1800	56HC	MQR-344CW	MPR-344CW	25.35	12.25	A302	A298	6
	1200	56HC	MQR-346CW	MPR-346CW	26.9	12.25	A302	A298	6
1	3600	56HC	MQR-102CW	MPR-102CW	25.13	12.25	A301	A297	3
	1800	56HC	MQR-104CW	MPR-104CW	26.9	12.25	A302	A298	6
	1200	56HC	MQR-106CW	MPR-106CW	30.86	12.25	A303	A299	10
1.5	3600	56HC	MQR-152CW	MPR-152CW	27.78	12.25	A302	A298	6
	1800	56HC	MQR-154CW	MPR-154CW	30.86	12.25	A303	A299	10
2	3600	56HC	MQR-202CW	MPR-202CW	31.75	12.25	A302	A298	6
	1800	56HC	MQR-204CW	MPR-204CW	37.48	12.25	A303	A299	10
3	3600	56HC	MQR-302CW	MPR-302CW	40	13.83	A303	A299	10

BRAKE KIT

SINGLE PHASE ALL-IN-ONE 56HC AC MOTORS 1/3HP to 2HP

FARM DUTY SINGLE PHASE 2HP to 10HP

HEAVY GAUGE ROLLED STEEL CONSTRUCTION TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- NEMA C-Face Output
- Removable bolt-on Rigid Base on 56HC Frames
- Ball Bearing Construction
- Service Factor 1.15
- Reversible Rotation
- Locked DE Bearings
- Brake Provision NDE Side
- Neoprene Double lip Seal DE and NDE Side
- Manual Overload where Noted
- C-Flange kits available, see accessories page

HP	RPM	VOLTAGE	FRAME	CATALOGUE NUMBER	OVERLOAD PROTECTION	WEIGHT LBS.	"C" DIM	BRAKE KITS CATALOGUE NUMBER 115/230	BRAKE KITS FT. LBS.
0.33	1800	115/230	56HC	MTR-134FDC	MANUAL	26	12.4	A306	3
0.50	3600	115/230	56HC	MTR-122FDC	MANUAL	25	11	A306	3
	1800	115/230	56HC	MTR-124FDC	MANUAL	27	12.4	A306	3
0.75	3600	115/230	56HC	MTR-342FDC	MANUAL	26	11	A306	3
	1800	115/230	56HC	MTR-344FDC	MANUAL	31	12.4	A307	6
1	3600	115/230	56HC	MTR-102FDC	MANUAL	30	11.8	A306	3
	1800	115/230	56HC	MTR-104FDC	MANUAL	38	12.8	A307	6
1.5	3600	115/230	56HC	MTR-152FDC	MANUAL	36	13	A307	6
	1800	115/230	56HC	MTR-154FDC	MANUAL	44	13.3	A303	3
2	3600	208-230	56HC	MTR-202FDC	MANUAL	40	13	A307	6
	1800	208-230	56HC	MTR-204FDC	MANUAL	50	13.8	NA	
	1800	208-230	145TC	MTR-204FDTC	MANUAL	51	14.4	NA	
3	1800	208-230	182T	MTR-304FD	MANUAL	96	16.3	NA	
5	3600	208-230	184TC	MTR-502FDC	NONE	98	17.7	NA	
	1800	208-230	184T	MTR-504FD	MANUAL	110	17.7	NA	
7.5	1800	208-230	213T	MTR-704FD	NONE	125	20.3	NA	
10	1800	208-230	215T	MTR-1004FD	NONE	130	21.7	NA	

BRAKE KIT

CENTRIFUGAL PUMP (JET PUMP)

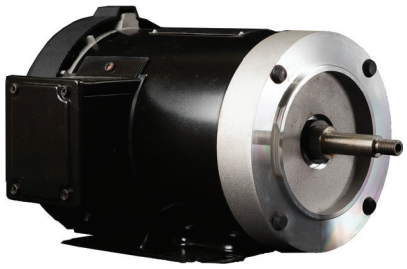
HEAVY GAUGE ROLLED STEEL CONSTRUCTION IP55

TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 5:1 CT ~ 10:1 VT
- Meets or exceeds MG1 Part 31
- Service Factor 1.15
- Removable bolt-on Rigid Base
- Locked DE Bearings
- 316 Stainless Threaded Shaft with Slinger
- Neoprene Double lip Seal DE and NDE Side
- IP55 Protection
- Optional Drip Cover available. See **Accessories**



HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
0.33	3600	56J	MQR-132J	MPR-132J	20.72	12.25
0.50	3600	56J	MQR-122J	MPR-122J	20.72	12.25
0.75	3600	56J	MQR-342J	MPR-342J	22.49	12.25
1	3600	56J	MQR-102J	MPR-102J	25.13	12.25
1.5	3600	56J	MQR-152J	MPR-152J	27.78	12.25
2	3600	56J	MQR-202J	MPR-202J	31.75	12.25
3	3600	56J	MQR-302J	MPR-302J	40	13.83

HEAVY GAUGE ROLLED STEEL CONSTRUCTION

ODP OPEN DRIPPROOF

MaxMotion

Features:

- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 5:1 CT ~ 10:1 VT
- Meets or exceeds MG1 Part 31
- Service Factor 1.15
- Rigid Base
- Locked DE Bearings

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
0.33	1800	56	MLR-134W	MKR-134W	15	9.97
0.50	1800	56	MLR-124W	MKR-124W	17	10.47
0.75	1800	56	MLR-344W	MKR-344W	20	10.97
1	1800	56	MLR-104W	MKR-104W	24	11.47
1.5	1800	56	MLR-154W	MKR-154W	27	10.94
2	1800	56	MLR-204W	MKR-204W	33	11.94

METRIC IEC ALUMINUM & CAST IRON CONSTRUCTION

TEFC TOTALLY ENCLOSED FAN COOLED IE1, and IE3 EFFICIENCIES

MaxMotion

Features:

- IP55 weather protection
- Class H Insulation, with B Temp Rise
- Inverter Duty Magnet Wire, meets MG1 Part 31 10:1 CT, 20:1 VT
- SKF High Temp bearings
- 56-112 Frames come with Seal/lubricated Bearings, 132 and larger are re-greasable
- Aluminum Construction 56-160 frame, Cast Iron 180-500 frame
- Rotatable/Removable Base 63-160 Frame, Rigid Base 180 larger
- PTC installed on frames 132 and larger
- IEC Design N, with NEMA B Torques
- Terminal Blocks, Stud
- B14 and B5 Flanges are available, see **Accessory** page
- CE Approval
- Rated 60/50Hz

2 POLES: 3600 RPM *

HP	KW	FRAME	MEP CAT#		WEIGHT (KG)	"L" DIMENSIONS (MM)	EFF
			208-230/460/60 - 190-220/380-415/50	575 VAC			
0.18	0.13	56	IJA562-2-24	IJA562-2-35	3.7	199	IE1
0.25	0.18	63	IJA631-2-24	IJA631-2-35	4.3	217	IE1
0.37	0.25	63	IJA632-2-24	IJA632-2-35	4.4	217	IE1
0.50	0.37	63	IJA633-2-24	IJA633-2-35	4.6	217	IE1
0.50	0.37	71	IJA711-2-24	IJA711-2-35	5.3	242	IE1
0.75	0.55	71	IJA712-2-24	IJA712-2-35	6.2	242	IE1
1	0.75	71	IJA713-2-24	IJA713-2-35	6.4	242	IE1
1	0.75	80	IJA801-2-24	IJA801-2-35	9	304	IE3
1.5	1.1	80	IJA802-2-24	IJA802-2-35	8.8	304	IE3
2	1.5	80	IJA803-2-24	IJA803-2-35	9.2	304	IE1
2	1.5	90	IJA90S-2-24	IJA90S-2-35	13.5	336	IE3
3	2.2	90	IJA90L-2-24	IJA90L-2-35	17	361	IE3
4	3	100	IJA100L-2-24	IJA100L-2-35	23.2	406	IE3
5.5	4	112	IJA112M-2-46	IJA112M-2-59	40	395	IE3
7.5	5.5	112	IJA112M2-2-46	IJA112M2-2-59	40.9	395	IE3
7.5	5.5	132	IJA132S1-2-46	IJA132S1-2-59	42	440	IE3
10	7.5	132	IJA132S2-2-46	IJA132S2-2-59	48	440	IE3
12.4	9.2	132	IJA132M1-2-46	IJA132M1-2-59	60	480	IE3
15	11	132	IJA132M2-2-46	IJA132M2-2-59	61.2	480	IE3
15	11	160	IJA160M1-2-46	IJA160M1-2-59	83	590	IE3
20	15	160	IJA160M2-2-46	IJA160M2-2-59	94	590	IE3
25	18.5	160	IJA160L-2-46	IJA160L-2-59	106.5	645	IE3
30	22	160	IJA160L2-2-46	IJA160L2-2-59	108.5	645	IE3
30	22	180	IJC180M-2-46	IJC180M-2-59	182	652	IE3
40	30	200	IJC200L1-2-47	IJC200L1-2-59	246	746	IE3
50	37	200	IJC200L2-2-47	IJC200L2-2-59	265	746	IE3
60	45	225	IJC225M-2-47	IJC225M-2-59	323	780	IE3
75	55	250	IJC250M-2-47	IJC250M-2-59	413	900	IE3
100	75	280	IJC280S-2-47	IJC280S-2-59	546	961	IE3
125	90	280	IJC280M-2-47	IJC280M-2-59	569	1012	IE3
150	110	315	IJC315S-2-47	IJC315S-2-59	897	1224	IE3
180	132	315	IJC315M-2-47	IJC315M-2-59	1029	1334	IE3
220	160	315	IJC315L1-2-47	IJC315L1-2-59	1067	1334	IE3
270	200	315	IJC315L2-2-47	IJC315L2-2-59	1194	1334	IE3

Please see **MaxMotion Voltage Suffix** on page 19

METRIC IEC ALUMINUM & CAST IRON CONSTRUCTION

TEFC TOTALLY ENCLOSED FAN COOLED IE1, and IE3 EFFICIENCIES

MaxMotion

Features:

- IP55 weather protection
- Class H Insulation, with B Temp Rise
- Inverter Duty Magnet Wire, meets MG1 Part 31 10:1 CT, 20:1 VT
- SKF High Temp bearings
- 56-112 Frames come with Seal/lubricated Bearings, 132 and larger are re-greasable
- Aluminum Construction 56-160 frame, Cast Iron 180-500 frame
- Rotatable/Removable Base 63-160 Frame, Rigid Base 180 larger
- PTC installed on frames 132 and larger
- IEC Design N, with NEMA B Torques
- Terminal Blocks, Stud
- B14 and B5 Flanges are available, see **Accessory** page
- CE Approval
- Rated 60/50Hz

CONTINUED FROM PREVIOUS PAGE

4 POLES: 1800 RPM *

HP	KW	FRAME	MEP CAT#		WEIGHT (KG)	"L" DIMENSIONS (MM)	EFF
			208-230/460/60 - 190-220/380-415/50	575 VAC			
0.12	0.09	56	IJA562-4-24	IJA562-4-35	4.1	199	IE1
0.18	0.13	63	IJA631-4-24	IJA631-4-35	3.9	217	IE1
0.25	0.18	63	IJA632-4-24	IJA632-4-35	4.1	217	IE1
0.33	0.25	63	IJA633-4-24	IJA633-4-35	4.2	217	IE1
0.37	0.25	71	IJA711-4-24	IJA711-4-35	5.3	242	IE1
0.50	0.37	71	IJA712-4-24	IJA712-4-35	6.1	242	IE1
0.75	0.55	71	IJA713-4-24	IJA713-4-35	6.3	242	IE1
0.75	0.55	80	IJA801-4-24	IJA801-4-35	8.1	304	IE1
1	0.75	80	IJA802-4-24	IJA802-4-35	10.5	304	IE3
1.5	1.1	80	IJA803-4-24	IJA803-4-35	10.7	304	IE1
1.5	1.1	90	IJA90S-4-24	IJA90S-4-35	15	336	IE3
2	1.5	90	IJA90L-4-24	IJA90L-4-35	19	361	IE3
2.4	1.8	90	IJA90L2-4-24	IJA90L2-4-35	19.3	361	IE3
3	2.2	100	IJA100L1-4-24	IJA100L1-4-35	25.4	406	IE3
4	3	100	IJA100L2-4-24	IJA100L2-4-35	31.3	406	IE3
5.5	4	112	IJA112M-4-46	IJA112M-4-59	37	395	IE3
7.5	5.5	132	IJA132S-4-46	IJA132S-4-59	48.5	440	IE3
10	7.5	132	IJA132M-4-46	IJA132M-4-59	60	480	IE3
12.4	9.2	132	IJA132M1-4-46	IJA132M1-4-59	61.2	480	IE3
15	11	160	IJA160M-4-46	IJA160M-4-59	92.5	590	IE3
20	15	160	IJA160L-4-46	IJA160L-4-59	107	645	IE3
25	18.5	180	IJC180M-4-46	IJC180M-4-59	181	652	IE3
30	22	180	IJC180L-4-46	IJC180L-4-59	209	690	IE3
40	30	200	IJC200L-4-47	IJC200L-4-59	284	746	IE3
50	37	225	IJC225S-4-47	IJC225S-4-59	326	780	IE3
60	45	225	IJC225M-4-47	IJC225M-4-59	363	780	IE3
75	55	250	IJC250M-4-47	IJC250M-4-59	442	900	IE3
100	75	280	IJC280S-4-47	IJC280S-4-59	569	961	IE3
125	90	280	IJC280M-4-47	IJC280M-4-59	639	1012	IE3
150	110	315	IJC315S-4-47	IJC315S-4-59	939	1224	IE3
175	132	315	IJC315M-4-47	IJC315M-4-59	1033	1334	IE3
220	160	315	IJC315L1-4-47	IJC315L1-4-59	1126	1334	IE3
270	200	315	IJC315L2-4-47	IJC315L2-4-59	1239	1334	IE3

Please see **MaxMotion Voltage Suffix** on page 19

METRIC IEC ALUMINUM & CAST IRON CONSTRUCTION

TEFC TOTALLY ENCLOSED FAN COOLED IE1, and IE3 EFFICIENCIES

MaxMotion

Features:

- IP55 weather protection
- Class H Insulation, with B Temp Rise
- Inverter Duty Magnet Wire, meets MG1 Part 31 10:1 CT, 20:1 VT
- SKF High Temp bearings
- 56-112 Frames come with Seal/lubricated Bearings, 132 and larger are re-greasable
- Aluminum Construction 56-160 frame, Cast Iron 180-500 frame
- Rotatable/Removable Base 63-160 Frame, Rigid Base 180 larger
- PTC installed on frames 132 and larger
- IEC Design N, with NEMA B Torques
- Terminal Blocks, Stud
- B14 and B5 Flanges are available, see **Accessory** page
- CE Approval
- Rated 60/50Hz

CONTINUED FROM PREVIOUS PAGE

6 POLES: 1200 RPM *

HP	KW	FRAME	MEP CAT#		WEIGHT (KG)	"L" DIMENSIONS (MM)	EFF
			208-230/460/60 - 190-220/380-415/50	575 VAC			
0.12	0.09	63	IJA631-6-24	IJA631-6-35	4.5	217	IE1
0.25	0.18	71	IJA711-6-24	IJA711-6-35	6.5	242	IE1
0.37	0.25	71	IJA712-6-24	IJA712-6-35	6.7	242	IE1
0.50	0.37	80	IJA801-6-24	IJA801-6-35	8.5	304	IE1
0.75	0.55	80	IJA802-6-24	IJA802-6-35	9.4	304	IE1
1	0.75	90	IJA90S-6-24	IJA90S-6-35	14	336	IE3
1.5	1.1	90	IJA90L-6-24	IJA90L-6-35	18	361	IE3
2	1.5	100	IJA100L-6-24	IJA100L-6-35	29.5	406	IE3
3	2.2	112	IJA112M-6-46	IJA112M-6-59	27	395	IE3
4	3	132	IJA132S-6-46	IJA132S-6-59	43	440	IE3
5.5	4	132	IJA132M1-6-46	IJA132M1-6-59	49	480	IE3
7.5	5.5	132	IJA132M2-6-46	IJA132M2-6-59	59	480	IE3
10	7.5	160	IJA160M-6-46	IJA160M-6-59	82	590	IE3
15	11	160	IJA160L-6-46	IJA160L-6-59	118.5	645	IE3
20	15	180	IJC180L-6-46	IJC180L-6-59	197	690	IE3
25	18.5	200	IJC200L1-6-47	IJC200L1-6-59	205	746	IE3
30	22	200	IJC200L2-6-47	IJC200L2-6-59	251	746	IE3
40	30	225	IJC225M-6-47	IJC225M-6-59	308	780	IE3
50	37	250	IJC250M-6-47	IJC250M-6-59	383	900	IE3
60	45	280	IJC280S-6-47	IJC280S-6-59	501	961	IE3
75	55	280	IJC280M-6-47	IJC280M-6-59	573	1012	IE3
100	75	315	IJC315S-6-47	IJC315S-6-59	843	1224	IE3
120	90	315	IJC315M-6-47	IJC315M-6-59	941	1334	IE3
150	110	315	IJC315L1-6-47	IJC315L1-6-59	1017	1334	IE3
175	132	315	IJC315L2-6-47	IJC315L2-6-59	1121	1334	IE3

MaxMotion Voltage Suffix

35 = 6 Lead 333 Delta / 575 Star
59 = 6 Lead 575 Delta / 990 Star
24 = 9 Lead 208-230 2 Star / 460 1 Star
46 = 12 Lead 208-230 2 Delta / 460 1 Delta
47 = 6 Lead 460 Delta / 796 Star

METRIC IE1 & IE3 EFFICIENCIES

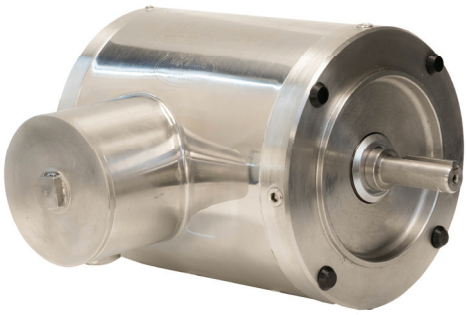
304 GRADE STAINLESS STEEL IP66

TENV TOTALLY ENCLOSED NON-VENTILATED TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- IEC Design N with NEMA Design B Torque Curves
- VPI with additional dip and Bake
- Inverter Duty Magnet Wire, 10:1 CT ~ 20:1 VT
- Meets or exceeds MG1 Part 31
- Service Factor 1.15
- Round Terminal Box with encapsulated lead wires
- Viton Seal installed on both shaft ends with stainless steel shaft slinger
- Bonded Stainless Steel Washers
- IP66 Protection
- Rigid Base
- B14 and B5 Flanges are available, see Motor Accessories



IE1 EFFICIENT 0.25HP to 1.5HP

HP	RPM	FRAME	CATALOGUE NUMBER 208-230/460/60 ~ 190/380-415/3/50	CATALOGUE NUMBER 575/3/60	WEIGHT LBS.	"C" DIMENSION
0.25	3600	63	MQS-6312	MPS-6312	17.6	9.51
	1800	63	MQS-6324	MPS-6324	17.6	9.51
	1200	71	MQS-7116	MPS-7116	20.09	9.83
0.33	3600	63	MQS-6322	MPS-6322	17.6	9.51
	1800	71	MQS-7114	MPS-7114	18.7	9.83
	1200	71	MQS-7126	MPS-7126	25.3	9.83
0.5	3600	71	MQS-7112	MPS-7112	25.3	9.83
	1800	71	MQS-7124	MPS-7124	23.1	9.83
	1200	80	MQS-8016	MPS-8016	38.5	11.99
0.75	3600	71	MQS-7122	MPS-7122	28.6	11
	1800	80	MQS-8014	MPS-8014	38.5	11.99
1	3600	80	MQS-8012	MPS-8012	34.1	10.81
	1800	80	MQS-8024	MPS-8024	44	12.77
1.5	3600	80	MQS-8022FC	MPS-8022FC	39.6	13.59

IE3 EFFICIENT 1.0HP to 10HP

1	1200	90	MQSP-90S6FC	MPSP-90S6FC	44	14.54
1.5	1800	90	MQSP-90S4FC	MPSP-90S4FC	48.4	13.56
	1200	90	MQSP-90L6FC	MPSP-90L6FC	57.2	16.31
2	3600	90	MQSP-90S2FC	MPSP-90S2FC	48.4	14.54
	1800	90	MQSP-90L4FC	MPSP-90L4FC	59.4	16.31
	1200	100	MQSP-100L6FC	MPSP-100L6FC	83.6	17.1
3	3600	90	MQSP-90L2FC	MPSP-90L2FC	64.9	16.31
	1800	100	MQSP-100L14FC	MPSP-100L14FC	74.8	17.1
	1200	112	MQSP-112M6FC	MPSP-112M6FC	111.1	19.26
4	3600	100	MQSP-100L2FC	MPSP-100L2FC	81.4	17.1
	1800	100	MQSP-100L24FC	MPSP-100L24FC	92.4	17.1
5.5	3600	112	MQSP-112M2FC	MPSP-112M2FC	99	18.47
	1800	112	MQSP-112M4FC	MPSP-112M4FC	111.1	19.26
7.5	3600	132	MQSP-132S12FC	MPSP-132S12FC	145.2	20.63
	1800	132	MQSP-132S4FC	MPSP-132S4FC	173.8	20.6
10	3600	132	MQSP-132S22FC	MPSP-132S22FC	171.6	22.2
	1800	132	MQSP-132M4FC	MPSP-132M4FC	200.2	22.2

BELTED FAN SINGLE PHASE SPLIT PHASE

ODP DRIPPROOF RESILIENT BASE BALL BEARING

MaxMotion

Features:

- Heavy Gauge steel frame with Resilient Base for low vibration and quiet Operation
- 48Z offers longer output shaft for greater mounting Options
- Reversible Rotation
- Extended Thru-Bolts
- 56H Capacitor start motors have Alternate bolt holes for 143T, and 145T frame Mounting

HP	CATALOGUE	RPM	VOLTAGE	FRAME	S.F	OVERLOAD	FLA	"C" DIM.
0.33	MOR-134BF	1725	115	48Z	1.15	AUTO	6.1	9.72
0.5	MOR-124BF	1725	115	48Z	1.15	AUTO	7.2	10.22

BELTED FAN SINGLE PHASE CAPACITOR START

ODP DRIPPROOF RESILIENT BASE BALL BEARING

HP	CATALOGUE	RPM	VOLTAGE	FRAME	S.F	OVERLOAD	FLA	"C" DIM.
0.33	MOR-134BFB	1725	115/208-230	56H	1.35	MANUAL	5.6/3.1/2.8	10.4
0.50	MOR-124BFB	1725	115/208-230	56H	1.25	MANUAL	8.5/5/4.5	11.8
0.75	MOR-344BFB	1725	115/208-230	56H	1.25	MANUAL	10.9/6/5.5	11.8
1	MOR-104BFB	1725	115/208-230	56H	1.15	MANUAL	13.6/7.5/6.8	11.8

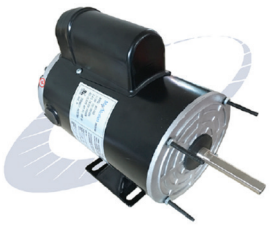
FAN and BLOWER MOTOR DIRECT DRIVE PSC

OPEN AIR OVER TORSION FLEX MOUNT

HP	CATALOGUE	RPM	VOLTAGE	FRAME	S.F	OVERLOAD	FLA	"C" DIM.
0.25	MDD146/4SP	1075/4	115	48Y	1.0	AUTO	14	4.25
0.33	MDD136/4SP	1075/4	115	48Y	1.0	AUTO	15	4.5
0.50	MDD126/4SP	1075/4	115	48Y	1.0	AUTO	18	5

FARM DUTY PSC

TEAO, RIGID BASE - THRU BOLT - VARIABLE SPEED



HP	CATALOGUE	RPM	VOLTAGE	FRAME	S.F	OVERLOAD	FLA	"C" DIM.
0.33	MVS134SB	1625	115/230V	48YZ	1	AUTO	3.8/1.9	11.81
0.5	MVS124SB	1625	115/230V	48YZ	1	AUTO	5.4/2.7	11.81

PERMANENT MAGNET 90 and 180V DC MOTORS

1/4HP to 3HP

TENV TOTALLY ENCLOSED NON-VENTILATED TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- Class F Insulation
- SCR Rated
- NEMA C-Face with removable rigid base
- Oversized brushes for extra long life
- Permanently lubricated sealed bearings
- High Starting Torque
- Linear speed/torque throughout speed range

HP	RPM	FRAME	CATALOGUE NUMBER 90VDC	CATALOGUE NUMBER 180VDC	ENCLOSURE	WEIGHT LBS.	"C" DIMENSION
0.25	1750	56C	MM2590NV	MM2518NV	TENV	9	21
	1750	56C	MM2590FC	MM2518FC	TEFC	9	21
0.33	1750	56C	MM3390NV	MM3318NV	TENV	13.5	23
	1750	56C	MM3390FC	MM3318FC	TEFC	13.5	23
0.50	1750	56C	MM5090NV	MM5018NV	TENV	18	25
	1750	56C	MM5090FC	MM5018FC	TEFC	18	25
0.75	1750	56C	MM7590FC	MM7518FC	TEFC	27	30
1	1750	56C	MM1090FC	MM1018FC	TEFC	36	33
1.5	1750	56C	-	MM1518FC-56C	TEFC	54	45
	1750	145TC	-	MM1518FC	TEFC	54	45
2	1750	56C	-	MM2018FC-56C	TEFC	72	55
	1750	145TC	-	MM2018FC	TEFC	72	55
3	1750	56C	-	MM3018FC	TEFC	109	70

LOW VOLTAGE 12, 24, 48V DC

1/4HP to 1HP

TENV TOTALLY ENCLOSED NON-VENTILATED TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

Features:

- Class H Insulation
- SCR Rated
- NEMA C-Face with removable rigid base
- Oversized brushes for extra long life
- Permanently lubricated sealed bearings
- High Starting Torque
- Linear speed/torque throughout speed range

HP	RPM	FRAME	CATALOGUE NUMBER 12VDC	24VDC	48VDC	ENCLOSURE	TORQUE LBS.	WEIGHT LBS.
0.25	1750	56C	MM2512NV			TENV	9	21
	1750	56C	MM2512FC	MM2524FC	MM2548FC	TEFC	9	21
0.33	1750	56C	MM3312NV			TENV	23	23
	1750	56C	MM3312FC	MM3324FC	MM3348FC	TEFC	23	23
0.50	1750	56C	MM5012NV			TENV	18	25
	1750	56C	MM5012FC	MM5024FC	MM5048FC	TEFC	18	25
0.75	1750	56C	MM7012FC	MM7024FC		TEFC	27	30
1	1750	56C	MM1012FC	MM1024FC		TEFC	36	32

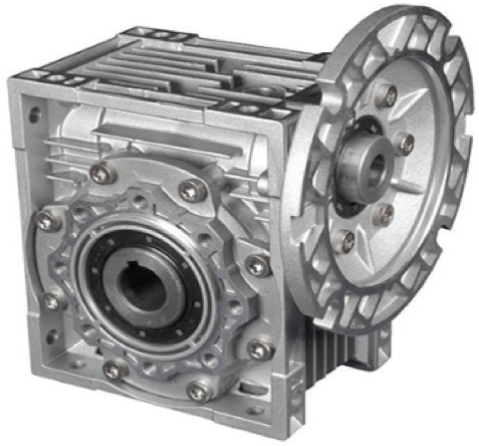
RIGHT ANGLE SPEED REDUCER

ALUMINUM CONSTRUCTION

MaxMotion

Features:

- Aluminum alloy Housing with heat sink design
- Two bearings on Input shaft
- NEMA 56C Face Input
- Double Lip Seals
- O Rings on input and output covers
- Hardened worm shaft
- Permanently sealed with Synthetic lubrication
- See **Accessories** page for Single and Double Output shafts, Torque arm and Flanges.



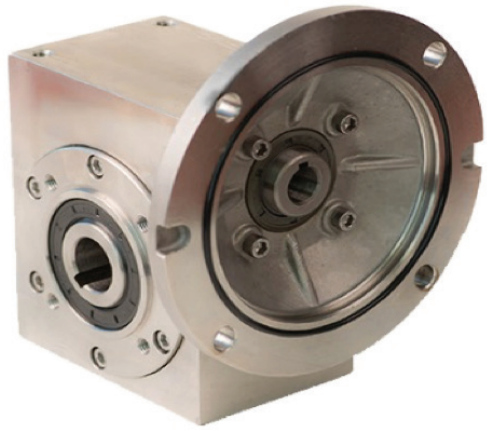
MODEL	RATIO	OUTPUT RPM	OUTPUT TORQUE LBS.	MAX INPUT @ 1750 RPM	MAX OHL LBS.	BORE SIZE INCHES
MMR50-5-56C	5	350	549	3.43	322	1.000
MMR50-7.5-56C	7.5	23	638	2.64	369	1.000
MMR50-10-56C	10	175	637	2.06	406	1.000
MMR50-15-56C	15	117	655	1.48	464	1.000
MMR50-20-56C	20	88	646	1.14	510	1.000
MMR50-25-56C	25	70	619	.90	551	1.000
MMR50-30-56C	30	58	743	.96	586	1.000
MMR50-40-56C	40	44	672	.70	643	1.000
MMR50-50-56C	50	35	646	.57	694	1.000
MMR50-60-56C	60	29	602	.47	739	1.000
MMR50-80-56C	80	22	575	.38	810	1.000
MMR50-100-56C	100	18	487	.28	866	1.000
MMR63-7.5-56C	7.5	233	1133	4.77	463	1.000
MMR63-10-56C	10	175	1150	3.67	510	1.000
MMR63-15-56C	15	117	1239	2.76	583	1.000
MMR63-20-56C	20	88	1194	2.05	641	1.000
MMR63-25-56C	25	70	1150	1.64	692	1.000
MMR63-30-56C	30	58	1416	1.77	736	1.000
MMR63-40-56C	40	44	1283	1.27	807	1.000
MMR63-50-56C	50	35	1194	1.01	871	1.000
MMR63-60-56C	60	29	1150	.86	928	1.000
MMR63-80-56C	80	22	1079	.66	1017	1.000
MMR63-100-56C	100	15	1044	.57	1088	1.000
MMR75-50-56C	50	35	1880	1.47	1093	1.250
MMR75-60-56C	60	29	1778	1.22	1162	1.250
MMR75-80-56C	80	22	1632	.91	1279	1.250
MMR75-100-56C	100	18	1517	.94	1378	1.250
MMR90-80-56C	80	22	2396	1.27	1415	1.375
MMR90-100-56C	100	18	2270	1.03	1524	1.375

RIGHT ANGLE SPEED REDUCER

304 STAINLESS STEEL CONSTRUCTION

Features:

- 304 Stainless Steel construction
- Two bearings on Input shaft
- NEMA 56C Face Input
- Double Lip Viton Seals
- O Rings on input and output covers
- Hardened worm shaft
- Permanently sealed with Food Grade Oil
- 5 Year Warranty
- See **Accessories** page for Single and Double Output shafts, and Torque arm options.



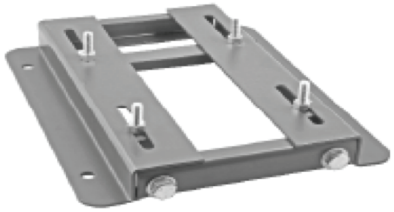
MODEL	RATIO	OUTPUT RPM	OUTPUT TORQUE LBS.	MAX INPUT @ 1750 RPM	MAX OHL LBS.	BORE SIZE
MRS50-5-56C	5	350	549	3.43	322	1.000˝
MRS50-7.5-56C	7.5	23	638	2.64	369	1.000˝
MRS50-10-56C	10	175	637	2.06	406	1.000˝
MRS50-15-56C	15	117	655	1.48	464	1.000˝
MRS50-20-56C	20	88	646	1.14	510	1.000˝
MRS50-25-56C	25	70	619	.90	551	1.000˝
MRS50-30-56C	30	58	743	.96	586	1.000˝
MRS50-40-56C	40	44	672	.70	643	1.000˝
MRS50M-40-56C	40	44	672	.70	643	25MM
MRS50-50-56C	50	35	646	.57	694	1.000˝
MRS50-60-56C	60	29	602	.47	739	1.000˝
MRS50M-60-56C	60	29	602	.47	739	25MM
MRS50-80-56C	80	22	575	.38	810	1.000˝
MRS50-100-56C	100	18	487	.28	866	1.000˝
MRS63-7.5-56C	7.5	233	1133	4.77	463	1.000˝
MRS63-10-56C	10	175	1150	3.67	510	1.000˝
MRS63-15-56C	15	117	1239	2.76	583	1.000˝
MRS63-20-56C	20	88	1194	2.05	641	1.000˝
MRS63-25-56C	25	70	1150	1.64	692	1.000˝
MRS63-30-56C	30	58	1416	1.77	736	1.000˝
MRS63-40-56C	40	44	1283	1.27	807	1.000˝
MRS63M-40-56C	40	44	1283	1.27	807	25MM
MRS63-50-56C	50	35	1194	1.01	871	1.000˝
MRS63-60-56C	60	29	1150	.86	928	1.000˝
MRS63M-60-56C	60	29	1150	.86	928	25MM
MRS63-80-56C	80	22	1079	.66	1017	1.000˝
MRS63-100-56C	100	15	1044	.57	1088	1.000˝

SINGLE ADJUSTMENT SLIDE BASES

FRAME	CATALOGUE
56	56W
143T	143W
145T	145W

DOUBLE ADJUSTMENT SLIDE BASES

FRAME	CATALOGUE
182T	182B2W
184T	184B2W
213T	213B2W
215T	215B2W
254T	254B2W
256T	256B2W
284T	284B2W
286T	286B2W
324T	324B2W
326T	326B2W
364T	364B2W
365T	365B2W
404T	404B2W
405T	405B2W
444T	444B2W
445T	445B2W
447T	447B2W
449T	449B2W
504T	504B2W
505T	505B2W



TRANSITION BASES

TRANSITION BASES		
CONVERTS FROM	CONVERTS TO	CATALOGUE
182/184	143T/145T	1814T
213/215	182T/184T	2118T
254U/256U	213T/215T	25U21T
284U/286U	254T/256T	28U25T
324U/326U	284T/286T	32U28T
364U/365U	324T/326T	36U32T
404/405U	364T/365T	40U36T
444U/445U	364T/365T	44U36T
444U/445U	404/405T	44U40T

MAXMOTION CAST IRON EPACT and PREMIUM TEFC MOTORS

FRAME	CATALOGUE		
	"C" FLANGE	"D" FLANGE	DRIP COVER
143/145T	W 140TC	W 140TD	W 140FCS-DC
182/184T	W 180TC	W 180TD	W 180FCS-DC
213/215T	W 210TC / W 210TCP	W 210TD/ W 210TDP	W 210FCS-DCE / W 210FCS-DCP
254T/256T	W 250TC / W250TCP	W 250TD / W 250TDP	W 250FCS-DCE / W 250FCS-DCP
284/286T	W 280TC	W 280TD	W 280FCS-DC
324/326T	W 320TC	W 320TD	W 320FCS-DC
364/365T	W 360TC / W 360TCP	W 360TD / W 360TDP	W 360FCS-DCE / W 360FCS-DCP
404/405T	W 400TC / W 400TCP	W 400TD / W 400TDP	W 400FCS-DCE / W 400FCS-DCP
444/445T	W 440TC / W 440TCP	W 440TD / W 440TDP	W 440FCS-DCE / W 440FCS-DCP
4447/49T	W 440TC / W 440TCP	W 440TD / W 440TDP	W 440FCS-DCE / W 440FCS-DCP

MAXMOTION PREMIUM ROLLED STEEL and CAST IRON ODP MOTORS

FRAME	CATALOGUE		
	"C" FLANGE	"D" FLANGE	DRIP COVER
143/145T	W 140TCO-6205	W 140TDO-6205	W 140TCO-DC
182/184T	W 180TCO-6206	W 180TDO-6206	W 180TCO-DC
213/215T	W 210TCO-6208	W 210TDO-6208	W 210TCO-DC
254T/256T	W 250TCO-6309	W 250TDO-6309	W 250TCO-DC
284/286T	W 280TCO-6311	W 280TDO-6311	W 280TCO-DC
324/326T	W 320TCO-6312	W 320TDO-6312	W 320TCO-DC
364/365T	W 360TCO-6313	W 360TDO-6313	W 360TCO-DC
404/405TS	W 400TCOS-6314	W 400TDOS-6314	W 400TCOS-DC
404/405T	W 440TCO-6318	W 440TDO-6318	W 440TCO-DC
444/445/7/9TS	W 440TCO-6314	W 440TDOS-6314	W 440TCO-DC
444/445/7/9T	W 440TCO-6319	W 440TDO-6319	W 440TCO-DC

MAXMOTION ALUMINUM PREMIUM TEFC MOTORS

FRAME	CATALOGUE "C" FLANGE
143/145T	W 140TCA
182/184T	W 180TCA
213/215T	W 210TCA

MAXMOTION FARM DUTY 180TC & 210TC

FRAME	CATALOGUE "C" FLANGE
182/184T	C 180TCFD
213/215T	C 210TCFD

MAXMOTION ALUMINUM and CAST IRON TEFC MOTORS

FRAME	CATALOGUE					
	B14	B5	B14 INCREASING	B14 REDUCTION	B5 INCREASING	B5 REDUCTION
56	IJAB14-56	IJAB5-56	IJAB14-56/63			
63	IJAB14-63	IJAB5-63	IJAB14-63/71		IJAB5-63/71*	
71	IJAB14-71	IJAB5-71	IJAB14-71/80	IJAB14-71/63*	IJAB5-71/80/90*	IJAB5-71/63*
80	IJAB14-80	IJAB5-80	IJAB14-80/90	IJAB14-80/71*		IJAB5-80/71*
90	IJAB14-90	IJAB5-90	IJAB14-90/100	IJAB14-90/71*		
100	IJAB14-100	IJAB5-100	IJAB14-100/132			IJAB5-100/90/80*
112	IJAB14-112	IJAB5-112	IJAB14-112/132			
132	IJAB14-132	IJAB5-132		IJAB14-132/112*		IJAB5-132/112*
160	IJAB14-160	IJAB5-160				IJAB5-160/132*
180		IJCB5-180				
200		IJCB5-200				
225		IJCB5-225				
250		IJCB5-250				
280		IJCB5-280				
315		IJCB5-315				
355		IJCB5-355				

* Coming soon

MAXMOTION STAINLESS STEEL TEFC MOTORS

FRAME	CATALOGUE	
	B14	B5
63	63B14SS	63B5SS
71	71B14SS	71B5SS
80	80B14SS	80B5SS
90	90B14SS	90B14SS
100	100B14SS	100B5SS
132	132B5SS	132B5SS

GENERAL PURPOSE SINGLE PHASE

HEAVY GAUGE ROLLED STEEL CONSTRUCTION ODP OPEN DRIPPROOF

marathon™ Motors

Features:

- Ball bearings
- Heavy gauge steel frame and base
- Capacitor start design for high starting torque
- UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	NOTES	C-Face
0.25	1800	115/208-230	48	NONE	C147A	19	9.25	2	
0.33	1800	115/208-230	56	NONE	C158A	18	10.32	2	
0.50	3600	115/208-230	48	NONE	C1098A	15	9.66	2	
	1800	115/208-230	56	NONE	C167A	21	10.38	2	
0.75	3600	115/208-230	56	NONE	G915A	21	10.97	2	
	1800	115/208-230	56	NONE	C175A	25	10.78	1	
1	3600	115/208-230	56	NONE	C179A	24	11.04		
	1800	115/208-230	56	NONE	G934	31	11.38	2,7	A535
	1800	115/208-230	143T	NONE	C188	31	11.77	2,7	A535
1.5	3600	115/208-230	56	NONE	G937A	25	11.72	1	
	1800	115/208-230	56H	NONE	C185A	35	11.9	2,5	A534
	1800	115/208-230	145T	NONE	C191	35	12.3	2	
2	3600	115/208-230	56H	NONE	C187A	38	12.66	1,5	
	1800	115/208-230	145T	NONE	C193A	44	14.33	1	
	1800	115/208-230	182T	NONE	I112A	62	13.19	2	
3	3600	115/208-230	182T	NONE	I103A	62	13.69	2	
	1800	115/208-230	184T	NONE	I113A	78	14.21	2	
5	3600	208-230	184T	NONE	I104A	79	14.69	2	
	1800	208-230	184T	NONE	I114A	82	14.71	1	
7.5	3600	208-230	213T	NONE	I105	102	16.55	2	
	1800	208-230	213T	NONE	I115A	115	18.05	1	
10	3600	208-230	215T	NONE	I106	193	18.05	2	
	1800	208-230	215T	NONE	I116	140	19.3	1	A606

Notes:

* **1** Capacitor start / Capacitor run design for reduced amperage
* **2** Capacitor Start Induction run Design
* **5** 56H, 143T, and 145T Combination Base with 12 mounting holes

GENERAL PURPOSE SINGLE PHASE

HEAVY GAUGE ROLLED STEEL CONSTRUCTION

TEFC TOTALLY ENCLOSED FAN COOLED

marathon™ Motors

Features:

- Ball bearings
- Heavy gauge steel constructions
- Economical split phase or capacitor start designs, as noted
- Service Factor, as noted
- UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	NOTES	C-Face
0.25	1800	115/230	56	NONE	G1312	16	10.38	2	
0.33	3600	115	48	AUTO	HG124	16	10.17	3	
	3600	115	48	NONE	HG123	16	10.17	3	
	1800	115/208-230	56	AUTO	G1331	20	10.93	2	
	1800	115/208-230	56	NONE	G1330	17	10.93	2	
	1200	115/208-230	56	NONE	G1333	31	12.43	2	A437
0.50	3600	115/208-230	56	MANUAL	G393	22	11.82	2	A437
	1800	115/208-230	56	AUTO	C262	21	11	2	
	1800	115/208-230	56	NONE	C261	21	11	2	
	1200	115/208-230	56	NONE	C264	40	12.96	1	A437
0.75	3600	115/208-230	56	MANUAL	G379	26	12.32	2	A437
	1800	115/208-230	56	AUTO	C269	31	11.83	2	A437
	1800	115/208-230	56	NONE	C268	31	11.83	2	A437
	1200	115/208-230	56	NONE	C271	44	13.82	1	A437
1	3600	115/208-230	56	NONE	G359	30	12.32	2	A437
	3600	115/208-230	56	MANUAL	G390	31	12.32	2	A437
	1800	115/208-230	56	NONE	C275	38	12.96	2	A437
	1800	115/208-230	56	AUTO	C276	36	12.96	2	A437
1.5	3600	115/208-230	56H	MANUAL	G391	33	12.82	1,5	A437
	3600	115/208-230	143T	NONE	I1220	33	12.87	1	A438
	1800	115/208-230	56	NONE	G1376	44	13.82	1,5	A437
	1800	115/208-230	56	AUTO	G1377	44	13.82	1,5	A437
2	3600	115/208-230	56H	MANUAL	G1392	38	14.27	1,5	A437
	3600	115/208-230	145T	NONE	I221	39	13.37	1	A438
	1800	115/230	145T	NONE	I700	50	14.87	1	A438
	1800	115/208-230	182T	NONE	I112	52	15.65	1,F	
3	3600	115/208-230	182T	NONE	I206	57	15.81	1	
	1800	115/208-230	184T	NONE	I213A	72	14.96	2	A644
5	3600	208-230	184T	NONE	I223A	98	16.49	1	A644
	1800	208-230	184T	NONE	I214A	103	17.46	1	A644
7.5	3600	208-230	213T	NONE	I224	112	20.23	1	A609
	1800	208-230	213T	NONE	I215	133	21.48	1	A609
10	3600	208-230	215T	NONE	I225	141	20.23	1	A609
	1800	208-230	215T	NONE	I217	144	21.48	1	A609

Notes:

* **1** Capacitor start / Capacitor run design for reduced amperage
* **2** Capacitor Start Induction run Design
* **5** 56H, 143T, and 145T Combination Base with 12 mounting holes
* **F** Class F Insulation

GENERAL PURPOSE SINGLE PHASE 4 IN ONE

HEAVY GAUGE ROLLED STEEL CONSTRUCTION

TEFC TOTALLY ENCLOSED FAN COOLED

marathon™ Motors

Features:

- Double sealed ball bearings, mechanically locked on shaft end
- Heavy gauge steel constructions
- Bolt-on, removable rigid base
- Suitable for horizontal or vertical mounting
- Capacitor start design for high starting torque
- Capacitor start/capacitor run design for higher efficiency, as noted
- 1.15 Service Factor (except as noted)
- Will accept brake kits, see below
- Will accept drip cover kits, see Accessories section
- UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	NOTES	BRAKE KIT	BRAKE VOLTAGE	BRAKE TORQUE (IN.LBS)
0.25	1200	115/208-230	56C	NONE	G577	24	11.82	2	A306	115/230	3
0.33	1800	115/208-230	56C	NONE	G570	23	11.82	2,68	A306	115/230	3
	1200	115/208-230	56C	NONE	G576	27	12.32	2	A306	115/230	3
0.5	3600	115/208-230	56C	NONE	D311	22	11.82	2	A306	115/230	3
	1800	115/208-230	56C	NONE	G571	24	11.82	2,68	A306	115/230	3
	1200	115/208-230	56C	NONE	G578	35	13.32	1,68	A306	115/230	3
0.75	3600	115/208-230	56C	NONE	D312	27	12.32	2	A306	115/230	3
	1800	115/208-230	56C	NONE	G572	30	12.32	2,68	A307	115/230	6
	1200	115/208-230	56C	NONE	G579	39	13.82	1	A307	115/230	6
1	3600	115/208-230	56C	NONE	D313	30	12.32	2	A306	115/230	3
	1800	115/208-230	56HC	NONE	G573	31	12.82	2,5,68	A307	115/230	6
1.5	3600	115/208-230	56C	NONE	D314	32	12.82	1	A307	115/230	6
	1800	115/208-230	56HC	NONE	G574	40	13.82	1,5,68	A303	208-230/460	10
2	3600	115/208-230	56HC	NONE	D315	37	13.82	1,5	A307	115/230	6
	1800	115/208-230	56HC	NONE	G575	51	14.82	1,5,17	A303	208-230/460	10
3	3600	208-230	56HC	NONE	D316	50	14.82	1,5	A303	208-230/460	10

Notes:

* **1** Capacitor start / Capacitor run design for reduced amperage
* **2** Capacitor Start Induction run Design
* **5** 56H, 143T, and 145T Combination Base with 12 mounting holes
* **17** 1.0 Service Factor
* **68** Nameplated 60/50Hz, 50Hz at next lowest HP

BRAKE KIT

FARM DUTY/AGRICULTURAL HIGH TORQUE

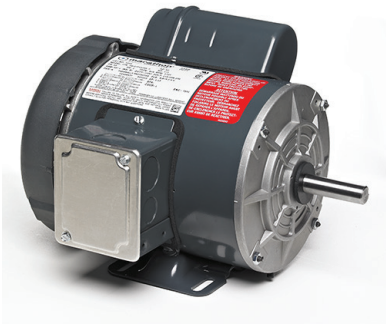
HEAVY GAUGE ROLLED STEEL CONSTRUCTION

SINGLE PHASE TEFC TOTALLY ENCLOSED FAN COOLED

marathon™ Motors

Features:

- Ball bearings, shaft end mechanically locked on C-face models (excludes 5K models)
- 1.15 Service Factor (except as noted)
- Capacitor start design for high starting torque
- Capacitor start/capacitor run design for higher efficiency, as noted
- Low temperature manual reset thermal protector
- Totally enclosed and fully gasketed construction for dirty environments
- Condensate drains
- Shaft slinger
- UL Recognized and CSA Certified



Rigid Base

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	NOTES
0.33	1800	115/208-230	56	MANUAL	F101	24	11.82	
0.50	1800	115/208-230	56	MANUAL	F102	25	11.82	
0.75	1800	115/208-230	56	MANUAL	F103	29	12.32	
1	1800	115/208-230	143T	MANUAL	Z123	31	12.87	
	1800	115/208-230	56	MANUAL	F104	30	12.82	
1.5	1800	115/208-230	145T	MANUAL	Z118	40	13.87	1
	1800	115/208-230	56H	MANUAL	F105	41	13.82	ES,1
2	1800	115/230	145T	MANUAL	Z128	49	14.87	1
	1800	115/230	182T	MANUAL	Z1119	66	14.46	13
3	1800	230	184T	MANUAL	Z120A	92	14.96	1,13
5	1800	230	184T	MANUAL	Z121A	103	17.45	1,13
7.5	1800	230	215T	MANUAL	Z122	138	21.48	1

C-Face Footed (Rigid Base)

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	NOTES
0.33	1800	115/208-230	56C	MANUAL	F131	23	11.82	
0.50	1800	115/208-230	56C	MANUAL	F132	25	11.82	
0.75	1800	115/208-230	56C	MANUAL	F133	29	12.32	
1	1800	115/208-230	56C	MANUAL	F134	31	12.82	
1.5	1800	115/208-230	56HC	MANUAL	F135	41	13.82	1,5
2	1800	115/230	56HC	MANUAL	K319	50	14.82	1,5
3	1800	230	184TC	MANUAL	I314A	86	14.96	1,13
5	1800	230	184TC	MANUAL	I315A	101	17.47	1,13

Notes:

* **1** = Capacitor start / Capacitor run design for reduced amperage
* **2** = Capacitor Start Induction run Design
* **5** = 56H, 143T, and 145T Combination Base with 12 mounting holes
* **13** = F1 Mounting only
* **68** = Nameplated 60/50Hz, 50Hz at next lowest HP
* **ES** = Energy Saver Design

Features:

- Class F insulation
- 1.15 Service Factor (except as noted)
- Ball bearings
- 300% and greater starting torque for hard-to-start applications
- Totally enclosed and fully gasketed for dirty environments
- 213/215TZ models have 1-1/8" shaft, 182TZ model has 7/8" shaft
- Manual reset thermal protector
- Condensate drains
- Shaft slinger
- UL Recognized and CSA Certified

Rigid Base

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	C-FACE	NOTES
2	1800	115/230	182TZ	MANUAL	Z112A	68	14.46	A644	2,13
3	1800	230	184T	MANUAL	Z113A	90	16.46	A644	2,13
5	1800	208-230	184T	MANUAL	Z114A	98	14.46	A644	1,13
	1800	230	213TZ	MANUAL	Z117	119	18.73	A609	1
7.5	1800	230	215TZ	MANUAL	Z115	155	21.48	A609	1
	1800	230	215TZ	MANUAL	Z115-OLD	117	19.33	A609	1
10	1800	230	215T	MANUAL	Z116	146	21.48	A609	1,17
	1800	230	215T	MANUAL	Z116-OLD	139	20.33	A609	1,17

Notes:

* **1** = Capacitor start / Capacitor run design for reduced amperage
* **2** = Capacitor Start Induction run Design
* **13** = F1 Mounting only
* **17** = 1.0 Service Factor

FARM DUTY / AGRICULTURE, AUGER DRIVE

SINGLE PHASE, TEFC, N FLANGE

marathon™ Motors

Features:

- NEMA N flange mounting
- Manual reset thermal protector
- 48NZ: 1/2″ dia. X 1.5″ long shaft with flat
- 56NZ: 5/8″ dia. X 2.06″ long shaft with flat
- Extended (ODE) Shaft with flats for manual jogging
- F1201, F1202, F1203, F1204, and F1205 utilize a solid state electronic starting switch
- Ball bearings
- UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	NOTES
0.33	1800	115/230	48NY	MANUAL	HG646	22	11.07	N,3,83
	1800	115/208-230	56NY	MANUAL	C1291	21	12	
	1800	115/230	48NZ	MANUAL	F1201	22	10.31	E,2
0.5	1800/1500	115/208-230	56NY	MANUAL	C1292	23	12	2,49,50
	1800	115/208-230	48NZ	MANUAL	F1202	22	10.56	E,2
0.75	1800	115/208-230	56NY	MANUAL	C1293	31	13.13	ES,1
	1800	115/208-230	48NZ	MANUAL	F1203	20	11.31	E,2
1	1800/1500	115/208-230	56NY	MANUAL	C1294	40	14.51	ES,1,50,83
	1800	115/230	56NZ	MANUAL	F1204	36	13.38	E,2
1.5	1800	115/208-230	56NY	MANUAL	C1295	44	14.51	ES,1,83
	1800	115/230	56NZ	MANUAL	F1205	45	14.38	E,1

Notes:

* **1** = Capacitor start / Capacitor run design for reduced amperage
* **2** = Capacitor Start Induction run Design
* **3** = Split Phase Design
* **5** = 56H, 143T, and 145T Combination Base with 12 mounting holes
* **13** = F1 Mounting only
* **49** = 48NZ: 1/2″ dia. X 1.5″ long shaft with flat
* **50** = 56NZ: 5/8″ dia. X 2.06″ long shaft with flat
* **83** = Shaft extension 1-7/8″ by 5/8″ diameter with 6-3/8″ mounting flange
* **68** = Nameplated 60/50Hz, 50Hz at next lowest HP
* **E** = Utilize a solid state electronic starting switch
* **ES** = Energy Saver Design

AGRICULTURAL FAN MOTORS

HEAVY GAUGE ROLLED STEEL CONSTRUCTION

TEAO SINGLE PHASE TOTALLY ENCLOSED AIR OVER

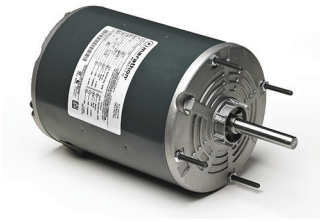
marathon™ Motors

Features:

- Economical Split Phase Design
- Ball Bearings
- Automatic reset thermal protection
- Continuous Duty
- Fully Gasketed
- 48Y & 48YZ have 48/56 Frame mounting holes

AGRICULTURAL FAN MOTORS SINGLE SPEED

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	RESILIENT BASE	SHAFT DIA.	NOTES
0.25	1800	115	48YZ	AUTO	X1903	YES	1/2" x 2 1/2"	3,53
0.33	1800	115	48YZ	AUTO	X1904	YES	1/2" x 2 1/2"	3,53
	1800	230	48YZ	AUTO	N102-230	NO	1/2" x 2 1/2"	3
0.50	1800	115/230	56Z	AUTO	H247	YES	1/2" x 1 7/8"	3,53
	1800	115/230	56Z	AUTO	N103	NO	5/8" x 2 1/2"	3



AGRICULTURAL FAN MOTORS TWO SPEED

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	RESILIENT BASE	SHAFT DIA.	NOTES
0.25	1725/1140	115	48YZ	AUTO	X910	NO	1/2" x 2 1/2"	3
	1725/1140	115	48Z	AUTO	N201	YES	1/2" x 2 1/2"	3
0.33	1725/1140	115	48YZ	AUTO	X911	NO	1/2" x 2 1/2"	3
	1725/1140	115	48Z	AUTO	N202	YES	1/2" x 2 1/2"	3
	1725/1140	230	48Z	AUTO	N205	YES	1/2" x 2 1/2"	3

AGRICULTURAL FAN MOTORS (TEAO)

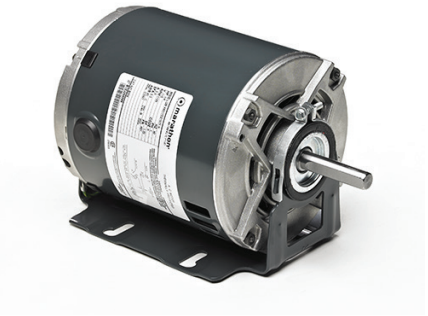
HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	RESILIENT BASE	SHAFT DIA.	NOTES
1	3600	115-230	56Z	AUTO	C1468	26	10.94	1,10
1.5	3600	115-230	143TZ	AUTO	C1273	49	11.49	1
2	3600	230	145TZ	AUTO	C1275	49	13.49	1,18

Notes:

* **1** = Capacitor start / Capacitor run design for reduced amperage
* **3** = Split Phase Design
* **10** = Shaft extension 2-1/4″ long by 5/8″ diameter
* **53** = 1/2" Shaft with 5/8″ adapter

Features:

- Ball bearings (except as noted)
- Service Factor, as noted
- Thermal protection, as noted
- Variable torque on two speed motors
- Extended thru-bolts, as noted
- Heavy gauge steel frame and base
- 48Y and 48YZ Frame have 48/56 Frame mounting holes
- UL Recognized and CSA Certified



SPLIT PHASE

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	NOTES
0.25	1725	115	48YZ	NONE	B302	14	9.57	9,20,28
	1725	115	48YZ	AUTO	B303	14	9.57	20,32,53
	1725	115	48YZ	AUTO	B206	14	9.62	8,20,26
	1725	115	48Y	AUTO	HG701	13	8.94	9,20
	1725/1140	115	48YZ	NONE	H171	21	10.69	8,20,54
	1725/1140	115	48YZ	AUTO	H172	21	10.69	8,20,24
0.33	1725	115	48YZ	NONE	B304	15	9.32	CF,20,31,52
	1725	115	48YZ	AUTO	B305	15	9.32	CF,20,31,52
	1725	115	48YZ	AUTO	B207	15	9.62	CF,20,53
	1725	115	48Y	AUTO	HG711	14	8.94	4,20,26,48
	1725/1140	115	56	NONE	H173	24	10.88	20,31
	1725/1140	115	56	AUTO	H174	32	10.88	20,31
0.50	1725	115	48YZ	NONE	B306	18	10.32	CF,20,31,52
	1725	115	48YZ	AUTO	B307	18	10.32	CF,20,31,52
	1725	115	48YZ	AUTO	B208	20	10.43	CF,19,53
	1725	115	48	AUTO	HG703	15	10.32	19,48
	1725/1140	115	56	NONE	H175	31	11.48	19,31
	1725/1140	115	56	AUTO	H176	31	11.48	19,31

CAPACITOR START CHART ON FOLLOWING PAGE...

Notes for Split Phase & Capacitor Start:

* **1** = Capacitor start/Capacitor run design for reduced amperage
* **5** = 56H, 143T, and 145T Combination Base with 12 mounting holes
* **8** = Shaft Extension 1-7/8″ long by 1/2″
* **9** = Shaft Extension 2-1/4″ long by 1/2″
* **10** Shaft Extension 2-1/4″ long by 5/8″
* **13** = F1 Mounting only
* **17** = 1.0 Service Factor
* **18** = 1.15 Service Factor
* **19** = 1.25 Service Factor
* **20** = 1.35 Service Factor
* **31** = 5/8″ thru-bolts, shaft end
* **32** = 3/4″ thru-bolts, shaft end
* **55** = Shaft extension 3-13/16″ long by 5/8″
* **CF** = Consult MEP for accessories
* **ES** = Energy Saver Design

CAPACITOR START

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	NOTES
0.25	1725	115/230	48	NONE	G1114	16	9.57	20
	1725	115/208-230	48YZ	AUTO	B313	16	9.95	CF,20,31,52
	1725	115/208-230	48YZ	NONE	B312	15	9.72	20,31,52
	1725	115/230	48	AUTO	G1115	16	9.57	20
0.33	1725	115/208-230	48YZ	NONE	B314	18	10.22	20,31,52
	1725	115/208-230	48YZ	AUTO	B315	17	10.22	20,31,52
	1725	115/208-230	56	AUTO	C216	18	10.32	20,50
	1725	115/230	48YZ	AUTO	D119	12	10.22	20,31,52
	1725	115/230	56	AUTO	G135	18	10.22	20
0.50	3450	115/208-230	48	AUTO	C1152	19	11	19
	1725/1140	115	56	AUTO	C419	28	11.38	19
	1725	115/208-230	56	NONE	B1316	21	10.38	19
	1725	115/208-230	56	AUTO	C1153	21	10.38	19
	1725	115/208-230	56	AUTO	B317	20	10.32	CF,19,31
	1725	115/208-230	56Y	AUTO	B353	24	12.92	1,19,55
	1725	115/230	56	AUTO	D111	20	10.72	19
	1725	115/230	56	AUTO	G151	24	11.72	19
	1725	277	56	NONE	B608	23	11.72	19
0.75	3450	115/208-230	56	AUTO	C1155	17	11.32	19
	3450	115/208-230	48	AUTO	C1154	17	11	19
	1725/1140	115	56	AUTO	B332	40	12.85	1,19,31
	1725/1140	115	56	NONE	C420	31	11.48	ES,1,19
	1725/1140	208-230	56	NONE	C486	38	11.48	ES,1,19
	1725/1140	115	56	AUTO	C474	31	11.48	ES,1,19
	1725	115/208-230	56	AUTO	C1156	27	10.78	19
	1725	115/208-230	56	AUTO	B319	23	10.72	CF,19,31
	1725	115/208-230	56	NONE	CG230	25	10.78	19
	1725	115/208-230	56	NONE	B318	24	10.72	CF,19,31
	1725	115/208-230	56	NONE	G156	26	11.47	1,19
	1725	115/208-230	56Z	AUTO	4686	25	11.15	10,19
	1725	115/230	56	AUTO	D1113	25	10.78	19
	1725	277	56	NONE	B609	27	11.47	1,19,31
1	3450	115/208-230	56	AUTO	C1157	25	11.85	19
	3450	115/208-230	56	AUTO	D118	25	12.22	18
	1725/1140	115	56	AUTO	B335	39	12.85	1,18,31
	1725/1140	115	56	NONE	C475	35	12.01	ES,1,18
	1725/1140	115	56	AUTO	C1478	30	12.01	ES,1,18
	1725/1140	208-230	56	NONE	C476	35	12.01	ES,1,18
	1725/1140	208-230/190-380	56H	AUTO	C1479	36	12.54	ES,1,17
	1725	115/208-230	56	AUTO	C1158	29	11.38	18
	1725	115/208-230	56Z	AUTO	4688	28	11.75	10,18
	1725	115/208-230	56H	NONE	C235	31	11.38	18
	1725	277	56	NONE	B337	29	11.85	19,32
1.5	3450	115/208-230	56H	AUTO	D115	28	11.72	1,18
	1725	115/208-230	145T	NONE	I146	42	13.22	18,32
	1725	115/208-230	56H	NONE	B336	39	12.85	5,18,32
	1725	115/208-230	56H	AUTO	C1160	35	11.91	ES,1,18
	1725	277	56H	NONE	B338	41	12.85	5,18,32
2	3450	115/208-230	56H	AUTO	C1161	33	11.91	ES,1,10
	1725	115/208-230	56H	AUTO	B352	50	13.85	1,5,32
	1725	115/208-230	145T	NONE	I147	49	14.22	1,18

FAN and BLOWER THREE PHASE

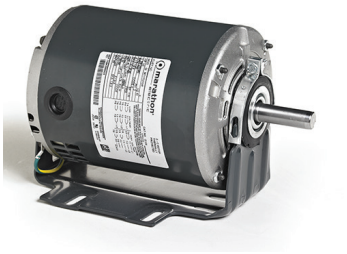
RESILIENT BASE (SINGLE and TWO-SPEED)

ODP PHASE OPEN DRIPPROOF

marathon™ Motors

Features:

- Single and two-speed models, as noted
- Variable torque on two speed ratings
- Ball bearings
- Heavy gauge steel frame and base
- Thermal protection, as noted
- Service Factor, as noted
- Nameplated 60/50 Hz at next lower horsepower (except where noted)
- Patented VCDTM, Voltage Change Device where footnoted “VC”
- UL Recognized and CSA Certified



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	"C" DIM.	NOTES
0.33	1800	208-230/460	56	AUTO	G106	16	9.97	20
	1800	208-230/460	56	NONE	G162	16	9.97	20
1/2	1800/1200	200-230	56	NONE	K544	23	10.05	19
	1800/1200	460	56	NONE	K546	22	10.05	19
	1800	208-230/460	56	AUTO	K1408	20	10.05	19
	1800	208-230/460	56	NONE	K381	20	10.05	19
	1800	208-230/460	56	AUTO	G140	22	10.85	VC,19
	1800	575	56	NONE	G961	18	10.47	19,70
3/4	3600	208-230/460	56	AUTO	K1409	16	10.72	19
	1800/1200	200-230	56	NONE	K279	31	11.48	19
	1800/1200	460	56	NONE	K280	28	11.48	19
	1800	208-230/460	56	AUTO	K1410	21	10.88	19
	1800	208-230/460	56	AUTO	G141	23	10.85	VC,19
	1800	208-230/460	56	NONE	K277	24	10.88	19
	1800	575	56	NONE	G962	21	10.97	19,70
1	3600	208-230/460	56	AUTO	K1411	18	11.32	19
	1800/1200	200-230	56	NONE	K518	35	12.01	18
	1800/1200	460	56	NONE	K519	35	12.01	18
	1800	208-230/460	56	AUTO	G142	25	11.35	VC,18
	1800	208-230/460	56H	AUTO	G100	24	11.47	5,18
	1800	575	56H	NONE	G963	23	11.47	5,18,70
1.5	3600	208-230/460	56H	AUTO	K1413	26	12.01	18
	1800/1200	200-230	56H	NONE	K520	40	12.76	18
	1800/1200	460	56H	NONE	K549	40	12.76	18
	1800	208-230/460	56	NONE	G122	28	11.35	18
	1800	208-230/460	56H	AUTO	K1415	31	12.01	18
	1800	208-230/460	56	AUTO	G143	28	11.35	VC,18
2	3600	208-230/460	56H	AUTO	K1416	30	12.01	18
	1800	208-230/460	56H	AUTO	G144	35	12.35	VC,5,18
	1800	208-230/460	56H	NONE	G127	34	12.35	5,18
	1800	208-230/460	56H	AUTO	K1418	39	13.96	5,18
3	3600	208-230/460	56HZ	AUTO	B193	34	12.22	Z,5,18
	1800	208-230/460	56HZ	AUTO	G145	48	14.22	Z,VC,5,18
	1800	208-230/460	56HZ	AUTO	K1497	44	15.31	11,18
5	3600	208-230/460	56HZ	AUTO	X251	50	13.49	Z,5,12,17,70

Notes:

* **5** = 56H, 143T, and 145T Combination Base with 12 mounting holes, * **11** = Shaft Extension 2-1/4″ long by 7/8 diameter
* **12** = With Rigid base, * **17** = 1.0 Service Factor, * 18 = 1.15 Service Factor, * **19** = 1.25 Service Factor,
* **32** = 3/4″ thru-bolts, shaft end * **70** = Not nameplated 50HZ, * **VC** = Voltage Change Device feature for quick voltage changes
* **Z** = 56HZ with 7/8″ shaft dia. 3-1/2″ shaft height and slotted 56 frame base

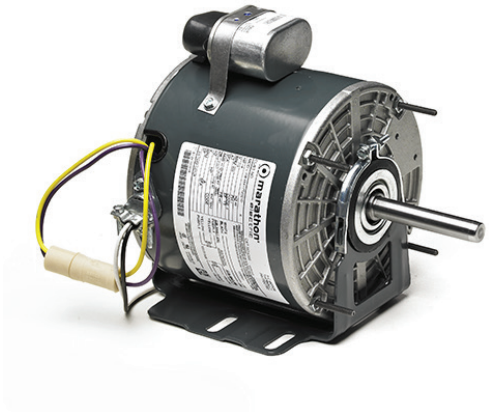
UNIT HEATER FAN PSC MOTORS

RESILIENT BASE TEAO TOTALLY ENCLOSED AIR OVER

marathon™ Motors

Features:

- Totally enclosed
- Direct drive, air over
- Ball Bearings
- Horizontal or vertical mount
- Weather resistant reversing plug
- BX connector mounted in frame
- 1″ Extended thru-bolts
- 48Y Frame has non-standard BA dimension
- Automatic reset thermal protector
- UL Recognized and CSA Certified
- Capacitor included



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	FL AMPS	SHAFT DIM.
0.17	1625	115	48Y	AUTO	X305	13	2	1/2 x 2 3/4
	1625	115	48Y	AUTO	X301	13	2	1/2 x 2 3/4
	1075	115	48Y	AUTO	X306	13	3	1/2 x 2 3/4
	1075	115	48Y	AUTO	X302	13	3	1/2 x 2 3/4
0.25	1075	115	48Y	AUTO	X307	14	4.1	1/2 x 2 3/4
	1075	115	48Y	AUTO	X303	14	4.1	1/2 x 2 3/4
0.33	1075	115	48Y	AUTO	X308	21	6.5	1/2 x 2 3/4
	1075	115	48Y	AUTO	X304	21	6.5	1/2 x 2 3/4

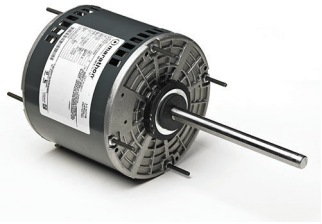
FAN & BLOWER DIRECT DRIVE PSC

OPEN AIR OVER RESILIENT RING THRU-BOLT MOUNT

marathon™ Motors

Features:

- Open frames and brackets (except X011 and X012 have enclosed shaft end bracket)
- Single and multi-speed models as noted
- Grommeted lead exit
- Weather resistant reversing plug
- 2-1/4″ resilient ring mounting except where noted (base not included, see **Accessories** section)
- 2 1/2″ adapter rings supplied, shipped loose in box
- Extended thru-bolts on shaft end
- 30″ long leads
- Automatic reset thermal protector
- Ball bearings
- UL Recognized and CSA Certified
- Capacitor not included, see **Accessories** section



HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	FL AMPS	SHAFT DIM.	NOTES
0.25	1075/3	115	48Y	AUTO	X219	11	3.5	1/2 x 4	39
	1625/3	115	48Y	AUTO	X013	12	2.9	1/2 x 4	32
	1625/3	208-230	48Y	AUTO	X014	11	1.8-1.35	1/2 x 4	32
	1625/1	208-230	48Y	AUTO	X012	12	1.8-1.8	1/2 x 6	34,44
	1075/3	115	48Y	AUTO	X000	12	3.4	1/2 x 4	32
	1075/3	208-230	48Y	AUTO	X001	12	1.5-1.5	1/2 x 4	32
	1075/3	277	48Y	AUTO	X018	11	1.6	1/2 x 4	32
	1075/1	208-230	48Y	AUTO	X006	11	2.0-2.0	1/2 x 4	32
0.33	1075/1	208-230	48Y	AUTO	X417	13	2.0-2.2	1/2 x 6	51,116
	1625/3	115	48Y	AUTO	X015	13	3.95	1/2 x 4	32
	1625/3	208-230	48Y	AUTO	X011	14	2.3-2.3	1/2 x 6	34,44
	1075/4	208-230	48Y	AUTO	X237	16	4.8-4.8	1/2 x 6	39
	1075/3	115	48Y	AUTO	X002	14	4.6	1/2 x 4	32
	1075/3	208-230	48Y	AUTO	X003	14	3.3-3.3	1/2 x 4	32
	1075/3	277	48Y	AUTO	X019	15	2.7	1/2 x 4	32
	1075/2	460	48Y	AUTO	X037	14	1	1/2 X 6	51
	1075/1	208-230	48Y	AUTO	X418	14	3.1-3.1	1/2 x 6	51,116
0.50	825/1	230	48Y	AUTO	X209	17	2.8	1/2 x 5 1/2	34,43
	1625/3	115	48Y	AUTO	X016	16	5	1/2 x 4	32
	1625/3	208-230	48Y	AUTO	X017	16	4.1-4.1	1/2 x 4	32
	1075/4	115	48Y	AUTO	X033	15	6.1	1/2 x 5	31,73
	1075/3	115	48Y	AUTO	X004	17	6.2	1/2 x 4	32
	1075/3	208-230	48Y	AUTO	X005	17	2.65-2.6	1/2 x 4	32
	1075/3	277	48Y	AUTO	X020	17	3.6	1/2 x 4	32
0.75	1625/3	230	48Y	AUTO	X022	18	3.65	1/2 x 5 1/2	39,43
	1075/4	208-230	48Y	AUTO	X241	17	5.4-5.4	1/2 x 6	39
	1075/3	115	48Y	AUTO	X009	20	10.2	1/2 x 4	32
	1075/3	208-230	48Y	AUTO	X010	19	5.6	1/2 x 4	32
1	1075/3	277	48Y	AUTO	X021	20	5	1/2 x 4	32
	1625/2	208-230	48Y	AUTO	X211	20	6.2	1/2 x 2 1/2	39,42,43
	1075/3	230	48Y	AUTO	X023	24	5.3	1/2 x 5	34
	1075/3	208-230	48YZ	AUTO	X242	26	6.2	5/8 x 4	39,51

Notes:

* **31** = 5/8″ thru-bolts, shaft end, * **32** = 3/4″ thru-bolts, shaft end, * **34** = 1″ thru-bolts, shaft end
* **39** = No thru-bolts, * **43** = 2-1/2" Resilient ring included, * **51** = Does not include resilient ring
* **73** = No hubs, * **116** = 1-3/4″ thru-bolt extension, shaft end

FAN & BLOWER DIRECT DRIVE PSC

OPEN AIR OVER TORSION FLEX MOUNT

Features:

- Open frames and brackets
- Three lug mount fits 9″ or 10″ bolt circle. Mounting holes on lugs are .435″ dia., with grommets and sleeves for .26″ dia. option.
- Multi-speed capacity
- Weather resistant reversing plug
- 30″ long leads
- Automatic reset thermal protector
- Ball Bearings
- UL Recognized and CSA Certified
- Capacitor not included, see **Accessories** section

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	FL AMPS	SHAFT DIM.
0.25	1075/4	115	48Y	AUTO	X034	14	3.3	12 x 6
0.33	1075/4	115	48Y	AUTO	X035	15	4.5	12 x 6
0.50	1075/5	115	48Y	AUTO	X036	19	6	12 x 6

CONDENSER FAN MOTOR

TEAO TOTALLY ENCLOSED AIR OVER

Features:

- Frame and end bracket enclosed
- Single and multi-speed models, as noted
- Ball bearings (except as noted)
- Weather resistant reversing plug
- 30″ long leads
- Shaft slinger
- 1-1/2″ thru-bolts on shaft end, 1″ thru-bolts on lead end (except as noted)
- Automatic reset thermal protector
- Weep holes with removable plugs on end brackets. Remove bottom plug after installation.
- Lug mount kits and other accessories available (see **Accessories** section)
- 60 C ambient, as noted
- UL Recognized and CSA Certified
- Capacitor not included, see **Accessories** section

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	FL AMPS	SHAFT DIM.	MFD	CAPACITOR
0.17	1075/1	208-230	48Y	AUTO	X411	10	1.3-1.3	1/2 x 6	3	P0C3
0.25	1075/1	208-230	48Y	AUTO	X412	16	1.4-1.4	1/2 x 6	5	T0C5B
0.33	1075/1	208-230	48Y	AUTO	X413	14	1.9-1.9	1/2 x 6	7.5	P07.5B
	1075/2	208-230	48Y	AUTO	X415	19	2.6-2.6	1/2 x 6	7.5	P07.5B
0.5	1075/1	208-230	48Y	AUTO	X414	17	2.7-2.7	1/2 x 6	10	P0C10B
	1075/2	208-230	48Y	AUTO	X416	19	4.2-4.2	1/2 x 6	10	P0C10B
0.75	1075/1	460	48Y	AUTO	X459	23	2.1	1/2 x 6	15	T0C15
1	1075/1	460	48Y	AUTO	X462	27	3.4	1/2 x 6	25	P0C25

FAN & BLOWER DIRECT DRIVE PSC

OPEN AIR RESILIENT RING THRU-BOLT MOUNT

marathon™ Motors

Features:

- Open frames and brackets (except X011 and X012 have enclosed shaft end bracket)
- Single and multi-speed models as noted
- Grommeted lead exit
- Weather resistant reversing plug
- 2-1/4″ resilient ring mounting except where noted (base not included, see Accessories section)
- 2 1/2″ adapter rings supplied, shipped loose in box
- Extended thru-bolts on shaft end
- 30″ long leads
- Automatic reset thermal protector
- Ball bearings
- UL Recognized and CSA Certified
- Capacitor not included, see **Accessories** section

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	SHAFT DIM.	FL AMPS	MFD	CAPACITOR
0.25	1625/1	208-230	48Y	AUTO	X012	1/2 x 6	30,34,44	5	T0C5B
	1075/2	208-230	48Y	AUTO	X081	1/2 x 6		5	T0C5B
	1075/1	208-230	48Y	AUTO	X213	1/2 x 6	21	7.5	P0C7.5B
	875/1	208-230	48Y	AUTO	X097	1/2 x 6		5	T0C5B
0.33	1625/3	208-230	48Y	AUTO	X011	1/2 x 6	30,34,44	5	T0C5B
	1075/2	208-230	48Y	AUTO	X083	1/2 x 6		5	T0C5B
	875/1	208-230	48Y	AUTO	X086	1/2 x 6		5	T0C5B
0.50	1625/1	575	48Y	AUTO	X454	1/2 x 6		7.5	P0CF7.5
	1075/2	208-230	48Y	AUTO	X096	1/2 x 6		10	P0C10B
	1075/1	460	48Y	AUTO	X400	1/2 x 6	34	10	P0C10B
	1075/1	575	48Y	AUTO	X453	1/2 x 6	35	10	P0C10B
0.75	1075/1	460	48Y	AUTO	X099	1/2 x 6	34	15	T0C15
	1075/1	575	48Y	AUTO	X455	1/2 x 6	35	15	T0C15

Notes:

* **21** = 60 Degree Ambient
* **30** = Resilient ring mount, base not included
* **34** = 1″ thru-bolts, shaft end
* **35** = 1 1/8″ thru-bolts, shaft end
* **44** = 1″ thru-bolts, opposite shaft end

DOUBLE SHAFT FAN & BLOWER MOTOR

OPEN AIR WITH THRU-BOLTS

marathon™ Motors

Features:

- Weep holes with removable plugs on end brackets
- Remove bottom plug after installation
- Automatic reset thermal protection
- 30″ long leads, 20″ overall length
- UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	BEARINGS	NOTES	MFD	CAPACITOR
0.13	1075/3	115	48Y	AUTO	X056	SLEEVE	71	5	P0C5B
	1075/3	208-230	48Y	AUTO	X057	SLEEVE	71	5	P0C5B
	1075/3	208-230	48Y	AUTO	X065	SLEEVE		5	P0C5B
0.17	1075/3	115	48Y	AUTO	X042	SLEEVE	71	5	P0C5B
	1075/3	208-230	48Y	AUTO	X049	SLEEVE		5	P0C5B
	1075/3	208-230	48Y	AUTO	X043	SLEEVE	71	5	P0C5B
0.25	1075/3	115	48Y	AUTO	X061	SLEEVE	71	5	P0C5B
	1075/3	208-230	48Y	AUTO	X050	SLEEVE		5	P0C5B
0.33	1075/3	115	48Y	AUTO	X070	SLEEVE	71	5	P0C5B
	1075/3	208-230	48Y	AUTO	X045	SLEEVE	71	5	P0C5B

CONDENSER FAN, BELLY BAND MOUNTING

OPEN AIR WITH THRU-BOLTS

Features:

- 60 Degree Ambient
- Auto Overload
- Nameplated 60/50 hertz, 190/380 volts at next lowest HP
- Double sealed ball bearings
- Patented VCDTM, Voltage change device
- Hubs on both ends will accept resilient base
- UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	FLA	NOTES	RESILIENT RING
0.33	850	208-230/460	56Y	AUTO	X511	2.3-2.5/1.25	VC	A280
	850	208-230/460	56Y	AUTO	X511-575-SP	0.93	70,74	A280
0.50	1140	208-230/460	56Y	AUTO	X500	2.4-2.7/1.3	VC	A279
1	1140	208-230/460	56Y	AUTO	X502	4.0-4.2/2.1	VC	A283
	1140	575	56Y	AUTO	X522	1.7	70	
	850	208-230/460	56Y	AUTO	X507	5.3-5.4/2.6	VC	A281
	850	575	56Y	AUTO	X527	2.1	70	
1.5	1140	208-230/460	56Y	AUTO	X503	5.5-5.4/2.7	VC	A282
	1140	575	56Y	AUTO	X524	2.2	73	
2	1140	208-230/460	56Y	AUTO	X509	7.2-6.8/3.4	VC	A281
	1140	575	56Y	AUTO	X526	2.7	73	

Notes:

* **VC** = Voltage change devise, * **70** = Not nameplated 50/60Hz
* **71** = Includes length adapter bracket, * **73** = No hubs, * **74** = No overload

OIL BURNER MOTOR

NEMA 48M & 48N FLANGE MOUNT

marathon™ Motors

Features:

- Ball bearings (except as noted)
- 20″ Long leads from a 1/2″ NPT opening
- Split phase and capacitor start designs
- Catalog numbers 4781, 4788, O010 and O011 have dripproof enclosures
- Semi- or totally enclosed steel frame (totally enclosed footnoted with N)
- Two-bolt, NEMA N- or M-Flange direct mounting
- 1.0 Service Factor

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	BEARINGS	SERVICE FACTOR	C DIMENSION	NOTES
0.13	1725	115	48N	MANUAL	O600	SLEEVE	1.0	7.71	3,N
0.15	3600	115	48M	MANUAL	O100	SLEEVE	1.0	7.7	3.N
0.17	3600	115	48M	MANUAL	O102	SLEEVE	1.0	7.25	3
	1725	115	48M	MANUAL	O601	SLEEVE	1.0	7.59	3,N
0.25	3600	115	48N	MANUAL	O004	SLEEVE	1.0	8.13	3,N
	1725	115	48N	MANUAL	O002	SLEEVE	1.0	7.59	3
0.33	3600	115/230	48N	MANUAL	O010	SLEEVE	1.0	10.34	2
	1725	115	48N	MANUAL	O003	SLEEVE	1.0	8.34	3
0.50	3600	115/230	48N	MANUAL	O011	SLEEVE	1.0	10.84	2

DRIPPROOF NEMA 56C C-FACE FOOTLESS

Features:

- Ball bearings
- Split phase and capacitor start designs
- NEMA 56C direct mounting
- Moderate starting torque
- Manual or automatic reset thermal protector
- NEMA Jet Pump Service Factors as noted
- UL Recognized and CSA Certified

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	FLA	WEIGHT	C DIMENSION	NOTES
0.25	3600	115	56C	MAN	O200	4.3	14	10.19	3,15,115
0.33	3600	115	56C	AUTO	O201	5.6	14	10.44	3,15,2
	3600	115/230	56C	AUTO	J1025	6.4/3.2	14	10.71	21,115
	3600	115/208-230	56C	MAN	O211	5.6/2.7-2.8	14	10.44	21,115
	3600	115/208-230	56C	AUTO	O210	5.6/2.7-2.8	14	10.44	21,115
0.50	3600	115/208-230	56C	MAN	O213	7.4/3.5-3.7	16	10.69	21,114
	3600	115/208-230	56C	AUTO	O212	7.4/3.5-3.7	17	10.69	21,114
	3600	115/230	56C	AUTO	C330	7.6/3.8	17	10.31	21,114
0.75	3600	115/208-230	56C	MAN	O215	9.8/4.8-4.9	18	10.94	21,113
	3600	115/208-230	56C	AUTO	O214	9.8/4.8-4.9	20	10.94	21,113
	3600	115/230	56C	AUTO	C332	11.2/5.6	22	11.84	21,113
1	3600	115/230	56C	AUTO	C334	13.2/6.6	22	12.59	21,112
	3600	115/208-230	56C	MAN	O217	12.0/6.2-6.0	24	11.94	21,112
1.5	3600	115/208-230	56C	MAN	O231	13.4/7.4-6.7	25	11.97	11,111
	3600	115/208-230	56C	AUTO	C336	18.4-9.8/9.2	27	11.38	11,111
2	3600	115/208-230	56C	AUTO	C338	21.2-11.5/10.6	38	13.22	11,110
	3600	115/208-230	56C	MAN	O232	19.2/10.3-9.6	33	11.44	11,110
3	3600	115/230	56C	AUTO	C340	29.4/14.7	38	12.66	1,18

Notes:

* **1** = Capacitor start, Capacitor run, * **2** = Capacitor start, * **3** = Split Phase, * **11** = Shaft extension 2-1/4″ x 7/8″
* **15** = Fixed clockwise rotation, * **21** = Double shaft extension 1-1/2″ x 1/2″, * **110** = 1.20 SF, * **111** = 1.30 SF, * **114** = 1.60 SF, * **115** = 1.75 SF

CENTRIFUGAL PUMP (JET PUMP)

SINGLE PHASE ODP OPEN DRIPPROOF

marathon™ Motors

Features:

- Service Factor, as noted
- Double sealed ball bearings, mechanically locked on shaft end
- Capacitor start/capacitor run design for higher efficiency, as noted
- Fixed CW rotation, viewed opposite shaft end
- Automatic reset thermal protector
- 56C = carbon steel shaft with key
- 56J = 416 stainless steel threaded shaft with slinger
- Drip cover not included, see Accessories Section
- UL Recognized and CSA Certified

C-FACE FOOTLESS 56C/56J

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	SERVICE FACTOR	WEIGHT	C DIMENSION	NOTES
0.33	3600	115/230	56C	NONE	J1025	1.75	14	10.71	
	3600	115/230	56J	NONE	C329	1.75	14	11.22	15
	1800/1500	115/208-230	56J	NONE	C683	1.35	17	10.82	15,50
0.50	3600	115/230	56C	NONE	C330	1.6	18	10.31	
	3600	115/230	56J	NONE	C331	1.6	18	10.82	15
0.75	3600	115/230	56C	NONE	C332	1.5	19	11.84	
	3600	115/230	56J	NONE	C333	1.5	18	12.40	15
	3000	110/220	56C	NONE	CG732	1.5	28	12.60	50
1	3600	115/230	56C	NONE	C334	1.4	22	12.59	
	3600	115/230	56J	NONE	C335	1.4	22	13.14	15
1.5	3600	115/208-230	56C	NONE	C336	1.3	27	11.38	
	3600	115/230	56J	NONE	C337	1.3	26	11.89	
2	3600	115/208-230	56C	NONE	C338	1.2	38	13.22	
	3600	115/208-230	56J	NONE	C339	1.2	36	13.73	
3	3600	115/230	56C	NONE	C340	1.15	38	12.66	1
	3600	115/230	56J	NONE	C341	1.15	38	13.17	1,15

C-FACE FOOTED

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	SERVICE FACTOR	WEIGHT	C DIMENSION	NOTES
0.33	3600	115/208-230	56J	NONE	J054	1.75	15	10.94	
0.50	3600	115/208-230	56J	NONE	J055	1.6	17	11.19	
0.75	3600	115/208-230	56J	NONE	J056	1.5	20	11.44	
1	3600	115/208-230	56J	NONE	J057	1.4	23	12.44	
1.5	3600	115/208-230	56J	NONE	J058	1.3	23	12.43	1
2	3600	115/208-230	56J	NONE	J059	1.2	33	11.94	1

Notes:

* **1** = Capacitor Start/Capacitor run
* **15** = Fixed clockwise rotation
* **50** = Designed for 50HZ

GENERAL PURPOSE

THREE PHASE ODP OPEN DRIPPROOF

marathon™ Motors

Features:

- **EISA compliant efficiencies, as noted**
- Ball bearings (except as noted)
- NEMA Service Factors
- Will accept C-Face Kits, see Accessory Section **(except as noted)**
- UL Recognized and CSA Certified
- Three year warranty

Meets or exceeds NEMA Premium® efficiencies
NEMA Premium® models are in compliance with EISA2007

- Motors are suitable for 10:1 VT on all frame sizes and 10:1 CT up to 365T frame
- 1.15 Service Factor
- Normally closed thermostats, as noted
- Class F Insulation
- Nameplated 60/50 hertz
- UL Recognized, CSA Certified and CE Marked

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	C DIMENSION	C-FACE KIT	NOTES
0.25	1800	208-230/460	48	NONE	G044A	13	9.34		25,68
0.33	1800	208-230/460	56	NONE	G047A	15	9.97		25,69
0.50	1800	208-230/460	56	NONE	G063A	17	10.47		25,68,CF
	1800	575	56	NONE	G065A	17	10.47		25
0.75	1800	208-230/460	56	NONE	G084A	20	10.97		25,68,CF
	1800	575	56	NONE	G086A	20	10.97		25
1	1800	208-230/460	56	NONE	K004A	23	11.47		25,68,CF
	1800	575	56	NONE	K049A	24	11.47		25
	1800	575	143T	NONE	E912A	39	12.49	A436	5,13
1.5	1800	208-230/460	56H	NONE	K022A	28	10.94	A436	5,13
	1800	575	56H	NONE	K061A	27	10.94	A436	5
	1800	575	145T	AUTO	U923A	47	12.99	A436	5,13
2	1800	208-230/460	56H	NONE	K041A	33	11.94	A436	5,68
	1800	208-230/460	145T	AUTO	U423A	56	12.49	A436	5,13,68
	1800	575	56H	NONE	K062A	33	11.94	A436	5
	1800	575	145T	NONE	E914A	37	13.62	A600	
3	1800	208-230/460	182T	AUTO	U425B	71	13.19	A666	13
	1800	575	182T	NONE	E1915	60	12.69	A666	13
5	1800	208-230/460	184T	AUTO	U428B	75	14.19	A666	13,68
	1800	575	184T	NONE	E916B	70	13.19	A666	13
7.5	1800	208-230/460	213T	AUTO	U430A	135	19.29	A606	13,68
	1800	575	213T	NONE	U926	118	17.3	A606	13
10	1800	208-230/460	215T	NONE	U765	220	17.87	A602	
	1800	575	215T	NONE	E759A	123	17.3	A606	13
15	1800	208-230/460	254T	NONE	U767	310	20.94	A602	A,YD
	1800	575	254T	NONE	E760A	184	22.32	A612	
20	1800	208-230/460	256T	NONE	E769	360	22.6	A622	YD
	1800	575	256T	NONE	E761A	198	22.32	A612	
25	1800	208-230/460	284T	NONE	U771	424	23.54	A626	YD
	1800	575	284T	NONE	E762A	351	23.49	A610	
30	1800	208-230/460	286T	NONE	E794A	483	25.44	A287	
	1800	575	286T	NONE	E763A	285	24.99	A610	
40	1800	208-230/460	324T	NONE	E789A	581	26	A613	
	1800	575	324T	NONE	E764A	474	26	A613	
50	1800	208-230/460	326T	NONE	U777	710	27.52	A627	YD
	1800	575	326T	NONE	E765A	496	27.5	A613	

Notes: * **5** = 56H, 143T, and 145T Combination Base 12 mounting holes, * **13** = F1 Mounting only, * **25** = Motor will not accept C-Face, * **68** = Rated 60/50Hz at next lowest HP, * **69** = 50 Degree Ambient, * **YD** = 12 lead WYE-DELTA Connection, Part Winding on low voltage

GENERAL PURPOSE GLOBETROTTER NEMA PREMIUM

THREE PHASE ODP OPEN DRIPPROOF

marathon™ Motors

Features:

Meets or exceeds NEMA Premium® efficiencies NEMA Premium® models are in compliance with EISA2007

- 182T-215T models steel frame, 254T-449T models cast iron frame
- Inverter Duty 10:1 Variable Torque and 2:1 Constant Torque, 1.0 SF
- 1.15 Service Factor
- Class F Insulation
- Standard assembly F1, reversible to F2 assembly
- UL Recognized, CSA Certified, CE Mark
- Two year warranty

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	C DIMENSION	C-FACE KIT	NOTES
1.5	1200	230/460	182T	NONE	GT0005	75	13.72	A160	
2	1200	208-230/460	184T	NONE	GT0008	99	14.72	A160	
3	1800	208-230/460	182T	NONE	GT0010	76	13.72	A160	
	1200	230/460	213T	NONE	GT0011	156	17.52	A161	
5	3600	208-230/460	182T	NONE	GT0012	126	13.72	A160	
	1800	208-230/460	184T	NONE	GT0013	86	14.72	A160	
	1200	230/460	215T	NONE	GT0014	281	17.52	A161	
7.5	3600	208-230/460	184T	NONE	GT0015	143	14.72	A160	A
	1800	230/460	213T	NONE	GT0016	160	17.52	A161	
	1200	208-230/460	254T	NONE	GT0017	281	22.64	A163	
10	3600	208-230/460	213T	NONE	GT0018	150	17.52	A161	
	1800	230/460	215T	NONE	GT0019	220	17.52	A161	
	1200	208-230/460	256T	NONE	GT0020	305	24.22	A163	
15	3600	208-230/460	215T	NONE	GT0021	184	17.52	A161	
	1800	208-230/460	254T	NONE	GT0022	310	22.64	A163	
	1200	208-230/460	284T	NONE	GT0023	414	25.71	A165	YD
20	3600	208-230/460	254T	NONE	GT0024	300	22.64	A162	YD
	1800	208-230/460	256T	NONE	GT0025	360	24.22	A163	YD
	1200	208-230/460	286T	NONE	GT0026	457	27.09	A165	YD
25	3600	208-230/460	256T	NONE	GT0027	315	24.22	A162	YD
	1800	208-230/460	284T	NONE	GT0028	424	25.71	A165	YD
	1200	208-230/460	324T	NONE	GT0029	695	28.55	A167	YD
30	3600	208-230/460	284TS	NONE	GT0030	396	24.41	A164	YD
	1800	208-230/460	286T	NONE	GT0031	483	27.09	A165	YD
	1200	208-230/460	326T	NONE	GT0032	760	29.73	A167	YD
40	3600	208-230/460	286TS	NONE	GT0033	452	25.79	A164	YD
	1800	208-230/460	324T	NONE	GT0034	581	28.55	A167	YD
	1200	208-230/460	364T	NONE	GT0035	875	31.69	A169	YD
50	3600	208-230/460	324TS	NONE	GT0036	548	27.05	A166	YD
	1800	208-230/460	326T	NONE	GT0037	710	29.73	A167	YD
	1200	208-230/460	365T	NONE	GT0038	930	33.27	A169	YD

CHART CONTINUES ON NEXT PAGE

Notes:

A = Nema Design A
PW = Part Wind Start
* **YD** = 12 lead WYE-DELTA Connection, Part Winding on low voltage

GENERAL PURPOSE GLOBETROTTER NEMA PREMIUM

THREE PHASE ODP OPEN DRIPPROOF

marathon™ Motors

Features:

Meets or exceeds NEMA Premium® efficiencies NEMA Premium® models are in compliance with EISA2007

- 182T-215T models steel frame, 254T-449T models cast iron frame
- Inverter Duty 10:1 Variable Torque and 2:1 Constant Torque, 1.0 SF
- 1.15 Service Factor
- Class F Insulation
- Standard assembly F1, reversible to F2 assembly
- UL Recognized, CSA Certified, CE Mark
- Two year warranty

CHART CONTINUED FROM PREVIOUS PAGE

HP	RPM	VOLTS	FRAME	OVER LOAD	CAT NO.	WEIGHT	C DIMENSION	C-FACE KIT	NOTES
60	3600	208-230/460	326TS	NONE	GT0039	590	28.23	A166	YD
	1800	208-230/460	364T	NONE	GT0040	1005	31.69	A169	YD
	1200	230/460	404T	NONE	GT0041	975	37.2	A415	YD
75	3600	208-230/460	364TS	NONE	GT0042	937	29.57	A168	YD
	1800	208-230/460	365T	NONE	GT0043	1030	33.27	A168	YD
	1200	230/460	405T	NONE	GT0044	1100	38.78	A415	YD
100	3600	208-230/460	365TS	NONE	GT0045	1016	31.14	A168	YD
	1800	230/460	404T	NONE	GT0046	1025	37.2	A415	YD
	1200	230/460	444T	NONE	GT0047	1675	44.57	A417	YD
125	3600	460	404TS	NONE	GT0048	973	33.85	A414	PW
	1800	460	405T	NONE	GT0049	1150	38.78	A415	PW
	1200	460	445T	NONE	GT0050	1799	44.57	A417	PW
150	3600	460	405TS	NONE	GT0051	1075	35.45	A414	PW
	1800	460	444T	NONE	GT0052	1275	44.57	A417	PW
	1200	460	447T	NONE	GT0053	2050	49.69	A419	PW
200	3600	460	444TS	NONE	GT0054	1277	40.83	A416	PW
	1800	460	445T	NONE	GT0055	1885	44.57	A417	PW
	1200	460	449T	NONE	GT0056	2200	49.69	A419	PW

Notes:

A = Nema Design A
PW = Part Wind Start
* **YD** = 12 lead WYE-DELTA Connection, Part Winding on low voltage

TWO-SPEED VARIABLE TORQUE

THREE PHASE ODP OPEN DRIPPROOF

marathon™ Motors

Features:

- Ball Bearings
- 1.15 Service Factor
- UL Recognized and CSA Certified

TWO WINDING DESIGN

HP	RPM	VOLTS	FRAME	CAT NO.	WINDING	WEIGHT	C DIMENSION	NOTES
1/0.25	1800/900	460	145T	Y465	TWO	42	12.99	5,13
	1800/900	575	145T	Y465-575	TWO	42	12.99	
1/0.44	1800/1200	200-230	145T	Y449	TWO	42	12.99	5,13
	1800/1200	460	145T	Y450	TWO	39	12.49	5,13
	1800/1200	575	145T	Y450-575	TWO	39	12.49	
1.5/0.37	1800/900	460	145T	Y466	TWO	47	13.49	5,13
	1800/900	575	145T	Y466-575	TWO	47	13.49	
1.5/0.67	1800/1200	200-230	145T	Y451	TWO	47	13.49	5,13
	1800/1200	460	145T	Y452	TWO	42	12.99	5,13
	1800/1200	575	145T	Y452-575	TWO	42	12.99	
2/0.50	1800/900	460	182T	Y1467	TWO	68	13.19	13
	1800/900	575	182T	Y467-575	TWO	68	13.19	
2/0.88	1800/1200	200-230	182T	Y1453	TWO	60	12.69	13
	1800/1200	460	182T	Y409A	TWO	60	12.69	
	1800/1200	575	182T	Y453-575	TWO	60	12.69	
3/0.75	1800/900	460	184T	Y468A	TWO	68	13.72	13
	1800/900	575	184T	Y468-575	TWO	68	13.72	
3/1.3	1800/1200	200-230	184T	Y454A	TWO	74	13.69	13
	1800/1200	460	184T	Y412A	TWO	74	13.69	13
	1800/1200	575	184T	Y454-575	TWO	74	13.69	
5/1.25	1800/900	460	215T	Y469	TWO	118	17.3	
	1800/900	575	215T	Y469-575	TWO	118	17.3	
5/2.22	1800/1200	200-230	215T	Y455	TWO	116	17.3	
	1800/1200	460	215T	Y415	TWO	106	17.3	
	1800/1200	575	215T	Y455-575	TWO	116	17.3	
7.5/1.9	1800/900	460	254T	Y470	TWO	135	20.57	
7.5/3.3	1800/1200	200-230	254T	Y456	TWO	175	22.32	
	1800/1200	460	254T	Y418	TWO	154	20.57	
	1800/1200	575	254T	Y456-575	TWO	175	22.32	
10/4.4	1800/1200	460	256T	Y458	TWO	214	22.32	
	1800/1200	575	256T	Y458-575	TWO	214	22.32	
3/0.75	1800/900	200-230	182T	Y1484	ONE	65	14.19	F,13
	1800/900	460	182T	Y1485	ONE	58	13.19	13,25
	1800/900	575	182T	Y485-575	ONE	58	13.19	
5/1.25	1800/900	200-230	184T	Y486A	ONE	40	14.19	F,13
	1800/900	460	184T	Y1487	ONE	80	14.72	13
	1800/900	575	184T	Y487-575	ONE	80	14.72	
7.5/1.88	1800/900	200-230	213T	Y488	ONE	110	17.3	
	1800/900	460	213T	Y489	ONE	118	17.3	
	1800/900	575	213T	Y490	ONE	87	18.55	F,13
10/2.5	1800/900	460	215T	Y491	ONE	106	17.3	
15/3.75	1800/900	460	256T	Y492	ONE	197	22.32	

Notes: * **5** = 56H, 143T-145T Combination base, * **13** = F1 Assembly only, * **25** = Motor will not accept C-Face

GENERAL PURPOSE 4 in 1 ROLLED STEEL

THREE PHASE TEFC TOTALLY ENCLOSED FAN COOLED

marathon™ Motors

Features:

- Ball bearings, mechanically locked on shaft end
- 1.15 Service Factor (except as noted)
- Class F insulation (except as noted)
- Rated 60/50 hertz, 190/380 or 380 volt, at next lower horsepower (as noted)
- 56-145T frame motors, accept brake kits, see accessory kits
- UL Recognized and CSA Certified
- CR200 Corona resistant magnet wire
- Bolt-on, removable rigid base
- Suitable for horizontal and vertical mounting
- Will accept drip cover kits, see Accessories section

HP	RPM	VOLTS	FRAME	CAT NO.	SPEED RANGE	WEIGHT	C DIMENSION	NOTES	BRAKE KIT	VOLTAGE	TORQUE (FT.LBS)
0.25	1200	208-230/460	56C	G586	2:1	19	11.31	6,13,68	A301	208-230/460	3
	3600	208-230/460	56C	D390	1000:1	20	10.43	N,6,13,24,68	N/A	N/A	N/A
	3600	575	56C	K702	1000:1	19	9.93	N,6,13,24	N/A	N/A	N/A
0.33	1800	208-230/460	56C	G580	1000:1	20	9.93	N,6,13,24,68	N/A	N/A	N/A
	1800	575	56C	K703	1000:1	20	9.93	N,6,13,24	N/A	N/A	N/A
	1200	208-230/460	56C	G587	10:1	21	11.31	6,13,68	N/A	N/A	N/A
	3600	208-230/460	56C	D391	10:1	22	11.81	6,13,68	A301	208-230/460	3
	3600	575	56C	K704	10:1	22	11.81	6,13	A301	575	3
0.50	1800	208-230/460	56C	G581	10:1	24	11.81	6,13,68	A301	208-230/460	3
	1800	575	56C	K705	10:1	23	11.81	6,13	A297	575	3
	1200	208-230/460	56C	G588	10:1	23	11.81	6,13,68	A301	208-230/460	3
	3600	208-230/460	56C	D392	4:1	23	11.81	6,13,68	A301	208-230/460	3
	3600	575	56C	K706	4:1	23	11.81	6,13	A297	575	3
0.75	1800	208-230/460	56C	G582	10:1	40	11.81	6,13,68	A302	208-230/460	6
	1800	575	56C	K707	10:1	24	11.81	6,13	A298	575	6
	1200	208-230/460	56C	G589	4:1	27	12.31	6,13,68	A302	208-230/460	6
	3600	208-230/460	56C	D393	4:1	25	11.81	6,13,68	A301	208-230/460	3
	3600	575	56C	K708	4:1	25	11.81	6,13	A301	575	3
1	1800	208-230/460	56HC	G583	10:1	26	12.31	5,6,13,68	A302	208-230/460	6
	1800	575	56HC	K709	4:1	27	12.31	5,6,13	A298	575	6
	1200	208-230/460	56HC	K701	4:1	32	12.81	5,6,13,68	A303	208-230/460	10
	3600	208-230/460	56C	D394	2:1	25	11.81	6,13,68	A302	208-230/460	6
	3600	575	56C	K721	2:1	26	11.81	6,13	A298	575	6
1.5	1800	208-230/460	56HC	G584	10:1	30	12.31	5,6,13,68	A303	208-230/460	10
	1800	575	56HC	K722	2:1	29	12.31	5,6,13	A299	575	10
	1200	230/460	56HC	K700	2:1	42	14.32	5,6,13,17	A303	208-230/460	10

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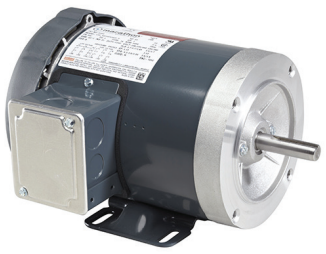
Notes:

* **5** = 56H, 143T and 145T Combination base
* **6** = Bolt on removable base for footless mounting
* **13** = F1 mounting only
* **24** = Will not accept brake kit
* **17** = 1.0 SF
* **68** = Dual rated 50/60Hz to next lowest HP
* **N** = Totally Enclosed Non Ventilated TENV
* **Z** = 56HZ with 7/8″ Shaft



BRAKE KIT

Features:

- Ball bearings, mechanically locked on shaft end
- 1.15 Service Factor (except as noted)
- Class F insulation (except as noted)
- Rated 60/50 hertz, 190/380 or 380 volt, at next lower horsepower (as noted)
- 56-145T frame motors, accept brake kits, see accessory kits
- UL Recognized and CSA Certified
- CR200 Corona resistant magnet wire
- Bolt-on, removable rigid base
- Suitable for horizontal and vertical mounting
- Will accept drip cover kits, see Accessories section

CHART CONTINUED FROM PREVIOUS PAGE

HP	RPM	VOLTS	FRAME	CAT NO.	SPEED RANGE	WEIGHT	C DIMENSION	NOTES	BRAKE KIT	VOLTAGE	TORQUE (FT.LBS)
2	3600	208-230/460	56HC	D395	2:1	29	12.31	5,6,13,68	A302	208-230/460	6
	3600	575	56HC	K723	2:1	30	12.31	5,6,13	A298	575	6
	1800	208-230/460	56HC	G585	10:1	40	13.81	5,6,13,68	A303	208-230/460	10
	1800	575	56HC	K724	4:1	39	13.81	5,6,13	A299	575	10
	1200	230/460	184TC	C380B	10:1	74	14.97	6,13,24,68	N/A	N/A	N/A
3	3600	208-230/460	56HC	D396	2:1	40	13.31	5,6,13,68	A303	208-230/460	10
	3600	575	56HC	K725	2:1	40	13.31	5,6,13	A299	575	10
	3600	208-230/460	182TC	C381B	10:1	75	14.47	6,13,24,68	N/A	N/A	N/A
	1800	230/460	56HCZ	G590	------	48	14.87	Z,5,6,13,17,68	N/A	N/A	N/A
	1800	208-230/460	182TC	C382B	10:1	75	14.47	6,13,24,68	N/A	N/A	N/A
	1800	575	182TC	C383B	10:1	89	15.5	6,13,24	N/A	N/A	N/A
	1200	208-230/460	213TC	C384A	10:1	123	20.97	6,24,68	N/A	N/A	N/A
5	3600	230/460	184TC	C385B	10:1	94	14.97	13,24,68	N/A	N/A	N/A
	1800	230/460	184TC	C386B	10:1	85	14.97	13,24,68	N/A	N/A	N/A
	1800	575	184TC	C387B	10:1	72	16.5	6,13,24,68	N/A	N/A	N/A
	1200	208-230/460	215TC	C388A	10:1	157	22.22	6,13,24,68	N/A	N/A	N/A

Notes:

* **5** = 56H, 143T and 145T Combination base
* **6** = Bolt on removable base for footless mounting
* **13** = F1 mounting only
* **24** = Will not accept brake kit
* **17** = 1.0 SF
* **68** = Dual rated 50/60Hz to next lowest HP
* **N** = Totally Enclosed Non Ventilated TENV
* **Z** = 56HZ with 7/8″ Shaft

GENERAL PURPOSE GLOBETROTTER PREMIUM EFFICIENT

THREE PHASE TEFC TOTALLY ENCLOSED FAN COOLED (Page 1 of 3)

marathon™ Motors

Features:

Meets or exceeds NEMA Premium® efficiencies NEMA Premium® models are in compliance with EISA2007

- 1 Cast iron frame and brackets
- Inverter Duty 10:1 Variable Torque and 10:1 Constant Torque, 1.0 SF (except as noted)
- 1.15 Service Factor
- Class F Insulation
- Standard assembly F1, reversible to F2 assembly
- UL Recognized, CSA Certified, CE Mark
- Three year warranty

HP	RPM	VOLTS	FRAME	CAT NO.	SPEED RANGE	WEIGHT	C DIMENSION	C-FACE KIT	NOTES
1.5	1200	230/460	182T	GT1005	10:1 CT	89	14.8	A644	75
	1200	575	182T	GT1105	10:1 CT	89	14.8	A644	75
2	1200	208-230/460	184T	GT1008	10:1 CT	125	15.81	A644	75
	1200	575	184T	GT1108	10:1 CT	125	15.81	A644	75
3	3600	208-230/460	182T	GT1009	10:1 CT	94	14.8	A644	A,75
	3600	575	182T	GT1109	10:1 CT	94	14.8	A644	75
	1800	208-230/460	182T	GT1010	10:1 CT	102	14.8	A644	75
	1800	575	182T	GT1110	10:1 CT	102	14.8	A644	75
	1200	208-230/460	213T	GT1011	10:1 CT	173	18.23	A206	75
	1200	575	213T	GT1111	10:1 CT	173	18.23	A206	75
5	3600	208-230/460	184T	GT1012	10:1 CT	109	15.81	A644	A,75
	3600	575	184T	GT1112	10:1 CT	109	15.81	A644	75
	1800	208-230/460	184T	GT1013	10:1 CT	117	15.81	A644	A,75
	1800	575	184T	GT1113	10:1 CT	117	15.81	A644	75
	1200	208-230/460	215T	GT1014	10:1 CT	203	19.73	A206	75
	1200	575	215T	GT1114	10:1 CT	203	19.73	A206	75
7.5	3600	208-230/460	213T	GT1015	10:1 CT	185	18.23	A206	A,75
	3600	575	213T	GT1115	10:1 CT	185	18.23	A206	75
	1800	230/460	213T	GT1016	10:1 CT	194	18.23	A206	75
	1800	575	213T	GT1116	10:1 CT	194	18.23	A206	75
	1200	208-230/460	254T	GT1017	10:1 CT	223	23.7	A173	75
	1200	575	254T	GT1117	10:1 CT	223	26.6	A173	75
10	3600	208-230/460	215T	GT1018	10:1 CT	217	19.73	A206	75
	3600	575	215T	GT1118	10:1 CT	217	19.73	A206	75
	1800	230/460	215T	GT1019	10:1 CT	225	19.73	A206	75
	1800	575	215T	GT1119	10:1 CT	225	19.73	A206	75
	1200	208-230/460	256T	GT1020	10:1 CT	368	25.43	A173	75
	1200	575	256T	GT1120	10:1 CT	368	27.8	A173	75
15	3600	208-230/460	254T	GT1021	10:1 CT	350	23.7	A172	75
	3600	575	254T	GT1121	10:1 CT	350	26.6	A172	75
	1800	208-230/460	254T	GT1022	10:1 CT	375	23.7	A173	75
	1800	575	254T	GT1122	10:1 CT	375	26.6	A173	75
	1200	208-230/460	284T	GT1023	10:1 CT	475	27.83	A175	
	1200	575	284T	GT1123	10:1 CT	475	30.16	A175	
20	3600	208-230/460	256T	GT1024	10:1 CT	375	27.8	A172	75
	3600	575	256T	GT1124	10:1 CT	375	27.8	A172	75
	1800	208-230/460	256T	GT1025	10:1 CT	425	27.8	A173	75
	1800	575	256T	GT1125	10:1 CT	425	27.8	A173	75
	1200	208-230/460	286T	GT1026	10:1 CT	550	27.83	A175	
	1200	575	286T	GT1126	10:1 CT	550	31.34	A175	

CHART CONTINUES ON NEXT PAGE

Features:

Meets or exceeds NEMA Premium® efficiencies NEMA Premium® models are in compliance with EISA2007

- 1 Cast iron frame and brackets
- Inverter Duty 10:1 Variable Torque and 10:1 Constant Torque, 1.0 SF (except as noted)
- 1.15 Service Factor
- Class F Insulation
- Standard assembly F1, reversible to F2 assembly
- UL Recognized, CSA Certified, CE Mark
- Three year warranty

CHART CONTINUED FROM PREVIOUS PAGE

HP	RPM	VOLTS	FRAME	CAT NO.	SPEED RANGE	WEIGHT	C DIMENSION	C-FACE KIT	NOTES
25	3600	208-230/460	284TS	GT1027	10:1 CT	475	28.82	A174	
	3600	575	284TS	GT1127	10:1 CT	475	28.82	A174	
	1800	208-230/460	284T	GT1028	10:1 CT	500	27.83	A175	
	1800	575	284T	GT1128	10:1 CT	500	30.16	A175	
	1200	208-230/460	324T	GT1029	10:1 CT	675	32.68	A177	
	1200	575	324T	GT1129	10:1 CT	675	32.68	A177	
30	3600	208-230/460	286TS	GT1030	10:1 CT	500	30	A174	
	3600	575	286TS	GT1130	10:1 CT	500	30	A174	
	1800	208-230/460	286T	GT1031	10:1 CT	525	27.83	A175	
	1800	575	286T	GT1131	10:1 CT	252	31.34	A175	
	1200	208-230/460	326T	GT1032	10:1 CT	725	33.86	A177	
	1200	575	326T	GT1132	10:1 CT	725	33.86	A177	
40	3600	208-230/460	324TS	GT1033	10:1 CT	675	31.26	A176	
	3600	575	324TS	GT1133	10:1 CT	675	31.26	A176	
	1800	208-230/460	324T	GT1034	10:1 CT	750	32.68	A177	
	1800	575	324T	GT1134	10:1 CT	750	32.68	A177	
	1200	208-230/460	364T	GT1035	10:1 CT	950	36.61	A179	
	1200	575	364T	GT1135	10:1 CT	950	36.61	A179	
50	3600	208-230/460	326TS	GT1036	10:1 CT	725	32.44	A176	
	3600	575	326TS	GT1136	10:1 CT	725	32.44	A176	
	1800	208-230/460	326T	GT1037	10:1 CT	775	33.86	A177	
	1800	575	326T	GT1137	10:1 CT	775	33.86	A177	
	1200	208-230/460	365T	GT1038	10:1 CT	1000	38.39	A179	
	1200	575	365T	GT1138	10:1 CT	1000	38.39	A179	
60	3600	208-230/460	364TS	GT1039	10:1 CT	925	34.57	A178	
	3600	575	364TS	GT1139	10:1 CT	925	34.57	A178	
	1800	208-230/460	364T	GT1040	10:1 CT	1000	36.61	A179	
	1800	575	364T	GT1140	10:1 CT	1000	36.61	A179	
	1200	208-230/460	404T	GT1041	10:1 CT	1200	42.72	A425	
	1200	575	404T	GT1141	10:1 CT	1200	42.72	A425	
75	3600	208-230/460	365TS	GT1042	10:1 CT	1025	36.34	A178	
	3600	575	365TS	GT1142	10:1 CT	1025	36.34	A178	
	1800	208-230/460	365T	GT1043	10:1 CT	1100	38.39	A179	
	1800	575	365T	GT1143	10:1 CT	1100	38.39	A179	
	1200	208-230/460	405T	GT1044	10:1 CT	1300	42.72	A425	
	1200	575	405T	GT1144	10:1 CT	1300	42.72	A425	

CHART CONTINUES ON NEXT PAGE

GENERAL PURPOSE GLOBETROTTER PREMIUM EFFICIENT

THREE PHASE TEFC TOTALLY ENCLOSED FAN COOLED (Page 3 of 3)

marathon™ Motors

Features:

Meets or exceeds NEMA Premium® efficiencies NEMA Premium® models are in compliance with EISA2007

- 1 Cast iron frame and brackets
- Inverter Duty 10:1 Variable Torque and 10:1 Constant Torque, 1.0 SF (except as noted)
- 1.15 Service Factor
- Class F Insulation
- Standard assembly F1, reversible to F2 assembly
- UL Recognized, CSA Certified, CE Mark
- Three year warranty

CHART CONTINUED FROM PREVIOUS PAGE

HP	RPM	VOLTS	FRAME	CAT NO.	SPEED RANGE	WEIGHT	C DIMENSION	C-FACE KIT	NOTES
100	3600	208-230/460	405TS	GT1045	10:1 CT	1250	39.76	A424	
	3600	575	405TS	GT1145	10:1 CT	1250	39.76	A424	
	1800	208-230/460	405T	GT1046	10:1 CT	1375	42.72	A425	
	1800	575	405T	GT1146	10:1 CT	1375	42.72	A425	
	1200	208-230/460	444T	GT1047	10:1 CT	2000	50.79	A427	
	1200	575	444T	GT1147	10:1 CT	2000	50.79	A427	
125	3600	460	444TS	GT1048	10:1 CT	1750	47.05	A426	
	3600	575	444TS	GT1148	10:1 CT	1750	47.05	A426	
	1800	460	444T	GT1049	10:1 CT	1850	50.79	A427	
	1800	575	444T	GT1149	10:1 CT	1850	50.79	A427	
	1200	460	445T	GT1050	10:1 CT	2050	50.79	A427	
	1200	575	445T	GT1150	10:1 CT	2050	50.79	A427	
150	3600	460	445TS	GT1051	10:1 CT	2050	47.05	A426	
	3600	575	445TS	GT1151	10:1 CT	2050	47.05	A426	
	1800	460	445T	GT1052	10:1 CT	2050	50.79	A427	
	1800	575	445T	GT1152	10:1 CT	2050	50.79	A427	
	1200	460	447T	GT1053	10:1 CT	2500	55.91	A429	
	1200	575	447T	GT1153	10:1 CT	2500	55.91	A429	
200	3600	460	447TS	GT1054	10:1 CT	2300	52.17	A428	
	3600	575	447TS	GT1154	10:1 CT	2300	52.17	A428	
	1800	460	447T	GT1055	10:1 CT / 2:1 CT	2350	55.91	A429	A,V
	1800	575	447T	GT1155	10:1 CT / 2:1 CT	2350	55.91	A429	V
	1200	460	449T	GT1056	10:1 CT / 2:1 CT	2900	55.91	A429	V
	1200	575	449T	GT1156	10:1 CT / 2:1 CT	2900	55.91	A429	V

Notes:

* **75** = Addition of C-Face non BA NEMA Dimension
* **A** = NEMA Design A
* **V** = Suitable for 10:1 60 minute duty or 2:1 CT

INVERTER DUTY (VECTOR) MICROMAX

1000:1 CT TENV (TOTALLY ENCLOSED FAN COOLED)

20:1 CT TEFC (TOTALLY ENCLOSED FAN COOLED)

marathon™ Motors

Features:

- Designed to replace PMDC motors (when used with a VFD)
- Constant horsepower to twice base speed (RPM)
- Class H insulation with CR200 magnet wire
- Removable base for C-Face footless mounting, as noted
- Continuous duty at 40 C ambient
- "Quick Connect" terminal board, as noted
- Top mounted conduit box as found on PMDC motors
- Eliminates brush and commutator maintenance
- UL Recognized, CSA Certified, and CE Mark
- Three year warranty

HP	RPM	VOLTS	FRAME	CAT NO.	SPEED RANGE	WEIGHT	C DIMENSION	NOTES
0.13	1800	230	56C	Y606	1000:1 CT	15	9.05	N,Q
0.25	1800	230	56C	Y501	1000:1 CT	16	9.8	N,Q
0.33	1800	230	56C	Y503	1000:1 CT	17	9.8	N,Q
0.50	1800	230	56C	Y505	1000:1 CT	24	10.55	N,Q
	1800	230/460	56C	Y374	1000:1 CT	24	10.55	N
	1800	575	56C	Y375	1000:1 CT	24	10.55	N,Q
0.75	1800	230	56C	Y507	10:1 CT	21	11.19	
	1800	230/460	56C	Y376	10:1 CT	21	11.19	
	1800	575	56C	Y377	10:1 CT	21	11.19	
1	1800	230	56C	Y521	10:1 CT	27	12.44	
	1800	230/460	56C	Y378	10:1 CT	27	12.44	
	1800	230	56C	Y379	10:1 CT	27	12.44	
0.13	1800	230	56C	Y605	1000:1 CT	18	9.05	N,Q
0.25	1800	230	56C	Y500	1000:1 CT	17	9.8	N,Q
0.33	1800	230	56C	Y502	1000:1 CT	17	9.8	N,Q
0.50	1800	230	56C	Y504	1000:1 CT	22	10.55	N,Q
	1800	230/460	56C	Y360	1000:1 CT	22	10.55	N
	1800	575	56C	Y361	1000:1 CT	29	10.55	N,Q
0.75	1800	230	56C	Y506	10:1 CT	24	11.19	
	1800	230/460	56C	Y362	10:1 CT	24	11.19	
	1800	575	56C	Y363	10:1 CT	24	11.19	
1	1800	230	56C	Y508	10:1 CT	28	12.44	
	1800	230/460	56C	Y364	10:1 CT	28	12.44	
	1800	575	56C	Y365	10:1 CT	28	12.44	
1.5	1800	230	145TC	Y522	1000:1 CT	48	13.48	N,6
	1800	230/460	145TC	Y366	1000:1 CT	48	13.48	N,6
	1800	575	145TC	Y367	1000:1 CT	48	13.48	N,6
2	1800	230	145TC	Y523	10:1 CT	53	14.87	6
	1800	230/460	145TC	Y368	10:1 CT	53	14.87	6
	1800	575	145TC	Y369	10:1 CT	53	14.87	6
3	1800	230/460	182/145TC	Y370	2:1 CT	52	14.87	88,99
	1800	230/460	182TC	Y1999	10:1 CT	76	13.97	6,13
	1800	575	182/145TC	Y371	2:1 CT	52	14.87	88,99
	1800	575	182TC	Y270A	10:1 CT	86	14.97	6,13
5	1800	230/460	184TC	Y1372	10:1 CT	92	13.97	6,13
	1800	575	184TC	373A	10:1 CT	95	13.97	6,13
7.5	1800	230/460	213TC	Y994	10:1 CT	98	20.97	6
	1800	575	213TC	Y995	10:1 CT	98	20.97	6
10	1800	230/460	215TC	Y996	10:1 CT	125	22.22	6
	1800	575	215TC	Y997	10:1 CT	125	22.22	6

Notes: * **6** = Bolt on removable base, * **13** = F1 mounting only, * **88** = 182T base and shaft height, 145TC mounting face and shaft, * **99** = Suitable for 2:1 CT, * **N** = Totally Enclosed Non-Ventilated TENV

INVERTER DUTY (VECTOR) BLACKMAX

1000:1 CONSTANT TORQUE

(TOTALLY ENCLOSED NON-VENTILATED) TENV

marathon™ Motors

Features:

- MAX GUARD® Class F insulation system
- Constant Torque operation 0 to base speed on Vector Drive
- Constant Horsepower operation up to twice base RPM
- Continuous duty at 40 C ambient
- Optimized for operation with IGBT inverter (NEMA Design A)
- Normally closed thermostats (one per phase, Class F)
- Removable rigid base, as noted
- Ball bearings
- Field reversible to F2 (except as noted)
- Encoder and brake provisions included on opposite drive end (maximum 10 lb-ft brake, see Modifications and/or Accessory Kits sections)
- UL Recognized, CSA Certified, and CE Mark
- Three year warranty

C-FACE RIGID BASE

HP	RPM	VOLTS	FRAME	OVERLOAD	OVERLOAD	WEIGHT	C DIMENSION	NOTES
0.25	1800	230/460	56C	TSTAT	Y592	19	11.88	S,13
0.50	1800	230/460	56C	TSTAT	Y534	35	13.48	S,6,13
	1800	575	56C	TSTAT	Y555	35	13.48	S,6,13
1	1800	230/460	56C	TSTAT	Y535	39	14.98	S,6,13
	1800	575	56C	TSTAT	Y556	39	14.98	S,6,13
	1800	230/460	143TC	TSTAT	Y536	48	15.04	S,6,13
	1200	230/460	145TC	TSTAT	Y537	49	16.04	S,6,13
1.5	1800	230/460	145TC	TSTAT	Y538	50	16.04	S,6,13
2	1800	230/460	145TC	TSTAT	Y612	65	16.04	S,6,13
	1800	230/460	145TC	TSTAT	Y551	73	14.68	CI
	1800	575	145TC	TSTAT	Y611	65	16.04	S,6,13
	1800	575	145TC	TSTAT	Y557	73	14.68	CI
	1200	230/460	184TC	TSTAT	Y540	88	16.94	AL
3	1800	230/460	182TC	TSTAT	Y541A	95	16.19	AL
	1800	575	182TC	TSTAT	Y558A	95	16.19	AL
	1200	230/460	213TC	TSTAT	Y542	105	19.94	AL
5	1800	230/460	184TC	TSTAT	Y543	110	18.94	AL
	1800	230/460	184TC	TSTAT	Y543A	110	17.69	AL
	1800	575	184TC	TSTAT	Y559A	110	17.69	AL
	1200	230/460	215TC	TSTAT	Y544	146	20.54	AL
7.5	1800	230/460	213TC	TSTAT	Y545	146	20.54	AL
	1800	575	213TC	TSTAT	Y560	146	20.54	AL
	1200	230/460	254TC	TSTAT	Y546	223	25.37	AL,I
10	1800	230/460	215TC	TSTAT	Y547	219	23.04	AL
	1800	575	215TC	TSTAT	Y561	219	23.04	AL
	1200	230/460	256TC	TSTAT	Y548	229	26.87	AL,I
15	1800	230/460	254TC	TSTAT	Y549	260	26.87	AL,I
	1800	575	254TC	TSTAT	Y562	260	26.87	AL,I
20	1800	230/460	256TC	TSTAT	Y552	300	27.13	
	1800	575	256TC	TSTAT	Y563	300	27.13	
25	1800	230/460	284TC	TSTAT	Y553	379	27.08	I
	1800	575	284TC	TSTAT	Y567	379	27.08	I
30	1800	230/460	286TC	TSTAT	Y393	575	28.58	I
	1800	575	286TC	TSTAT	Y394	575	28.58	I

Notes: * **6** = Bolt on removable base for footless operation, * **13** = F1 Mounting only

* **AL** = Aluminum Construction, * **CI** = Cast Iron Construction, * **I** = Reduced HP @ 120HZ

Features:

- 1.0 Service Factor
- Automatic reset thermal protector
- Meets temperature code T3B
- 56CZ frame motors have 2-1/4 x 5/8 shaft dimensions
- Capacitor start design for high starting torque
- Explosion proof conduit box included, shipped loose
- UL Listed File No. E12044
- CSA Certified File No. LR47504

C-FACE FOOTLESS

HP	RPM	VOLTS	FRAME	CAT NO.	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	115/208-230	56C	G852	22	11.97	N
	1200	115	56CZ	C1818	34	14.3	37
1/3	1800	115/208-230	56C	G853	27	13.44	
1/2	3600	115/208-230	56C	G854	26	13.44	
	3600	115/208-230	56J	C1814	27	13.95	15
	1800	115/208-230	56C	G855	28	13.94	
	1200	115	56CZ	C1817	47	15.3	
3/4	1800	115/208-230	56C	G857	33	14.44	
1	3600	115/208-230	56C	G858	34	14.44	
	1800	115/208-230	56C	G870	34	14.44	

C-FACE RIGID BASE

HP	RPM	VOLTS	FRAME	CAT NO.	WEIGHT	"C" DIM.	FOOT NOTES
1/3	1800	115/208-230	56C	G871	37	13.44	
1/2	1800	115/208-230	56C	G872	29	13.94	
3/4	3600	115/208-230	56C	G873	30	13.94	
	1800	115/208-230	56C	G874	34	14.44	
1	3600	115/208-230	56C	G875	34	14.44	
	1800	115/208-230	56C	G876	35	14.44	

Notes:

* **15** = Fixed clockwise rotation
* **37** = 1-1/2″ thru-bolts shaft end
* **N** = Totally Enclosed Non-Ventilated TENV

HAZARDOUS DUTY DIVISION 1 EXPLOSION PROOF

CLASS I and II, GROUPS C (AS NOTED) D,F & G

marathon™ Motors

Features:

- 1.0 Service Factor
- Automatic reset thermal protector
- Meets temperature code T3B
- Economical split phase or capacitor start designs, as noted
- Explosion proof conduit box included, shipped loose
- UL Listed File No. E12044
- CSA Certified File No. LR47504

RESILIENT BASE

HP	RPM	VOLTS	FRAME	GROUP C	CAT NO.	WEIGHT	"C" DIM.	FOOT NOTES
0.25	1800	115	56	N	K032	26	11.88	2,N
	1200	115	56	N	K033	31	14.46	2,37
0.33	1800	115	56	N	K037	29	13.96	2,37

RIGID BASE

HP	RPM	VOLTS	FRAME	GROUP C	CAT NO.	WEIGHT	"C" DIM.	FOOT NOTES
0.09	1800	115	48	N	H454	18	9.68	3,N
0.13	1200	115	48	N	HG455	23	10.74	3,N
0.17	1800	115	48	N	HG456	22	10.31	3,N
	1200	115	56	Y	H891	26	12.47	3,N
0.25	1800	115	48	N	HG458	24	10.74	3,N
	1800	115/208-230	56	Y	G639	26	11.97	2,N
	1800	115/230	48	N	C646	25	10.74	2,N
	1200	115	56	Y	C1801	34	13.94	2
	1200	115/208-230	56	Y	G650	28	13.94	2
0.33	1800	115/208-230	56	Y	G651	27	13.44	2
	1500	110/220-230	56	Y	C1803	31	13.44	2
	1200	115/208-230	56	Y	G652	31	13.94	2
0.5	3600	115/208-230	56	Y	G653	26	13.44	2
	1800	115/208-230	56	Y	G654	27	13.94	2
	1500	110/220-230	56	Y	C1807	33	14.44	2, 50
	1200	115/208-230	56	Y	C1809	39	14.94	2
	1200	115/208-230	56	Y	G655	39	14.94	1
0.75	3600	115/208-230	56	Y	G656	31	13.94	2
	1800	115/208-230	56	Y	G657	33	14.44	2
1	3600	115/208-230	56	Y	G658	40	14.44	2
	1800	115/208-230	56	Y	G659	34	14.08	2

Notes:

* **1** = Capacitor Start/Capacitor Run
* **2** = Capacitor Start Induction Run
* **3** = Split Phase Design
* **37** = 1-1/2" thru-bolts, shaft end
* **50** = Designed for 50Hz
* **N** = Totally Enclosed Non-Ventilated TENV

HAZARDOUS DUTY DIVISION 1 EXPLOSION PROOF

CLASS I and II, GROUPS C, D, E (AS NOTED), F & G

marathon™ Motors

Features:

- 1.0 Service Factor (except as noted)
- Meets temperature code T3B
- Explosion proof conduit box included, shipped loose
- UL Listed File No. E12044
- CSA Certified File No. LR47504
- K717 is rated for Class I Group D, Class II Groups F&G only
- Automatic Overload (except as noted)

HP	RPM	VOLTS	FRAME	GROUP E	CAT. NO.	WEIGHT	"C" DIM.	FOOT NOTES
1/4	1800	230/460	48	N	K717	19	9.68	
	1800	208-230/460	56	N	G646	25	11.97	N
	1800	575	56	N	G664	25	11.97	N
1/3	1800	208-230/460	56	N	G647	25	11.97	N
	1800	575	56	N	G665	25	11.97	N, BU
	1200	230/460	56	N	K2101	29	13.44	
1/2	3600	208-230/460	56	N	G648	30	13.44	BU
	1800	208-230/460	56	N	G649	28	13.94	
	1800	200	56	N	K2102	29	13.94	BU
	1800	575	56	N	G666	28	13.94	
	1200	230/460	56	N	K2104	34	13.44	
3/4	3600	208-230/460	56	N	G660	30	13.44	BU
	1800	208-230/460	56	N	G661	30	13.94	
	1800	200	56	N	K2105	31	13.94	BU
	1800	575	56	N	G667	29	13.94	
	1200	208-230/460	143T	N	K2107	42	14	
	1200	208-230/460	56	N	K2116	42	13.94	
1	3600	208-230/460	56	N	G662	28	13.44	
	1800	208-230/460	56	N	G663	31	13.94	
	1800	208-230/460	143T	Y	I502	48	16	TS
	1800	575	56	N	G668	31	13.94	
	1800	575	143T	Y	I503	48	16	A,TS,BU
	1200	230/460	56H	N	K2110	47	15.5	
	1200	208-230/460	145T	Y	I504	58	16.5	TS
	1200	575	145T	Y	I505	58	16.5	TS,BU
1.5	3600	208-230/460	143T	Y	I506	38	14.5	TS
	3600	575	143T	Y	I507	38	14.5	TS
	1800	208-230/460	56H	N	K2111	42	14.08	
	1800	208-230/460	145T	Y	I508	42	16	TS
	1800	575	145T	Y	I509	42	16	A,TS
2	3600	208-230/460	145T	Y	I512	47	16.5	TS
	3600	575	145T	Y	I513	47	16.5	TS
	1800	208-230/460	145T	Y	I514	55	16.5	A,TS
	1800	575	145T	Y	I515	55	16.5	A,TS

Notes: * **A** = NEMA Design A, * **BU** = Factory BUILD UP, Consult MEP,
* **N** = Totally Enclosed Non-Ventilated TENV, * **TS** = Normally Closed Thermostats

Features:

	56 Frame	143-449T
Frame Construction:	Rolled Steel	Cast Iron "Blue Chip"
Thermal Protection:	Auto Overload	T-Stats
Class/Group:	Class I, Groups C & D Class II, Groups F & G	Class I, Group D Class II, Groups F & G
Temperature Code:	T3B	T3B
Conduit Box:	Shipped Loose	Installed
Service Factor:	1.0 (unless otherwise noted)	1.0 (unless otherwise noted)
UL File:	E12044	E12044
CSA File:	LR47504	LR47504

C-FACE FOOTLESS

HP	RPM	VOLTS	FRAME	CAT. NO.	CT SPEED RANGE	WEIGHT	"C" DIM.	FOOT NOTES
0.25	1800	208-230/460	56C	G827	------	25	11.97	CD,N
	1800	575	56C	G842	------	25	11.97	CD,N
0.33	1800	208-230/460	56C	G828	------	25	11.97	CD,N
	1800	575	56C	G843	------	25	11.97	CD,N
0.50	1800	208-230/460	56C	G829	------	28	13.94	CD
	1800	575	56C	G844	------	32	13.94	CD
0.75	1800	208-230/460	56C	G840	------	29	13.94	CD
	1800	575	56C	G845	------	29	13.94	CD
1	1800	208-230/460	56C	G841	------	30	13.94	CD
	1800	575	56C	G846	------	32	13.94	CD
	1800	208-230/460	143TC	C320A	10:1	55	15.18	18,68
1.5	3600	208-230/460	143TC	C301A	10:1	54	15.18	18,68
	1800	208-230/460	56C	K2115	------	38	14.44	18,CD
	1800	208-230/460	145TC	C321A	10:1	60	15.18	18,68
2	3600	208-230/460	145TC	C302A	2:1	59	13.98	18,68
	1800	208-230/460	145TC	C322A	10:1	69	15.18	18,68
3	3600	208-230/460	182TC	C303A	10:1	119	18.62	68
	1800	230/460	182TC	C323A	2:1	112	18.62	68
5	3600	208-230/460	184TC	C304A	2:1	133	18.62	68
	1800	208-230/460	184TC	C324A	2:1	132	18.62	68
7.5	3600	230/460	213TC	C305	2:1	241	22.25	68
	1800	208-230/460	213TC	C325A	2:1	194	23.45	68
10	3600	230/460	215TC	C306	2:1	271	22.25	68
	1800	208-230/460	215TC	C326A	2:1	216	23.45	68
15	3600	230/460	254TC	C307A	2:1	331	24.19	68
	1800	230/460	254TC	C327A	------	370	25.77	68
20	3600	230/460	256TC	C308A	2:1	340	25.77	68
	1800	208-230/460	256TC	C328A	2:1	315	25.94	68

Notes:

* **18** = 1.15 SF
* **68** = Rated 60/50Hz at next lowest HP
* **CD** = Suitable for Group C
* **N** = Totally Enclosed Non-Ventilated TENV

Features:

Meets NEMA Premium® efficiencies

Bearing Current Protection (BCP), as noted

- 10:1 Variable torque, see Inverter Duty column for constant torque
- MAX GUARD® Class F Insulation
- Blue Chip® quality, 100% cast iron construction for rigidity and reduced vibration
- Internal and external surfaces treated with epoxy paint
- 1.15 Service Factor on sinewave or 1.0 Service Factor on IBGT power
- Precision balanced to .08″/sec.
- Extended grease tubes
- Normally closed thermostats (must be connected to control circuit)
- Meets temperature code T3B
- Shaft slinger
- Nameplated 60/50 Hz, 190/380 Volts, at next lower HP, as noted
- See MOD CENTRAL for: C-Face Kit Modifications, F2 mounting
- Ball Bearings (except as noted)
- UL Listed File No. E12044
- CSA Certified File No. LR47504
- Three year warranty

RIGID BASE

HP	RPM	VOLTS	FRAME	GROUP C	CAT. NO.	CT SPEED RANGE	WEIGHT	"C" DIM.	FOOT NOTES
3/4	1200	208-230/460	143T	N	H350	10:1	55	12.48	25,68,80,91
1	1800	208-230/460	143T	N	U001A	10:1	68.2	13.48	25,68,80,91
	1800	575	143T	N	U020A	10:1	68.2	14.73	25,80
	1200	208-230/460	145T	N	U039A	10:1	75.9	14.73	25,68,80,91
1.5	3600	208-230/460	143T	N	U058A	10:1	70.4	13.48	25,68,80,91
	1800	208-230/460	143T	N	U002A	10:1	82.5	14.73	25,68,80,91
	1800	575	145T	N	U021A	10:1	84.7	14.73	25,80
	1200	208-230/460	182T	N	U040A	10:1	147.4	15.87	25,68,91
2	3600	208-230/460	145T	N	U059A	10:1	70.4	13.48	25,68,80,91
	1800	208-230/460	145T	N	U003A	10:1	85.8	14.73	25,68,80,91
	1800	575	145T	N	U022A	10:1	85.8	14.73	25,80
	1200	208-230/460	184T	Y	U041A	10:1	154	17.87	25,68,91
3	3600	208-230/460	182T	N	U060A	10:1	140.8	15.87	25,68,91
	1800	208-230/460	182T	N	U004A	10:1	143	15.87	25,68,91
	1800	575	182T	N	U023A	10:1	140.8	15.87	25
	1800	208-230/460	182T	Y	U989-P	10:1	160.6	15.87	25,68,91,P
	1200	208-230/460	213T	N	U042A	10:1	244.2	22.63	25,68
5	3600	208-230/460	184T	N	U061A	10:1	160.6	17.87	25,68,91
	1800	208-230/460	184T	Y	U005A	10:1	155.1	17.87	25,68,91
	1800	575	184T	N	U024A	10:1	156.2	17.87	25
	1800	208-230/460	184T	Y	U990-P	10:1	149.6	17.87	25,68,91,P
	1200	230/460	215T	N	U043A	10:1	205.7	22.63	25,68
7.5	3600	208-230/460	213T	N	U062A	10:1	256.3	22.63	25,68,91
	1800	208-230/460	213T	Y	U006A	10:1	247.5	22.63	25,68,91
	1800	575	213T	N	U025A	10:1	243.1	22.63	25
	1800	208-230/460	213T	Y	U991A	10:1	250.8	22.63	25,68,91
	1800	208-230/460	213T	Y	U991A-P	10:1	251	22.63	25,68,91,P
	1200	230/460	254T	Y	E500	10:1	345	23.52	68
10	3600	230/460	215T	Y	U063A	10:1	265.1	22.63	25,68
	1800	208-230/460	215T	Y	U007A	10:1	262.9	22.63	25,68,91
	1800	575	215T	N	U026A	10:1	247.5	22.63	25
	1800	208-230/460	215T	Y	U992A	10:1	253	22.63	25,68
	1800	230/460	215T	Y	U992A-P	10:1	253	22.63	25,68,P
	1200	230/460	256T	Y	E501	10:1	360	25.27	68

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RIGID BASE

HP	RPM	VOLTS	FRAME	GROUP C	CAT. NO.	CT SPEED RANGE	WEIGHT	"C" DIM.	FOOT NOTES
	3600	230/460	254T	Y	E502	10:1	253	23.52	68
	1800	230/460	254T	Y	E503	10:1	385	23.52	68
15	1800	230/460	254T	Y	E503-P	10:1	385	23.52	68,P
	1800	575	254T	Y	U027A	10:1	401.5	23.52	
	1200	230/460	284T	Y	E504	10:1	536	26.34	68
	3600	208-230/460	256T	Y	E505	10:1	275	25.27	68
	1800	230/460	256T	Y	E506	10:1	409	25.27	68
20	1800	230/460	256T	Y	E506-P	10:1	409	25.27	68,P
	1800	575	256T	Y	U028A	10:1	416.9	25.27	
	1200	230/460	286T	Y	E507	10:1	593	27.69	
	3600	230/460	284TS	Y	E546	10:1	412	24.97	68
	1800	230/460	284T	Y	E547	10:1	536	26.34	68
25	1800	230/460	284T	Y	E547-P	10:1	536	26.34	68,P
	1800	575	284T	Y	U029A	10:1	357.5	26.34	
	1200	230/460	324T	Y	U048A	10:1	680.9	28.87	68
	3600	230/460	286TS	Y	E563	10:1	487	26.47	68
	1800	230/460	286T	Y	E564	10:1	588	27.84	68
30	1800	230/460	286T	Y	E564-P	10:1	588	27.84	68,P
	1800	575	286T	Y	U030A	10:1	545.6	27.84	
	1200	230/460	326T	Y	E565	10:1	900	30.37	68
	3600	230/460	324TS	Y	E566	10:1	734	28.87	68
	1800	230/460	324T	Y	E567	10:1	749	30.37	68
40	1800	230/460	324T	Y	E567-P	10:1	749	30.37	68,P
	1800	575	324T	Y	U031A	10:1	572	30.37	
	1200	230/460	364T	Y	E568A	10:1	1150.6	31.5	68
	3600	230/460	326TS	Y	E569	10:1	831	30.37	68
	1800	230/460	326T	Y	E570	10:1@	791	30.37	68,@
50	1800	230/460	326T	Y	E570-P	10:1@	791	30.37	68,P,@
	1800	575	326T	Y	U032A	10:1@	572	30.37	68,@
	1200	230/460	365T	Y	E571	10:1@	1099	32.5	87,@
	3600	230/460	364TS	Y	E572	10:1@	1033	29.38	87,@
60	1800	230/460	364T	Y	E573A	10:1	1178.1	31.5	87
	1800	575	364T	Y	U033A	10:1	1160.5	31.5	
	1200	230/460	404T	Y	E574	10:1@	1295	35.62	@
	3600	230/460	365TS	Y	E575	10:1@	1097	30.38	87
	1800	230/460	365T	Y	E576A	2:1	1124	32.5	A,68
75	1800	575	365T	Y	U034A	2:1	1094	32.5	A
	1800	208-230/460	365TS	Y	U081A	2:1	1087	30.38	A,68
	1200	230/460	405T	Y	E577	10:1@	1388	37.12	87
	3600	230/460	405TS	Y	E578	10:1	1349	34.12	87
	1800	230/460	405T	Y	E594	10:1	1479	37.12	68
100	1800	575	405T	Y	U035A	10:1	1365	37.12	87
	1800	208-230/460	405TS	Y	U082A	10:1	1333	34.12	87
	1200	230/460	444T	Y	E580A	10:1@	1813	41.35	68,87

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Features:

Meets NEMA Premium® efficiencies

Bearing Current Protection (BCP), as noted

- 10:1 Variable torque, see Inverter Duty column for constant torque
- MAX GUARD® Class F Insulation
- Blue Chip® quality, 100% cast iron construction for rigidity and reduced vibration
- Internal and external surfaces treated with epoxy paint
- 1.15 Service Factor on sinewave or 1.0 Service Factor on IBGT power
- Precision balanced to .08″/sec.
- Extended grease tubes
- Normally closed thermostats (must be connected to control circuit)
- Meets temperature code T3B
- Shaft slinger
- Nameplated 60/50 Hz, 190/380 Volts, at next lower HP, as noted
- See MOD CENTRAL for: C-Face Kit Modifications, F2 mounting
- Ball Bearings (except as noted)
- UL Listed File No. E12044
- CSA Certified File No. LR47504
- Three year warranty

CHART CONTINUED FROM PREVIOUS PAGE

RIGID BASE

HP	RPM	VOLTS	FRAME	GROUP C	CAT. NO.	CT SPEED RANGE	WEIGHT	"C" DIM.	FOOT NOTES
	3600	460	444TS	Y	U073A	2:1	1824	36.7	68
	1800	460	444T	Y	E582A	10:1@	1845	41.35	68
125	1800	575	444T	Y	U036A	10:1@	1808	41.35	
	1800	460	444TS	Y	U083A	10:1@	1835	37.6	
	1200	460	445T	Y	E583	---	2200	43.25	
	3600	460	445TS	Y	E584	---	1941	39.6	
	1800	460	445T	Y	E585	2:1	2173	43.35	68
150	1800	575	445T	Y	U037A	2:1	2236	43.35	
	1800	460	445TS	Y	U084A	2:1	2163	39.6	68
	1200	460	445T	Y	U090A	---	2384	43.35	RB,68
	3600	460	445TS	Y	U075A	---	2395	39.6	
	1800	460	445T	Y	E588	10:1@	2500	43.19	68
200	1800	575	445T	Y	U038A	10:1@	2384	43.35	RB
	1200	460	449T	Y	U091A	10:1	2878	51.85	RB,68
	3600	460	449TS	Y	E595	---	2867	47.94	NE,17,68,87
250	1800	460	449T	Y	E591	10:1	3012	51.85	RB
	1800	460	449T	Y	H502	2:1	2779	51.85	RB,17,68,87
300	1800	460	449T	Y	H503	2:1	3032	51.85	RB,17,68,87
350	1800	460	449T	Y	H504	---	3280	51.85	RB,17

Notes:

* **17** = 1.0 SF
* **25** = Motor will not accept C-Face
* **68** = Dual rated 60/50Hz at next lowest HP
* **87** = 10: CT Consult MEP Drives
* **91** = Suitable use with VFD @ 208V
* **P** = AEGIS Grounding Ring installed (Internally)
* @ = Fan change required, consult MEP Drives

AEGIS™ uKIT with Universal Mounting

Style 1

Style 2

Style 3

Style 4

CATALOGUE	MOTOR SHAFT DIA. "U"	NEMA FRAME
SGR-0.625-UKIT	0.625	56
SGR-0.875-UKIT	0.875	143T, 145T
SGR-1.125-UKIT	1.125	182T, 184T
SGR-1.375-UKIT	1.375	213T, 215T
SGR-1.625-UKIT	1.625	254T, 256T
SGR-1.875-UKIT	1.875	284T, 286T, 324TS, 326TS, 364TS, 365TS
SGR-2.125-UKIT	2.125	324T, 326T, 404TS, 405TS
SGR-2.375-UKIT	2.375	364T, 365T, 444TS, 445TS, 447TS, 449TS
SGR-2.875-UKIT	2.875	404T, 405T
SGR-3.375-UKIT	3.375	444T, 445T, 447T, 449T
EP2400		Conductive Epoxy
CS015		Colloidal Silver Shaft Coating

Optional

EP2400

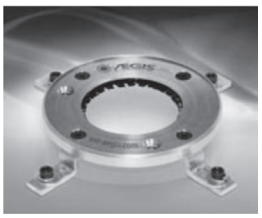
AEGIS™ Conductive Epoxy

2-3 applications. Used to install AEGIS™ SGR without drilling and tapping into the motor end bracket.

CS015

AEGIS™ Colloidal Silver Shaft Coating

220-25 applications based on a 3″ shaft diameter. Used to improve the conductivity of the steel shaft surface. Apply to any VFD driven motor shaft prior to installing the AEGIS™ SGR.



AEGIS™ SGR uKit Includes:

(1) AEGIS™ SGR Bearing Protection Ring
(4) universal brackets - Style 1
(4) universal brackets - Style 2 (reversible)
(4) universal brackets - Style 3
(4) universal brackets - Style 4 (reversible)
(4) 6-32 x 3/8″ socket head cap screws
(4) #6 split lock washers
(4) #6 flat washers
5/64″ allen wrench
7/64″ allen wrench

ALLTEMP

Your single source for quality products

Refrigeration

Heating & A/C

Electrical

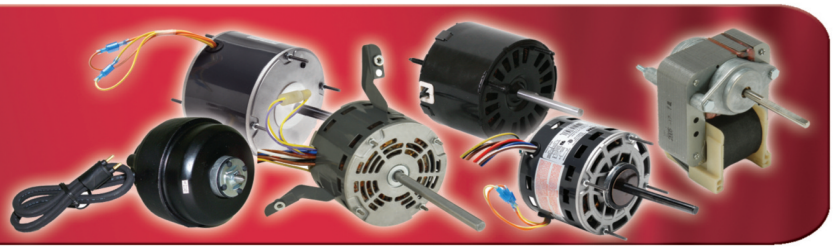
Service Tools

110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110

ROTOM CANADA

Your single source for quality motors

Motors



Blowers

OEM

Components

Features:

- Class F, S.F:1,15
- Available in 208-230/460V, 333/575V
- Frame 100 and above available in 575/990V
- Frame 132 and above available in 460/776V
- Frame 71 to 180 with removable feet
- Threaded hole in output shaft is standard
- IEC, CEI, UNEL MEC
- ST, HE & LNA motors are CSA approved
- AM, AMH/AAMH motors are cURus approved (UL recognized are class B)
- Frame 90 and above meet Epact & NRCan efficiency
- * = S/L dual set holes on base (90L frame)
- **9L** = 9 leads hook up at 230/460 (YY/Y connection)
- **CI** = Cast Iron frame/feet are not removable
- **6L** = 6 leads hook up at 230/460 (Delta/Y connection)

2 POLES : 3600 RPM

HP	CAT #	WEIGHT (LBS)	NOTE	EFF
0.17	ST56S2	7		
0.25	ST63C2	8		
0.33	ST63S2	9		
0.5	ST63L2	10		
0.5	ST71C2	13		
0.75	ST71S2	14		
1	ST71L2	16		
1	ST80C2	18		
1.5	ST80S2	21		
2	ST80L2	24		
2	HE90S E2	31	*,9L	84
3	HE90L F2	38	*,9L	85.6
4	HE100L F2	51	9L	87.5
5.5	AMH112M AA2	80	9L	87.5
7.5	HE112M/2	95	9L	88.5
7.5	AAMH132S ZA2	129	9L	88.5
10	AAMH132S TA2	136	9L	89.5
12.5	AAMH132M TA2	148	9L	89.5
15	AAMH160M YA2	231	9L	91
20	AAMH160M ZA2	254	9L	91
25	AAMH160L ZA2	278		91.7
30	LAB180M E2	438	CI	91.4
40	LAB200L D2	560	CI	91.7
50	LAB200L E2	590	CI	93.3
60	LAB225M E2	724	CI	93
75	LAB250M E2	782	CI	93
100	LAB280S D2	943	CI	93.6
125	LAB280M E2	1493	CI	94.5
150	LAB315S D2	1665	CI	94.5
175	LAB315S E2	2345	CI	94.7
200	LAB315L D2	2491	CI	95

4 POLES : 1800 RPM

HP	CAT #	WEIGHT (LBS)	NOTE	EFF
0.125	ST56S4	6		
0.17	ST63C4	7		
0.25	ST63S4	9		
0.33	ST63A4	9		
0.33	ST71C4	13		
0.5	ST71S4	13		
0.75	AM71ZCA4	16		
0.75	ST80C4	18		
1	ST80S4	20		
1.5	AM80ZCA4	24		
1.5	HE90LD4	36	*,9L	84
2	HE90LE4	36	*,9L	84
2.5	HE90LF4	40	*,9L	85.8
3	HE100LE4	50	9L	87.7
4	HE100LF4	68	9L	87.6
5.5	AMH112MAA4	72	9L	87.5
7.5	AAMH132SZA4	136	9L	89.5
10	AAMH132MZA4	148	9L	89.5
12.5	AAMH132MTA4	156	9L	89.5
15	AAMH160MZA4	239	9L	91
20	AAMH160LZA4	265		91
25	LAB180M D4	463	CI	92.6
30	LAB180L E4	476	CI	92.4
40	LAB200L D4	570	CI	93
50	LAB200L F4	661	CI	93
50	LAB225S D4	620	CI	93
60	LAB225M E4	734	CI	93.8
75	LAB250M E4	805	CI	94.1
100	LAB280S D4	1097	CI	94.6
125	LAB280M E4	1535	CI	94.5
150	LAB315S D4	1745	CI	95
175	LAB315S E4	2100	CI	95
200	LAB315L D4	2260	CI	95
270	LAB315M F4	2809	CI	95.1
300	LAB355M D4	3304	CI	94.4
350	LAB355M F4	3799	CI	95.4

Features:

- Class F, S.F:1,15
- Available in 208-230/460V, 333/575V
- Frame 100 and above available in 575/990V
- Frame 132 and above available in 460/776V
- Frame 71 to 180 with removable feet
- Threaded hole in output shaft is standard
- IEC, CEI, UNEL MEC
- ST, HE & LNA motors are CSA approved
- AM, AMH/AAMH motors are cURus approved (UL recognized are class B)
- Frame 90 and above meet Epact & NRCan efficiency
- * = S/L dual set holes on base (90L frame)
- **9L** = 9 leads hook up at 230/460 (YY/Y connection)
- **CI** = Cast Iron frame/feet are not removable
- **6L** = 6 leads hook up at 230/460 (Delta/Y connection)

CONTINUED FROM PREVIOUS PAGE

FLANGE (ST & HE SERIES)

B14 C FLANGE	B5 D FLANGE
FL56B14	FL56B5
FL63B14	FL63B5
FL71B14	FL71B5
FL80B14	FL80B5
FL90B14	FL90B5
FL100B14	FL100B5
FL112B14	FL112B5

FLANGE (LAB SERIES)

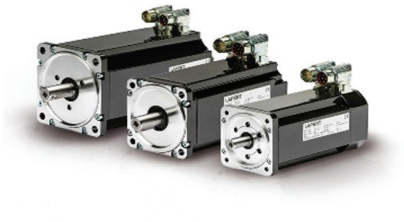
B5 D FLANGE
FLD180B5
FLD200B5
FLD225B5
FLD250B5
FLD280B5
FLD315B5
FLD355B5

FLANGE (AMH SERIES)

B14 C FLANGE	B5 D FLANGE
FLA132B14	FLA132B5
FLA160B14	FLA160B5

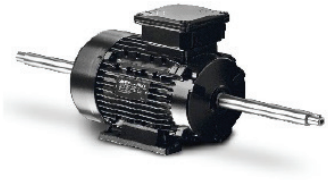
Complete range of products in stock for any others type of metric motors please consult our WEB site or call us for complete Lafert products catalogue.

Single Phase, 60Hz, single and dual voltage IEC metric motors.
.15 to 3HP, selections include motors for low and high starting torque.



AC Brushless Servo Motors, .15 - 75NM IP65 200-6000RPM,
29-100 IEC Frame. Brakes, tachs & encoders options.
Available in sinusolidal or trapezoidal design.

SACEMI Electric pumps. Coolant and circulating side mounted
and self priming designs. Motors are TEFC, 3 phase.

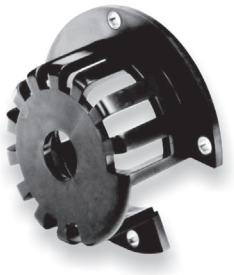


Custom design are also available upon request for HVAC,
pumps and conveyor applications.

Brake Motors, 1/4HP to 20HP, 2,4,6,8 pole & 2 speed designs.
All three phase voltages available. Brake voltages same as
the motor voltage. Manual hand release is standard.

The HS35 encoders are built rugged with heavy duty features designed to NEMA 4, 13, and IP65 environmental conditions. These hollow shaft encoders come in a kit complete with hardware and ready to fit on Marathon Black Max and Blue Max inverter duty and vector duty motors.

HS35 Incremental Optical Encoder



Protective Cover

Encoder Cable w/ Connector

BEI

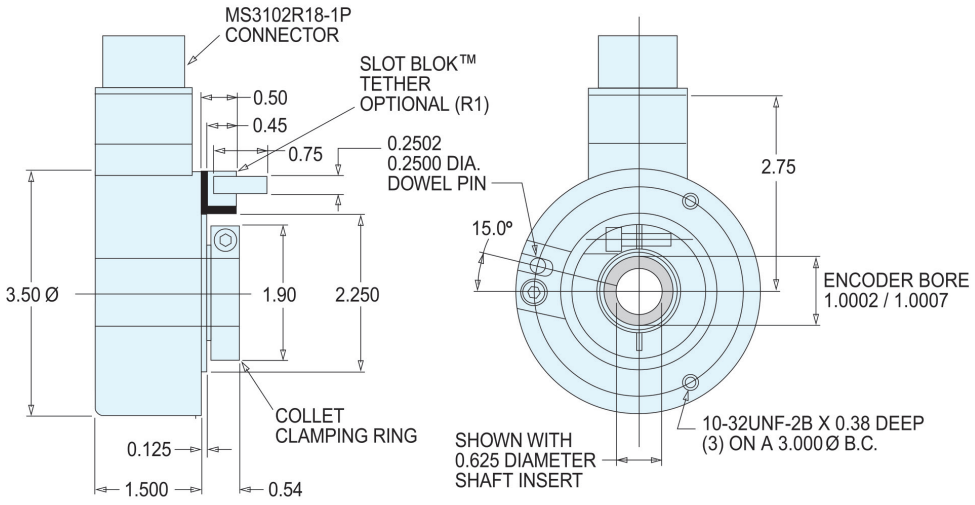
Part Number	PPR	Bore Size
HS35F-1024S	1024	5/8" & 1"
HS35F-2048S	2048	5/8" & 1"

MAXMOTION ALUMINUM PREMIUM TEFC MOTORS

Part Number	BEI
26068-001	Protective Cover
31186-1810	Encoder Cable 10' w/ Connector
31186-1820	Encoder Cable 20' w/ Connector
31186-1830	Encoder Cable 30' w/ Connector
31186-1850	Encoder Cable 50' w/ Connector
37048-003-500	Encoder Cable Bulk 500'

MS Connector Termination

TOLERANCES: .XX = ±0.01, .XXX = ±0.005



B SERIES VARIABLE FREQUENCY VECTOR DRIVE

1 ~ 100HP - NEMA 1 ENCLOSURE - UL, CUL & CE APPROVED

Features:

- Volt/Hertz, Sensorless vector & Closed loop vector control
- All VFD-B drives are Constant Torque rated.
- Programmable (0 ~ 2000Hz) for high speed applications.
- The output current is adjustable up to 120% of the drive's nominal capacity.
- All "240/1/60" models also accept three phase input.
- Inputs: 11 digital (4 dedicated & 7 programmable) & 3 analog.
- Outputs: 4 digital, 1 analog & 1 digital frequency output.
- RS-485 communication port, standard protocol Modbus RTU & ASCII.
- B series drives have built-in dynamic braking transistors up to 15HP.
- Please refer to the "VFD Accessories" section for all available options.
- Please refer to the "Delta Braking Resistors & Modules" for prices.

RATING HP	RATING kW	OUTPUT kVA	INPUT AMPS	OUTPUT AMPS	OUTPUT CURRENT PROTECTION	BRAKING RESISTORS	RESISTOR MIN. Ω	BRAKING MODULE	DIMENSIONS (MM) W X H X D	WEIGHT LBS	MODEL
PNP/NPN 240/1/60 NEMA 1											
1	0.7	1.9	11.9	5.0	1.5 ~ 6A	1 X BR080W200	82 ohms	Built-in	118 x 185 x 160	2.7	VFD007B21A
2	1.5	2.5	15.3	7.0	2.1 ~ 8.4A	1 X BR300W100	82 ohms	Built-in	118 x 185 x 145	3.2	VFD015B21B
3	2.2	4.2	22.0	11	3.3 ~ 13.2A	1 X BR300W100	82 ohms	Built-in	150 x 260 x 160.2	4.5	VFD022B21A
PNP/NPN 240/3/60 NEMA 1											
1	0.7	1.9	5.7	5.0	1.5 ~ 6A	1 X BR080W200	82 Ohms	Built-in	118 x 185 x 145	2.7	VFD007B21A
2	1.5	2.5	7.6	7.0	2.1 ~ 8.4A	1 X BR300W100	82 ohms	Built-in	118 x 185 x 145	3.2	VFD015B21B
3	2.2	4.2	15.5	11	3.3 ~ 13.2A	1 X BR300W100	82 ohms	Built-in	150 x 260 x 160.2	4.5	VFD022B21A
5	3.7	6.5	20.6	17	5.1 ~ 20.4A	1 X BR400W040	33 ohms	Built-in	150 x 260 x 160.2	6.8	VFD037B23A
7.5	5.5	9.5	26	25	7.5 ~ 30A	1 X BR500W030	30 Ohms	Built-in	200 x 323 x 183.2	8.0	VFD055B23A
10	7.5	12.5	34	33	9.9 ~ 39.6A	1 X BR1K0W020	20 ohms	Built-in	200 x 323 x 183.2	10.0	VFD075B23A
15	11	18.3	50	49	14.7 ~ 58.8A	2 X BR1K2W6P8	13.6 ohms	Built-in	200 x 323 x 183.2	13.0	VFD110B23A
20	15	24.7	60	65	19.5 ~ 78A	2 X BR1K5W005	10 ohms	1 X VFD2015	250 x 403.8 x 205.4	13.0	VFD150B23A
25	18.5	28.6	75	75	22.5 ~ 90A	4 X BR1K2W008	8 ohms	1 X VFD2022	250 x 403.8 x 205.4	13.0	VFD185B23A
30	22	34.3	90	90	20 ~ 108A	4 X BR1K2W6P8	6.8 ohms	1 X VFD2022	250 x 403.8 x 205.4	13.0	VFD220B23A
40	30	45.7	110	120	36 ~ 144A	4 X BR1K5W005	5 ohms	2 X VFD2015	370 x 589 x 260	36.0	VFD300B23A
50	37	55.0	142	145	43.5 ~ 174A	8 X BR1K2W008	4 ohms	2 X VFD2015	370 x 589 x 260	36.0	VFD370B23A
PNP/NPN 480/3/60 NEMA 1											
1	0.7	2.3	3.2	2.7	0.81 ~ 3.24A	1 X BR080W750	160 ohms	Built-in	118 x 185 x 145	2.7	VFD007B43A
2	1.5	3.2	4.3	4.2	1.26 ~ 5.04A	1 X BR300W400	160 ohms	Built-in	118 x 185 x 160	3.2	VFD015B43A
3	2.2	4.2	5.9	5.5	1.65 ~ 6.6A	1 X BR300W250	160 ohms	Built-in	118 x 185 x 160	4.5	VFD022B43B
5	3.7	6.5	11.2	8.5	2.55 ~ 10.2A	1 X BR400W150	130 ohms	Built-in	150 x 260 x 160.2	6.8	VFD037B43A
7.5	5.5	9.9	14	13	3.9 ~ 15.6A	1 X BR500W100	91 ohms	Built-in	200 x 323 x 183.2	8.0	VFD055B43A
10	7.5	13.7	19	18	5.4 ~ 21.6A	1 X BR1K0W075	62 ohms	Built-in	200 x 323 x 183.2	10.0	VFD075B43A
15	11	18.3	25	24	7.2 ~ 28.8A	1 X BR1K0W050	39 ohms	Built-in	200 x 323 x 183.2	13.0	VFD110B43A
20	15	24.4	32	32	9.6 ~ 38.4A	1 X BR1K5W040	40 ohms	1 X VFD4030	250 x 403.8 x 205.4	13.0	VFD150B43A
25	18.5	28.9	39	38	11.4 ~ 45.6A	4 X BR1K2W008	32 ohms	1 X VFD4030	250 x 403.8 x 205.4	13.0	VFD185B43A
30	22	34.3	49	45	13.5 ~ 54A	4 X BR1K2W6P8	27.2 ohms	1 X VFD4030	250 x 403.8 x 205.4	13.0	VFD220B43A
40	30	45.7	60	60	18 ~ 72A	4 X BR1K5W005	20 ohms	1 X VFD4030	370 x 589 x 260	36.0	VFD300B43A
50	37	55.6	63	73	21.9 ~ 87.6A	8 X BR1K2W008	16 ohms	1 X VFD4045	370 x 589 x 260	36.0	VFD370B43A
60	45	69.3	90	91	27.3 ~ 109.2A	8 X BR1K2W6P8	13.6 ohms	1 X VFD4045	370 x 589 x 260	36.0	VFD450B43A
75	55	84.0	130	110	33 ~ 132A	8 X BR1K5W005	10 ohms	2 X VFD4030	525 x 660 x 264	50.0	VFD550B43A
100	75	114.0	160	150	45 ~ 180A	16 X BR1K2W6P8	6.8 ohms	2 X VFD4045	525 x 660 x 264	50.0	VFD750B43A

CHART CONTINUES ON FOLLOWING PAGE

B SERIES VARIABLE FREQUENCY VECTOR DRIVE

1 ~ 100HP - NEMA 1 ENCLOSURE - UL, CUL & CE APPROVED

Features:

- Volt/Hertz, Sensorless vector & Closed loop vector control
- All VFD-B drives are Constant Torque rated.
- Programmable (0 ~ 2000Hz) for high speed applications.
- The output current is adjustable up to 120% of the drive's nominal capacity.
- All "240/1/60" models also accept three phase input.
- Inputs: 11 digital (4 dedicated & 7 programmable) & 3 analog.
- Outputs: 4 digital, 1 analog & 1 digital frequency output.
- RS-485 communication port, standard protocol Modbus RTU & ASCII.
- B series drives have built-in dynamic braking transistors up to 15HP.
- Please refer to the "VFD Accessories" section for all available options.
- Please refer to the "Delta Braking Resistors & Modules" for prices.

CHART CONTINUED FROM PREVIOUS PAGE

RATING HP	RATING kW	OUTPUT kVA	INPUT AMPS	OUTPUT AMPS	OUTPUT CURRENT PROTECTION	BRAKING RESISTORS	RESISTOR MIN. Ω	BRAKING MODULE	DIMENSIONS (MM) W X H X D	WEIGHT LBS	MODEL
PNP/NPN 600/3/60 NEMA 1											
1	0.7	1.7	2.0	1.7	0.51 -2.04A	1 X BR300W400	200 ohms	Built-in	118 x 185 x 145	2.7	VFD007B53A
2	1.5	3.5	3.6	3.5	1.05 ~ 4.2A	1 X BR300W250	200 ohms	Built-in	118 x 185 x 145	3.2	VFD015B53A
3	2.2	4.5	4.9	4.5	1.35 ~ 5.4A	1 X BR400W150	130 ohms	Built-in	118 x 185 x 160	4.5	VFD022B53A
5	3.7	7.5	9.9	7.5	2.25 ~ 9A	1 X BR400W150	130 ohms	Built-in	150 x 260 x 160.2	6.8	VFD037B53A
7.5	5.5	10.0	10.8	10.0	3 ~ 12A	1 X BR500W100	82 ohms	Built-in	200 x 323 x 183.2	8.0	VFD055B53A
10	7.5	13.4	14.3	13.5	4.05 ~ 16.2A	1 X BR500W100	82 ohms	Built-in	200 x 323 x 183.2	10.0	VFD075B53A
15	11	18.9	19.8	19.0	5.7 ~ 22.8A	1 X BR500W100	82 ohms	Built-in	200 x 323 x 183.2	13.0	VFD110B53A
20	15	22.0	22.0	22.0	6.6 ~ 26.4A	3 X BR1K0W020	60 ohms	1 X VFD5055	250 x 403.8 x 205.4	13.0	VFD150B53A
25	18.5	26.9	27.7	27.0	8.1 ~ 32.4A	4 X BR1K0W050	50 ohms	1 X VFD5055	250 x 403.8 x 205.4	13.0	VFD185B53A
30	22	33.9	37.0	34.0	10.2 ~ 40.8A	5 X BR1K2W008	40 ohms	1 X VFD5055	250 x 403.8 x 205.4	13.0	VFD220B53A
40	30	40.8	41.0	41.0	12.3 ~ 49.2A	5 X BR1K2W6P8	34 ohms	1 X VFD5055	370 x 589 x 260	36.0	VFD300B53A
50	37	51.8	52.0	52.0	15.6 ~ 62.4A	5 X BR1K5W005	25 ohms	1 X VFD5055	370 x 589 x 260	36.0	VFD370B53A
60	45	61.7	62.0	62.0	18.6 ~ 74.4A	10 X BR1K2W008	20 ohms	1 X VFD5055	370 x 589 x 260	36.0	VFD450B53A
75	55	79.7	95.0	80.0	24 ~ 96A	10 X BR1K2W6P8	17 ohms	1 X VFD5055	370 x 589 x 260	50.0	VFD550B53A
100	75	99.6	117.0	100.0	30 ~ 120A	10 X BR1K5W005	12.5 ohms	2 X VFD5055	370 x 589 x 260	50.0	VFD750B53A

M SERIES VARIABLE FREQUENCY MICRO VECTOR DRIVE

1/4 ~ 10HP - IP20 ENCLOSURE - UL, CUL & CE APPROVED.

Features:

- Volt/Hertz & Sensorless vector control
- All VFD-M drives are Constant Torque rated.
- Programmable 0 ~ 400Hz for high speed applications.
- The output current is adjustable up to 120% of the drive's nominal capacity.
- All "240/1/60" models also accept three phase input.
- Inputs: 6 programmable digital & 2 analog.
- Outputs: 2 digital & 1 analog.
- RS-485 communication port, standard protocol Modbus RTU & ASCII.
- All M series drives have a built-in dynamic braking transistor.
- Please refer to the "VFD Accessories" section for all available options.
- Please refer to the "Delta Braking Resistors & Modules" for prices.

RATING HP	RATING kW	OUTPUT kVA	INPUT AMPS	OUTPUT AMPS	OUTPUT CURRENT PROTECTION	BRAKING RESISTORS	RESISTOR MIN. Ω	BRAKING MODULE	DIMENSIONS (MM) W X H X D	WEIGHT LBS	MODEL
120/1/60 IP20											
1/4	0.2	0.6	6.0	1.6	0.48 ~ 1.92A	1 X BR080W200	80 ohms	Built-in	100 x 151 x 127	1.5	VFD002M11A
1/2	0.4	1.0	9.0	2.5	0.75 ~ 3.0A	1 X BR080W200	80 ohms	Built-in	100 x 151 x 127	1.5	VFD004M11A
1	0.7	1.6	16.0	4.2	1.26 ~ 5.04A	1 X BR080W200	80 ohms	Built-in	100 x 151 x 127	1.5	VFD007M11A
240/1/60 IP20											
1/2	0.4	1.0	6.3	2.5	0.75 ~ 3.0A	1 X BR080W200	200 ohms	Built-in	100 x 151 x 127	2.2	VFD004M21B
1	0.7	1.9	11.5	5.0	1.5 ~ 6.0A	1 X BR080W200	80 ohms	Built-in	100 x 151 x 127	2.2	VFD007M21B
2	1.5	2.7	15.7	7.0	2.1 ~ 8.4A	1 X BR300W100	55 ohms	Built-in	100 x 151 x 127	2.2	VFD015M21B
3	2.2	3.8	27.0	10.0	3.0 ~ 12.0A	1 X BR300W070	35 ohms	Built-in	125 x 220 x 174.5	2.2	VFD022M21A
240/3/60 IP20											
1/2	0.4	1.0	2.9	2.5	0.75 ~ 3.0A	1 X BR080W200	200 ohms	Built-in	85 x 141,5 x 123	2.2	VFD004M21B
1	0.7	1.9	7.6	5.0	1.5 ~ 6.0A	1 X BR080W200	80 ohms	Built-in	85 x 141,5 x 123	2.2	VFD007M21B
2	1.5	2.7	8.8	7.0	2.1 ~ 8.4A	1 X BR300W100	55 ohms	Built-in	85 x 141,5 x 123	2.2	VFD015M21B
3	2.2	3.8	12.5	10.0	3.0 ~ 12.0A	1 X BR300W070	35 ohms	Built-in	100 x 151 x 127	2.2	VFD022M21A
5	3.7	6.5	19.6	17.0	5.1 ~ 20.4A	1 X BR400W040	25 ohms	Built-in	125 x 220 x 174.5	3.2	VFD037M23A
7.5	5.5	9.5	28.0	25.0	7.5 ~ 30.0A	1 X BR500W030	16 ohms	Built-in	125 x 220 x 174.5	3.2	VFD055M23A
480/3/60 IP20											
1	0.7	2.3	4.2	3.0	0.90 ~ 3.60A	1 X BR080W750	260 ohms	Built-in	100 x 151 x 127	1.5	VFD007M43B
2	1.5	3.1	5.7	4.0	1.20 ~ 4.80A	1 X BR300W400	190 ohms	Built-in	100 x 151 x 127	1.5	VFD015M43B
3	2.2	3.8	6.0	5.0	1.5 ~ 6.0A	1 X BR300W250	145 ohms	Built-in	100 x 151 x 127	2.0	VFD022M43B
5	3.7	6.2	8.5	8.2	2.46 ~ 9.84A	1 X BR400W150	95 ohms	Built-in	125 x 220 x 174.5	3.2	VFD037M43A
7.5	5.5	9.9	14.0	13.0	3.90 ~ 15.6A	1 X BR500W100	60 ohms	Built-in	125 x 220 x 174.5	3.2	VFD055M43A
10	7.5	13.7	23.0	18.0	5.4 ~ 21.6A	1 X BR1K0W075	45 ohms	Built-in	125 x 220 x 174.5	3.3	VFD075M43A
600/3/60 IP20											
1	0.7	1.7	2.4	1.7	0.51 ~ 2.04A	1 x BR300W400	200 ohms	Built-in	100 x 151 x 127	1.5	VFD007M53A
2	1.5	3.0	4.2	3.0	0.90 ~ 3.60A	1 x BR300W400	200 ohms	Built-in	100 x 151 x 127	1.5	VFD015M53A
3	2.2	4.2	5.9	4.2	1.26 ~ 5.04A	2 x BR300W400	150 ohms	Built-in	100 x 151 x 127	2.0	VFD022M53A
5	3.7	6.6	7.0	6.6	1.98 ~ 7.92A	2 x BR300W400	150 ohms	Built-in	125 x 220 x 174.5	3.2	VFD037M53A
7.5	5.5	9.9	10.5	9.9	2.97 ~ 11.88A	2 x BR300W400	150 ohms	Built-in	125 x 220 x 174.5	3.2	VFD055M53A
10	7.5	12.2	12.9	12.2	3.66 ~ 14.64A	2 x BR1K0W050	82 ohms	Built-in	125 x 220 x 174.5	3.3	VFD075M53A

S SERIES VARIABLE FREQUENCY GENERAL PURPOSE MICRO DRIVE

1/4 ~ 3HP - NEMA 1 OR IP20 ENCLOSURE - UL, CUL & CE APPROVED.

Features:

- Volt/Hertz Control
- All VFD-S drives are Constant Torque rated.
- The option “BK-S” converts IP20 models into NEMA 1 rated enclosures.
- Programmable 0 ~ 400Hz for high speed applications.
- The output current is adjustable up to 140% of the drive’s nominal capacity.
- The “240/1/60” models, ending with B or U, also accept three phase input.
- The “240/1/60” models, ending with E, accept only single phase input.
- Inputs: 6 programmable digital & 2 analog.
- Outputs: 2 digital & 1 analog.
- RS-485 communication port, protocol Modbus RTU & ASCII.
- All S series drives have a built-in dynamic braking transistor.
- Please refer to the “VFD Accessories” section for all available options.
- Please refer to the “Delta Braking Resistors & Modules” for prices.

RATING HP	RATING kW	OUTPUT kVA	INPUT AMPS	OUTPUT AMPS	OUTPUT CURRENT PROTECTION	BRAKING RESISTORS	RESISTOR MIN. Ω	BRAKING MODULE	DIMENSIONS (MM) W X H X D	WEIGHT LBS	MODEL
						120/1/60 NEMA 1					
1/4	0.2	0.6	6.0	1.6	0.48 ~ 2.24A	1 X BR080W200	120 ohms	Built-in	85 x 164 x 93,8	1.3	VFD002S11B
1/2	0.4	1.0	9.0	2.5	0.75 ~ 3.5A	1 X BR080W200	120 ohms	Built-in	85 x 164 x 107,8	1.5	VFD004S11B
1	0.7	1.6	18.0	4.2	1.26 ~ 5.88A	1 X BR080W200	80 ohms	Built-in	100 x 202 x 134,4	2.0	VFD007S11B
						240/1/60 NEMA 1					
1/4	0.2	0.6	4.9	1.6	0.48 ~ 2.24A	1 X BR080W200	120 ohms	Built-in	85 x 164 x 93,8	1.3	VFD002S21B
1/2	0.4	1.0	6.5	2.5	0.75 ~ 3.5A	1 X BR080W200	120 ohms	Built-in	85 x 164 x 107,8	1.5	VFD004S21B
1	0.7	1.6	9.7	4.2	1.26 ~ 5.88A	1 X BR080W200	80 ohms	Built-in	85 x 164 x 129,8	1.5	VFD007S21B
2	1.5	2.9	15.7	7.5	2.25 ~ 10.5A	1 X BR300W100	55 ohms	Built-in	100 x 202 x 134,7	2.2	VFD015S21U
3	2.2	4.2	24.0	11.0	3.3 ~ 15.4A	1 X BR300W070	35 ohms	Built-in	100 x 202 x 134,7	2.5	VFD022S21U
						240/3/60 NEMA 1					
1/4	0.2	0.6	2.4	1.6	0.48 ~ 2.24A	1 X BR080W200	120 ohms	Built-in	85 x 148 x 93,8	1.3	VFD002S21B
1/2	0.4	1.0	3.0	2.5	0.75 ~ 3.5A	1 X BR080W200	120 ohms	Built-in	85 x 148 x 107,8	1.5	VFD004S21B
1	0.7	1.6	5.1	4.2	1.26 ~ 5.88A	1 X BR080W200	80 ohms	Built-in	85 x 148 x 129,8	1.5	VFD007S21B
2	1.5	2.9	9.0	7.5	2.25 ~ 10.5A	1 X BR300W100	55 ohms	Built-in	100 x 186 x 134,4	2.2	VFD015S21U
3	2.2	4.2	15.0	11.0	3.3 ~ 15.4A	1 X BR300W070	35 ohms	Built-in	100 x 186 x 134,4	2.5	VFD022S21U
						480/3/60 NEMA 1					
1/2	0.4	1.2	1.7	1.5	0.45 ~ 2.1A	1 X BR080W750	470 ohms	Built-in	85 x 164 x 129,8	1.5	VFD004S43B
1	0.7	2.0	2.9	2.5	0.75 ~ 3.5A	1 X BR080W750	260 ohms	Built-in	85 x 164 x 131,8	1.5	VFD007S43B
2	1.5	3.3	5.1	4.2	1.26 ~ 5.88A	1 X BR300W400	190 ohms	Built-in	100 x 202 x 134,4	2.0	VFD015S43U
3	2.2	4.4	6.9	5.5	1.65 ~ 7.7A	1 X BR300W250	145 ohms	Built-in	100 x 202 x 134,4	2.2	VFD022S43U

C2000 SERIES VECTOR DRIVE WITH FLUX ORIENTATED CONTROL

1 ~ 125HP - 240V - NEMA 1 ENCLOSURE - UL, CUL & CE APPROVED

Features:

- Volt/Hertz, Position, Torque, Sensorless vector & Closed loop vector control
- All C2000 drives are Constant and Variable Torque rated.
- All C2000 drives are Normal & Heavy duty rated.
- Suitable for synchronous, PM & induction motors.
- Programmable (0 ~ 600Hz) for high speed applications.
- 4 quadrant torque control & limit.
- Conformal coated circuit boards.
- Adaptable to 50°C environment.
- Built-in EMI filter.
- Real-time clock & calendar functions.
- Built-in 10K step capacity PLC.
- The output current is adjustable up to 120% of the drive's nominal capacity.
- C2000 series drives have built-in dynamic braking transistors frames A, B & C.
- Inputs: 11 digital (3 dedicated & 8 programmable) & 3 analog.
- Power removal safety function for Emergency Stop.
- Outputs: 2 relays, 2 digital, 2 analog & 1 digital frequency output.
- 2 RS-485 communication ports, standard protocol Modbus RTU & ASCII.
- Please refer to the '' VFD Accessories'' section for all available options.
- Please refer to MEP for dynamic braking & Active Front End option prices.

RATING HP	RATING kW	OUTPUT kVA	INPUT AMPS	OUTPUT AMPS	OUTPUT CURRENT PROTECTION	BRAKING RESISTORS	RESISTOR MIN. Ω	BRAKING MODULE	DIMENSIONS (MM) W X H X D	WEIGHT LBS	MODEL
PNP / NPN 240/3/60 NEMA 1											
1	0.7	2.0	6.4	5.0	0,5-6,0A	1 X BR080W200	63,3 ohms	Built-in	130 x 250 x 170	2.6	VFD007C23A
2	1.5	3.2	12.0	8.0	0,8-9,6A	1 X BR300W100	47,2 ohms	Built-in	130 x 250 x 170	2.6	VFD015C23A
3	2.2	4.4	16.0	11.0	1,1-13,2A	1 X BR300W070	38 ohms	Built-in	130 x 250 x 170	2.6	VFD022C23A
5	3.7	6.8	20.0	17.0	1,7-20,4A	1 X BR400W040	19 ohms	Built-in	130 x 250 x 170	2.6	VFD037C23A
7.5	5.5	10.0	28.0	25.0	2,5-30,0A	1 X BR1K0W020	14,6 ohms	Built-in	190 x 320 x 190	5.4	VFD055C23A
10	7.5	13.0	36.0	33.0	3,3-39,6A	1 X BR1K0W020	14,6 ohms	Built-in	190 x 320 x 190	5.4	VFD075C23A
15	11	20.0	52	49.0	4,9-58,84A	2 X BR1K2W6P8	13.6 ohms	Built-in	190 x 320 x 190	5.4	VFD110C23A
20	15	26.0	72	65.0	6,5-78,0A	2 X BR1K5W005	8,3 ohms	Built-in	250 x 400 x 210	9.8	VFD150C23A
25	18.5	30.0	83.0	75.0	7,5-90,0A	2 X BR1K5W005	8,3 ohms	Built-in	250 x 400 x 210	9.8	VFD185C23A
30	22	36.0	99.0	90.0	9,0-108,0A	4 X BR1K2W6P8	5.8 ohms	Built-in	250 x 400 x 210	9.8	VFD220C23A
40	30	48.0	124.0	120.0	12-144,0A	4 X BR1K5W005	4,8 ohms	2 X VFD2022	330 x 550 x 275	39.0	VFD300C23A
50	37	58.0	143.0	146.0	14,6-175,2A	8 X BR1K2W008	3,2 ohms	2 X VFD2022	330 x 550 x 275	39.0	VFD370C23A
60	45	72.0	171.0	180.0	18,0-216,0A	8 X BR1K2W6P8	3,2 ohms	2 X VFD2022	370 x 589 x 300	65.0	VFD450C23A
75	55	86.0	206.0	215.0	21,5-258A	12 X BR1K2W008	2,1 ohms	3 X VFD2022	370 x 589 x 300	65.0	VFD550C23A
100	75	102.0	245.0	255.0	25,5-306,0A	16 X BR1K2W008	1,6 ohms	4 X VFD2022	370 x 589 x 300	65.0	VFD750C23A
125	90	138.0	331.0	346.0	34,64-415,2A	16 X BR1K2W6P8	1,6 ohms	4 X VFD2022	420 x 800 x 300	87.0	VFD900C23A

CHART CONTINUED FROM PREVIOUS PAGE

RATING HP	RATING kW	OUTPUT kVA	INPUT AMPS	OUTPUT AMPS	OUTPUT CURRENT PROTECTION	BRAKING RESISTORS	RESISTOR MIN. Ω	BRAKING MODULE	DIMENSIONS (MM) W X H X D	WEIGHT LBS	MODEL
PNP / NPN 480/3/60 NEMA 1											
1	0.7	2.4	4.3	3.0	0,3-3,6A	1 X BR080W750	190 ohms	Built-in	130 x 250 x 170	2.6	VFD007C43A
2	1.5	3.2	5.9	4.0	0,4-4,8A	1 X BR300W400	126,7 ohms	Built-in	130 x 250 x 170	2.6	VFD015C43A
3	2.2	4.8	8.7	6.0	0,6-7,2A	1 X BR300W250	108,6 ohms	Built-in	130 x 250 x 170	2.6	VFD022C43A
5	3.7	7.2	14.0	9.0	0,9-10,8A	1 X BR400W150	84,4 ohms	Built-in	130 x 250 x 170	2.6	VFD037C43A
5.5	4.0	8.4	15.5	10.5	1,05-12,6A	1 x BR1K0W075	54,3 ohms	Built-in	130 x 250 x 170	2.6	VFD040C43A
7.5	5.5	10	17.0	12.0	1,2-14,4A	1 X BR1K0W075	54,3 ohms	Built-in	130 x 250 x 170	2.6	VFD055C43A
10	7.5	14	20.0	18.0	1,8-21,6A	1 X BR1K0W075	47,5 ohms	Built-in	190 x 320 x 190	5.4	VFD075C43A
15	11	19	26.0	24.0	2,4-28,8A	1 X BR1K5W043	42,2 ohms	Built-in	190 x 320 x 190	5.4	VFD110C43A
20	15	25	35.0	32.0	3,2-38,4A	2 X BR1K0W016	26,20 ohms	Built-in	190 x 320 x 190	5.4	VFD150C43A
25	18.5	30	40.0	38.0	3,8-45,6A	2 X BR1K0W016	23 ohms	Built-in	250 x 400 x 210	9.8	VFD185C43A
30	22	36	47.0	45.0	4,5-54,0A	2 X BR1K2W013	23 ohms	Built-in	250 x 400 x 210	9.8	VFD220C43A
40	30	48	63.0	60.0	6,04-72,0A	4 X BR1K0W016	14,1 ohms	Built-in	250 x 400 x 210	9.8	VFD300C43A
50	37	58	74.0	73.0	7,3-87,6A	4 X BR1K2W015	12,7 ohms	1 X VFD4045	330 x 550 x 275	38.5	VFD370C43A
60	45	73	101.0	91.0	9,1-109,2A	4 X BR1K5W013	12,7 ohms	1 X VFD4045	330 x 550 x 275	38.5	VFD450C43A
75	55	88	114.0	110.0	11-132A	8 X BR1K0W5P1	9,5 ohms	2 X VFD4045	330 x 550 x 275	38.5	VFD550C43A
100	75	120	157.0	150.0	15-180A	8 X BR1K2W015	6.3 ohms	2 X VFD4045	330 x 550 x 275	38.5	VFD750C43A
125	90	143	167.0	180.0	18-216A	8 X BR1K5W013	6,3 ohms	2 X VFD4045	370 x 589 x 300	64.8	VFD900C43A
150	110	175	207.0	220.0	22-264A	10 X BR1K2W015	6.0 ohms	1 X VFD4110	370 x 589 x 300	64.8	VFD1100C43A
175	132	207	240.0	260.0	26-312A	12 X BR1K5W012	4,0 ohms	1 X VFD4160	420 x 800 x 300	86.5	VFD1320C43A
215	160	247	300.0	310.0	31-372A	12 X BR1K5W012	4,0 ohms	1 X VFD4160	420 x 800 x 300	86.5	VFD1600C43A
250	185	295	380.0	370.0	37-372A	14 X BR1K5W012	3,4 ohms	1 X VFD4185	500 x 1000 x 397	86.5	VFD1850C43A
300	220	367	400.0	460.0	46-552A	20 X BR1K2W015	3,0 ohms	2 X VFD4110	500 x 1000 x 397	134.0	VFD2200C43A
375	280	438	494.0	550.0	55-660A	24 X BR1K5W012	2,0 ohms	2 X VFD4160	700 x 1435 x 398	134.0	VFD2800C43A
425	315	491	555.0	616.0	61,6-729,2A	24 X BR1K5W015	2,0 ohms	2 X VFD4160	700 x 1435 x 398	228.0	VFD3150C43A
475	355	544	625.0	683.0	68,3-819,6A	28 X BR1K5W012	1,7 ohms	2 X VFD4185	700 x 1435 x 398	228.0	VFD3550C43A
PNP / NPN 690/3/60 NEMA 1											
40	30	43	45.0	36.0	3,6-43,2A	2 X BR1K5W107	53,5 ohms	Built-in	250 x 400 x 210	10.0	VFD300C63A
50	37	51	54.0	43.0	4,3-51,6A	4 X BR1K0W011	44 ohms	Built-in	250 x 400 x 210	10.0	VFD370C63A
60	45	65	51.0	54.0	5,4-64,8A	4 X BR1K2W033	33 ohms	1X VFDB6055	330 x 688,3 x 275	39.0	VFD450C63A
75	55	80	64.0	67.0	6,7-80,4A	4 X BR1K5W107	26,7 ohms	1X VFDB6055	330 x 688,3 x 275	39.0	VFD550C63A
100	75	93	74.0	78.0	7,8-93,6A	6 X BR1K2W133	22,1 ohms	1 X VFDB6110	330 x 688,3 x 275	39.0	VFD750C63A
125	90	123	98.0	103.0	10,3-123,6A	6 X BR1K5W107	17,8 ohms	1 X VFDB6110	370 x 715,8 x 300	61.0	VFD900C63A
150	110	147	117.0	123.0	12,3-147,6A	8 X BR1K5W107	13,3 ohms	1X VFDB6160	370 x 715,8 x 300	61.0	VFD1100C63A
175	132	166	132.0	139.0	13,9-166,8A	12 X BR1K2W133	11,1 ohms	1X VFDB6160	370 x 715,8 x 300	61.0	VFD1320C63A
215	160	229	182.0	192.0	19,2-230,4A	12 X BR1K5W107	8,9 ohms	1X VFDB6160	420 x 940 x 300	88.0	VFD1600C63A
270	200	258	205.0	216.0	21,6-259,2A	14 X BR1K5W107	7,6 ohms	1XVFDB6200	420 x 940 x 300	88.0	VFD2000C63A
335	250	316	251.0	264.0	26,4-316,8A	18 X BR1K5W012	6 ohms	2X VFDB6160	500 x 1240 x 397	135.0	VFD2500C63A
425	315	367	292.0	307.0	30,7-368,4A	24 X BR1K5W012	4,5 ohms	2XVFDB6200	500 x 1240 x 397	135.0	VFD3150C63A
530	400	488	388.0	408.0	40,8-489,6A	28 X BR1K5W027	3,85 ohms	2XVFDB6200	700 x 1745 x 404	243.0	VFD4000C63A
600	450	559	445.0	468.0	46,8-561,6A	36 X BR1K5W012	3 ohms	3XVFDB6160	700 x 1745 x 404	243.0	VFD4500C63A

SANIMAX VARIABLE FREQUENCY NEMA 4X DRIVE

1/2 ~ 10HP - NEMA 4X ENCLOSURE - UL, CUL & CE APPROVED

Features:

- Integrated line reactor provisions
- All VFD-EL & M series drives are Constant Torque rated
- Mounted in rugged fiberglass enclosure
- Pre-configured for "Out of the Box" operation
- VFD-M drives are programmable 0 ~ 400Hz for high speed applications
- The VFD-EL drives are programmable 0 ~ 600Hz for high speed applications
- Local control, Run, Stop/Reset, Jog, Forward / Reverse, digital pot & digital display
- The output current is adjustable up to 120% of the drive's nominal capacity
- All "240/1/60" models accept only single inputs
- All M series drives have a built-in dynamic braking transistor
- Dynamic braking transistors, are optional for all EL Series drives
- Please refer to the "VFD Accessories" section for all available options
- Please refer to the "Delta Braking Resistors & Modules" for prices

RATING HP	RATING kW	OUT-PUT kVA	INPUT AMPS	OUTPUT AMPS	OUTPUT CURRENT PROTECTION	BRAKING RESISTORS	RESISTOR MIN. Ω	BRAKING MODULE	DIMENSIONS (MM) W X H X D	WEIGHT LBS	MODEL
120/1/60 NEMA 4X											
1/2	0.4	1.0	9.0	2.5	0.75~3A	1 X BR300W250	100 ohms	1XBUE20015	254 X 204 X 157	4.1	VFD004S11B-4X
1	0.7	1.6	18.0	4.2	1.26-5.04A	1 X BR400W150	80 ohms	1XBUE20015	254 X 204 X 157	3.9	VFD007S11B-4X
240/1/60 NEMA 4X											
1/2	0.4	1.0	6.5	2.5	0.75~3A	1 X BR200W250	100 ohms	1 X BUE20015	356 X 305 X 148	5.9	VFD004S21B-4X
1	0.7	1.6	9.5	4.2	1.26-5.04A	1 X BR400W150	80 ohms	1 X BUE20015	356 X 305 X 148	5.9	VFD007S21B-4X
2	1.5	2.9	15.7	7.5	2.25-9A	1 X BR300W100	80 ohms	1 X BUE20015	356 X 305 X 148	6.8	VFD015S21U-4X
3	2.2	4.2	24.0	11.0	3.3-13.2A	1 X BR300W100	50 ohms	1 X BUE20037	356 X 305 X 148	6.8	VFD022S21U-4X
240/3/60 NEMA 4X											
1/2	0.4	1.0	2.7	2.5	0.75~3A	1 X BR300W250	100 ohms	1 X BUE20015	356 X 305 X 148	5.9	VFD004S21B-4X
1	0.7	1.6	4.9	4.2	1.26-5.04A	1 X BR400W150	80 ohms	1 X BUE20015	356 X 305 X 148	5.9	VFD007S21B-4X
2	1.5	2.9	9.0	7.5	2.25-9A	1 X BR300W100	80 ohms	1 X BUE20015	356 X 305 X 148	6.8	VFD015S21U-4X
3	2.2	4.2	15.0	11.0	3.3-13.2A	2 X BR300W100	50 ohms	1 X BUE20037	356 X 305 X 148	6.8	VFD022S21U-4X
5	3.7	6.5	19.6	17.0	5.1 ~ 20.4A	1 X BR400W040	25 ohms	Built-in	457 X 406 X 221	10.4	VFD037M23A-4X
7.5	5.5	9.5	28.0	25.0	7.5 ~ 30.0A	1 X BR500W030	16 ohms	Built-in	457 X 406 X 221	10.4	VFD055M23A-4X
480/3/60 NEMA 4X											
1	0.7	2.0	3.2	2.5	0.75~3A	1 X BR300W250	200 ohms	1 X BUE40015	356 X 305 X 148	5.9	VFD007M43B-4X
2	1.5	3.3	4.3	4.2	1.26-5.04A	1 X BR400W150	160 ohms	1 X BUE40015	356 X 305 X 148	6.8	VFD015M43B-4X
3	2.2	4.4	7.1	5.5	1.65-6,6A	2 X BR400W150	80 ohms	1 X BUE40037	356 X 305 X 148	6.8	VFD022M43B-4X
5	3.7	6.2	8.5	8.2	2.46 ~ 9.84A	1 X BR400W150	95 ohms	Built-in	356 X 305 X 148	10.4	VFD037M43A-4X
7.5	5.5	9.9	14.0	13.0	3.90 ~ 15.6A	1 X BR500W100	60 ohms	Built-in	457 X 406 X 221	10.4	VFD055M43A-4X
10	7.5	13.7	23.0	18.0	5.4 ~ 21.6A	1 X BR1K0W075	45 ohms	Built-in	457 X 406 X 221	10.9	VFD075M43A-4X
600/3/60 NEMA 4X											
1	0.7	1.7	2.4	1.7	0.51 ~ 2.04A	1 x BR300W400	200 ohms	Built-in	356 X 305 X 148	7.3	VFD007M53A-4X
2	1.5	3.0	4.2	3.0	0.90 ~ 3.60A	1 x BR300W400	200 ohms	Built-in	356 X 305 X 148	7.3	VFD015M53A-4X
3	2.2	4.2	5.9	4.2	1.26 ~ 5.04A	2 x BR300W400	150 ohms	Built-in	356 X 305 X 148	7.7	VFD022M53A-4X
5	3.7	6.6	7.0	6.6	1.98 ~ 7.92A	2 x BR300W400	150 ohms	Built-in	457 X 406 X 221	10.4	VFD037M53A-4X
7.5	5.5	9.9	10.5	9.9	2.97 ~ 11.88A	2 x BR300W400	150 ohms	Built-in	457 X 406 X 221	10.4	VFD055M53A-4X
10	7.5	12.2	12.9	12.2	3.66 ~ 14.64A	2 x BR1K0W050	82 ohms	Built-in	457 X 406 X 221	10.9	VFD075M53A-4X

PART #	LENGTH	DESCRIPTION
KEYPAD EXTENSION CABLES		
EG1010A	1 M	USE WITH B AND M SERIES DRIVE STANDARD KEYPADS ONLY
EG2010A	2 M	
EG3010A	3 M	
EG5010A	5 M	
DIN RAIL KITS		
DR01		USE WITH VFD-M (VERSION A) & VFD-S (1/4, 1/2, ET 1HP 230V)
DR02		USE WITH VFD-M (VERSION B)
KEYPADS		
LC-M02E		STANDARD KEYPAD SHIPPED ALL VFD-M DRIVES
VFD-PU01		STANDARD KEYPAD SHIPPED ALL VFD-B DRIVES
KPC-CC01		STANDARD KEYPAD SHIPPED WITH C2000 SERIES
VFD-PU06**		KEYPAD WITH "UPLOAD / DOWNLOAD" MEMORY USED WITH B, M, F, S, E & EL SERIES
** PU06 COMPATIBLE WITH VERSIONS:(B SERIES=4.01 & +, M SERIES =3.0 & +, S SERIES=2.5 & +)		
RPA-01		NEMA 1 RECESSED KEYPAD HOLDER FOR FLUSH MOUNTING THE VFD-PU01
ENCODER FEEDBACK CARDS		
PG-02		ENCODER FEEDBACK CARD 5 OR 12V FOR B SERIES
EMC-PG01L		PG CARD 5V, 2 INPUTS & 1 OUTPUT, POSITIONING C2000 SERIES
EMC-PG01O		PG CARD 5-12V, 2 INPUTS & 1 OUTPUT, POSITIONING C2000 SERIES
EMC-PG01X		PG CARD 5 OR 12V, 2 INPUTS C2000 SERIES
COMMUNICATION		
DN-02		EXTERNAL MODULE FOR DEVICE NET COMMUNICATION
PD-01		EXTERNAL MODULE FOR PROFIBUS COMMUNICATION
LN-01		EXTERNAL MODULE FOR LON WORKS COMMUNICATION
IFD6500		USB/RS-485 CONVERTER FOR PC LINK TO DELTA PRODUCTS
IFD6530		USB/RS-485 CONVERTER FOR PC LINK TO C2000 SERIES
OPTIONS		
RC-01		REMOTE CONTROL STEEL ENCLOSURE RUN/STOP, FWD/REV, & JOG/RESET
C2000 SERIES ACCESSORIES		
EMC-D42A		4DI / 2DO EXPANSION CARD, 24VDCV
EMC-D611A		6DI EXPANSION CARD, 110VAC
EMC-R6AA		6 RELAY OUTPUTS EXPANSION CARD
MKC-DN1CB		NEMA 1 CONDUIT BOX FOR FRAME D SIZE
MKC-EN1CB		NEMA 1 CONDUIT BOX FOR FRAME E SIZE
MKC-KPPK		IP56 RECESSED KEYPAD HOLDER FOR FLUSH MOUNTING OF KPC-CC01
CMC-EIP01		ETHERNET/IP COMMUNICATION CARD
CMC-MOD01		ETHERNET / MODBUS TCP COMMUNICATION CARD
CMC-DN01		DEVICENET COMMUNICATION CARD
CMC-PD01		PROFIBUS-DP COMMUNICATION CARD
CME-USB01		USB - PC COMMUNICATION CARD
EMC-COP01		CANOPEN COMMUNICATION CARD

DELTA BRAKING MODULES

PART #	DESCRIPTION	SERIES	DIMENSIONS (MM) W X H X D	WEIGHT (KG)
VFDB2022	22KW BRAKING MODULE, 240VAC	B, C2000	121 X 200 X 130	0.25
VFDB4045	45KW BRAKING MODULE, 460VAC	B, C2000	121 X 200 X 130	0.25
VFDB4160	160KW BRAKING MODULE, 480VAC	B, C2000	235 X 322 X 190	0.25
VFDB4185	185KW BRAKING MODULE, 480VAC	B, C2000	235 X 322 X 190	0.25
VFDB5055	15KW BRAKING MODULE, 240VAC	B, C2000	121 X 200 X 130	2.00
VFDB6055	22KW BRAKING MODULE, 240VAC	B, C2000	CONSULT MEP	
VFDB6110	30KW BRAKING MODULE, 480VAC	B, C2000	CONSULT MEP	
VFDB6160	45KW BRAKING MODULE, 480VAC	B, C2000	CONSULT MEP	
VFDB6200	132KW BRAKING MODULE, 480VAC	B, C2000	CONSULT MEP	

DELTA BRAKING RESISTORS

PART #	POWER / OHMIC VALUE	TYPE	DIMENSIONS (MM) W X H X D	WEIGHT (KG)
BR080W200	80W, 200 Ω	ALUM.	140 X 20 X 60	0.16
BR080W750	80W, 750 Ω	ALUM.	140 X 20 X 60	0.16
BR200W150	200W, 150 Ω	ALUM.	140 X 50 X 60	0.16
BR200W250	200W, 250 Ω	ALUM.	140 X 50 X 60	0.16
BR300W070	300W, 70 Ω	ALUM.	215 X 30 X 60	0.75
BR300W100	300W, 100 Ω	ALUM.	215 X 30 X 60	0.75
BR300W250	300W, 250 Ω	ALUM.	215 X 30 X 60	0.75
BR300W400	300W, 400 Ω	ALUM.	215 X 30 X 60	0.75
BR400W040	400W, 40 Ω	ALUM.	265 X 30 X 60	0.93
BR400W150	400W, 150 Ω	ALUM.	265 X 30 X 60	0.93
BR500W030	500W, 30 Ω	ALUM.	335 X 30 X 60	1.1
BR500W100	500W, 100 Ω	ALUM.	335 X 30 X 60	1.1
BR1K0W011	1000W, 11 Ω	CONTACT MEP		
BR1K0W020	1000W, 20 Ω	ALUM.	400 X 50 X 100	2.8
BRIK0W050	1000W, 50 Ω	ALUM.	400 X 50 X 100	2.8
BR1K0W075	1000W, 75 Ω	WIRE WOUND	465 X 95 X 50	1.5
BR1K2W6P8	1200W, 6,8 Ω	WIRE WOUND	465 X 95 X 50	1.5
BR1K2W008	1200W, 8 Ω	WIRE WOUND	465 X 95 X 50	1.5
BR1K2W033	1200W, 33 Ω	CONTACT MEP		
BR1K5W005	1500W, 5 Ω	WIRE WOUND	465 X 95 X 50	1.5
BR1K5W011	1500W, 11 Ω	CONTACT MEP		
BR1K5W012	1500W, 12 Ω	CONTACT MEP		
BR1K5W027	1500W, 27 Ω	CONTACT MEP		
BR1K5W040	1500W, 40 Ω	WIRE WOUND	465 X 95 X 50	1.5
BR1K5W107	1500W, 107 Ω	CONTACT MEP		

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/3 ~ 20HP - 120 AND 240V - NEMA 1 ENCLOSURE

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control & 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
0.33	0.25	0.33 HP (0.25 kW), 120/240V 1Ø input in NEMA 1 Encl.	ESV251N01SXB
0.5	0.37	0.5 HP (0.37 kW), 120/240V 1Ø input in NEMA 1 Encl.	ESV371N01SXB
1	0.75	1 HP (0.75 kW), 120/240V 1Ø input in NEMA 1 Encl.	ESV751N01SXB
1.5	1.1	1.5 HP (1.1 kW), 120/240V 1Ø input in NEMA 1 Encl.	ESV112N01SXB
0.33	0.25	0.33 HP (0.25 kW), 240V 1Ø input in NEMA 1 Encl.	ESV251N02SXB
0.5	0.37	0.5 HP (0.37 kW), 240V 1 or 3Ø input in NEMA 1 Encl.	ESV371N02YXB
1	0.75	1 HP (0.75 kW), 240V 1 or 3Ø input in NEMA 1 Encl.	ESV751N02YXB
1.5	1.1	1.5 HP (1.1 kW), 240V 1 or 3Ø input in NEMA 1 Encl.	ESV112N02YXB
2	1.5	2 HP (1.5 kW), 240V 1 or 3Ø input in NEMA 1 Encl.	ESV152N02YXB
3	2.2	3 HP (2.2 kW), 240V 1 or 3Ø input in NEMA 1 Encl.	ESV222N02YXB
1.5	1.1	1.5 HP (1.1 kW), 240V 3Ø input in NEMA 1 Encl.	ESV112N02TXB
2	1.5	2 HP (1.5 kW), 240V 3Ø input in NEMA 1 Encl.	ESV152N02TXB
3	2.2	3 HP (2.2 kW), 240V 3Ø input in NEMA 1 Encl.	ESV222N02TXB
5	4.0	5 HP (4 kW), 240V 3Ø input in NEMA 1 Encl.	ESV402N02TXB
7.5	5.5	7.5 HP (5.5 kW), 240V 3Ø input in NEMA 1 Encl.	ESV552N02TXB
10	7.5	10 HP (7.5 kW), 240V 3Ø input in NEMA 1 Encl.	ESV752N02TXB
15	11	15 HP (11 kW), 240V 3Ø input in NEMA 1 Encl.	ESV113N02TXB
20	15	20 HP (15 kW), 240V 3Ø input in NEMA 1 Encl.	ESV153N02TXB

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/2 ~ 60HP - 480VOLT AND 1 ~ 60HP 600VOLT - NEMA 1 ENCLOSURE

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad • Potentiometer • Jog
- Floating Point Control and 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
0.5	0.37	0.5 HP (0.37 kW), 480V 3Ø input in NEMA 1 Encl.	ESV371N04TXB
1	0.75	1 HP (0.75 kW), 480V 3Ø input in NEMA 1 Encl.	ESV751N04TXB
1.5	1.1	1.5 HP (1.1 kW), 480V 3Ø input in NEMA 1 Encl.	ESV112N04TXB
2	1.5	2 HP (1.5 kW), 480V 3Ø input in NEMA 1 Encl.	ESV152N04TXB
3	2.2	3 HP (2.2 kW), 480V 3Ø input in NEMA 1 Encl.	ESV222N04TXB
5	4	5 HP (4 kW), 480V 3Ø input in NEMA 1 Encl.	ESV402N04TXB
7.5	5.5	7.5 HP (5.5 kW), 480V 3Ø input in NEMA 1 Encl.	ESV552N04TXB
10	7.5	10 HP (7.5 kW), 480V 3Ø input in NEMA 1 Encl.	ESV752N04TXB
15	11	15 HP (11 kW), 480V 3Ø input in NEMA 1 Encl.	ESV113N04TXB
20	15	20 HP (15 kW), 480V 3Ø input in NEMA 1 Encl.	ESV153N04TXB
25	18.5	25 HP (18.5 kW), 480V 3Ø input in NEMA 1 Encl.	ESV183N04TXB
30	22	30 HP (22 kW), 480V 3Ø input in NEMA 1 Encl.	ESV223N04TXB
40	30	40 HP (30 kW), 480V 3Ø input in NEMA 1 Encl.	ESV303N04TXB
50	37	50 HP (37 kW), 480V 3Ø input in NEMA 1 Encl.	ESV373N04TXB
60	45	60 HP (45 kW), 480V 3Ø input in NEMA 1 Encl.	ESV453N04TXB
1	0.75	1 HP (0.75 kW), 600V 3Ø input in NEMA 1 Encl.	ESV751N06TXB
2	1.5	2 HP (1.5 kW), 600V 3Ø input in NEMA 1 Encl.	ESV152N06TXB
3	2.2	3 HP (2.2 kW), 600V 3Ø input in NEMA 1 Encl.	ESV222N06TXB
5	4	5 HP (4 kW), 600V 3Ø input in NEMA 1 Encl.	ESV402N06TXB
7.5	5.5	7.5 HP (5.5 kW), 600V 3Ø input in NEMA 1 Encl.	ESV552N06TXB
10	7.5	10 HP (7.5 kW), 600V 3Ø input in NEMA 1 Encl.	ESV752N06TXB
15	11	15 HP (11 kW), 600V 3Ø input in NEMA 1 Encl.	ESV113N06TXB
20	15	20 HP (15 kW), 600V 3Ø input in NEMA 1 Encl.	ESV153N06TXB
25	18.5	25 HP (18.5 kW), 600V 3Ø input in NEMA 1 Encl.	ESV183N06TXB
30	22	30 HP (22 kW), 600V 3Ø input in NEMA 1 Encl.	ESV223N06TXB
40	30	40 HP (30 kW), 600V 3Ø input in NEMA 1 Encl.	ESV303N06TXB
50	37	50 HP (37 kW), 600V 3Ø input in NEMA 1 Encl.	ESV373N06TXB
60	45	60 HP (45 kW), 600V 3Ø input in NEMA 1 Encl.	ESV453N06TXB

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/2 ~ 20HP - 120 AND 240V - NEMA 4X ENCLOSURE

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control & 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
120/ 240V SINGLE PHASE NEMA 4X INDOOR ENCLOSURES			
0.5	0.37	0.5 HP (0.37 kW), 120/240V 1Ø input in NEMA 4X	ESV371N01SXC
1	0.75	1 HP (0.75 kW), 120/240V 1Ø input in NEMA 4X	ESV751N01SXC
1.5	1.1	1.5 HP (1.1 kW), 120/240V 1Ø input in NEMA 4X	ESV112N01SXC
240V SINGLE OR THREE PHASE NEMA 4X INDOOR ENCLOSURES			
0.5	0.37	0.5 HP (0.37 kW), 240V 1 or 3Ø input in NEMA 4X	ESV371N02YXC
1	0.75	1 HP (0.75 kW), 240V 1 or 3Ø input in NEMA 4X	ESV751N02YXC
1.5	1.1	1.5 HP (1.1 kW), 240V 1 or 3Ø input in NEMA 4X	ESV112N02YXC
2	1.5	2 HP (1.5 kW), 240V 1 or 3Ø input in NEMA 4X	ESV152N02YXC
3	2.2	3 HP (2.2 kW), 240V 1 or 3Ø input in NEMA 4X	ESV222N02YXC
240V THREE PHASE NEMA 4X INDOOR ENCLOSURES			
5	4.0	5 HP (4 kW), 240V 3Ø input in NEMA 4X	ESV402N02TXC
240V THREE PHASE NEMA 4X INDOOR FAN COOLED ENCLOSURES			
7.5	5.5	7.5 HP (5.5 kW), 240V 3Ø input in NEMA 4X	ESV552N02TXD
10	7.5	10 HP (7.5 kW), 240V 3Ø input in NEMA 4X	ESV752N02TXD
15	11	15 HP (11 kW), 240V 3Ø input in NEMA 4X	ESV113N02TXD
20	15	20 HP (15 kW), 240V 3Ø input in NEMA 4X	ESV153N02TXD

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/2 ~ 30HP - 480VOLT AND 1 ~ 30HP 600VOLT - NEMA 4X ENCLOSURE

Lenze AC Tech

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control and 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
480V THREE PHASE NEMA 4X INDOOR ENCLOSURES			
0.5	0.37	0.5 HP (0.37 kW), 480V 3Ø input in NEMA 4X	ESV371N04TXC
1	0.75	1 HP (0.75 kW), 480V 3Ø input in NEMA 4X	ESV751N04TXC
1.5	1.1	1.5 HP (1.1 kW), 480V 3Ø input in NEMA 4X	ESV112N04TXC
2	1.5	2 HP (1.5 kW), 480V 3Ø input in NEMA 4X	ESV152N04TXC
3	2.2	3 HP (2.2 kW), 480V 3Ø input in NEMA 4X	ESV222N04TXC
5	4	5 HP (4 kW), 480V 3Ø input in NEMA 4X	ESV402N04TXC
7.5	5.5	7.5 HP (5.5 kW), 480V 3Ø input in NEMA 4X	ESV552N04TXC
480V THREE PHASE NEMA 4X INDOOR FAN COOLED ENCLOSURES			
10	7.5	10 HP (7.5 kW), 480V 3Ø input in NEMA 4X	ESV752N04TXD
15	11	15 HP (11 kW), 480V 3Ø input in NEMA 4X	ESV113N04TXD
20	15	20 HP (15 kW), 480V 3Ø input in NEMA 4X	ESV153N04TXD
25	18.5	25 HP (18.5 kW), 480V 3Ø input in NEMA 4X	ESV183N04TXD
30	22	30 HP (22 kW), 480V 3Ø input in NEMA 4X	ESV223N04TXD
600V THREE PHASE NEMA 4X INDOOR ENCLOSURES			
1	0.75	1 HP (0.75 kW), 600V 3Ø input in NEMA 4X	ESV751N06TXC
2	1.5	2 HP (1.5 kW), 600V 3Ø input in NEMA 4X	ESV152N06TXC
3	2.2	3 HP (2.2 kW), 600V 3Ø input in NEMA 4X	ESV222N06TXC
5	4	5 HP (4 kW), 600V 3Ø input in NEMA 4X	ESV402N06TXC
7.5	5.5	7.5 HP (5.5 kW), 600V 3Ø input in NEMA 4X	ESV552N06TXC
600V THREE PHASE NEMA 4X INDOOR FAN COOLED ENCLOSURES			
10	7.5	10 HP (7.5 kW), 600V 3Ø input in NEMA 4X	ESV752N06TXD
15	11	15 HP (11 kW), 600V 3Ø input in NEMA 4X	ESV113N06TXD
20	15	20 HP (15 kW), 600V 3Ø input in NEMA 4X	ESV153N06TXD
25	18.5	25 HP (18.5 kW), 600V 3Ø input in NEMA 4X	ESV183N06TXD
30	22	30 HP (22 kW), 600V 3Ø input in NEMA 4X	ESV223N06TXD

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/2 ~ 3HP 240VOLT AND 1/2 ~ 30HP - 480VOLT - NEMA 4X ENCLOSURE

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control and 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
240V SINGLE PHASE NEMA 4X INDOOR ENCLOSURES			
0.5	0.37	0.5 HP (0.37 kW), 240V 1Ø filtered input in NEMA 4X	ESV371N02SFC
1	0.75	1 HP (0.75 kW), 240V 1Ø filtered input in NEMA 4X	ESV751N02SFC
1.5	1.1	1.5 HP (1.1 kW), 240V 1Ø filtered input in NEMA 4X	ESV112N02SFC
2	1.5	2 HP (1.5 kW), 240V 1Ø filtered input in NEMA 4X	ESV152N02SFC
3	2.2	3 HP (2.2 kW), 240V 1Ø filtered input in NEMA 4X	ESV222N02SFC
480V THREE PHASE NEMA 4X INDOOR ENCLOSURES			
0.5	0.37	0.5 HP (0.37 kW), 480V 3Ø filtered input in NEMA 4X	ESV371N04TFC
1	0.75	1 HP (0.75 kW), 480V 3Ø filtered input in NEMA 4X	ESV751N04TFC
1.5	1.1	1.5 HP (1.1 kW), 480V 3Ø filtered input in NEMA 4X	ESV112N04TFC
2	1.5	2 HP (1.5 kW), 480V 3Ø filtered input in NEMA 4X	ESV152N04TFC
3	2.2	3 HP (2.2 kW), 480V 3Ø filtered input in NEMA 4X	ESV222N04TFC
4	3.0	4 HP (3 kW), 480V 3Ø filtered input in NEMA 4X	ESV302N04TFC
5	4	5 HP (4 kW), 480V 3Ø filtered input in NEMA 4X	ESV402N04TFC
7.5	5.5	7.5 HP (5.5 kW), 480V 3Ø filtered input in NEMA 4X	ESV552N04TFC
480V THREE PHASE NEMA 4X INDOOR FAN COOLED ENCLOSURES			
10	7.5	10 HP (7.5 kW), 480V 3Ø filtered input in NEMA 4X	ESV752N04TFD
15	11	15 HP (11 kW), 480V 3Ø filtered input in NEMA 4X	ESV113N04TFD
20	15	20 HP (15 kW), 480V 3Ø filtered input in NEMA 4X	ESV153N04TFD
25	18.5	25 HP (18.5 kW), 480V 3Ø filtered input in NEMA 4X	ESV183N04TFD
30	22	30 HP (22 kW), 480V 3Ø filtered input in NEMA 4X	ESV223N04TFD

*Items highlighted in RED are "Non-Stock", please allow 6-7 Weeks for Delivery

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/2 ~ 20HP - 120 AND 240V - NEMA 4X ENCLOSURE

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control & 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
120/240V SINGLE PHASE NEMA 4X INDOOR/OUTDOOR ENCLOSURES			
0.5	0.37	0.5 HP (0.37 kW), 120/240V 1Ø input in NEMA 4X	ESV371N01SXE
1	0.75	1 HP (0.75 kW), 120/240V 1Ø input in NEMA 4X	ESV751N01SXE
1.5	1.1	1.5 HP (1.1 kW), 120/240V 1Ø input in NEMA 4X	ESV112N01SXE
240V SINGLE OR THREE PHASE NEMA 4X - INDOOR/OUTDOOR ENCLOSURES			
0.5	0.37	0.5 HP (0.37 kW), 240V 1 or 3Ø input in NEMA 4X	ESV371N02YXE
1	0.75	1 HP (0.75 kW), 240V 1 or 3Ø input in NEMA 4X	ESV751N02YXE
1.5	1.1	1.5 HP (1.1 kW), 240V 1 or 3Ø input in NEMA 4X	ESV112N02YXE
2	1.5	2 HP (1.5 kW), 240V 1 or 3Ø input in NEMA 4X	ESV152N02YXE
3	2.2	3 HP (2.2 kW), 240V 1 or 3Ø input in NEMA 4X	ESV222N02YXE
240V THREE PHASE NEMA 4X - INDOOR/OUTDOOR ENCLOSURES			
5	4	5 HP (4 kW), 240V 3Ø input in NEMA 4X	ESV402N02TXE
240V THREE PHASE NEMA 4X - INDOOR/OUTDOOR FAN COOLED ENCLOSURES			
7.5	5.5	7.5 HP (5.5 kW), 240V 3Ø input in NEMA 4X	ESV552N02TXF
10	7.5	10 HP (7.5 kW), 240V 3Ø input in NEMA 4X	ESV752N02TXF
15	11	15 HP (11 kW), 240V 3Ø input in NEMA 4X	ESV113N02TXF
20	15	20 HP (15 kW), 240V 3Ø input in NEMA 4X	ESV153N02TXF

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/2 ~ 30HP - 480VOLT AND 1 ~ 30HP 600VOLT - NEMA 4X ENCLOSURE

Lenze AC Tech

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control and 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
480V THREE PHASE NEMA 4X INDOOR/OUTDOOR ENCLOSURES			
0.5	0.37	0.5 HP (0.37 kW), 480V 3Ø input in NEMA 1 Encl.	ESV371N04TXE
1	0.75	1 HP (0.75 kW), 480V 3Ø input in NEMA 1 Encl.	ESV751N04TXE
1.5	1.1	1.5 HP (1.1 kW), 480V 3Ø input in NEMA 1 Encl.	ESV112N04TXE
2	1.5	2 HP (1.5 kW), 480V 3Ø input in NEMA 1 Encl.	ESV152N04TXE
3	2.2	3 HP (2.2 kW), 480V 3Ø input in NEMA 1 Encl.	ESV222N04TXE
5	4	5 HP (4 kW), 480V 3Ø input in NEMA 1 Encl.	ESV402N04TXE
7.5	5.5	7.5 HP (5.5 kW), 480V 3Ø input in NEMA 1 Encl.	ESV552N04TXE
480V THREE PHASE NEMA 4X INDOOR/OUTDOOR FAN COOLED ENCLOSURES			
10	7.5	10 HP (7.5 kW), 480V 3Ø input in NEMA 1 Encl.	ESV752N04TXF
15	11	15 HP (11 kW), 480V 3Ø input in NEMA 1 Encl.	ESV113N04TXF
20	15	20 HP (15 kW), 480V 3Ø input in NEMA 1 Encl.	ESV153N04TXF
25	18.5	25 HP (18.5 kW), 480V 3Ø input in NEMA 1 Encl.	ESV183N04TXF
30	22	30 HP (22 kW), 480V 3Ø input in NEMA 1 Encl.	ESV223N04TXF
600V THREE PHASE NEMA 4X INDOOR/OUTDOOR ENCLOSURES			
1	0.75	1 HP (0.75 kW), 600V 3Ø input in NEMA 1 Encl.	ESV751N06TXE
2	1.5	2 HP (1.5 kW), 6000V 3Ø input in NEMA 1 Encl.	ESV152N06TXE
3	2.2	3 HP (2.2 kW), 600V 3Ø input in NEMA 1 Encl.	ESV222N06TXE
5	4	5 HP (4 kW), 600V 3Ø input in NEMA 1 Encl.	ESV402N06TXE
7.5	5.5	7.5 HP (5.5 kW), 600V 3Ø input in NEMA 1 Encl.	ESV552N06TXE
600V THREE PHASE NEMA 4X INDOOR/OUTDOOR FAN COOLED ENCLOSURES			
10	7.5	10 HP (7.5 kW), 600V 3Ø input in NEMA 1 Encl.	ESV752N06TXF
15	11	15 HP (11 kW), 600V 3Ø input in NEMA 1 Encl.	ESV113N06TXF
20	15	20 HP (15 kW), 600V 3Ø input in NEMA 1 Encl.	ESV153N06TXF
25	18.5	30 HP (18.5 kW), 600V 3Ø input in NEMA 1 Encl.	ESV183N06TXF
30	22	30 HP (22 kW), 600V 3Ø input in NEMA 1 Encl.	ESV223N06TXF

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/2 ~ 3HP 240VOLT AND 1/2 ~ 30HP 480VOLT - NEMA 4X ENCLOSURE

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control and 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
240V SINGLE PHASE NEMA 4X INDOOR/OUTDOOR ENCLOSURES			
0.5	0.37	0.5 HP (0.37 kW), 240V 1Ø input in NEMA X	ESV371N02SFE
1	0.75	1 HP (0.75 kW), 240V 1Ø input in NEMA X	ESV751N02SFE
1.5	1.1	1.5 HP (1.1 kW), 240V 1Ø input in NEMA X	ESV112N02SFE
2	1.5	2 HP (1.5 kW), 240V 1Ø input in NEMA X	ESV152N02SFE
3	2.2	3 HP (2.2 kW), 240V 1Ø input in NEMA X	ESV222N02SFE
480V THREE PHASE NEMA 4X INDOOR/OUTDOOR ENCLOSURES			
0.5	0.37	0.50 HP (0.37 kW), 480V 3Ø input in NEMA X	ESV371N04TFE
1	0.75	1 HP (0.75 kW), 480V 3Ø input in NEMA X	ESV751N04TFE
1.5	1.1	1.5 HP (1.1 kW), 480V 3Ø input in NEMA X	ESV112N04TFE
2	1.5	2 HP (1.5 kW), 480V 3Ø input in NEMA X	ESV152N04TFE
3	2.2	3 HP (2.2 kW), 480V 3Ø input in NEMA X	ESV222N04TFE
4	3.0	4 HP (3 kW), 480V 3Ø input in NEMA X	ESV302N04TFE
5	4	5 HP (4 kW), 480V 3Ø input in NEMA X	ESV402N04TFE
7.5	5.5	7.5 HP (5.5 kW), 480V 3Ø input in NEMA X	ESV552N04TFE
480V THREE PHASE NEMA 4X INDOOR/OUTDOOR FAN COOLED ENCLOSURES			
10	7.5	10 HP (7.5 kW), 480V 3Ø input in NEMA X	ESV752N04TFF
15	11	15 HP (11 kW), 480V 3Ø input in NEMA X	ESV113N04TFF
20	15	20 HP (15 kW), 480V 3Ø input in NEMA X	ESV153N04TFF
25	18.5	25 HP (18.5 kW), 480V 3Ø input in NEMA X	ESV183N04TFF
30	22	30 HP (22 kW), 480V 3Ø input in NEMA X	ESV223N04TFF

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/2 ~ 2HP 120/240 AND 1/2 ~ 20HP 240VOLT - NEMA 4X ENCLOSURE

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control and 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
120/240V SINGLE PHASE NEMA 4X - INDOOR ENCLOSURE C/W DISCONNECT			
0.5	0.37	0.5 HP (0.37 kW), 120/240V 1Ø input in NEMA 4X	ESV371N01SMC
1	0.75	1 HP (0.75 kW), 120/240V 1Ø input in NEMA 4X	ESV751N01SMC
1.5	1.1	1.5 HP (1.1 kW), 120/240V 1Ø input in NEMA 4X	ESV112N01SMC
240V SINGLE PHASE NEMA 4X - INDOOR ENCLOSURE C/W DISCONNECT			
0.5	0.37	0.5 HP (0.37 kW), 240V 1Ø input in NEMA 4X	ESV371N02SLC
1	0.75	1 HP (0.75 kW), 240V 1Ø input in NEMA 4X	ESV751N02SLC
1.5	1.1	1.5 HP (1.1 kW), 240V 1Ø input in NEMA 4X	ESV112N02SLC
2	1.5	2 HP (1.5 kW), 240V 1Ø input in NEMA X	ESV152N02SLC
3	2.2	3 HP (2.2 kW), 240V 1Ø input in NEMA X	ESV222N02SLC
240V SINGLE OR THREE PHASE NEMA 4X - INDOOR ENCLOSURE C/W DISCONNECT			
0.5	0.37	0.5 HP (0.37 kW), 240V1 or 3Ø input in NEMA 4X	ESV371N02YMC
1	0.75	1 HP (0.75 kW), 240V 1 or 3Ø input in NEMA 4X	ESV751N02YMC
1.5	1.1	1.5 HP (1.1 kW), 240V 1 or 3Ø input in NEMA 4X	ESV112N02YMC
2	1.5	2 HP (1.5 kW), 240V 1 or 3Ø input in NEMA X	ESV152N02YMC
3	2.2	3 HP (2.2 kW), 240V 1 or 3Ø input in NEMA X	ESV222N02YMC
240V THREE PHASE NEMA 4X - INDOOR ENCLOSURE C/W DISCONNECT			
5	4	5 HP (4 kW), 240V 3Ø input in NEMA X	ESV402N02TMC
240V THREE PHASE NEMA 4X - INDOOR FAN COOLED ENCLOSURE C/W DISCONNECT			
7.5	5.5	7.5 HP (5.5 kW), 240V 3Ø input in NEMA 4X	ESV552N02TMD
10	7.5	10 HP (7.5 kW), 240V 3Ø input in NEMA 4X	ESV752N02TMD
15	11	15 HP (11 kW), 240V 3Ø input in NEMA 4X	ESV113N02TMD
20	15	20 HP (15 kW), 240V 3Ø input in NEMA 4X	ESV153N02TMD

*Items highlighted in RED are "Non-Stock", please allow 6-7 Weeks for Delivery

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

1/2 ~ 30HP 480VOLT - NEMA 4X ENCLOSURE

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control and 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
480V THREE PHASE NEMA 4X - INDOOR ENCLOSURE C/W DISCONNECT			
0.5	0.37	0.5 HP (0.37 kW), 480V 3Ø input in NEMA 4X	ESV371N04TMC
1	0.75	1 HP (0.75 kW), 480V 3Ø input in NEMA 4X	ESV751N04TMC
1.5	1.1	1.5 HP (1.1 kW), 480V 3Ø input in NEMA 4X	ESV112N04TMC
2	1.5	2 HP (1.5 kW), 480V 3Ø input in NEMA 4X	ESV152N04TMC
3	2.2	3 HP (2.2 kW), 480V 3Ø input in NEMA 4X	ESV222N04TMC
5	4	5 HP (4 kW), 480V 3Ø input in NEMA 4X	ESV402N04TMC
7.5	5.5	7.5 HP (5.5 kW), 480V 3Ø input in NEMA 4X	ESV552N04TMC
480V THREE PHASE NEMA 4X - INDOOR FAN COOLED ENCLOSURE C/W DISCONNECT			
10	7.5	10 HP (7.5 kW), 480V 3Ø input in NEMA 4X	ESV752N04TMD
15	11	15 HP (11 kW), 480V 3Ø input in NEMA 4X	ESV113N04TMD
20	15	20 HP (15 kW), 480V 3Ø input in NEMA 4X	ESV153N04TMD
25	18.5	25 HP (18.5 kW), 480V 3Ø input in NEMA 4X	ESV183N04TMD
30	22	30 HP (22 kW), 480V 3Ø input in NEMA 4X	ESV223N04TMD
480V THREE PHASE NEMA 4X - INDOOR ENCLOSURE C/W DISCONNECT			
0.5	0.37	0.5 HP (0.37 kW), 480V 3Ø input in NEMA 4X	ESV371N04TLC
1	0.75	1 HP (0.75 kW), 480V 3Ø input in NEMA 4X	ESV751N04TLC
1.5	1.1	1.5 HP (1.1 kW), 480V 3Ø input in NEMA 4X	ESV112N04TLC
2	1.5	2 HP (1.5 kW), 480V 3Ø input in NEMA 4X	ESV152N04TLC
3	2.2	3 HP (2.2 kW), 480V 3Ø input in NEMA 4X	ESV222N04TLC
4	3.0	4 HP (3 kW), 480V 3Ø input in NEMA 4X	ESV302N04TLC
5	4	5 HP (4 kW), 480V 3Ø input in NEMA 4X	ESV402N04TLC
7.5	5.5	7.5 HP (5.5 kW), 480V 3Ø input in NEMA 4X	ESV552N04TLC

***Items highlighted in RED are "Non-Stock", please allow 6-7 Weeks for Delivery**

SMV VECTOR SERIES VFD's

OPEN LOOP FLUX VECTOR - SPEED OR TORQUE CONTROL

ENHANCED V/HZ WITH AUTO TUNING - V/HZ (CONSTANT OR VARIABLE)

10 ~ 30HP - 480VOLT AND 1 ~ 30HP 600VOLT NEMA 4X ENCLOSURE

Features:

- Dynamic Torque Response
- Two Independent Accel Ramps
- Two Independent Decel Ramps
- Linear, S-Type, Auxiliary Ramp-to-Stop
- Fixed Accel Boost for Improved Starting
- 500 Hz Output Frequency
- 1,000 Hz Optional

Switching Frequency:

- 4, 6, 8, 10, 12 or 16 kHz

Universal Logic Assertion (Selectable):

- Positive or Negative Logic Input

Braking Functions:

- DC Injection Braking
- Optional Regenerative Braking

Over Temperature Protection

Speed Commands:

- Keypad
- Potentiometer
- Jog
- Floating Point Control and 8 Preset Speeds
- Voltage: Scalable 0 – 10 VDC
- Current: Scalable 4 – 20 mA

Process Control:

- PID Modes: Direct and Reverse Acting
- PID Sleep Mode

Voltage Monitoring:

- High - Low DC Bus V Protection
- Low Line V Compensation

Current Monitoring:

- Motor Overload Protection
- Current Limiting Safeguard
- Phase Loss Protection
- Ground Fault
- Short Circuit Protection

Loss of Follower Management:

- Protective Fault
- Go to Preset Speed or Preset Setpoint
- Initiate System Notification

RATING HP	RATING kW	DRIVE DESCRIPTION	MODEL
480V THREE PHASE NEMA 4X - INDOOR FAN COOLED ENCLOSURE C/W DISCONNECT			
10	7.5	10 HP (7.5 kW), 480V 3Ø input in NEMA 4X	ESV752N04TLD
15	11	15 HP (11 kW), 480V 3Ø input in NEMA 4X	ESV113N04TLD
20	15	20 HP (15 kW), 480V 3Ø input in NEMA 4X	ESV153N04TLD
25	18.5	25 HP (18.5 kW), 480V 3Ø input in NEMA 4X	ESV183N04TLD
30	22	30 HP (22 kW), 480V 3Ø input in NEMA 4X	ESV223N04TLD
600V THREE PHASE NEMA 4X - INDOOR ENCLOSURE C/W DISCONNECT			
1	0.75	1 HP (0.75 kW), 600V 3Ø input in NEMA 4X	ESV751N06TMC
2	1.5	2 HP (1.5 kW), 600V 3Ø input in NEMA 4X	ESV152N06TMC
3	2.2	3 HP (2.2 kW), 600V 3Ø input in NEMA 4X	ESV222N06TMC
5	4	5 HP (4 kW), 600V 3Ø input in NEMA 4X	ESV402N06TMC
7.5	5.5	7.5 HP (5.5 kW), 600V 3Ø input in NEMA 4X	ESV552N06TMC
600V THREE PHASE NEMA 4X - INDOOR FAN COOLED ENCLOSURE C/W DISCONNECT			
10	7.5	10 HP (7.5 kW), 600V 3Ø input in NEMA 4X	ESV752N06TMD
15	11	15 HP (11 kW), 600V 3Ø input in NEMA 4X	ESV113N06TMD
20	15	20 HP (15 kW), 600V 3Ø input in NEMA 4X	ESV153N06TMD
25	18.5	25 HP (18.5 kW), 600V 3Ø input in NEMA 4X	ESV183N06TMD
30	22	30 HP (22 kW), 600V 3Ø input in NEMA 4X	ESV223N06TMD

*Items highlighted in RED are "Non-Stock", please allow 6-7 Weeks for Delivery




ACCESSORY DESCRIPTION	PART #
KEYPADS	
SMVector Remote Keypad w/ drive interface module and cable - up to 10HP (7.5kW)	ESVZXK1
SMVector Remote Keypad with cable - 15HP (11kW) and higher.	ESVZXH0
POTENTIOMETERS	
NEMA 4X terminal cover with integral speed potentiometer (W = 6.3 or 7.1 in)	ESVZXM1
NEMA 4X terminal cover with integral speed potentiometer (W = 9.0 or 8.1 in)	ESVZXM2
NEMA 4X terminal cover with integral speed potentiometer (W = 9.4in)	ESVZXM3
COMMUNICATION DEVICES	
CANopen Communications Interface module	ESVZAC0
RS485 / Modbus Communications Interface module	ESVZAR0
DeviceNet Communications Interface module	ESVZAD0
Profibus Communications Interface module	ESVZAP0
Ethernet/IP Communications Interface module	ESVZAE0
RELAYS	
Additional Form C Relay Output Module	ESVZAL0
Additional I/O module: includes 1 form C relay and 2 digital inputs	ESVZAL1
DYNAMIC BRAKING MODULES C/W RESISTORS - 240VOLT	
Dynamic Braking Module with Resistors - 0.5HP, 240V	EZXDB3712A1
Dynamic Braking Module with Resistors - 1.5HP, 240V	EZXDB1122A1
Dynamic Braking Module with Resistors - 3HP, 240V	EZXDB2222A1
Dynamic Braking Module with Resistors - 5HP, 240V	EZXDB4022A1
Dynamic Braking Module with Resistors - 7.5HP, 240V	EZXDB5522A1
Dynamic Braking Module with Resistors - 10HP, 240V	EZXDB7522A1
DYNAMIC BRAKING MODULES C/W RESISTORS - 480VOLT	
Dynamic Braking Module with Resistors - 0.5HP, 480V	EZXDB3714A1
Dynamic Braking Module with Resistors - 1.5HP, 480V	EZXDB1124A1
Dynamic Braking Module with Resistors - 3HP, 480V	EZXDB2224A1
Dynamic Braking Module with Resistors - 5HP, 480V	EZXDB4024A1
Dynamic Braking Module with Resistors - 7.5HP, 480V	EZXDB5524A1
Dynamic Braking Module with Resistors - 10HP, 480V	EZXDB7524A1
DYNAMIC BRAKING MODULES C/W RESISTORS - 600VOLT	
Dynamic Braking Module with Resistors - 1.5HP, 600V	EZXDB1126A1
Dynamic Braking Module with Resistors - 3HP, 600V	EZXDB2226A1
Dynamic Braking Module with Resistors - 5HP, 600V	EZXDB4026A1
Dynamic Braking Module with Resistors - 7.5HP, 600V	EZXDB5526A1
Dynamic Braking Module with Resistors - 10HP, 600V	EZXDB7526A1
DYNAMIC BRAKING MODULES WITHOUT RESISTORS	
Dynamic Braking Module without Resistors - 240V	EZXDC1532A1
Dynamic Braking Module without Resistors - 480V	EZXDC2234A1
Dynamic Braking Module without Resistors - 600V	EZXDC2236A1

590+DRV INTEGRATOR SERIES 2

DC Drives 3HP to 2000HP (15A - 2400A)

Non-Regenerative | Regenerative

690+ 4-IN-ONE AC CONTROLLER (230-460VAC)

AC Drives 1HP to 500HP (2.5A - 650A)

890 STANDARD ALONE ADVANCED AC CONTROLLER (230-460VAC)

AC Drives 1HP to 1500HP (2A - 1681A)

Optimized Drive Reactors, Z = 3% Impedance

CSA, UL & CE

MaxMotion

	CHASSIS MODEL	ENCLOSURE	HP	MAX. CURRENT	WATT LOSS	INDUCTANCE (uH)	STD. TERMINALS	DIMENSIONS (IN./PO.) H X W X D	WEIGHT (LBS)
3% 208/240 VAC	KDRA54L	C1	0.5	3	7	4200	TB	4.00 x 4.18 x 3.75	4
	KDRA53L	C1	0.75	4.2	12	3000	TB	4.00 x 4.18 x 3.75	4
	KDRA25L	C1	1	5.5	11	2460	TB	4.00 x 4.18 x 3.75	4
	KDRA26L	C1	1.5	8	18	1650	TB	4.00 x 4.18 x 3.75	4
	KDRA27L	C1	2	10	21	1350	TB	4.00 x 4.18 x 3.75	4
	KDRA28L	C1	3	12	29	971	TB	4.00 x 4.18 x 3.75	4
	KDRB22L	C1	5	19	38	626	TB	5.00 x 6.00 x 4.00	8
	KDRB23L	C2	7.5	25	48	434	TB	5.00 x 6.00 x 4.00	8
	KDRD25L	C2	10	34	64	342	TB	5.75 x 7.20 x 4.25	12
	KDRD24L	C2	15	48	85	220	TB	5.75 x 7.20 x 4.25	12
	KDRD26L	C2	20	62	94	172	TB	5.75 x 7.20 x 4.25	12
	KDRC22L	C2	25	80	114	138	CB	5.75 x 7.20 x 5.00	15
	KDRF24L	C4	30	100	135	116	CB	7.00 x 9.00 x 6.00	30
	KDRF25L	C4	40	118	149	88.6	CB	7.00 x 9.00 x 6.00	30
	KDRF26L	C4	50	152	154	69.9	CB	7.00 x 9.00 x 6.00	30

	CHASSIS MODEL	ENCLOSURE	HP	MAX. CURRENT	WATT LOSS	INDUCTANCE (uH)	STD. TERMINALS	DIMENSIONS (IN./PO.) H X W X D	WEIGHT (LBS)
3% 480 VAC	KDRA6L	C1	0.5	1.5	5.6	16300	TB	4.00 x 4.18 x 3.75	4
	KDRA7L	C1	0.75	1.6	10	11716	TB	4.00 x 4.18 x 3.75	4
	KDRA8L	C1	1	2.1	10.4	8927	TB	4.00 x 4.18 x 3.75	4
	KDRA9L	C1	1.5	3	17	6248	TB	4.00 x 4.18 x 3.75	4
	KDRA1L	C1	2	6.4	19	5790	TB	4.00 x 4.18 x 3.75	4
	KDRA2L	C1	3	6	23	4270	TB	4.00 x 4.18 x 3.75	4
	KDRA3L	C1	5	9.6	49	2770	TB	4.00 x 4.18 x 3.75	4
	KDRA4L	C1	7.5	14	40	1680	TB	4.00 x 4.18 x 3.75	4
	KDRA5L	C1	10	14	64	1290	TB	4.00 x 4.18 x 3.75	5
	KDRB2L	C1	15	30	65	912	TB	5.00 x 6.00 x 4.00	8
	KDRB1L	C1	20	30	79	694	TB	5.00 x 6.00 x 4.00	8
	KDRD1L	C2	25	50	96	569	TB	5.75 x 7.20 x 4.25	10
	KDRD2L	C2	30	45	105	469	TB	5.75 x 7.20 x 4.25	10
	KDRC1L	C2	40	55	114	387	TB	5.75 x 7.20 x 5.00	15
	KDRF2L	C3	50	65	114	295	TB	7.00 x 9.00 x 6.00	25
	KDRF4L	C3	60	77	169	227	TB	7.00 x 9.00 x 6.00	25
	KDRF3L	C4	75	110	193	196	CB	7.00 x 9.00 x 6.00	30
	KDRH3L	C4	100	150	225	152	CB	7.00 x 9.00 x 7.00	40
	KDRH2L	C4	125	165	254	117	CB	9.00 x 11.00 x 7.00	40
	KDRH1L	C4	150	185	299	103	CB	9.00 x 11.00 x 7.00	40
	KDRG3L	C4	200	240	280	83.9	CB	9.00 x 11.00 x 8.00	65
	KDRG1L	C4	250	340	337	65.4	CB	9.00 x 11.00 x 8.00	65
	KDRG2L	C4	300	370	381	56.5	CB	9.00 x 11.00 x 8.00	65

Optimized Drive Reactors, Z = 3% Impedance

CSA, UL & CE

	CHASSIS MODEL	ENCLOSURE	HP	MAX. CURRENT	WATT LOSS	INDUCTANCE (uH)	STD. TERMINALS	DIMENSIONS (IN./PO.) H X W X D	WEIGHT (LBS)
3% 575/600 VAC	KDRA55L	C1	0.5	1.5	6	30300	TB	4.00 x 4.18 x 3.75	4
	KDRA56L	C1	0.75	2.1	9.3	21200	TB	4.00 x 4.18 x 3.75	4
	KDRA50L	C1	1	2.1	12	15900	TB	4.00 x 4.18 x 3.75	4
	KDRA51L	C1	1.5	2.8	19	10200	TB	4.00 x 4.18 x 3.75	4
	KDRA46L	C1	2	3.3	22	9290	TB	4.00 x 4.18 x 3.75	4
	KDRA52L	C1	3	5	23.3	6740	TB	4.00 x 4.18 x 3.75	4
	KDRA47L	C1	5	7	34.7	4510	TB	4.00 x 4.18 x 3.75	4
	KDRA48L	C1	7.5	10.4	42.9	3100	TB	4.00 x 4.18 x 3.75	4
	KDRA49L	C1	10	11	43.8	2470	TB	4.00 x 4.18 x 3.75	5
	KDRB45L	C1	15	19.5	66.2	1590	TB	5.00 x 6.00 x 4.00	8
	KDRB44L	C1	20	24	71.2	1280	TB	5.00 x 6.00 x 4.00	8
	KDRB43L	C1	25	30	76.7	883	TB	5.00 x 6.00 x 4.00	8
	KDRD42L	C2	30	32	106	853	TB	5.75 x 7.20 x 4.25	12
	KDRC43L	C2	40	41	109	672	TB	5.75 x 7.20 x 5.00	15
	KDRC44L	C2	50	52	123	529	TB	5.75 x 7.20 x 5.00	15
	KDRF46L	C3	60	62	181	432	TB	7.00 x 9.00 x 6.00	30
	KDRF47L	C3	75	77	194	363	TB	7.00 x 9.00 x 6.00	30
	KDRF45L	C4	100	99	194	272	CB	7.00 x 9.00 x 6.00	30

Optimized Drive Reactors, Z =5% Impedance

CSA, UL & CE

	CHASSIS MODEL	ENCLOSURE	HP	MAX. CURRENT	WATT LOSS	INDUCTANCE (uH)	STD. TERMINALS	DIMENSIONS (IN./PO.) H X W X D	WEIGHT (LBS)
5% 208/240 VAC	KDRA54H	C1	0.5	3	14	7040	TB	4.00 x 4.18 x 3.75	4
	KDRA53H	C1	0.75	5	16.8	4900	TB	4.00 x 4.18 x 3.75	4
	KDRA25H	C1	1	5	23.6	3750	TB	4.00 x 4.18 x 3.75	4
	KDRA27H	C1	1.5	7.5	30.6	2750	TB	4.00 x 4.18 x 3.75	4
	KDRA26H	C1	2	10	30.5	2310	TB	4.00 x 4.18 x 3.75	4
	KDRA28H	C1	3	11	43.1	1570	TB	4.00 x 4.18 x 3.75	4
	KDRB25H	C1	5	17	53.1	1030	TB	5.00 x 6.00 x 4.00	8
	KDRB26H	C1	7.5	26	66.5	699	TB	5.00 x 6.00 x 4.00	8
	KDRD21H	C1	10	31	91.8	554	TB	5.75 x 7.20 x 4.25	12
	KDRD22H	C2	15	47	107.8	375	TB	5.75 x 7.20 x 4.25	12
	KDRC22H	C2	20	62	113.1	278	TB	5.75 x 7.20 x 5.00	15
	KDRF28H	C3	25	75	151	226	TB	7.00 x 9.00 x 6.00	30
	KDRF25H	C4	30	92	179.2	189	CB	7.00 x 9.00 x 6.00	30
	KDRF26H	C4	40	114	192.8	152	CB	7.00 x 9.00 x 6.00	30
	KDRF27H	C4	50	143	200.6	120	CB	7.00 x 9.00 x 6.00	30
	KDRF46L	C3	60	62	181	432	TB	7.00 x 9.00 x 6.00	30
	KDRF47L	C3	75	77	194	363	TB	7.00 x 9.00 x 6.00	30
	KDRF45L	C4	100	99	194	272	CB	7.00 x 9.00 x 6.00	30

Optimized Drive Reactors, Z =5% Impedance

CSA, UL & CE

MaxMotion

	CHASSIS MODEL	ENCLOSURE	HP	MAX. CURRENT	WATT LOSS	INDUCTANCE (uH)	STD. TERMINALS	DIMENSIONS (IN./PO.) H X W X D	WEIGHT (LBS)
5% 480 VAC	KDRA6H	C1	0.5	1.5	9	28400	TB	4.00 x 4.18 x 3.75	4
	KDRA7H	C1	0.75	1.6	15	19525	TB	4.00 x 4.18 x 3.75	4
	KDRA8H	C1	1	2.1	12	14878	TB	4.00 x 4.18 x 3.75	4
	KDRA9H	C1	1.5	3	23	10414	TB	4.00 x 4.18 x 3.75	4
	KDRA1H	C1	2	4	33	10300	TB	4.00 x 4.18 x 3.75	4
	KDRA2H	C1	3	6	38	7290	TB	4.00 x 4.18 x 3.75	4
	KDRA3H	C1	5	8	80	3980	TB	4.00 x 4.18 x 3.75	4
	KDRA4H	C1	7.5	12	77	3000	TB	4.00 x 4.18 x 3.75	5
	KDRA5H	C1	10	14	111	2232	TB	4.00 x 4.18 x 3.75	5
	KDRB2H	C1	15	27	133	1690	TB	5.00 x 6.00 x 4.00	7
	KDRC3H	C2	20	27	108	1210	TB	5.75 x 7.20 x 5.00	15
	KDRC1H	C2	25	35	112	980	TB	5.75 x 7.20 x 5.00	15
	KDRE2H	C2	30	45	141	850	TB	5.75 x 7.20 x 5.00	16
	KDRF4H	C3	40	60	169	581	TB	7.00 x 9.00 x 6.00	25
	KDRF1H	C3	50	85	191	465	TB	7.00 x 9.00 x 6.00	25
	KDRF2H	C3	60	77	226	408	TB	7.00 x 9.00 x 6.00	25
	KDRH2H	C4	75	100	212	315	CB	9.00 x 11.00 x 7.00	45
	KDRI2H	C4	100	125	297	252	CB	9.00 x 11.00 x 7.00	50
	KDRG3H	C4	125	160	274	209	CB	9.00 x 11.00 x 8.00	55
	KDRG1H	C4	150	185	359	181	CB	9.00 x 11.00 x 8.00	55
	KDRJ1H	C5	200	240	420	126	CB	9.00 x 11.00 x 9.00	70
	KDRL1H	C5	250	310	548	106	CB	11.38 x 14.50 x 9.50	110
	KDRL2H	C5	300	365	786	86	CB	11.38 x 14.50 x 9.31	95

	CHASSIS MODEL	ENCLOSURE	HP	MAX. CURRENT	WATT LOSS	INDUCTANCE (uH)	STD. TERMINALS	DIMENSIONS (IN./PO.) H X W X D	WEIGHT (LBS)
5% 575/600 VAC	KDRA55H	C1	0.5	1.5	9	51900	TB	4.00 x 4.18 x 3.75	4
	KDRA52H	C1	0.75	2.1	13	37100	TB	4.00 x 4.18 x 3.75	4
	KDRA50H	C1	1	2.1	17	29400	TB	4.00 x 4.18 x 3.75	4
	KDRA51H	C1	1.5	2.8	26	20600	TB	4.00 x 4.18 x 3.75	4
	KDRA43H	C1	2	3.2	24	17900	TB	4.00 x 4.18 x 3.75	4
	KDRA44H	C1	3	5	35	12000	TB	4.00 x 4.18 x 3.75	4
	KDRA45H	C1	5	7.5	48	7580	TB	4.00 x 4.18 x 3.75	4
	KDRB42H	C2	7.5	10	61	5370	TB	5.00 x 6.00 x 4.00	8
	KDRB43H	C2	10	11	71	4340	TB	5.00 x 6.00 x 4.00	8
	KDRB44H	C2	15	18.5	73	2630	TB	5.00 x 6.00 x 4.00	8
	KDRD41H	C2	20	23	106	2070	TB	5.75 x 7.20 x 4.25	12
	KDRC43H	C2	25	30	107	1670	TB	5.75 x 7.20 x 5.00	15
	KDRE42H	C2	30	32	140	1430	TB	5.75 x 7.20 x 5.00	16
	KDRF44H	C3	40	44	172	1090	TB	7.00 x 9.00 x 6.00	30
	KDRF45H	C3	50	58	166	870	TB	7.00 x 9.00 x 6.00	30
	KDRH43H	C4	60	62	205	750	TB	9.00 x 11.00 x 6.00	45
	KDRH42H	C4	75	82	251	597	TB	9.00 x 11.00 x 6.00	45
	KDRI41H	C4	100	99	268	471	CB	9.00 x 11.00 x 7.00	50

Optional NEMA 1 Ventilated Enclosures for Drive Reactors

CSA, UL & CE

KDR SUFFIX	NEMA 1 ENCLOSURE	MODEL	WATT LOSS	WEIGHT (LBS)	DIMENSIONS (IN./PO.) H X W X D
C1		M411000C1	14.0	4	6.50 x 8.00 x 6.00
C2		M411000C2	16.8	6	7.50 x 10.00 x 7.00
C3		M411000C3	23.6	12	9.00 x 12.00 x 8.00
C4		M411000C4	30.6	35	15.50 x 15.00 x 13.00
C5		M411000C5	30.5	50	18.50 x 20.00 x 16.00
C7		M411000C7	53.1	160	36.00 x 28.50 x 30.30

Features:

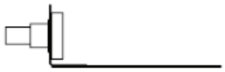
Dual voltage via a slide selector switch, chassis, NEMA 1 & 4 models available, adjustable min./max. speed, fixed accel/decel and I.R. compensation, speed range 25:1. Overload capacity: 200% for one minute, rated up to 2 Amps, armature feedback. AC fusing (Enclosed models), transient protection, and speed potentiometer with leads, knob & dial. Suitable for PMDC, shunt wound (10/20V or 100/200V, 1A field) and universal motors.

CHASSIS "C" DUAL VOLTAGE

MODEL	ADJUSTMENT RANGE	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
13DV1A*	150ma - 2ADC	12 ~ 14VAC 24 ~ 28VAC	0 - 11VDC 0 - 22VDC	0.4	Std. Stock
13DV2A*	150ma - 2ADC	12 ~ 14VAC 24 ~ 28VAC	0 - 11VDC 0 - 22VDC	0.4	2 Days
15DV1A*	150ma - 2ADC	120VAC 240VAC	0 - 90VDC 0 - 180VDC	0.4	Std. Stock
15DV2A*	150ma - 2ADC	120VAC 240VAC	0 - 90VDC 0 - 180VDC	0.4	2 Days

*With a suitable external heatsink, (equivalent 4″ x 4″ x 0.125″ thick Aluminum plate), rating for output amps can be increased from 2 ADC to 4 ADC.

SUFFIX 1A = MOUNTING PROFILE



OPTIONS DESCRIPTION: (All options are Factory installed.)	INSTALLATION		
	FIELD	FACTORY	NORMAL LEAD TIME
Single pole AC switch integral with speedpot for 12, 24 or 120V applications only (Mounting profile - 1A only)		-104	2 Days
Onboard terminal strip for remote speedpot mounting. speedpot with leads, knob and dial included.		-TS	2 Days

ENCLOSED "E" (ALUMINUM EXTRUSION, POLYCARBONATE COVER, NEMA 4/12)

MODEL	ADJUSTMENT RANGE	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
13DVE	150ma - 3ADC*	12 ~ 14VAC 24 ~ 28VAC	0 - 11VDC 0 - 22VDC	1.27	Std. Stock
15DVE	150ma - 3ADC*	115VAC 230VAC	0 - 90VDC 0 - 180VDC	1.23	Std. Stock
15DVP	150ma - 3ADC*	115VAC 230VAC	0 - 90VDC 0 - 180VDC	1.02	3 Days

DVE = NEMA 4/12 Enclosure • Boîtier AMEEC 4/12
DVP = NEMA 1 Enclosure • Boîtier AMEEC 1

65E SERIES

PWM CONTROLLER POWERED BY BATTERY / SOLAR ENERGY

Features:

Substantial increase in running time of battery operated equipment, adjustable min/max. speed, accel, IR comp. current limit, automatic output voltage compensation, inhibit terminal, speed potentiometer with leads, knob & dial, quiet (18KHz PWM switching). Overload capacity: 150% for one minute, rated up to 60 Amps, speed range 30:1.

CHASSIS

MODEL	CONTINUOUS DC AMPS	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
65E10-12	10ADC	12VDC	0 - 12VDC	.75	Std. Stock
65E10	10ADC	24VDC 36VDC	0 - 24VDC 0 - 36VDC	.73	Std. Stock
65E20-12	20ADC	12VDC	0 - 12VDC	1.07	Std. Stock
65E20	20ADC	24VDC 36VDC	0 - 24VDC 0 - 36VDC	1.06	Std. Stock
65E40-12	40ADC	12VDC	0 - 12VDC	1.1	Std. Stock
65E40	40ADC	24VDC 36VDC	0 - 24VDC 0 - 36VDC	1.11	Std. Stock
65E60-12	60ADC	12VDC	0 - 12VDC	2.81	Std. Stock
65E60	60ADC	24VDC 36VDC	0 - 24VDC 0 - 36VDC	2.80	Std. Stock

NEMA 4X ENCLOSURE

MODEL	CONTINUOUS DC AMPS	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
65E10E12 (NEMA4X)	10ADC	12VDC	0 - 12VDC	3.1	Std. Stock
65E10E36 (NEMA4X)	10ADC	24VDC 36VDC	0 - 24VDC 0 - 36VDC	3.08	Std. Stock

Features:

Variable voltage supply, triac fired phase control, design for use with PSC, split phase, shaded pole and universal motors, Enclosed versions feature speed potentiometer with leads, knob & dial, on/off switch, fusing and pilot light as well as input/output cords and plugs.

CHASSIS

MODEL	CONTINUOUS DC AMPS	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
AC03-05S*	2.5A	120VAC	0 - 120VAC	.3	Std. Stock
55AC10C	10A	120VAC	0 - 120VAC	.37	Std. Stock
55AC15C	15A	120VAC	0 - 120VAC	.45	Std. Stock
57AC10C	10A	240VAC	0 - 240VAC	.37	Std. Stock
57AC15C	15A	240VAC	0 - 240VAC	.45	Std. Stock

NEMA 4X ENCLOSURE

MODEL	CONTINUOUS DC AMPS	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
55AC10E	10A	120VAC	0 - 120VAC	1.52	Std. Stock
55AC15E	15A	120VAC	0 - 120VAC	1.52	Std. Stock
57AC10E	10A	240VAC	0 - 240VAC	2.33	Std. Stock
57AC15E	15A	240VAC	0 - 240VAC	2.33	Std. Stock
57AC15C	15A	240VAC	0 - 240VAC	.45	Std. Stock

* Speedpot with Off position.

Features:

Dual voltage via a slide selector switch, chassis & NEMA 4X models available, adjustable min./max. speed, accel/decel (Enclosed models), I.R. compensation and current limit, 50:1 speed range. Overload capacity: 200% for one minute, rated up to 2HP, line voltage fluctuation compensation, armature or tach feedback. AC fusing (Enclosed models), transient protection, and speed potentiometer with leads, knob & dial. Options include Forward - O - Reverse without dynamic braking. Suitable for PMDC, shunt wound (100/200V, 1A field) and universal motors.

CHASSIS "C" DUAL VOLTAGE

MODEL	ADJUSTMENT RANGE	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
123D-C*	150ma - 5.5ADC	24VAC 36VAC	0 - 20VDC 0 - 30VDC	.77	Std. Stock
125D-12C	1/50 - 1/4HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	.77	Std. Stock
125DV-C*	1/8 - 1HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	.78	Std. Stock

*With a suitable external heatsink, UL rating for output amps can be increased from 5.5 ADC to 10 ADC.

ENCLOSED "E" (ALUMINUM EXTRUSION, POLYCARBONATE COVER, NEMA 4X)

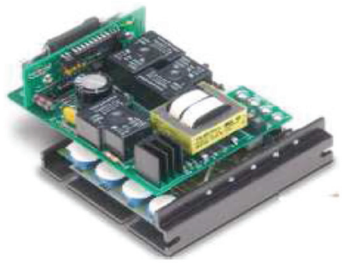
MODEL	ADJUSTMENT RANGE	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
125DV200EB	1/8 - 2 HP	115VAC 230VAC	0 - 90VDC 0 - 180VDC	2.00	2 Days
125DV200EW	1/8 - 2 HP	115VAC 230VAC	0 - 90VDC 0 - 180VDC	2.00	Std. Stock
125DV200EB-29	1/8 - 2 HP	115VAC 230VAC	0 - 90VDC 0 - 180VDC	2.00	2 Days
125DV200EW-29	1/8 - 2 HP	115VAC 230VAC	0 - 90VDC 0 - 180VDC	2.00	Std. Stock
125DV200EB-29-4	1/8 - 2 HP	115VAC 230VAC	0 - 90VDC 0 - 180VDC	2.00	2 Days
125DV200EW-29-4	1/8 - 2 HP	115VAC 230VAC	0 - 90VDC 0 - 180VDC	2.00	Std. Stock

EB = Enclosed Black EW = Enclosed White

OPTIONS DESCRIPTION: (Please read notes below; multiple options may not fit on terminal strip. Consult factory.)	INSTALLATION FIELD	NORMAL LEAD TIME
Electronic Speed Control Interlock (C versions)	-1	2 Days
Independently Adjustable Linear Accel & Decel (0,5 - 8.0 sec.)	-2A	2 Days
Jog (125DV200EB/EW-29-4 Included)		2 Days
4 - 20ma isolated analog input signal (C versions only)	-5	Std. Stock
4 - 20ma isolated analog input signal with Manual / Auto function (C versions only).	-7	2 Days
Extended Acceleration time (Approx. 4 sec.) (C Versions only)		2 Days
Extended Acceleration time (Approx. 6 sec.) (C Versions only)		2 Days
Forward - O - Reverse 4PDT Switch (125DV200EB/EW-29-4 Included)		2 Days
Forward - O - Reverse 4PDT Switch (C versions only)	-29 B	Std. Stock
Voltage (0 - 5, 25 or 250VDC) isolated analog input signal (E versions only).		2 Days
Voltage (0 - 5, 25 or 250VDC) isolated analog input signal (C versions only).	55H125	Std. Stock
Voltage (0-5, 50VDC or 250VDC) isolated analog input signal with Manual/Auto function (All Models)	56H125	2 Days
Voltage (0-5, 50VDC or 4-20ma) isolated analog input signal with Manual/Auto function (E versions only)		2 Days
Auxiliary Heatsink (6.00" long x 7.05" wide x 1.0" deep)	-HS (125D)	2 Days

Features:

Single voltage, instant reversing, quick stopping and rapid cycling, chassis models only, adjustable min./max. speed, fixed accel/decel, I.R. compensation and current limit, 50:1 speed range. Overload capacity: 200% for one minute, rated up to 2HP, line voltage fluctuation compensation, armature feedback. Transient protection, and speed potentiometer with leads, knob & dial. On board braking resistor included, zero speed sensing with dynamic braking. Suitable for PMDC, shunt wound (100 or 200V, 1A field) and universal motors.



CHASSIS "C" SINGLE VOLTAGE

MODEL	RANGE	AMPS	INPUT VAC	OUTPUT VDC	CYCLE RATE	WEIGHT LBS	NORMAL LEAD TIME
130LC12	1/50 - 1/8 HP	1.2	120VAC	0 - 90VDC	3 / Minute	1.46	2 Days
130LC100*	1/8 - 1/2 HP	5.5	120VAC	0 - 90VDC	3 / Minute	1.33	2 Days
130HC12	1/50 - 1/8 HP	1.2	120VAC	0 - 90VDC	30 / Minute	3.92	2 Days
130HC100	1/8 - 1.0 HP	10.0	120VAC	0 - 90VDC	30 / Minute	4.07	2 Days
132LC25	1/25 - 1/4 HP	1.2	240VAC	0 - 180VDC	3 / Minute	1.46	2 Days
132LC200*	1/4 - 1.0 HP	5.5	240VAC	0 - 180VDC	3 / Minute	1.46	2 Days
132HC200	1/4 - 2.0 HP	10.0	240VAC	0 - 180VDC	30 / Minute	4.07	2 Days

*With a suitable external heatsink, rating for output amps can be increased up to 10 ADC (1 HP for 120VAC models and 2HP for 240VAC models)

OPTIONS DESCRIPTION: (Factory installed only.)	INSTALLATION		
	FIELD	FACTORY	NORMAL LEAD TIME
Extended Acceleration time (Approx. 6 sec. Instead of 0.5 sec.)	-1	-K	2 Days

DP4 SERIES (DIGITAL SPEEDPOT)

Features:

Digital Speed Potentiometer, Display for AC and DC Drives. Replaces conventional 3 wire analog devises. Standard features include: universal input power 85 ~ 250VAC, programmable form C output relay, NEMA 4X gasket included, 0 ~ 100% signal compatible with any drive input impedance from 1Kff to 10Mff, supports bipolar connection for Regenerative drives, 4 digit 1/2" LED display, self contained power supply, selectable control modes, offers precise and repeatable speed setting when conventional speed pot settings will drift.

MODEL	INPUT	OUTPUT	WEIGHT LBS	NORMAL LEAD TIME
DP4	120 / 240VAC	0 ~ 100%	1.36	Std. Stock

OPTIONS DESCRIPTION: (All options are Factory installed.)	INSTALLATION		
	FIELD	FACTORY	NORMAL LEAD TIME
Extended Acceleration time (Approx. 6 sec. Instead of 0.5 sec.)		-1	Std. Stock
Pluggable Terminal Strip		-1	2 Days
Blank Lexan® Faceplate		-1	2 Days

Features:

Dual voltage via a slide selector switch, chassis, NEMA 4/12 and 4X models available, adjustable min./max. speed, accel/decel, I.R. compensation and current limit, 50:1 speed range. Overload capacity: 150% for one minute, rated up to 2HP, line voltage fluctuation compensation, armature or tach feedback. AC fusing, transient protection, and speed potentiometer with leads, knob & dial. Options include Forward - Reverse without dynamic braking. Suitable for PMDC, shunt wound (100/200V, 1A field) and universal motors.

CHASSIS "C" DUAL VOLTAGE

MODEL	ADJUSTMENT RANGE	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
251G-12C*	1/50 - 1/4 HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	1.39	2 Days
253G-200C*	1/4 - 2 HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	1.39	Std. Stock

* Option -7, Chassis versions require a customer supplied 3PDT switch and wiring

ENCLOSED "E" (ALUMINUM EXTRUSION, NORYL COVER, NEMA 4/12)

MODEL	ADJUSTMENT RANGE	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
251G-12E**	1/8 - 2 HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	2.00	2 Days
253G-200E**	1/8 - 2 HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	2.00	Std. Stock

* Option -7, E version factory installed only.

OPTIONS DESCRIPTION: (Please read notes below; multiple options may not fit on terminal strip. Consult factory.)	INSTALLATION		NORMAL LEAD TIME
	FIELD	FACTORY	
NEMA 4X Enclosure (E version only)		-4X	2 Days
4 - 20ma isolated analog input signal (C versions only) order as a separate item.	-5	-5	Std. Stock
4 - 20ma isolated analog input signal with Auto / Manual function (all models, See Notes).	-7	-7	2 Days
4 - 20ma isolated analog input signal with Auto / Manual function (all models, See Notes).	-7	-7	2 Days
Extended Accel / Decel range (20 sec.) (All models)		-17 B	2 Days
Forward - O - Reverse 4PDT Switch (E versions only)		-29	2 Days
Forward - O - Reverse 4PDT Switch (C versions only)	-29 B		Std. Stock
Torque control (E versions only)		-34A	2 Days
Voltage (0 ~ 5, 25 or 250VDC) isolated analog input signal (C versions only) order as a separate item.	-55H2	-55H2	2 Days
Voltage (0 ~ 5, 25 or 250VDC) isolated analog input signal with Auto / Manual function (E versions only).		-56H2	2 Days

Features:

Dual voltage via a slide selector switch, chassis, NEMA 4/12 models available, adjustable min./max. speed, accel/decel, I.R. compensation and current limit, 50:1 speed range. Overload capacity: 200% for one minute, rated up to 3HP, line voltage fluctuation compensation, armature or tach feedback. AC fusing, transient protection, and speed potentiometer with leads, knob & dial. Options include Forward - Reverse with dynamic braking and zero speed detection. Suitable for PMDC, shunt wound (100/200V, 1A field) and universal motors.

CHASSIS "C" DUAL VOLTAGE

MODEL	ADJUSTMENT RANGE	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
530BC*	1/8 - 2 HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	2.92	Std. Stock
533BC*	1/4 - 3 HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	2.92	Std. Stock

CHASSIS WITH RELAY "RC" DUAL VOLTAGE

MODEL	ADJUSTMENT RANGE	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
530BRC	1/8 - 2 HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	3.03	Std. Stock

ENCLOSED "RE" (ALUMINUM EXTRUSION, NORYL COVER, NEMA 4/12)

MODEL	ADJUSTMENT RANGE	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
530BRE	1/8 - 2 HP	120VAC 240VAC	0 - 90VDC 0 - 180VDC	3.75	2 Days

* Option - 5 is the only option for this model.

OPTIONS DESCRIPTION: (Please read notes below; multiple options may not fit on terminal strip. Consult factory.)	INSTALLATION		
	FIELD	FACTORY	NORMAL LEAD TIME
Jog (RE version only)		-4	2 Days
4 - 20ma isolated analog input signal (C & RC versions only) order as a separate item.	-5	-5	Std. Stock
4 - 20ma isolated analog input signal with Auto / Manual function (all models).	-7	-7	2 Days
Extended Accel / Decel range (30 sec.) (All models)		-15 A	2 Days
Forward - O - Reverse 4PDT Switch (C & RC versions only)	-29 B		Std. Stock
Forward - Reverse with Zero Speed Detection & Dynamic Braking (5ff 30W) Option Board 115VAC (RC & RE versions only)	-36 M	-36 M	2 Days
Forward - Reverse with Zero Speed Detection & Dynamic Braking (5ff 50W) Extrusion mount 115VAC (RE version only)		-36 MA	2 Days
Forward - Reverse with Zero Speed Detection & Dynamic Braking (10ff 30W) Option Board 230VAC (RC & RE versions only)	-38 M	-38 M	2 Days
Forward - Reverse with Zero Speed Detection & Dynamic Braking (10ff 50W) extrusion mount 230VAC (RE version only)		-38 MA	2 Days

VSI2 VOLTAGE ISOLATOR, CONVERTS SIGNAL INTO 4 -20MA OR 0 - 10VDC, DESIGNED FOR 530 SERIES

MODEL	INPUT AC	OUTPUT	WEIGHT LBS	NORMAL LEAD TIME
VSI2	120 / 240VAC	0 - 10vdc 4 - 20ma	.84	2 Days

720 SERIES

LINE VOLTAGE (120VAC) VARIABLE SPEED CONTROL FOR STANDARD 3 PHASE BRUSHLESS (BLDC) MOTORS

Features:

Line voltage supplied (120VAC), chassis & enclosed models, open or closed loop models, quiet (17KHz PWM switching), IGBT power devices, bi-directional control, internal supply for motors with Hall-Effect sensors 60° or 120°.

CHASSIS "C" MODELS

MODEL	LOOP	AMPS	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
720AC-C	Open	3.1	120VAC	0 - 160VDC	2.2	Contact Factory
721AC-C	Closed	3.1	120VAC	0 - 160VDC	3	5 Days
720AC-IC (Isolated)	Open	3.1	120VAC	0 - 160VDC	2.2	Contact Factory
721AC-IC (Isolated)	Closed	3.1	120VAC	0 - 160VDC	3	5 Days

ENCLOSED "E" MODELS

MODEL	LOOP	AMPS	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
720AC-E	Open	3.1	120VAC	0 - 160VDC	2.2	5 Days
721AC-E	Closed	3.1	120VAC	0 - 160VDC	3	5 Days
720AC-IE (Isolated)	Open	3.1	120VAC	0 - 160VDC	2.2	5 Days
721AC-IE (Isolated)	Closed	3.1	120VAC	0 - 160VDC	3	5 Days

(Isolated) means will accept 0-10VDC or 4-20ma signals without wiring considerations.

PANEL MOUNT SERIES

Features:

Digital control, precise speed regulation, set speed repeatability, 1/2˝ LED display, field programmable, NEMA 4X panel face mounting, closed loop models, quiet (15KHz PWM switching), MOSFET power devices, Bi-directional control, internal supply for motors with Hall-Effect sensors 60° or 120°. Dual voltage, jumper selectable.

MODEL	LOOP	AMPS	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
BLM701P*	Closed	8	10-15VDC 18-54VDC	10-15VDC 18-54VDC	1.23	3 Days
BLM701P-420*	Closed	8	10-15VDC 18-54VDC	10-15VDC 18-54VDC	1.28	3 Days

OPTIONS DESCRIPTION:	INSTALLATION		LIST PRICE	NORMAL LEAD TIME
	FIELD	FACTORY		
BLM Mating Wire Harness	BLMKIT1	BLMKIT1	$204	2 Days

ACCU-SET SERIES

CLOSED LOOP DIGITAL SMART SPEED POTENTIOMETER FOR IMPROVED AC OR DC DRIVE SYSTEM PERFORMANCE

Features:

1/2″ LED display, field programmable for RPM, FPM, GPM, process time or other engineering units. Programmable parameters include decimal points & operating mode “Master/Follower”. Maximum pulse inputs 50,000 PPM, Faceplate gasket kits, Universal input power 85 - 250VAC. Micro-Drive settings, once programmed, are exact and repeatable within 3 1/2RPM.

MUST USE PU OR OTHER SUITABLE PICKUP, SOLD SEPARATELY (SEE PICKUP SERIES SECTION).

MODEL	INPUT	OUTPUT	WEIGHT LBS	NORMAL LEAD TIME
ASP10	85 - 250VAC	0 - 100%	1.30	Std. Stock

OPTIONS DESCRIPTION: (Factory installed only.)	INSTALLATION		
	FIELD	NORMAL LEAD TIME	NORMAL LEAD TIME
Provisions for Remote Up / Down Speed Push Buttons		-1	Std. Stock
Pluggable Terminal Strip		-P	2 Days
Blank Lexan® Faceplate		-9	2 Days

ASP PLUS SERIES

Features:

Closed loop digital Smart Speed Potentiometer for Improved AC or DC Drive System Performance with optional 4 - 20ma input / output signals, PID control and 2 programmable form C output relays.

MUST USE PU OR OTHER SUITABLE PICKUP, SOLD SEPARATELY (SEE PICKUP SERIES SECTION).

MODEL	INPUT	OUTPUT	WEIGHT LBS	NORMAL LEAD TIME
ASP40	85 - 250VAC	0 - 100%	1.36	3 Days
ASP40-420	85 - 250VAC	0 - 100%	1.39	3 Days

OPTIONS DESCRIPTION: (Factory installed only.)	INSTALLATION		
	FIELD	NORMAL LEAD TIME	NORMAL LEAD TIME
Provisions for Remote Up / Down Speed Push Buttons		-1	2 Days
Isolated 4 - 20ma input & output signals		OPT420	5 Days

DM8000 SERIES

DIGITAL PROGRAMMABLE TACHOMETER, COUNTER, TOTALIZER AND ZERO SPEED SWITCH.

Features:

1/2″ LED display, field programmable, capable of reading shaft speed lower than 1 RPM, accuracy ± 0.04%, 1/8 DIN, for panel face mounting. Operating range 1 to 125,000 PPM, faceplate NEMA 4X gasket kit, one 5A 240VAC form C output relay. Control modes are rate, time, and counter. Universal input power 85 - 250VAC. Settings, once programmed, are non-volatile, exact and repeatable.

MUST USE PU OR OTHER SUITABLE PICKUP, SOLD SEPARATELY (SEE PICKUP SERIES SECTION).

MODEL	INPUT	OUTPUT	WEIGHT LBS	NORMAL LEAD TIME
DM8000	85 - 250VAC	Relay	1.26	Std. Stock

OPTIONS DESCRIPTION:	INSTALLATION		
	FIELD	FACTORY	NORMAL LEAD TIME
Provisions for Remote Up / Down Speed Push Buttons		-1	2 Days
Pluggable Terminal Strip		-P	2 Days
2nd Alarm Output relay (5A, 230VAC, Form C)		-R	2 Days
Blank Lexan® Faceplate		-9	2 Days
Magnetic Pick-up Interface	OPT3		2 Days

700 SERIES

DESIGNED TO PROVIDE COMMUTATED POWER AND VARIABLE SPEED CONTROL FOR STANDARD 3 PHASE DC BRUSHLESS (BLDC) MOTORS

Features:

Open or closed loop models, quiet (15KHz PWM switching), MOSFET power devices, Bi-directional control, Internal supply for motors with Hall-Effect sensors 60° or 120°

MODEL	LOOP	AMPS	INPUT VOLTAGE	OUTPUT VOLTAGE	WEIGHT LBS	NORMAL LEAD TIME
700BDC	Open	5.9	11 - 14VDC 18 - 40VDC	0 - 11-14VDC 0 - 18-40VDC	.76	Std. Stock
701BDC	Closed	5.0	11 - 14VDC 18 - 40VDC	0 - 11-14VDC 0 - 18-40VDC	.77	Std. Stock
703BDC	Closed	8.0	11 - 14VDC 18 - 40VDC	0 - 11-14VDC 0 - 18-40VDC	.78	Std. Stock
710ADC	Open	20.0	11 - 13.5VDC 18 - 54VDC	0 - 11-13.5VDC 0 - 18-54VDC	1.23	Std. Stock
711ADC	Closed	20.0	11 - 13.5VDC 18 - 54VDC	0 - 11-13.5VDC 0 - 18-54VDC	1.31	Std. Stock
730BDC	Open	7.5*	11 - 15VDC 18 - 54VDC	0 - 11-15VDC 0 - 18-54VDC	1.2	Std. Stock
731BDC	Closed	7.5*	11 - 15VDC 18 - 54VDC	0 - 11-15VDC 0 - 18-54VDC	1.2	Std. Stock
733BDC (ADJ. Accel/Decel)	Closed	7.5*	11 - 15VDC 18 - 54VDC	0 - 11-15VDC 0 - 18-54VDC	1.2	Std. Stock

OPTIONS DESCRIPTION: (Factory installed only.)	INSTALLATION		
	FIELD	FACTORY	NORMAL LEAD TIME
Current Limit Latch (733BC Only)		-CL	2 Days
Pluggable Terminal Strip		-PA	5 Days
Auxiliary Heatsink	-HS2	-HS2	5 Days

MD SERIES

CLOSED LOOP DIGITAL DC MOTOR SPEED CONTROL

Features:

Precise speed regulation, set speed repeatability, 1/2″ LED display, field programmable for RPM, FPM, GPM, process time or other engineering units. Programmable parameters include decimal points & operating mode “Master/Follower”. Maximum pulse inputs 50,000 PPM, faceplate gasket kits, Universal input power 85 - 250VAC. Adjustable min/max speed and accel/decel, Overload capacity: 200% for one minute, rated up to 10 Amps. Micro-Drive settings, once programmed, are exact and repeatable within ± 1/2RPM.

MUST USE PU OR OTHER SUITABLE PICKUP, SOLD SEPARATELY (SEE PICKUP SERIES SECTION).

MODEL	RANGE	AMPS	INPUT VAC	OUTPUT VDC	MOUNTING	WEIGHT LBS	NORMAL LEAD TIME
MD10P	1/50 - 1/2 HP 1/8 - 1 HP	5 5	120VAC 240VAC	0 - 90VDC 0 - 180VDC	1/8 DIN NEMA 4X Panel Face	1.28	Std. Stock
MD3P	1/4 - 1 HP 1/4 - 2 HP	10 10	120VAC 240VAC	0 - 90VDC 0 - 180VDC	1/4 DIN NEMA 4X Panel Face	2.10	Std. Stock
MD3E	1/4 - 1 HP 1/4 - 2 HP	10 10	120VAC 240VAC	0 - 90VDC 0 - 180VDC	NEMA 4 Wall Mount	2.09	Std. Stock

OPTIONS DESCRIPTION: (Factory installed only.)	INSTALLATION		
	FIELD	FACTORY	NORMAL LEAD TIME
Provisions for Remote Up / Down Speed Push Buttons		-1	Std. Stock
Pluggable Terminal Strip		-P	2 Days
Blank Lexan® Faceplate		-9	2 Days

MD PLUS SERIES

Features:

Closed Loop Digital DC motor speed control with optional 4 - 20ma input/output signal, PID control and 2 programmable form C output relays.

MUST USE PU OR OTHER SUITABLE PICKUP, SOLD SEPARATELY (SEE PICKUP SERIES SECTION).

MODEL	RANGE	MAX AMPS	INPUT VAC	OUTPUT VDC	MOUNTING	WEIGHT LBS	NORMAL LEAD TIME
MD40P	1/50 - 1/2 HP 1/8 - 1 HP	5 5	120VAC 240VAC	0 - 90VDC 0 - 180VDC	1/8 DIN NEMA 4X Panel Face	1.3235	3 Days
MDP40P-420	1/50 - 1/2 HP 1/8 - 1 HP	5 5	120VAC 240VAC	0 - 90VDC 0 - 180VDC	1/8 DIN NEMA 4X Panel Face	1.378	5 Days
MDP50P	1/4 - 1 HP 1/4 - 2 HP	10 10	120VAC 240VAC	0 - 90VDC 0 - 180VDC	1/4 DIN NEMA 4X Panel Face	2.1715	3 Days
MD50P-420	1/5 - 1/2 HP 1/8 - 1 HP	5 5	120VAC 240VAC	0 - 90VDC 0 - 180VDC	1/4 DIN NEMA 4X Panel Face	2.192	5 Days
MD50E	1/4 - 1 HP 1/4 - 2 HP	10 10	120VAC 240VAC	0 - 90VDC 0 - 180VDC	NEMA 4 Wall Mount	2.1905	3 Days
MD50E-420	1/4 - 1 HP 1/4 - 2 HP	10 10	120VAC 240VAC	0 - 90VDC 0 - 180VDC	NEMA 4 Wall Mount	2.374	5 Days

OPTIONS DESCRIPTION: (Factory installed only.)	INSTALLATION		
	FIELD	FACTORY	NORMAL LEAD TIME
Provisions for Remote Up / Down Speed Push Buttons		-1	2 Days
Isolated 4 - 20ma input & output signals		OPT420	2 Days

PICKUP SERIES

PU HALL EFECT PICKUP, MOLDED PLASTIC ENCLOSURE AND 6’ CORD.

SERIES	PART #	DESCRIPTION	NORMAL LEAD TIME
	AP9	Potentiometer Parts kit without Potentiometer (Knob, Dial & Hardware)	Std. Stock
	SA-STOK-WO	5Kff Speed Potentiometer with, 8.75″ leads, Knob & Dial	Std. Stock
	POTKIT36	5Kff Speed Potentiometer with, 36″ leads, Knob & Dial	Std. Stock
15DVA	STOKP	Rounded Knob & Dial	Std. Stock
250G	B-L512Y131	Replacement SCR Bridge (Field replacement of SCR Bridge automatically voids all warranties)	Std. Stock
250G	250GCK	Enclosure Kit	2 Days
250G	250GCK29	Reversing Enclosure Kit (Cover with option -29)	2 Days
250G	250GSK	AC Power Supply Switch (On - Off), with leads	Std. Stock
250G	250CVGSK	Enclosure Gasket kit	Std. Stock
530B	B-L512Y131	Replacement SCR Bridge (Field replacement of SCR Bridge automatically voids all warranties)	Std. Stock
530B	530RECK	Enclosure Kit	2 Days
530B	500RESK	AC Power Supply Switch (On - Off)	Std. Stock
DIGITAL	AP1	1/8 DIN Gasket kit (MD10, MD20, ASP10, ASP20, DM8000, DP4)	Std. Stock
DIGITAL	AP2	1/4 DIN Gasket kit (MD3P, MD30P)	Std. Stock
PU-E	MAG-2	1 Pulse per Revolution - Magnet only	Std. Stock
PU-E	MAG-4	2 Pulses per Revolution - Magnet only	Std. Stock
PU-E	MAG-10	5 Pulses per Revolution - Magnet only	Std. Stock
PU-E	MAG-20	10 Pulses per Revolution - Magnet only	Std. Stock
PU-E	MAG-40	20 Pulses per Revolution - Magnet only	Std. Stock
PU-E	AP10	PU-E Parts Kit (Dust Cover, Spacer & Screw)	Std. Stock
	MSC38A	Eight Channel Open Loop Master Speed Control	Std. Stock





PU HALL EFECT PICKUP, MOLDED PLASTIC ENCLOSURE AND 6´ CORD.

MODEL	PULSES	DESCRIPTION	WEIGHT LBS	NORMAL LEAD TIME
PU-2E	1	Hall Effect Pickup, sealed encoded wheel with screw for easy shaft mounting.	.55	Std. Stock
PU-4E	2	Hall Effect Pickup, sealed encoded wheel with screw for easy shaft mounting.	.55	Std. Stock
PU-20E	10	Hall Effect Pickup, sealed encoded wheel with screw for easy shaft mounting.	.55	Std. Stock
PU-40E	20	Hall Effect Pickup, sealed encoded wheel with screw for easy shaft mounting.	.55	Std. Stock
PU-20EQUAD	10	Hall Effect Pickup, sealed encoded wheel with screw for easy shaft mounting.	.59	Std. Stock
PU-2R	1	Hall Effect Pickup, sealed encoded wheel, with screw for easy shaft mounting, Outdoor Duty.	.55	Std. Stock
PU-4R	2	Hall Effect Pickup, sealed encoded wheel, with screw for easy shaft mounting, Outdoor Duty.	.55	Std. Stock
PU-20R	10	Hall Effect Pickup, sealed encoded wheel, with screw for easy shaft mounting, Outdoor Duty.	.55	Std. Stock
PU-40R	20	Hall Effect Pickup, sealed encoded wheel, with screw for easy shaft mounting, Outdoor Duty.	.55	Std. Stock
PU-20RQUAD	10	Hall Effect Pickup, sealed encoded wheel, with screw for easy shaft mounting, Outdoor Duty.	.59	Std. Stock

CF HALL EFECT PICKUP, MOUNTS DIRECTLY TO MOTOR'S NEMA "C" FLANGE.

MODEL	PULSES	DESCRIPTION	WEIGHT LBS	NORMAL LEAD TIME
CF-H1	1	Hall Effect Pickup, encoded wheel, mounts to a NEMA 56C, 5/8" shaft.	.55	Std. Stock
CF-H2	2	Hall Effect Pickup, encoded wheel, mounts to a NEMA 56C, 5/8" shaft.	.55	Std. Stock
CF-H15	15	Hall Effect Pickup, encoded wheel, mounts to a NEMA 56C, 5/8" shaft.	.55	Std. Stock
CF-H60	60	Hall Effect Pickup, encoded wheel, mounts to a NEMA 56C, 5/8" shaft.	.55	Std. Stock
CF-J1	1	Hall Effect Pickup, encoded wheel, mounts to a NEMA 140TC, 7/8" shaft.	.59	Std. Stock
CF-J2	2	Hall Effect Pickup, encoded wheel, mounts to a NEMA 140TC, 7/8" shaft.	.55	Std. Stock
CF-J15	15	Hall Effect Pickup, encoded wheel, mounts to a NEMA 140TC, 7/8" shaft.	.59	Std. Stock
CF-J60	60	Hall Effect Pickup, encoded wheel, mounts to a NEMA 140TC, 7/8" shaft.	.55	Std. Stock
H1	1	Encoded wheel only, shaft mount 5/8".	.59	Std. Stock
H2	2	Encoded wheel only, shaft mount 5/8".	.55	Std. Stock
H15	15	Encoded wheel only, shaft mount 5/8".	.59	Std. Stock
H60	60	Encoded wheel only, shaft mount 5/8".	.55	Std. Stock
J1	1	Encoded wheel only, shaft mount 7/8".	.59	Std. Stock
J2	2	Encoded wheel only, shaft mount 7/8".	.55	Std. Stock
J15	15	Encoded wheel only, shaft mount 7/8".	.59	Std. Stock
J60	60	Encoded wheel only, shaft mount 7/8".	.55	Std. Stock
CF	-	Hall Effect Pickup only, to 56C or 140TC NEMA C flange.	.59	Std. Stock

OPTICAL PICKUP, CYLINDRICAL BODY, MOUNTS BY 1/4 - 18STD NPT BODY

MODEL	PULSES	DESCRIPTION	WEIGHT LBS	NORMAL LEAD TIME
OPU	-	Optical Pickup, +5VDC supply, shielded 6´ cable, up to 600,000 PPM.	.55	Std. Stock

HALL EFFECT PICKUP, CYLINDRICAL BODY, MOUNTS BY 15/32 - 32T PI BODY

MODEL	PULSES	DESCRIPTION	WEIGHT LBS	NORMAL LEAD TIME
MPU-A	-	Hall Effect Pickup, +4.5 ~ 24VDC supply, shielded 6´ cable, NPN Open Collector.	.55	Std. Stock

40 Series

- Small AC and DC Motors
- Torque Ratings: 3/8 and 3/4 Lb.ft.
- Enclosure Type: NEMA 2, IP40

50 Series

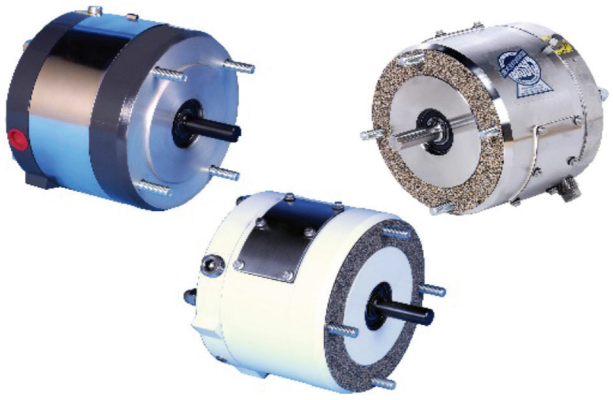
- Motor frame 48C
- Torque Ratings: 1.5, 3 & 6 Lb.ft.
- Enclosure Type: NEMA 2, IP40
- Manual Release: Non-maintained

60 Series End Mount

- Motor frame 56C, 143TC/145TC
- Torque Ratings: 1.5 through 25 Lb.ft.
- Enclosure:
  - NEMA 2, IP40
  - NEMA 4, IP56
  - NEMA 4X, IP56 White Epoxy
  - NEMA 4X, IP56 Stainless Steel
  - Hazardous location brake available
- Manual Release: Maintained/Auto reset

60 Series Double C Face Coupler

- Motor frame 56C, 143TC/145TC
- Torque Ratings: 1.5 through 25 Lb.ft.
- Enclosure:
  - NEMA 2, IP40
  - NEMA 4, IP56
  - NEMA 4X, IP56 White Epoxy
  - NEMA 4X, IP56 Stainless Steel
- Manual Release: Maintained/Auto reset



1-70 Series

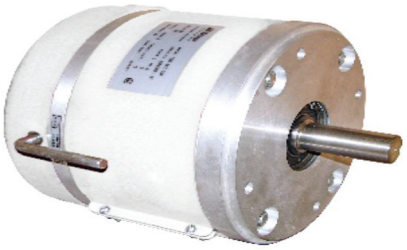
- Motor frame 182TC/184TC, 213TC/215TC, 254TC/256TC
- Torque Ratings: 1.58 and 25 Lb.ft.
- Enclosure Type: NEMA 2, IP40
- Manual Release: Maintained/Auto reset

70 Series End Mount

- Standard & Heavy Duty Models
- Motor frame 182TC/184TC, 213TC/215TC, 254TC/256TC
- Torque Ratings: 10 through 75 Lb.ft.
- Enclosure:
  - NEMA 2, IP40
  - NEMA 4, IP56
  - NEMA 4X, IP56 White Epoxy
  - Hazardous location brake available
- Manual Release: Maintained/Auto reset

70 Series Double C Face Coupler

- Motor frame 182TC/184TC, 213TC/215TC, 254TC/256TC
- Torque Ratings: 10 through 75 Lb.ft.
- Enclosure:
  - NEMA 2, IP40
  - NEMA 4, IP56
  - NEMA 4X, IP56 White Epoxy
- Manual Release: Maintained/Auto reset



80 Series

- Standard & Heavy Duty Models
- Motor frame 284TC/286TC
- Torque Ratings: 25 through 175 Lb.ft.
- Enclosure:
  - NEMA 2, IP40
  - NEMA 4, IP56
- Manual Release: Maintained/Auto reset

90 Series

- Motor frame 324TC/326TC, 364TC/365TC, 404TC/405TC
- Torque Ratings: 180 through 450 Lb.ft.
- Enclosure:
  - NEMA 2, IP40
  - NEMA 4, IP56
- Manual Release: Maintained/Auto reset

THE VERSATILE MODULAR SYSTEM INTORQ BFK458

Features:

- Braking torque: 1,5-600 Nm
- 9 sizes in CSA-CUS design
- DC voltages: 24, 103, 180, 205 V
- Thermal class F (155 °C)
- Preset air gap
- Braking torque can be reduced (module E)
- Long rotor/hub guide with low rate of wear
- Optional manual release available for all sizes
- Air gap and wear monitoring (optional)

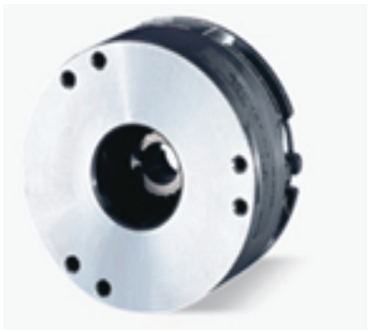
Application areas:

Brake motors, cranes, warehousing, wood working machines, industrial trucks, stage machinery, vehicles for the disabled and escalators

COMPACT AND QUICKLY INSTALLED INTORQ BFK457

Features:

- Braking torque: 0.12-125 Nm
- 11 sizes
- DC voltages: 24, 205 V
- Thermal class F (155 °C)
- Compact construction with rotor and flange
- Integral fixing screws for quick and easy installation
- Fixed air gap
- Noise-reduced double spring-applied brake <50 dB(A)



Application areas:

Small motors, vehicles for the disabled, wood working machines, automation systems and general mechanical engineering

LONG MAINTANCE CYCLES AND ROBUSTNESS INTORQ BFK470-14/-16/-18

Features:

- Three sizes with braking torques of 35 to 250 Nm
- Enclosure corresponding to IP66 also with manual release
- Suitable for fitting a rotary transducer
- Wear measurement in the mounted state
- Can be used to -40°C (cold climate version CCV)
- Stable braking torque and specific mode of emergency manner even after a failure
- Reduction of the power consumption by up to 75% through control via bridge/half-wave rectifier
- Can be controlled via pulse width modulation (PWM)

COST-SAVING ALTERNATIVE FOR STANDARD SOLUTIONS INTORQ BFK471-25

Features:

- High braking torque and low space requirements
- 1500 Nm in dual rotor design, 750 Nm with single rotor
- Enclosure corresponding to IP66 also with manual release
- High degree of corrosion protection
- Non-contact sensor for air gap monitoring
- Reduction of the power consumption by up to 75% through control via bridge/half-wave rectifier
- Can replace existing brake solutions

165 VOLT / 330 VOLT START CAPACITORS

Features:

- These motor start capacitors are dry, electrolytic, non polarized types for intermittent duty in AC motor starting circuits. The round cases are made of moisture and oil resistant molded phenolic resin or plastic. They have standard dual blade terminals.
- Rated 3-second start
- 20 starts per hour
- Operating temperature range : 40 to 65C (-40 to 149F)
- Meet or exceed (EIA) Standard RS-463 Type 2
- Hertz : 50/60
- UL recognized and CUL approved

165V START CAPACITORS

CAT#	MFD	DIAMETER (IN.)	HEIGHT (IN.)	VOLTS
PSMJ72	72-88	1 7/16	2 3/4	165
PSMJ88	88-108	1 7/16	2 3/4	165
PSMJ108	108-130	1 7/16	2 3/4	165
PSMJ124	124-149	1 7/16	2 3/4	165
PSMJ130	130-156	1 7/16	3 3/8	165
PSMJ145	145-174	1 7/16	3 3/8	165
PSMJ161	161-193	1 7/16	3 3/8	165
PSMJ189	189-227	1 7/16	3 3/8	165
PSMJ216	216-259	1 13/16	3 3/8	165
PSMJ233	233-280	1 13/16	3 3/8	165
PSMJ243	243-292	1 13/16	3 3/8	165
PSMJ270	270-324	1 13/16	3 3/8	165
PSMJ340	340-408	1 13/16	3 3/8	165
PSMJ378A	378-455	1 13/16	4 3/8	165
PSMJ400	400-480	1 13/16	3 3/8	165
PSMJ540	540-648	1 13/16	3 3/8	165
PSMJ710	710-850	2 1/16	3 3/8	165
PSMJ710A	710-850	2 1/16	4 3/8	165
PSMJ810A	810-972	2 1/16	4 3/8	165

330V START CAPACITORS

CAT#	MFD	DIAMETER (IN.)	HEIGHT (IN.)	VOLTS
PRMJ21	21-25	1 7/16	3 3/8	330
PRMJ25	25-30	1 7/16	3 3/8	330
PRMJ30	30-36	1 7/16	3 3/8	330
PRMJ36	36-43	1 7/16	3 3/8	330
PRMJ43	43-53	1 13/16	3 3/8	330
PRMJ47	47-56	1 13/16	3 3/8	330
PRMJ56	53-64	1 13/16	3 3/8	330
PRMJ64	64-77	1 13/16	3 3/8	330
PRMJ72	72-88	1 13/16	3 3/8	330
PRMJ88	88-108	2 1/16	3 3/8	330
PRMJ108	108-130	2 1/16	4 3/8	330
PRMJ108R	108-130	1 13/16	3 3/8	330
PRMJ124	124-149	2 1/16	4 3/8	330
PRMJ130	130-158	2 1/16	4 3/8	330
PRMJ135	135-162	2 1/16	4 3/8	330
PRMJ145	145-174	2 1/16	4 3/8	330
PRMJ145A	145-174	2 9/16	4 3/8	330
PRMJ161	161-193	2 1/16	4 3/8	330
PRMJ189	189-227	2 1/16	4 3/8	330
PRMJ216	216-259	2 9/16	4 3/8	330
PRMJ216A	216-259	2 1/16	4 3/8	330
PRMJ270	270-324	2 9/16	4 3/8	330
PRMJ300	300-360	2 9/16	4 3/8	330

220-250 VOLT START CAPACITORS

Features:

- These motor start capacitors are dry, electrolytic, non polarized types for intermittent duty in AC motor starting circuits. The round cases are made of moisture and oil resistant molded phenolic resin or plastic. They have standard dual blade terminals.
- Rated 3-second start
- 20 starts per hour
- Operating temperature range : 40 to 65C (-40 to 149F)
- Meet or exceed (EIA) Standard RS-463 Type 2
- Hertz : 50/60
- UL recognized and CUL approved

CAT#	MFD	DIAMETER (IN.)	HEIGHT (IN.)	VOLTS
PTMJ21	21-25	1 7/16	2 3/4	220-250
PTMJ25	25-30	1 7/16	2 3/4	220-250
PTMJ30	30-36	1 7/16	2 3/4	220-250
PTMJ36	36-43	1 7/16	2 3/4	220-250
PTMJ43	43-53	1 7/16	2 3/4	220-250
PTMJ47	47-56	1 7/16	2 3/4	220-250
PTMJ56	56-72	1 7/16	2 3/4	220-250
PTMJ56A	56-72	1 7/16	2 3/4	220-250
PTMJ59	59-71	2 1/16	3 3/8	220-250
PTMJ64	64-77	1 7/16	2 3/4	220-250
PTMJ72	72-88	1 13/16	3 3/8	220-250
PTMJ86	86-108	1 13/16	3 3/8	220-250
PTMJ88	88-108	2 1/16	3 3/8	220-250
PTMJ105	105-126	1 13/16	3 3/8	220-250
PTMJ108	108-130	2 1/16	3 3/8	220-250
PTMJ124	124-149	1 13/16	4 3/8	220-250
PTMJ124A	124-149	1 13/16	3 3/8	220-250
PTMJ130	130-158	1 13/16	3 3/8	220-250
PTMJ145	145-174	1 13/16	3 3/8	220-250

CAT#	MFD	DIAMETER (IN.)	HEIGHT (IN.)	VOLTS
PTMJ161	161-193	2 1/16	3 3/8	220-250
PTMJ161A	161-193	1 13/16	4 3/8	220-250
PTMJ189	189-227	2 1/16	3 3/8	220-250
PTMJ189A	189-227	2 1/16	4 3/8	220-250
PTMJ216	216-259	2 1/16	3 3/8	220-250
PTMJ216A	216-259	2 1/16	4 3/8	220-250
PTMJ233	233-280	2 1/16	3 3/8	220-250
PTMJ233A	233-280	2 1/16	4 3/8	220-250
PTMJ243	243-292	2 1/16	3 3/8	220-250
PTMJ243A	243-292	21/16	4 3/8	220-250
PTMJ270	270-324	2 1/16	3 3/8	220-250
PTMJ270A	270-324	2 1/16	4 3/8	220-250
PTMJ280	280-336	2 1/16	4 3/8	220-250
PTMJ284	284-333	2 9/16	4 3/8	220-250
PTMJ320	320-384	2 1/16	4 3/8	220-250
PTMJ340	340-408	2 1/16	4 3/8	220-250
PTMJ378	378-455	2 9/16	4 3/8	220-250
PTMJ400	400-480	2 1/16	4 3/8	220-250
PTMJ400A	400-480	2 9/16	4 3/8	220-250
PTMJ430	430-516	2 9/16	4 3/8	220-250
PTMJ630	630-750	2 9/16	4 3/8	220-250

110-125 VOLT START CAPACITORS

Features:

- These motor start capacitors are dry, electrolytic, non polarized types for intermittent duty in AC motor starting circuits. The round cases are made of moisture and oil resistant molded phenolic resin or plastic. They have standard dual blade terminals.
- Rated 3-second start
- 20 starts per hour
- Operating temperature range : 40 to 65C (-40 to 149F)
- Meet or exceed (EIA) Standard RS-463 Type 2
- Hertz : 50/60
- UL recognized and CUL approved

CAT#	MFD	DIAMETER (IN.)	HEIGHT (IN.)	VOLTS
PMJ21	21-25	1 7/16	2 3/4	110 -125
PMJ25	25-30	1 7/16	2 3/4	110 -125
PMJ30	30-36	1 7/16	2 3/4	110 -125
PMJ36	36-43	1 7/16	2 3/4	110 -125
PMJ43	43-53	1 7/16	2 3/4	110 -125
PMJ47	47-56	1 7/16	2 3/4	110 -125
PMJ56	56-75	1 7/16	2 3/4	110 -125
PMJ64	67-77	1 7/16	2 3/4	110 -125
PMJ72	72-88	1 7/16	2 3/4	110 -125
PMJ88	88-108	1 7/16	2 3/4	110 -125
PMJ108	108-130	1 7/16	2 3/4	110 -125
PMJ124	124-149	1 7/16	2 3/4	110 -125
PMJ130	130-156	1 7/16	2 3/4	110 -125
PMJ145	145-174	1 7/16	2 3/4	110 -125
PMJ161	161-193	1 7/16	2 3/4	110 -125
PMJ189	189-227	1 7/16	2 3/4	110 -125
PMJ200	200-240	1 7/16	2 3/4	110 -125
PMJ216	216-259	1 7/16	2 3/4	110 -125
PMJ233	233-280	1 7/16	2 3/4	110 -125
PMJ243	243-292	1 7/16	2 3/4	110 -125
PMJ270	270-324	1 7/16	2 3/4	110 -125
PMJ270A	270-324	1 7/16	3 3/8	110 -125
PMJ295	295-354	1 7/16	2 3/4	110 -125
PMJ300	300-360	1 7/16	4 3/8	110 -125
PMJ324	324-388	1 7/16	2 3/4	110 -125
PMJ324A	324-388	1 13/16	3 3/8	110 -125

CAT#	MFD	DIAMETER (IN.)	HEIGHT (IN.)	VOLTS
PMJ340	340-408	1 7/16	3 3/8	110-125
PMJ340A	340-408	1 13/16	3 3/8	110-125
PMJ378	378-455	1 7/16	3 3/8	110-125
PMJ378A	378-455	1 13/16	3 3/8	110-125
PMJ400	400-480	1 7/16	3 3/8	110-125
PMJ400A	400-480	1 13/16	3 3/8	110-125
PMJ430	430-516	1 7/16	3 3/8	110-125
PMJ430A	430-516	1 13/16	3 3/8	110-125
PMJ430B	430-516	2 1/16	3 3/8	110-125
PMJ460	460-552	1 7/16	3 3/8	110-125
PMJ460A	460-552	1 13/16	3 3/8	110-125
PMJ540	540-648	1 13/16	4 3/8	110-125
PMJ540A	540-648	1 13/16	3 3/8	110-125
PMJ590	590-708	1 13/16	4 3/8	110-125
PMJ590A	590-708	1 13/16	3 3/8	110-125
PMJ645	645-774	1 13/16	4 3/8	110-125
PMJ708	708-850	1 13/16	4 3/8	110-125
PMJ708A	708-850	2 1/16	4 3/8	110-125
PMJ708B	708-850	1 13/16	3 3/8	110-125
PMJ800	800-960	1 13/16	3 3/8	110-125
PMJ815	815-978	1 13/16	4 3/8	110-125
PMJ829	829-995	1 13/16	4 3/8	110-125
PMJ829A	829-995	2 1/16	4 3/8	110-125
PMJ850	850-1020	2 1/16	4 3/8	110-125
PMJ860	860-1032	1 13/16	3 3/8	110-125
PMJ1000	1000-1200	2 1/16	4 3/8	110-125
PMJ1290	1290-1548	2 1/16	4 3/8	110-125

370 VOLT / 440 VOLT ROUND RUN CAPACITORS

Features:

- UL listed and CUL approved
- Individually boxed
- Metal cases
- Metalized film
- Oil filled
- Non PCB oil
- Insulated terminals
- Hertz : 50/60

370 VOLT ROUND RUN CAPACITORS

CAT#	MFD	DIAMETER (IN.)	HEIGHT (IN.)	VOLTS
TRC5	5	1 9/16	2 3/4	370
TRC7.5	7.5	1 9/16	2 3/4	370
TRC10	10	1 9/16	2 3/4	370
TRC12.5	12.5	1 9/16	2 3/4	370
TRC15	15	1 9/16	2 3/4	370
TRC16	16	1 9/16	2 3/4	370
TRC17.5	17.5	1 9/16	2 3/4	370
TRC20	20	1 9/16	2 3/4	370
TRC25	25	1 3/4	3 1/2	370
TRC30	30	2	4 1/8	370
TRC31.5	31.5	2	4 1/8	370
TRC35	35	2	4 1/8	370
TRC40	40	2	4 1/8	370
TRC45	45	2	4 1/8	370
TRC50	50	2	4 3/4	370
TRC55	55	2	4 3/4	370
TRC60	60	2	4 3/4	370
TRC70	70	2 3/8	4 3/4	370
TRC80	80	2 3/8	4 3/4	370
TRC100	100	2 3/8	4 3/4	370

440 VOLT ROUND RUN CAPACITORS

CAT#	MFD	DIAMETER (IN.)	HEIGHT (IN.)	VOLTS
TRCF5	5	1 9/16	2 3/4	440
TRCF7.5	7.5	1 9/16	2 3/4	440
TRCF10	10	1 9/16	2 3/4	440
TRCF12.5	12.5	1 9/16	2 3/4	440
TRCF15	15	1 9/16	2 3/4	440
TRCF17.5	17.5	1 9/16	2 3/4	440
TRCF20	20	1 9/16	2 3/4	440
TRCF25	25	2	4 1/8	440
TRCF30	30	2	4 1/8	440
TRCF35	35	2	4 1/8	440
YRCF40	40	2	4 1/8	440
TRCF45	45	2	4 1/8	440
TRCF50	50	2	4 3/4	440
TRCF55	55	2	4 3/4	440
TRCF60	60	2	4 3/4	440
TRCF70	70	2 3/8	4 3/4	440
TRCF80	80	2 3/8	4 3/4	440
TRCF90	90	2 3/8	4 3/4	440

370 VOLT / 440 VOLT OVAL RUN CAPACITORS

Features:

- UL listed and CUL approved
- Individually boxed
- Metal cases
- Metallized film
- Oil filled
- Non PCB oil
- Insulated terminals
- Hertz : 50/60

370 VOLT OVAL RUN CAPACITORS

CAT#	MFD	WIDTH (IN.)	DEPTH (IN.)	HEIGHT (IN.)	VOLTS
POC2	2	1 1/4	2	2 5/32	370
POC3	3	1 1/4	2	2 5/32	370
POC4	4	1 1/4	2	2 5/32	370
POC5	5	1 1/4	2	2 5/32	370
POC5B	5	1 1/4	2	2 5/32	370
POC6	6	1 1/4	2	2 5/32	370
POC7.5	7.5	1 1/4	2	2	370
POC7.5B	7.5	1 1/4	2	2	370
POC10	10	1 1/4	2	2 5/32	370
POC10B	10	1 1/4	2	2 5/32	370
POC12.5	12.5	1 1/4	2	2 7/8	370
POC15	15	1 1/4	2	2 7/8	370
POC17.5	17.5	1 1/4	2	2 7/8	370
POC20	20	1 1/4	2 13/16	4 1/8	370
POC25	25	1 3/4	2 13/16	4 1/8	370
POC30	30	1 3/4	2 13/16	4 1/8	370
POC35	35	1 3/4	2 13/16	4 1/8	370
POC40	40	1 3/4	2 13/16	4 1/8	370
POC45	45	1 3/4	2 13/16	4 1/8	370
POC50	50	1 3/4	2 13/16	4 3/4	370
POC55	55	1 3/4	2 13/16	4 3/4	370
POC60	60	1 3/4	2 13/16	4 3/4	370
POC70	70	1 3/4	2 13/16	4 3/4	370
POC80	80	1 3/4	2 13/16	4 3/4	370

440 VOLT OVAL RUN CAPACITORS

CAT#	MFD	WIDTH (IN.)	DEPTH (IN.)	HEIGHT (IN.)	VOLTS
POCF2	2	1 1/4	2	2	440
POCF2.5	2.5	1 1/4	2	2	440
POCF3	3	1 1/4	2	2	440
POCF4	4	1 1/4	2	2	440
POCF5	5	1 1/4	2	2	440
POCF6	6	1 1/4	2	2	440
POCF7.5	7.5	1 1/4	2	2	440
POCF10	10	1 1/4	2	2 7/8	440
POCF12.5	12.5	1 1/4	2	2 7/8	440
POCF15	15	1 3/4	2 13/16	2 7/8	440
POCF17.5	17.5	1 3/4	2 13/16	2 7/8	440
POCF20	20	1 3/4	2 13/16	4 1/8	440
POCF25	25	1 3/4	2 13/16	4 3/4	440
POCF25A	25	1 3/4	2 13/16	4 3/4	440
POCF30	30	1 3/4	2 13/16	4	440
POCF35	35	1 3/4	2 13/16	4 3/4	440
POCF40	40	1 3/4	2 13/16	4 1/8	440
POCF45	45	1 3/4	2 13/16	4 3/4	440
POCF50	50	1 3/4	2 13/16	4 3/4	440
POCF55	55	1 3/4	2 13/16	4 3/4	440
POCF60	60	1 3/4	2 13/16	4 3/4	440
POCF70	70	1 3/4	2 13/16	4 3/4	440
POCF80	80	1 3/4	2 13/16	4 3/4	440
POC80	80	1 3/4	2 13/16	4 3/4	370

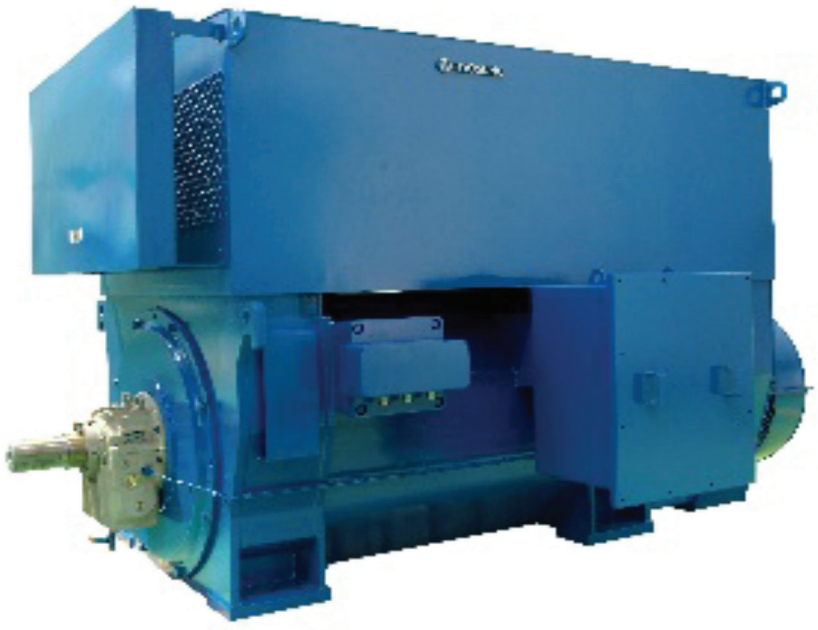
With over 52,000 field operating units all over the world, from 250 HP to 20,000 HP, Hyosung Industries Co., Ltd is a leading world manufacturer of large medium voltage AC motors.

Features:

Range: Up to 20,000 HP
Frequency: 50/60Hz
Voltage: Up to 13.2KV
Enclosures: TEFC, TEAAC, TEAO, ODP, WPI, WPII, Water Cooled or Pipe Ventilated, & Explosion Proof
Frames: NEMA & IEC
Insulation: Class F & H

Applications:

- Power Plants
- Water Treatment Plants
- Sewage Treatment Plants
- Pulp & Paper Mills
- Petro-Chemical Refineries
- HVAC
- Mining Operations



PARALLEL AND RIGHT ANGLE SPEED REDUCERS

HICO AMERICA Inc.
HYOSUNG CORPORATION

Hyosung Industries Co. Ltd (HICO) is a leading manufacture of large high quality speed reducers built to AGM standards using the latest manufacturing processes and designs available in the industry today.

Torque ratings are available to 3,500,00 In.lbs.

Ratios are from 2:1 to 500:1 in Single, Double, Triple and Quadruple reduction.

Gears and Pinions are manufactures of high grade alloy steel, carburized and precision ground AGM level 12.

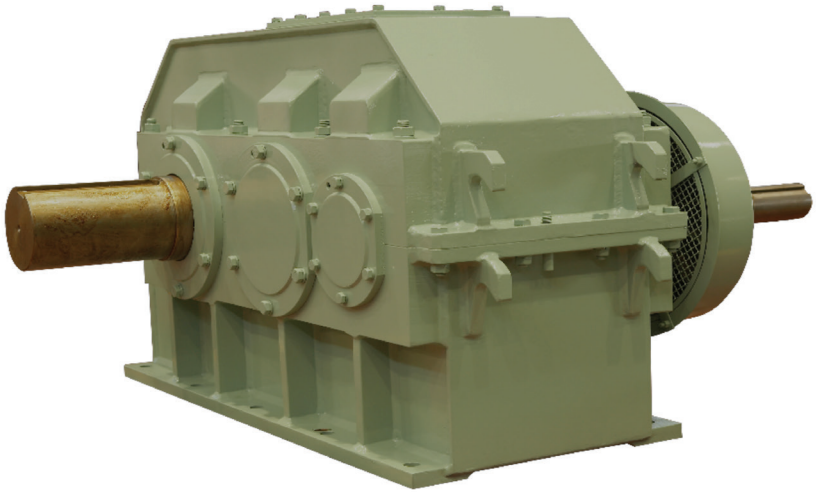
Bearings are high capacity large diameter roller bearing for long life and high capacity overhung loads.

Seals are dual lip. Grease purged and labyrinth seals are available upon request.

Housing are rugged fabricated steel. Custom made to order designs are available.

Lubrication is continuous splash type. Forced lubrication utilizing oil pumps, filters, and heat exchangers are available on required applications.

Inspection Ports are oversized for easy inspection on all reducers. Sight gauges are standard on all models and dip stick arrangements are avaialble as optional.



A/B QD SHEAVES

3B 124 SK

NUMBER OF GROOVES	BELT SIZE	PITCH DIAMETER	BUSHING
3	A and B	12.4”	SK

C QD SHEAVES

8C 80 E

NUMBER OF GROOVES	BELT SIZE	PITCH DIAMETER	BUSHING
8	C	8.0”	E

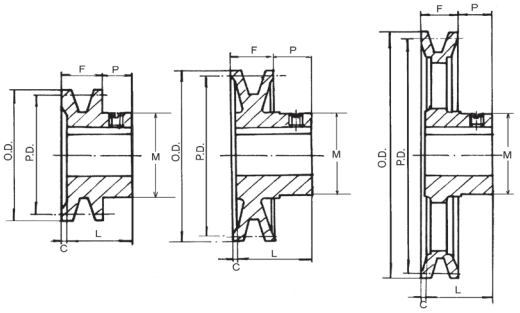
3V, 5V AND 8V QD SHEAVES

4/5V550SD

NUMBER OF GROOVES	BELT SIZE	OUTSIDE DIAMETER	BUSHING
4	5V/5VX	5.50”	SD

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **One Groove**
AK17 to **AK184**

Ordering part number size + bore
Example: AK20 - 1/2
AK39 - 1-1/8



Type 1
s = solid

Type 2
lh = lighting hole

Type 3
sp = spoked

AK

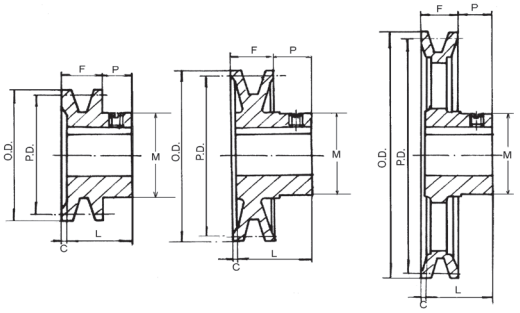
PART No.	DIAMETERS			TYPE	DIMENSIONS				STOCK BORES IN.	HUB DIAM	AV. WEIGHT
	O.D.	PITCH									
		3L	4L or A		F	L	P	C			
AK17	1.75	1.16	1.50	1 s	21/32	15/16	7/16	5/32	1/2, 5/8	1.6	.40
AK20	2.00	1.46	1.80	1 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4	1.6	.53
AK21	2.10	1.56	1.90	1 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4	1.6	.57
AK22	2.20	1.66	2.00	1 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4	1.6	.60
AK23	2.30	1.76	2.10	1 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4, 7/8	1.6	.63
AK25	2.50	1.96	2.30	2 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4, 7/8	1.6	.73
AK26	2.60	2.06	2.40	2 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4, 7/8	1.6	.75
AK27	2.70	2.16	2.50	2 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4, 7/8	1.6	.83
AK28	2.80	2.26	2.60	2 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4, 7/8 1	1.6 1.7	.84
AK30	3.05	2.46	2.80	2 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4, 7/8 1	1.6 1.7	.98
AK32	3.25	2.66	3.00	2 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4, 7/8 1	1.6 1.7	1.1
AK34	3.45	2.86	3.20	2 s	21/32	15/16	7/16	5/32	1/2, 5/8, 3/4, 7/8 1	1.6 1.7	1.2
AK39	3.75	3.16	3.50	2 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8	1.6 1.7 1.9	1.5
AK41	3.95	3.36	3.70	2 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2	1.6 1.7 1.9	1.8
AK44	4.25	3.66	4.00	3 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8	1.6 1.7 1.9	1.9
AK46	4.45	3.86	4.20	3 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8	1.6 1.7 1.9	2.0
AK49	4.75	4.16	4.50	3 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8	1.6 1.7 2.0	2.2
AK51	4.95	4.36	4.70	3 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 1 1/2, 1 1/8	1.6 1.7 2.0	2.4

CHART CONTINUED FROM PREVIOUS PAGE

PART No.	DIAMETERS			TYPE	DIMENSIONS				STOCK BORES IN.	HUB DIAM	AV. WEIGHT
	O.D.	PITCH			F	L	P	C			
		3L	4L or A								
AK54	5.25	4.66	5.00	3 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8, 1 3/16	1.6 1.7 2.0	2.6
AK56	5.45	4.86	5.20	3 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8, 1 3/16	1.6 1.7 2.0	2.7
AK59	5.75	5.16	5.50	3 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8, 1 3/16	1.6 1.7 2.0	2.9
AK61	5.95	5.36	5.70	3 s	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8, 1 3/16	1.6 1.7 2.0	3.2
AK64	6.25	5.66	6.00	3 lh	3/4	1 5/32	15/32	1/16	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8, 1 3/16	1.6 1.7 2.0	3.0
AK66	6.45	5.86	6.20	3 lh	3/4	1 5/32	15/32	1/16	5/8, 3/4 1 1 1/8	1.6 1.7 2.0	3.1
AK69	6.75	6.16	6.50	3 lh	3/4	1 15/32	23/32	0	3/4 1 1 1/8	1.6 1.7 2.2	3.5
AK71	6.95	6.36	6.70	3 lh	3/4	1 15/32	23/32	0	5/8, 3/4, 7/8 1 1 1/8 1 7/16	1.6 1.7 2.2 2.5	3.8
AK74	7.25	6.66	7.00	3 lh	3/4	1 15/32	23/32	0	5/8, 3/4 15/16, 1 1 1/8, 1 3/16, 1 1/4 1/2, 1 7/16	1.6 1.7 2.2 2.5	4.2
AK79	7.75	7.16	7.50	3 lh	3/4	1 15/32	23/32	0	3/4 1 1 1/8 1 7/16	1.6 1.7 2.2 2.5	4.5
AK84	8.25	7.66	8.00	3 lh	3/4	1 15/32	23/32	0	5/8, 3/4 15/16, 1 1 3/16 1/2, 1 7/16	1.6 1.7 2.2 2.5	5.0
AK89	8.75	8.16	8.50	3 lh	3/4	1 15/32	23/32	0	3/4 1 1 1/8 1 7/16	1.6 1.7 2.2 2.5	5.4
AK94	9.25	8.66	9.00	3 lh	3/4	1 15/32	23/32	0	5/8, 3/4 15/16, 1 1 3/16, 1 1/4 1/2, 1 7/16	1.6 1.7 2.2 2.5	5.9

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **One Groove**
AK17 to **AK184**

Ordering part number size + bore
Example: AK20 - 1/2
AK39 - 1-1/8



Type 1
s = solid

Type 2
lh = lighting hole

Type 3
sp = spoked

AK

PART No.	DIAMETERS			TYPE	DIMENSIONS				STOCK BORES INCHES	HUB DIAM	AV. WEIGHT
	O.D.	PITCH									
		3L	4L or A		F	L	P	C			
AK99	9.75	9.16	9.50	3 sp	3/4	1 15/32	23/32	0	3/4, 1 1 7/16	1.7 2.5	6.1
AK104	10.25	9.66	10.00	3 sp	3/4	1 15/32	23/32	0	5/8, 3/4, 1 1 3/16, 1 1/4 1 3/8, 1 7/16	1.7 2.2 2.5	6.9
AK109	10.75	10.16	10.50	3 sp	3/4	1 15/32	23/32	0	3/4, 1 1 3/8 1 7/16	1.7 2.2 2.5	7.3
AK114	11.25	10.66	11.00	3 sp	3/4	1 15/32	23/32	0	3/4, 1 1 3/16 1 7/16	1.7 2.2 2.5	7.4
AK124	12.25	11.66	12.00	3 sp	3/4	1 15/32	23/32	0	5/8, 3/4, 7/8, 1 1 3/16, 1 1/4 1 7/16	1.7 2.2 2.5	8.3
AK134	13.25	12.66	13.00	3 sp	3/4	1 15/32	23/32	0	3/4, 1 1 3/8, 1 7/16	1.7 2.5	9.3
AK144	14.25	13.66	14.00	3 sp	3/4	1 15/32	23/32	0	3/4, 1 1 3/16 1 7/16	1.7 2.2 2.5	10.8
AK154	15.25	14.66	15.00	3 sp	3/4	1 15/32	23/32	0	3/4, 1 1 3/16, 1 3/8, 1 7/16	1.7 2.2 2.5	12.6
AK184	18.25	17.66	18.00	3 sp	3/4	1 15/32	23/32	0	3/4, 1 1 3/16 1 7/16	1.7 2.2 2.5	17.1

STANDARD KEY DIMENSIONS	
SHAFT DIA.	KEYSEAT W X D
1/2	None
5/8 - 7/8	3/16 x 3/32
15/16 - 1 1/4	1/4 x 1/8
1 5/16 - 1 3/8	5/16 x 5/32
1 7/16 - 1 3/4	3/8 x 3/16

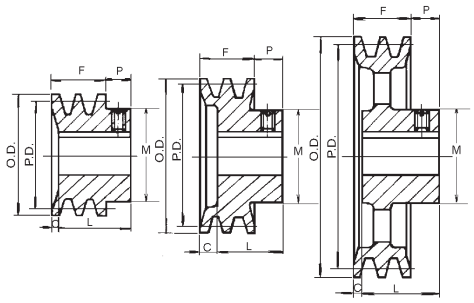
AK Sheaves are accurately machined from gray cast iron, statically balanced, painted and individually packaged. They are furnished with standard keyway & set screw. All set screws are 5/16-18 knurled. Recommended tightening torque is 110-130 inch-lbs.

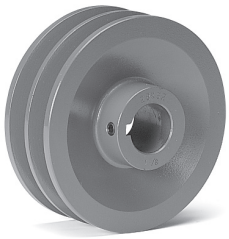
BORED-TO-SIZE SHEAVES

TWO GROOVE 2AK20 - 2AK184 PAGE 1 of 2

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **Two Groove**
2AK20 to **2AK184**

Ordering part number size + bore
Example: AK20 - 1/2
AK39 - 1-1/8





Type 1
s = solid

Type 2
lh = lighting hole

Type 3
sp = spoked

2AK

PART No.	DIAMETERS			TYPE	DIMENSIONS				STOCK BORES IN.	HUB DIAM	SERIES AVERAGE WEIGHT
	O.D.	PITCH									
		3L	4L or A		F	L	P	C			
2AK20	2.00	1.46	1.80	1 s	1 3/8	1 21/32	15/32	3/16	1/2, 5/8, 3/4, 7/8	1.6	.83
2AK21	2.15	1.56	1.90	1 s	1 3/8	1 21/32	15/32	3/16	1/2, 5/8, 3/4	1.6	.97
2AK22	2.25	1.66	2.00	1 s	1 3/8	1 21/32	15/32	3/16	1/2, 5/8, 3/4, 7/8	1.6	1.0
2AK23	2.35	1.76	2.10	1 s	1 3/8	1 21/32	15/32	3/16	5/8, 3/4, 7/8, 1	1.7	1.1
2AK25	2.55	1.96	2.30	1 s	1 3/8	1 21/32	15/32	3/16	5/8, 3/4, 7/8, 1	1.7	1.3
2AK26	2.65	2.06	2.40	1 s	1 3/8	1 21/32	15/32	3/16	5/8, 3/4, 7/8, 1	1.7	1.4
2AK27	2.75	2.16	2.50	1 s	1 3/8	1 21/32	15/32	3/16	5/8, 3/4, 7/8, 1	1.9	1.6
2AK28	2.85	2.26	2.60	1 s	1 3/8	1 21/32	15/32	3/16	5/8, 3/4, 7/8, 1	1.9	1.7
2AK30	3.05	2.46	2.80	1 s	1 3/8	1 21/32	15/32	3/16	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.9	2.0
2AK32	3.25	2.66	3.00	1 s	1 3/8	1 21/32	15/32	3/16	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.9	2.3
2AK34	3.45	2.86	3.20	1 s	1 3/8	1 21/32	15/32	3/16	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.9	2.5
2AK39	3.75	3.16	3.50	2 s	1 3/8	1 11/32	15/32	1/2	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.9	2.6
2AK41	3.95	3.36	3.70	2 s	1 3/8	1 11/32	15/32	1/2	5/8, 3/4, 7/8, 1, 1 1/8	1.9	2.8
2AK44	4.25	3.66	4.00	2 s	1 3/8	1 11/32	15/32	1/2	5/8, 3/4, 7/8, 1, 1 1/8	1.9	3.2
2AK46	4.45	3.86	4.20	2 s	1 3/8	1 11/32	15/32	1/2	7/8, 1, 1 1/8	1.6 1.9	2.9
2AK49	4.75	4.16	4.50	2 s	1 3/8	1 11/32	15/32	1/2	3/4, 7/8 1, 1 1/8 1 3/8	1.6 1.9 2.4	3.2
2AK51	4.95	4.36	4.70	2 s	1 3/8	1 11/32	15/32	1/2	3/4, 7/8 1, 1 1/8 1 3/8	1.6 1.9 2.4	3.4
2AK54	5.25	4.66	5.00	3 s	1 3/8	1 11/32	15/32	1/2	5/8, 3/4, 7/8, 1 1 1/8 1 3/8	1.6 1.9 2.4	3.7
2AK56	5.45	4.86	5.20	3 s	1 3/8	1 11/32	15/32	1/2	5/8, 3/4, 1 1 1/8 1 3/8	1.6 1.9 2.4	3.9
2AK59	5.75	5.16	5.50	3 s	1 3/8	1 11/32	15/32	1/2	1, 1 1/8 1 3/8	1.9 2.4	4.4
2AK61	5.95	5.36	5.70	3 s	1 3/8	1 11/32	15/32	1/2	3/4, 7/8 1, 1 1/8 1 3/8	1.6 1.9 2.4	4.5

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **Two Groove**
2AK20 to **2AK184**

Ordering part number size + bore
Example: AK20 - 1/2
AK39 - 1-1/8

CHART CONTINUED FROM PREVIOUS PAGE

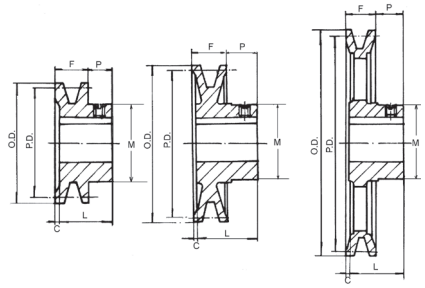
PART No.	DIAMETERS			TYPE	DIMENSIONS				STOCK BORES IN.	HUB DIAM	SERIES AVERAGE WEIGHT
	O.D.	PITCH									
		3L	4L or A		F	L	P	C			
2AK64	6.25	5.66	6.00	3 s	1 3/8	1 19/32	11/32	1/8	3/4, 1 1 1/8, 1 3/16 1 3/8, 1 7/16	1.7 2.0 2.5	5.2
2AK74	7.25	6.66	7.00	3 lh	1 3/8	1 19/32	11/32	1/8	3/4, 1 1 1/8, 1 3/16 1 3/8, 1 7/16	1.7 2.0 2.5	6.0
2AK84	8.25	7.66	8.00	3 lh	1 3/8	1 19/32	11/32	1/8	3/4, 15/16, 1 1 1/8, 1 3/16, 1 1/4 1 3/8, 1 7/16	1.7 2.0 2.5	7.0
2AK94	9.25	8.66	9.00	3 lh	1 3/8	1 19/32	11/32	1/8	3/4, 1 1 1/8, 1 3/16 1 3/8, 1 7/16	1.7 2.0 2.5	8.2
2AK104	10.25	9.66	10.00	3 sp	1 3/8	1 19/32	11/32	1/8	3/4, 15/16, 1 1 7/16	1.7 2.5	9.6
2AK114	11.25	10.66	11.00	3 lh	1 3/8	1 19/32	11/32	1/8	3/4, 1 1 3/16 1 3/8, 1 7/16	1.7 2.2 2.5	11.2
2AK124	12.25	11.66	12.00	3 sp	1 3/8	1 19/32	11/32	1/8	3/4, 1 1 3/16 1 7/16	1.7 2.2 2.5	12.1
2AK134	13.25	12.66	13.00	3 sp	1 3/8	1 19/32	11/32	1/8	1 3/16 1 7/16	2.2 2.5	13.6
2AK144	14.25	13.66	14.00	3 sp	1 3/8	1 19/32	11/32	1/8	1 1 7/16	1.7 2.5	14.6
2AK154	15.25	14.66	15.00	3 sp	1 3/8	1 19/32	11/32	1/8	1 3/16 1 7/16	2.2 2.5	16.5
2AK184	18.25	17.66	18.00	3 sp	1 3/8	1 19/32	11/32	1/8	1 3/16 1 7/16	2.2 2.5	22.7

STANDARD KEY DIMENSIONS	
SHAFT DIA.	KEYSEAT W X D
1/2	None
5/8 - 7/8	3/16 x 3/32
15/16 - 1 1/4	1/4 x 1/8
1 5/16 - 1 3/8	5/16 x 5/32
1 7/16 - 1 3/4	3/8 x 3/16

2AK Sheaves are accurately machined from gray cast iron, statically balanced, painted and individually packaged. They are furnished with standard keyway & set screw. All set screws are 5/16-18 knurled. Recommended tightening torque is 110-130 inch-lbs.

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **One Groove**
BK24 to **BK190**

Ordering part number size + bore
Example: BK20 - 1/2
BK39 - 1-1/8



Type 1
s = solid

Type 2
lh = lighting hole

Type 3
sp = spoked

BK

PART No.	DIAMETERS			TYPE	DIMENSIONS				STOCK BORES IN.	HUB DIAM	SERIES AVE.
	O.D.	PITCH									
		3L	4L or A		F	L	P	C			
BK24	2.40	1.80	2.20	1 s	13/16	1 1/16	13/32	5/32	1/2, 5/8, 3/4, 7/8	1.6	.73
BK25	2.50	1.90	2.30	1 s	13/16	1 1/16	13/32	5/32	1/2, 5/8, 3/4, 7/8 1	1.6 1.7	.74
BK26	2.60	2.00	2.40	1 s	13/16	1 1/16	13/32	5/32	1/2, 5/8, 3/4, 7/8	1.6	.80
BK27	2.70	2.10	2.50	2 s	13/16	1 1/16	13/32	5/32	1/2, 5/8, 3/4, 7/8 1	1.6 1.7	.84
BK28	2.95	2.20	2.60	2 s	13/16	1 1/16	13/32	5/32	1/2, 5/8, 3/4, 7/8 1, 1 1/8	1.6 1.9	1.0
BK30	3.15	2.40	2.80	2 s	13/16	1 1/16	13/32	5/32	1/2, 5/8, 3/4, 7/8 1, 1 1/8	1.6 1.9	1.2
BK32	3.35	2.60	3.00	2 s	13/16	1 1/16	13/32	5/32	1/2, 5/8, 3/4, 7/8 1, 1 1/8	1.6 1.9	1.2
BK34	3.55	2.80	3.20	2 s	7/8	1 5/32	13/32	1/8	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.9	1.7
BK36	3.75	3.00	3.40	2 s	7/8	1 5/32	13/32	1/8	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.9	1.9
BK40	3.95	3.20	3.60	2 s	7/8	1 5/32	13/32	1/8	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.9	2.1
BK45	4.25	3.50	3.90	2 s	7/8	1 5/32	13/32	1/8	5/8, 3/4, 7/8 1 1/2, 1 1/8	1.6 1.7 1.9	2.1
BK47	4.45	3.70	4.10	2 s	7/8	1 5/32	13/32	1/8	5/8, 3/4, 7/8 1 1/2, 1 1/8	1.6 1.7 1.9	2.2
BK50	4.75	4.00	4.40	3 s	7/8	1 5/32	13/32	1/8	5/8, 3/4, 7/8 1 1/2, 1 1/8	1.6 1.7 1.9	2.5
BK52	4.95	4.20	4.60	3 s	7/8	1 5/32	13/32	1/8	5/8, 3/4, 7/8 1 1/2, 1 1/8	1.6 1.7 1.9	2.6
BK55	5.25	4.50	4.90	3 s	7/8	1 5/32	13/32	1/8	5/8, 3/4, 7/8 1 1/2, 1 1/8, 1 3/16	1.6 1.7 2.0	3.0
BK57	5.45	4.70	5.10	3 s	7/8	1 5/32	13/32	1/8	5/8, 3/4, 7/8 15/16, 1 1 1/8, 1 3/16	1.6 1.7 2.0	3.1

CHART CONTINUED FROM PREVIOUS PAGE

PART No.	DIAMETERS			TYPE	DIMENSIONS				STOCK BORES IN.	HUB DIAM	SERIES AVE.
	O.D.	PITCH									
		3L	4L or A		F	L	P	C			
BK60	5.75	5.00	5.40	3 s	7/8	1 5/32	13/32	1/8	5/8, 3/4, 7/8 1 1/2, 1 1/8, 1 3/16	1.6 1.7 2.0	3.4
BK62	5.95	5.20	5.60	3 s	7/8	1 5/32	13/32	1/8	5/8, 3/4, 7/8 15/16, 1 1/2, 1 1/8, 1 3/16	1.6 1.7 2.0	3.6
BK65	6.25	5.50	5.90	3 s	7/8	1 5/32	13/32	1/8	5/8, 3/4 1 1 1/8	1.6 1.7 2.0	3.9
BK67	6.45	5.70	6.10	3 s	7/8	1 5/32	13/32	1/8	5/8, 3/4 1 1 1/8, 1 3/16	1.6 1.7 2.0	3.7
BK70	6.75	6.00	6.40	3 s	7/8	1 15/32	21/32	1/16	5/8, 3/4, 7/8 15/16, 1 1 1/8, 1 3/16 1 7/16	1.6 1.7 2.0 2.5	4.6
BK72	6.95	6.20	6.60	3 lh	7/8	1 15/32	21/32	1/16	3/4 1 1 1/8 1 3/8	1.6 1.7 2.0 2.5	4.4
BK75	7.25	6.50	6.90	3 lh	7/8	1 15/32	21/32	1/16	3/4 1, 1 1/8	1.6 1.9	4.6
BK77	7.45	6.70	7.10	3 lh	7/8	1 15/32	21/32	1/16	3/4 1, 1 1/8 1 3/8	1.6 1.9 2.5	5.1
BK80	7.75	7.00	7.40	3 lh	7/8	1 15/32	21/32	1/16	5/8, 3/4, 7/8 1, 1 1/8 1 3/16, 1 1/4 1 3/8, 1 7/16	1.6 1.9 2.2 2.5	5.4
BK85	8.25	7.50	7.90	3 lh	7/8	1 15/32	21/32	1/16	3/4 1 1 1/8, 1 3/8, 1 7/16	1.6 1.7 2.2 2.5	5.8
BK90	8.75	8.00	8.40	3 lh	7/8	1 15/32	21/32	1/16	3/4, 7/8 15/16, 1 1 1/8, 1 3/16 1 3/8, 1 7/16	1.6 1.7 2.2 2.5	6.1
BK95	9.25	8.50	8.90	3 lh	7/8	1 15/32	21/32	1/16	3/4 1 1 1/8 1 3/8	1.6 1.7 2.2 2.5	7.0
BK100	9.75	9.00	9.40	3 lh	7/8	1 15/32	21/32	1/16	3/4, 7/8 15/16, 1 1 1/8, 1 3/16, 1 1/4 1 3/8, 1 7/16	1.6 1.7 2.2 2.5	7.4

CHART CONTINUED FROM PREVIOUS PAGE

PART No.	DIAMETERS			TYPE	DIMENSIONS				STOCK BORES IN.	HUB DIAM	SERIES AVE.
	O.D.	PITCH									
		3L	4L or A		F	L	P	C			
BK105	10.25	9.50	9.90	3 lh	7/8	1 15/32	21/32	1/16	1 1 3/8, 1 7/16	1.7 2.5	8.0
BK110	10.75	10.00	10.40	3 sp	7/8	1 15/32	21/32	1/16	3/4, 1 1 1/8, 1 3/16 1 3/8, 1 7/16	1.7 2.2 2.5	8.5
BK115	11.25	10.50	10.90	3 sp	7/8	1 15/32	21/32	1/16	1 1 7/16	1.7 2.5	8.9
BK120	11.75	11.00	11.40	3 sp	7/8	1 15/32	21/32	1/16	3/4, 1 1 3/16 1 7/16	1.7 2.2 2.5	10.0
BK130	12.75	12.00	12.40	3 sp	7/8	1 15/32	21/32	1/16	3/4, 1 1 1/8, 1 3/16, 1 1/4 1 7/16	1.7 2.2 2.5	10.8
BK140	13.75	13.00	13.40	3 sp	7/8	1 15/32	21/32	1/16	3/4, 1 1 3/16, 1 7/16	1.7 2.2	12.1
BK160	15.75	15.00	15.40	3 sp	7/8	1 15/32	21/32	1/16	1, 1 1/8, 1 3/16, 1 1/4 1 7/16	1.7 2.2 2.5	14.4
BK190	18.75	18.00	18.40	3 sp	7/8	1 15/32	21/32	1/16	1 1 3/16, 1 1/4 1 7/16	1.7 2.2 2.5	21.3

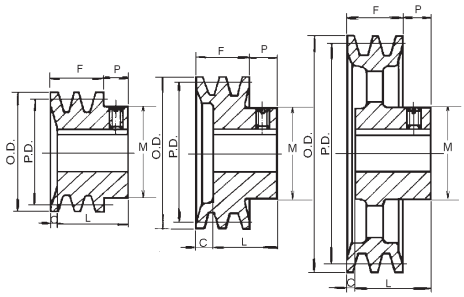
STANDARD KEY DIMENSIONS	
SHAFT DIA.	KEYSEAT W X D
1/2	None
5/8 - 7/8	3/16 x 3/32
15/16 - 1 1/4	1/4 x 1/8
1 5/16 - 1 3/8	5/16 x 5/32
1 7/16 - 1 3/4	3/8 x 3/16

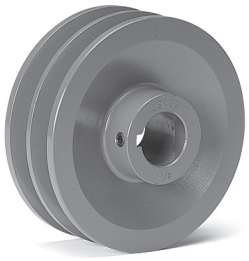
2AK Sheaves are accurately machined from gray cast iron, statically balanced, painted and individually packaged. They are furnished with standard keyway and set screw. All set screws are 5/16-18 knurled. Recommended tightening torque is 110-130 inch-lbs.

BORE SIZE		G8 TOLERANCE		KEY TOLERANCES		
NOMINAL DIMENSION				KEY WIDTH RANGE		
MM	INCHES	MM	INCHES	>	<	INCHES
6-10	.2362 - .3937	High + .027 mm Low + .005 mm	High + .0010“ Low + .0001”	1/2”	+ .002”	
10-18	.3937 - .7087	High + .033 mm Low + .006 mm	High + .0013” Low + .0020”	1/2” 3/4”	3/4” 1”	+ .003” + .003”
18-30	.7087 - 1.1811	High + .040mm Low + .007mm	High + .0016” Low + .0003”	1”	1 1/2”	+ .004”
30-50	1.1811 - 1.9685	High + .048mm Low + .009mm	High + .0019” Low + .0003”			
50-80	1.9685 - 3.1496	High + .056mm Low + .010mm	High + .0022” Low + .0003			
80-120	3.1496 - 4.7244	High + .066mm Low + .012mm	High + .0026 Low + .0004”			
120-180	4.7244 - 7.0866	High + .077mm Low + .014mm	High + .0030” Low + .0005”			
180-250	7.0866 - 9.8425	High + .087mm Low + .015mm	High + .0034” Low + .0005”			

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **Two Groove**
2BK25 to **2BK190**

Ordering part number size + bore
Example: 2BK25-1/2
2BK47-1-1/8





Type 1
s = solid

Type 2
lh = lighting hole

Type 3
sp = spoked

2BK

PART No.	DIAMETERS			TYPE	DIMENSIONS				DIA STOCK BORES IN.	HUB AVERAGE M	SERIES
	O.D.	PITCH			F	L	P	C			
		4L or A	5L or B								
2BK25	2.50	1.90	2.30	1 s	1 3/4	1 31/32	15/32	1/4	1/2, 5/8, 3/4, 7/8	1.6	1.5
2BK27	2.70	2.10	2.50	1 s	1 3/4	1 31/32	15/32	1/4	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.7	1.7
2BK28	2.95	2.20	2.60	1 s	1 3/4	1 31/32	15/32	1/4	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.9	2.1
2BK30	3.15	2.40	2.80	1 s	1 3/4	1 31/32	15/32	1/4	1/2, 5/8, 3/4, 7/8, 1, 1 1/8 1 3/8	1.9 2.4	2.3
2BK32	3.35	2.60	3.00	1 s	1 3/4	1 31/32	15/32	1/4	5/8, 3/4,7/8 1, 1 1/8	1.6 1.9	2.7
2BK34	3.55	2.80	3.20	1 s	1 3/4	1 31/32	15/32	1/4	5/8, 3/4, 7/8 1, 1 1/8	1.6 1.9	3.1
2BK36	3.75	3.00	3.40	1 s	1 3/4	1 31/32	15/32	1/4	5/8, 3/4, 7/8 1, 1 1/8 1 3/8	1.6 1.9 2.4	3.4
2BK40	3.95	3.20	3.60	2 s	1 3/4	1 15/32	15/32	3/4	5/8, 3/4, 7/8 1, 1 1/8	1.6 1.9	3.4
2BK45	4.25	3.50	3.90	2 s	1 3/4	1 15/32	15/32	3/4	1, 1 1/8 1 3/8	1.9 2.4	4.0
2BK47	4.45	3.70	4.10	2 s	1 3/4	1 15/32	15/32	3/4	7/8 1, 1 1/8 1 3/8	1.6 1.9 2.4	4.2
2BK50	4.75	4.00	4.40	2 s	1 3/4	1 15/32	15/32	3/4	3/4 1, 1 1/8 1 3/8	1.6 1.9 2.4	4.8
2BK52	4.95	4.20	4.60	2 s	1 3/4	1 15/32	15/32	3/4	5/8, 7/8 1, 1 1/8 1 3/8	1.6 1.9 2.4	5.2
2BK55	5.25	4.50	4.90	2 s	1 3/4	1 15/32	15/32	3/4	1 1/8 1 3/8	1.9 2.4	5.8
2BK57	5.45	4.70	5.10	2 s	1 3/4	1 15/32	15/32	3/4	1, 1 1/8 1 3/8	1.9 2.4	5.4
2BK60	5.75	5.00	5.40	3 s	1 3/4	1 15/32	15/32	3/4	3/4, 7/8 1, 1 1/8 1 3/8	1.6 1.9 2.4	5.7

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PART No.	DIAMETERS			TYPE	DIMENSIONS				DIA STOCK BORES IN.	HUB AVERAGE M	SERIES
	O.D.	PITCH			F	L	P	C			
		4L or A	5L or B								
2BK62	5.95	5.20	5.60	3 s	1 3/4	1 15/32	15/32	3/4	1, 1 1/8	1.9	6.0
2BK65	6.25	5.50	5.90	3 s	1 3/4	1 15/32	15/32	3/4	1, 1 1/8 1 3/8	1.9 2.4	6.5
2BK67	6.45	5.70	6.10	3 s	1 3/4	1 15/32	15/32	3/4	1, 1 1/8 1 3/8	1.9 2.4	6.8
2BK70	6.75	6.00	6.40	3 s	1 3/4	1 19/32	11/32	1/2	3/4 1, 1 1/8 1 3/16 1 3/8, 1 7/16	1.6 1.9 2.0 2.4	7.6
2BK80	7.75	7.00	7.40	3 lh	1 3/4	1 19/32	11/32	1/2	3/4 1, 1 1/8 1 3/16, 1 1/4 1 3/8, 1 7/16	1.6 1.9 2.0 2.5	8.7
2BK90	8.75	8.00	8.40	3 lh	1 3/4	1 19/32	11/32	1/2	3/4 1, 1 1/8 1 3/16 1 3/8, 1 7/16	1.6 1.9 2.0 2.5	10.0
2BK100	9.75	9.00	9.40	3 lh	1 3/4	1 19/32	11/32	1/2	3/4 1 1 3/16 1 3/8, 1 7/16	1.6 1.9 2.0 2.5	11.8
2BK110	10.75	10.00	10.40	3 sp	1 3/4	1 19/32	11/32	1/2	1 1 3/16 1 7/16	1.7 2.2 2.5	14.0
2BK120	11.75	11.00	11.40	3 sp	1 3/4	1 19/32	11/32	1/2	1 1 3/16 1 7/16	1.7 2.2 2.5	15.6
2BK130	12.75	12.00	12.40	3 sp	1 3/4	1 19/32	11/32	1/2	1 1 3/16 1 7/16	1.7 2.2 2.5	17.0
2BK140	13.75	13.00	13.40	3 sp	1 3/4	1 19/32	11/32	1/2	1 1 3/16 1 7/16	1.7 2.2 2.5	19.0
2BK160	15.75	15.00	15.40	3 sp	1 3/4	1 19/32	11/32	1/2	1 1 3/16 1 7/16	1.7 2.2 2.5	23.7
2BK190	18.75	18.00	18.40	3 sp	1 3/4	1 19/32	11/32	1/2	1 3/16, 1 1/4 1 7/16	2.2 2.5	30.3

2AK Sheaves are accurately machined from gray cast iron, statically balanced, painted and individually packaged.
They are furnished with standard keyway & set screw. All set screws are 5/16-18 knurled.
Recommended tightening torque is 110-130 inch-lbs.

Cast Iron Sheaves - **Light Duty Bushed**
Bored-to Size - **One Groove & Two Groove**
AK30H to **AK184H -**
2AK30H to **2AK184H**

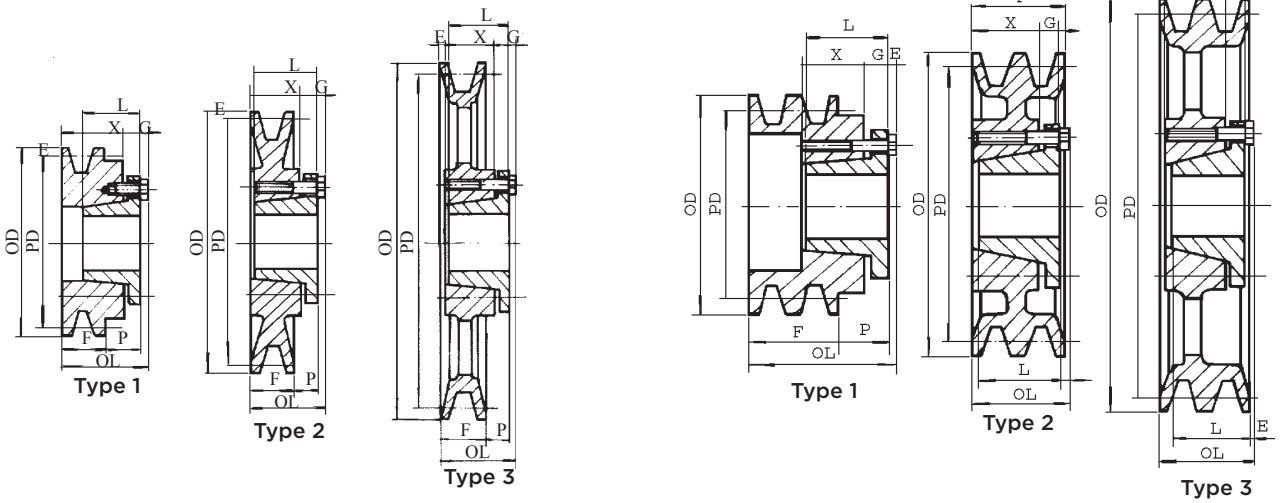
Order part number size
Example: AK30H
2AK32H

For All
1 Groove Sheaves
F= 3/4
L= 1 1/4
G= 7/16
E= 3/16

AKH

For All
2 Groove Sheaves
F= 1 3/8
L= 1 1/4
X= 7/8
G= 7/16
E= 3/16

2AKH



Type 1
s = solid

Type 2
lh = lighting hole

Type 3
sp = spoked

PART No.	DIAMETERS			TYPE	DIMENSIONS			
	O.D.	PITCH						
		3L	4L or A		O.L.	P	X	WT.
AK30H	3.05	2.46	2.80	1 s	1 13/16	7/8	1 3/16	1.30
AK32H	3.30	2.66	3.00	1 s	1 13/16	7/8	1 3/16	1.30
AK34H	3.45	2.86	3.20	2 s	1 1/2	9/16	7/8	1.20
AK39H	3.75	3.16	3.50	2 s	1 1/2	9/16	7/8	1.50
AK41H	3.95	3.36	3.70	2 s	1 1/2	9/16	7/8	1.80
AK44H	4.25	3.66	4.00	2 s	1 1/2	9/16	7/8	2.00
AK46H	4.45	3.86	4.20	2 s	1 1/2	9/16	7/8	2.30
AK49H	4.75	4.16	4.50	2 s	1 1/2	9/16	7/8	2.60
AK51H	4.95	4.36	4.70	2 s	1 1/2	9/16	7/8	2.70
AK54H	5.25	4.66	5.00	2 s	1 1/2	9/16	7/8	2.60
AK56H	5.45	4.86	5.20	2 s	1 1/2	9/16	7/8	2.80
AK59H	5.75	5.16	5.50	2 s	1 1/2	9/16	7/8	3.00
AK61H	5.95	5.36	5.70	3 s	1 1/2	9/16	7/8	3.10
AK64H	6.25	5.66	6.00	3 s	1 1/2	9/16	7/8	3.30
AK66H	6.45	5.86	6.20	3 s	1 1/2	9/16	7/8	3.60
AK69H	6.75	6.16	6.50	3 lh	1 1/2	9/16	7/8	3.50

CHART CONTINUED FROM PREVIOUS PAGE

PART No.	DIAMETERS			TYPE	DIMENSIONS			
	O.D.	PITCH						
		3L	4L or A		O.L.	P	X	WT.
AK71H	6.95	6.36	6.70	3 lh	1 1/2	9/16	7/8	3.50
AK74H	7.25	6.66	7.00	3 lh	1 1/2	9/16	7/8	3.80
AK79H	7.75	7.16	7.50	3 lh	1 1/2	9/16	7/8	4.20
AK84H	8.25	7.66	8.00	3 lh	1 1/2	9/16	7/8	4.60
AK89H	8.75	8.16	8.50	3 lh	1 1/2	9/16	7/8	4.80
AK94H	9.25	8.66	9.00	3 lh	1 1/2	9/16	7/8	5.60
AK99H	9.75	9.16	9.50	3 lh	1 1/2	9/16	7/8	5.90
AK104H	10.25	9.66	10.00	3 sp	1 1/2	9/16	7/8	6.80
AK109H	10.75	10.16	10.50	3 sp	1 1/2	9/16	7/8	7.10
AK114H	11.25	10.66	11.00	3 sp	1 1/2	9/16	7/8	7.50
AK124H	12.25	11.66	12.00	3 sp	1 1/2	9/16	7/8	8.00
AK134H	13.25	12.66	13.00	3 sp	1 1/2	9/16	7/8	10.70
AK144H	14.25	13.66	14.00	3 sp	1 1/2	9/16	7/8	11.10
AK154H	15.25	14.66	15.00	3 sp	1 1/2	9/16	7/8	12.50
AK184H	18.25	17.66	18.00	3 sp	1 1/2	9/16	7/8	17.30
2AK30H - 2AK184H								
2AK30H	3.05	2.46	2.80	1 s	2 7/16	7/8	15/16	1.70
2AK32H	3.25	2.66	3.00	1 s	2 7/16	7/8	15/16	1.80
2AK34H	3.45	2.86	3.20	1 s	2	7/16	1/2	1.70
2AK39H	3.75	3.16	3.50	1 s	2	7/16	1/2	2.10
2AK41H	3.95	3.36	3.70	2 s	1 1/2	1/16	-	2.40
2AK44H	4.25	3.66	4.00	2 s	1 1/2	1/16	-	2.90
2AK46H	4.45	3.86	4.20	2 s	1 1/2	1/16	-	3.20
2AK49H	4.75	4.16	4.50	2 s	1 1/2	1/16	-	3.70
2AK51H	4.95	4.36	4.70	2 s	1 1/2	1/16	-	3.20
2AK54H	5.25	4.66	5.00	2 s	1 1/2	1/16	-	3.50
2AK56H	5.45	4.86	5.20	2 s	1 1/2	1/16	-	3.80
2AK59H	5.75	5.16	5.50	3 s	1 1/2	1/16	-	4.10
2AK61H	5.95	5.36	5.70	3 s	1 1/2	1/16	-	4.30
2AK64H	6.25	5.66	6.00	3 s	1 1/2	1/16	-	4.60
2AK74H	7.25	6.66	7.00	3 lh	1 1/2	1/16	-	5.10
2AK84H	8.25	7.66	8.00	3 lh	1 1/2	1/16	-	6.10
2AK94H	9.25	8.66	9.00	3 lh	1 1/2	1/16	-	7.40
2AK104H	10.25	9.66	10.00	3 sp	1 1/2	1/16	-	9.20
2AK114H	11.25	10.66	11.00	3 sp	1 1/2	1/16	-	10.00
2AK124H	12.25	11.66	12.00	3 sp	1 1/2	1/16	-	10.90
2AK134H	13.25	12.66	13.00	3 sp	1 1/2	1/16	-	13.10
2AK144H	14.25	13.66	14.00	3 sp	1 1/2	1/16	-	14.60
2AK154H	15.25	14.66	15.00	3 sp	1 1/2	1/16	-	16.20
2AK184H	18.25	17.66	18.00	3 sp	1 1/2	1/16	-	21.60

AK Sheaves are accurately machined from gray cast iron, statically balanced, painted and individually packaged.
Note: Cast iron sheaves may not exceed 6500 FPM. This speed **DOES NOT** specify if dynamic balancing (2 plane) is required. Contact customer service to verify whether dynamic balancing is required.

Cast Iron Sheaves - **Light Duty**
Bushed, **One Groove & Two Groove**
BK36HR to **BK190HR -**
2BK50HR to **2BK190HR**

Order part number size
Example: BK36HR
Example: 2BK50HR

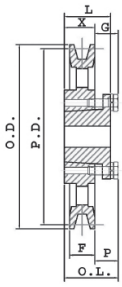
Order H bushings separately
All HR sheaves use standard
MasterDrive H bushings.

For All
1 Groove Sheaves
F= 7/8
L= 1 1/4
G= 7/16
E= 3/16
X= 7/8

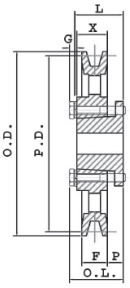
BKHR

For All
2 Groove Sheaves
F= 1 3/4
L= 1 1/4
X= 7/8
G= 7/16
E= 3/16
P= 7/16
O.L.= 1 3/4

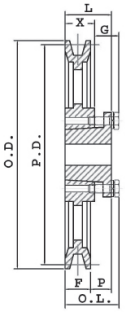
2BKHR



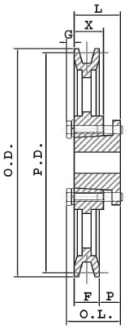
Type 2
Standard



Type 2
Reverse

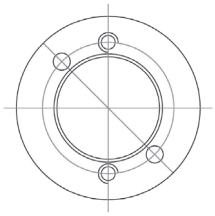


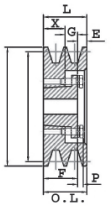
Type 3
Standard



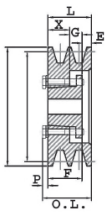
Type 3
Reverse

SHEAVE HUB BOLT HOLE PATTERN

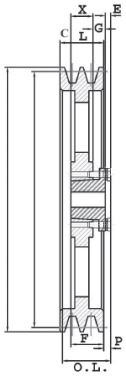




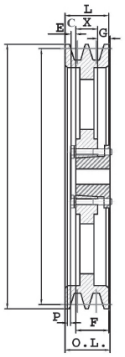
Type 2
Standard



Type 2
Reverse



Type 3
Standard



Type 3
Reverse

s = solid ● **lh** = lighting hole ⊛ **sp** = spoked ⊗

PART No.	DIAMETERS			TYPE	DIMENSIONS			
	O.D.	PITCH						
		4L or A	5L or B		O.L.	P	X	WT.
BK36HR	3.75	3.00	3.40	2 s	1 1/2	7/16	-	1.5
BK40HR	3.95	3.20	3.60	2 s	1 1/2	7/16	-	1.7
BK45HR	4.25	3.50	3.90	2 s	1 1/2	7/16	-	2.1
BK47HR	4.45	3.70	4.10	2 s	1 1/2	7/16	-	2.3
BK50HR	4.75	4.00	4.40	2 s	1 1/2	7/16	-	2.7
BK52HR	4.95	4.20	4.60	2 s	1 1/2	7/16	-	3.0
BK55HR	5.25	4.50	4.90	2 s	1 1/2	7/16	-	3.5
BK57HR	5.45	4.70	5.10	2 s	1 1/2	7/16	-	3.6
BK60HR	5.75	5.00	5.40	2 s	1 1/2	7/16	-	3.5
BK62HR	5.95	5.20	5.60	2 s	1 1/2	7/16	-	3.7
BK65HR	6.25	5.50	5.90	2 s	1 1/2	7/16	-	4.0
BK67HR	6.45	5.70	6.10	2 s	1 1/2	7/16	-	4.0
BK70HR	6.75	6.00	6.40	3 s	1 9/16	1/2	1/16	4.7
BK72HR	6.95	6.20	6.60	3 s	1 9/16	1/2	1/16	4.7
BK75HR	7.25	6.50	6.90	3 lh	1 9/16	1/2	1/16	4.7
BK77HR	7.45	6.70	7.10	3 lh	1 9/16	1/2	1/16	4.8
BK80HR	7.75	7.00	7.40	3 lh	1 9/16	1/2	1/16	5.3
BK85HR	8.25	7.50	7.90	3 lh	1 9/16	1/2	1/16	5.5
BK90HR	8.75	8.00	8.40	3 lh	1 9/16	1/2	1/16	6.0

CHART CONTINUED FROM PREVIOUS PAGE

PART No.	DIAMETERS			TYPE	DIMENSIONS			
	O.D.	PITCH						
		4L or A	5L or B		O.L.	P	X	WT.
BK95HR	9.25	8.50	8.90	3 lh	1 9/16	1/2	1/16	6.7
BK100HR	9.75	9.00	9.40	3 lh	1 9/16	1/2	1/16	7.1
BK105HR	10.25	9.50	9.90	3 lh	1 9/16	1/2	1/16	7.5
BK110HR	10.75	10.00	10.40	3 sp	1 9/16	1/2	1/16	8.6
BK115HR	11.25	10.50	10.90	3 sp	1 9/16	1/2	1/16	8.8
BK120HR	11.75	11.00	11.40	3 sp	1 9/16	1/2	1/16	9.2
BK130HR	12.75	12.00	12.40	3 sp	1 9/16	1/2	1/16	10.6
BK140HR	13.75	13.00	13.40	3 sp	1 9/16	1/2	1/16	12.9
BK150HR	14.75	14.00	14.40	3 sp	1 9/16	1/2	1/16	14.4
BK160HR	15.75	15.00	15.40	3 sp	1 9/16	1/2	1/16	15.5
BK190HR	18.75	18.00	18.40	3 sp	1 9/16	1/2	1/16	21.1

PART No.	DIAMETERS			TYPE	DIMENSIONS	
	O.D.	PITCH				
		4L or A	5L or B		C	WT.
2BK50HR	4.75	4.00	4.40	2 s	-	4.4
2BK52HR	4.95	4.20	4.60	2 s	-	4.8
2BK55HR	5.25	4.50	4.90	2 s	-	5.4
2BK57HR	5.45	4.70	5.10	2 s	-	5.3
2BK60HR	5.75	5.00	5.40	2 s	-	5.6
2BK62HR	5.95	5.2	5.60	2 s	-	.8
2BK65HR	6.25	5.50	5.90	3 s	1/4	6.4
2BK67HR	6.45	5.70	6.10	3 s	1/4	6.7
2BK70HR	6.75	6.00	6.40	3 s	1/4	7.2
2BK80HR	7.75	7.00	7.40	3 lh	1/4	8.3
2BK90HR	8.75	8.00	8.40	3 lh	1/4	9.8
2BK100HR	9.75	9.00	9.40	3 lh	1/4	11.5
2BK110HR	10.75	10.00	10.40	3 sp	1/4	13.6
2BK120HR	11.75	11.00	11.40	3 sp	1/4	15.0
2BK130HR	12.75	12.00	12.40	3 sp	1/4	16.7
2BK140HR	13.75	13.00	13.40	3 sp	1/4	19.8
2BK160HR	15.75	15.00	15.40	3 sp	1/4	24.5
2BK190HR	18.75	18.00	18.40	3 sp	1/4	26.0

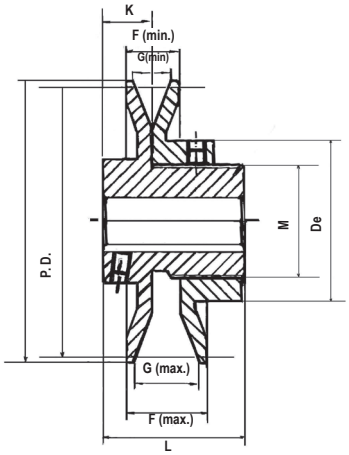
All HR sheaves use standard MasterDrive H bushings.

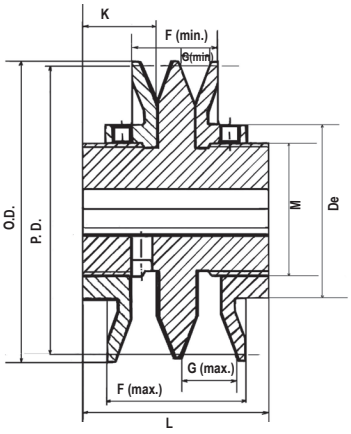
Each HR Sheave includes an **HRBK** bolt kit to use in place of standard H bushing bolts.

BK Sheaves are accurately machined from gray cast iron, statically balanced, painted and individually packaged. **Note:** Cast iron sheaves may not exceed 6500 FPM. This speed **DOES NOT** specify if dynamic balancing (2 plane) is required. Contact customer service to verify whether dynamic balancing is required.

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **One Groove & Two Groove**
1VP and 2VP Dimensions

VP





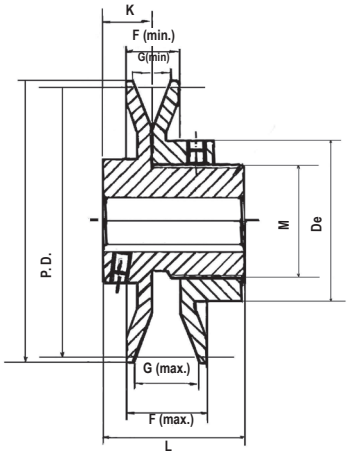
1VP SHEAVES MAY BE USED WITH 3L, 4L, 5L, A, B AND 5V BELTS

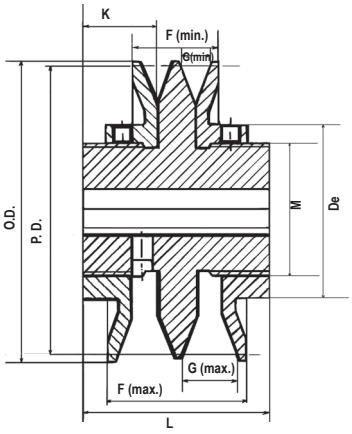
PART No.	O.D.	F		G		L	K	BORE	M	DE	AVG. WT
		MAX	MIN	MAX	MIN						
1VP25	2.380	0.810	0.560	0.630	0.380	1.590	0.620	1/2, 5/8, 3/4	1.375	2.0	1.0
1VP30	2.870	0.810	0.560	0.630	0.380	1.660	0.630	1/2, 5/8, 3/4	1.500	2.13	1.4
1VP34	3.150	1.000	0.690	0.810	0.500	1.880	0.780	1/2, 5/8, 3/4	1.500	2.13	1.5
1VP40	3.750	1.060	0.690	0.880	0.500	1.880	0.660	1/2, 5/8, 3/4 7/8, 1, 1 1/8	1.500 1.750	2.13 2.38	2.0 2.0
1VP44	4.150	1.060	0.690	0.880	0.500	1.880	0.660	1/2, 5/8, 3/4 7/8, 1, 1 1/8	1.500 1.750	2.13 2.38	2.2 2.2
1VP50	4.750	1.060	0.690	0.880	0.500	2.000	0.780	1/2, 5/8, 3/4 7/8, 1, 1 1/8	1.500 1.750	2.13 2.38	2.7 2.8
1VP56	5.350	1.060	0.690	0.880	0.500	2.000	0.780	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	1.750	2.38	3.4
1VP60	6.000	1.250	0.880	1.031	0.660	2.160	0.850	5/8, 3/4, 7/8, 1 1/8 1 3/8, 1 5/8	2.000 2.500	2.62 3.29	4.6 5.3
1VP62	5.950	1.250	0.880	1.031	0.660	2.000	0.780	5/8, 3/4, 7/8, 1, 1 1/8 1 1/4, 1 3/8	2.000 2.500	2.62 3.29	4.6 5.1
1VP65	6.500	1.250	0.880	1.030	0.660	2.160	0.850	3/4, 7/8, 1 1/8 1 3/8	2.000 2.500	2.62 3.29	5.3 5.8
1VP68	6.550	1.250	0.880	1.030	0.660	2.000	0.780	5/8, 3/4, 7/8, 1, 1 1/8 1 1/4, 1 3/8	2.000 2.500	2.62 3.29	5.2 5.8
1VP71	7.100	1.250	0.880	1.030	0.660	2.160	0.850	3/4, 7/8, 1 1/8 1 3/8, 1 5/8	2.000 2.500	2.62 3.29	6.5 6.8
1VP75	7.500	1.250	0.880	1.030	0.660	2.160	0.850	3/4, 7/8, 1 1/8 1 3/8, 1 5/8	2.000 2.500	2.62 3.29	7.0 7.6

All 1VP & 2VP sheaves are furnished with standard keyway and (2) 5/16-18 knurled setscrews over each slot & in bore.

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **One Groove & Two Groove**
1VP and 2VP Dimensions

VP





2VP SHEAVES MAY BE USED WITH 3L, 4L, 5L, A, B AND 5V BELTS.

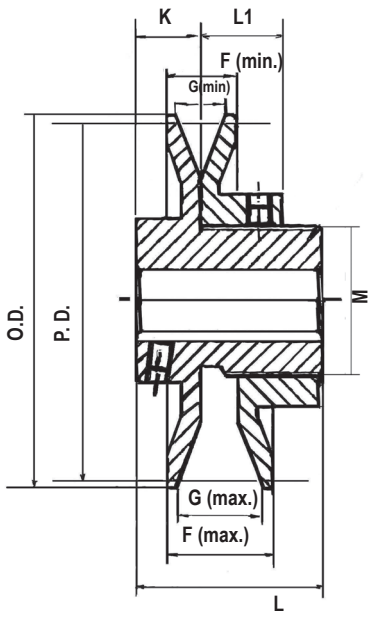
PART No.	O.D.	F		G		L	K	BORE	M	DE	AVG. WT
		MAX	MIN	MAX	MIN						
2VP36	3.350	2.000	1.380	0.810	0.500	3.000	1.190	1/2, 5/8, 3/4, 7/8, 1, 1 1/8	2.000	2.62	3.8
2VP42	3.950	2.130	1.380	0.880	0.500	3.000	1.190	5/8, 3/4,7/8, 1, 1 1/8	2.000	2.62	4.7
2VP50	4.750	2.130	1.380	0.880	0.500	3.000	1.190	5/8, 3/4, 7/8, 1, 1 1/8	2.125	2.75	6.3
2VP56	5.350	2.130	1.380	0.880	0.500	3.000	1.190	5/8, 3/4, 7/8, 1, 1 1/8	2.125	2.75	7.7
								1 3/8, 1 5/8	2.500	3.29	8.0
2VP60	6.000	2.380	1.630	1.030	0.660	3.250	1.250	3/4, 7/8, 1, 1 1/8	2.125	2.75	9.8
								1 3/8, 1 5/8	2.500	3.29	9.8
2VP62	5.950	2.380	1.630	1.030	0.660	3.000	1.190	3/4, 7/8, 1, 1 1/8	2.125	2.75	9.0
								1 3/8, 1 5/8	2.500	3.29	9.4
2VP65	6.500	2.380	1.630	1.030	0.660	3.250	1.250	3/4, 7/8, 1 1/8	2.125	2.75	11.0
								1 3/8, 1 5/8	2.500	3.29	12.2
2VP68	6.550	2.380	1.630	1.030	0.660	3.000	1.190	3/4, 7/8, 1, 1 1/8	2.125	2.75	10.4
								1 1/4, 1 3/8, 1 5/8	2.500	3.29	10.9
2VP71	7.100	2.380	1.630	1.030	0.660	3.250	1.250	3/4, 7/8, 1 1/8	2.125	2.75	13.4
								1 3/8, 1 5/8	2.500	3.29	14.3
2VP75	7.500	2.380	1.630	1.030	0.660	3.250	1.250	3/4, 7/8, 1 1/8	2.125	2.75	14.6
								1 3/8, 1 5/8	2.500	3.29	15.0

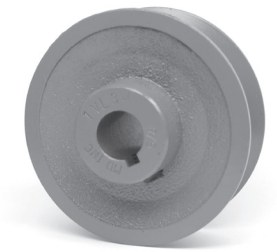
All 1VP & 2VP sheaves are furnished with standard keyway and (2) 5/16-18 knurled setscrews over each slot & in bore.

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **One Groove**
VL Sheaves

Ordering part number size
Example: 1VL25-5/8

VL SHEAVES MAY BE USED WITH 3L, 4L, 5L, A AND B BELTS.





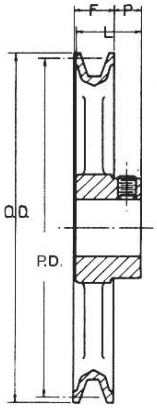
VL

ALL VL SHEAVES ARE FURNISHED WITH STANDARD KEYWAY AND (1) 5/16-18 X 5/16 KNURLED SETSCREW OVER KEYWAY.

PART No.	O.D.	F		G		L	L1	K	M	BORE	AVG. WT
		MAX	MIN	MAX	MIN						
1VL25	2.500	0.781	0.531	0.625	0.375	1.634	0.728	0.697	1.125	1/2, 5/8	.85
1VL30	2.870	0.781	0.531	0.625	0.375	1.634	0.728	0.697	1.125	1/2, 5/8	1.1
1VL34	3.150	1.000	0.625	0.875	0.500	1.933	0.815	0.744	1.125	1/2, 5/8	1.1
									1.375	3/4	1.3
1VL40	3.750	1.000	0.625	0.875	0.500	1.933	0.815	0.744	1.125	1/2, 5/8	1.5
									1.375	3/4, 7/8	1.5
1VL44	4.150	1.000	0.625	0.875	0.500	1.933	0.815	0.744	1.125	1/2, 5/8	1.6
									1.375	3/4, 7/8	1.7
1VM50	4.750	1.060	0.688	0.875	0.500	1.996	0.846	0.776	1.125	1/2, 5/8	2.4
									1.375	3/4, 7/8	2.4

Cast Iron Sheaves - **Light Duty**
Bored-to Size - **One Groove**
AL Sheaves

Order part number size
Example:
No keyway = AL54-5/8
With keyway = AL54-5/8KW
AL Sheaves may be used with 4L, A Belts.



AL

AL SHEAVES COME WITH OR WITHOUT KEYWAY AND ARE FOR LIGHT APPLICATIONS - FANS, AIR CONDITIONING UNITS, FURNACE BLOWERS ETC.

PART No.	O.D.	PITCH	F	L	P	BORE	HUB O.D,	AVG. WT
AL54	4.93	4.78	.593	1.062	.468	5/8, 3/4, 1	1.7	1.2
AL64	5.93	5.78	.593	1.062	.468	5/8, 3/4, 1	1.7	1.4
AL74	6.93	6.78	.593	1.062	.468	5/8, 3/4, 1	1.7	1.7
AL84	7.93	7.78	.593	1.062	.468	5/8, 3/4, 1	1.7	1.9
AL94	8.93	8.78	.593	1.062	.468	3/4, 1	1.9	2.6
AL104	9.93	9.78	.593	1.062	.468	3/4, 1	2.0	3.0
AL114	10.93	10.78	.593	1.062	.468	3/4, 1	2.0	3.5
AL124	11.93	11.78	.593	1.062	.468	3/4, 1	2.0	4.0
AM144	14.16	14.00	.687	1.750	.406	1	2.0	5.2

Rework Charges for:
Rebores, Keyways, additional setscrews - P.O.R. All AL sheaves are statically balanced and include (1) 5/16-18 knurled setscrew.

PART No.	DIAMETER RANGES											
	"3L" BELTS				"4L" OR "A" BELTS				"5L" OR "B" BELTS			
	MIN PITCH	TURNS OPEN	MAX PITCH	TURNS OPEN	MIN. DATUM	TURNS OPEN	MAX. DATUM	TURNS OPEN	MIN. DATUM	TURNS OPEN	MAX. DATUM	TURNS OPEN
1VL25	1.6	4	2.4	0	-	-	-	-	-	-	-	-
1VL30	1.8	4	2.7	0	-	-	-	-	-	-	-	-
1VL34	1.7	4	2.5	0	1.9	5	2.9	0	2.4	5	3.2	1
1VL40	2.3	4	3.1	0	2.4	5	3.4	0	2.7	6	3.7	1
1VL44	2.7	4	3.5	0	2.8	5	3.8	0	3.1	6	4.1	1
1VM50	3.3	4	4.1	0	3.4	5	4.4	0	3.7	6	4.7	1

PART No.	DIAMETER RANGES															
	"3L" BELTS				"4L" OR "A" BELTS				"5L" OR "B" BELTS				"5V" BELTS			
	MIN PITCH	TURNS OPEN	MAX PITCH	TURNS OPEN	MIN. DATUM	TURNS OPEN	MAX. DATUM	TURNS OPEN	MIN. DATUM	TURNS OPEN	MAX. DATUM	TURNS OPEN	MIN PITCH	TURNS OPEN	MAX PITCH	TURNS OPEN
2VP36	1.9	4	2.7	0	2.0	5	3.0	0	2.5	5	3.3	1	-	-	-	-
2VP42	2.5	4	3.3	0	2.6	5	3.6	0	2.9	6	3.9	1	-	-	-	-
2VP50	3.3	4	4.1	0	3.4	5	4.4	0	3.7	6	4.7	1	-	-	-	-
2VP56	3.9	4	4.7	0	4.0	5	5.0	0	4.3	6	5.3	1	-	-	-	-
2VP60	-	-	-	-	4.2	5	5.2	0	4.3	6	5.5	0	4.7	6	5.9	0
2VP62			-	-	4.2	5	5.2	0	4.3	6	5.5	0	4.7	6	5.9	0
2VP65	-	-	-	-	4.7	5	5.7	0	4.8	6	6.0	0	5.2	6	6.4	0
2VP68	-	-	-	-	4.7	5	5.7	0	4.8	6	6.0	0	5.2	6	6.4	0
2VP71	-	-	-	-	5.3	5	6.3	0	5.4	6	6.6	0	5.8	6	7.0	0
2VP75	-	-	-	-	5.7	5	6.7	0	5.8	6	7.0	0	6.2	6	7.4	0

PART No.	DIAMETER RANGES															
	"3L" BELTS				"4L" OR "A" BELTS				"5L" OR "B" BELTS				"5V" BELTS			
	MIN PITCH	TURNS OPEN	MAX PITCH	TURNS OPEN	MIN. DATUM	TURNS OPEN	MAX. DATUM	TURNS OPEN	MIN. DATUM	TURNS OPEN	MAX. DATUM	TURNS OPEN	MIN PITCH	TURNS OPEN	MAX PITCH	TURNS OPEN
1VP25	1.6	4	2.4	0	-	-	-	-	-	-	-	-	-	-	-	-
1VP30	1.8	4	2.7	0	-	-	-	-	-	-	-	-	-	-	-	-
1VP34	1.7	4	2.5	0	1.9	5	2.9	0	2.4	5	3.2	1	-	-	-	-
1VP40	2.3	4	3.1	0	2.4	5	3.4	0	2.7	6	3.7	1	-	-	-	-
1VP44	2.7	4	3.5	0	2.8	5	3.8	0	3.1	6	4.1	1	-	-	-	-
1VP50	3.3	4	4.1	0	3.4	5	4.4	0	3.7	6	4.7	1	-	-	-	-
1VP56	3.9	4	4.7	0	4.0	5	5.0	0	4.3	6	5.3	1	-	-	-	-
1VP60	-	-	-	-	4.2	5	5.2	0	4.3	6	5.5	0	-	-	-	-
1VP62	-	-	-	-	4.2	5	5.2	0	4.3	6	5.5	0	4.7	6	5.9	0
1VP65	-	-	-	-	4.7	5	5.7	0	4.8	6	6.0	0	5.2	6	6.4	0
1VP68	-	-	-	-	4.7	5	5.7	0	4.8	6	6.0	0	5.2	6	6.4	0
1VP71	-	-	-	-	5.3	5	6.3	0	5.4	6	6.6	0	5.8	6	7.0	0
1VP75	-	-	-	-	5.7	5	6.7	0	5.8	6	7.0	0	6.2	6	7.4	0

INSTALLATION AND OPERATION INSTRUCTIONS

VL-VP FHP ADJUSTABLE SHEAVES

Continued on the following page

1. Loosen all setscrews on the sheave. Rotate the adjustable flange(s) to make the face width of the adjustable sheave the same as the face width of the companion sheave.
2. Inspect the motor shaft and key for any nicks or burrs and remove if present. Install shaft key. Slide the sheave onto the motor shaft.
3. Align the adjustable sheave with the companion sheave by using a straight edge or piece of string. This is most easily accomplished by using the four-point method shown below.
   Note: Dimensions, A, B, C and D must be equal for correct alignment.

4. Secure the sheave to motor shaft by tightening the setscrew over the key to the proper torque (110-130 in. lbs. torque for 5/16" setscrews and 50-70 in. lbs. torque for 1/4").
   Note: On two groove sheaves the setscrew is located at the base of the center flange. You may need to adjust the flange open to expose it.
5. Adjust the sheave to the desired pitch diameter. Each turn of the flange changes the pitch diameter approximately .16 inches. Six turns are required to adjust the sheave from minimum to maximum for B (5L) belts, six turns for A (4L) belts, five turns for (3L) belts; and seven turns for (5V) belts.
   Note: You must adjust both flanges of a two-groove sheave equality so belts will ride evenly.
6. Lock the adjustable flange(s) into position by tightening the setscrew(s) to the proper torque (5/16" setscrew – 110-130 in. lbs. torque, 1/4" setscrews – 60-70 in. lbs. torque).
   Warning: To prevent damage to hub threads, the set screw(s) must be over the flats or in the machined groove. If the flange is not properly locked, the sheave will fail prematurely.
7. Install and properly tension belts.

WARNING

Rotating equipment can cause personal injury. BE SAFE install a guard around the drive to keep anything from coming into contact with moving parts.

8. Start the drive. If a speed correction is necessary, stop the drive and remove the guard and belts. Adjust the sheave as per steps 5 through 7.

MASTERDRIVE INTERCHANGE FROM MASKA

X-REF. MASKA L.D. BORED-TO-SIZE

MASTERDRIVE® POWER TRANSMISSION PRODUCTS

AK-MA SINGLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
AK17	MA18
AK20	MA20
AK21	MA21
AK22	MA22
AK23	MA23
AK25	MA25
AK26	MA26
AK27	MA27
AK28	MA28
AK30	MA30
AK32	MA33
AK34	MA35
AK39	MA38
AK41	MA40
AK44	MA43
AK46	MA45
AK49	MA48
AK51	MA50
AK54	MA53
AK56	MA55
AK59	MA58
AK61	MA60
AK64	MA63
AK66	MA65
AK69	MA68
AK71	MA70
AK74	MA73
AK79	MA78
AK84	MA83
AK89	MA88
AK94	MA93
AK99	MA98
AK104	MA103
AK109	MA108
AK114	MA113
AK124	MA123
AK134	MA133
AK144	MA143
AK154	MA153
AK184	MA183

2AK-2MA DOUBLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
2AK20	2MA20
2AK21	2MA22
2AK22	2MA23
2AK23	2MA24
2AK25	2MA25
2AK26	2MA27
2AK27	2MA28
2AK28	2MA29
2AK30	2MA30
2AK32	2MA33
2AK34	2MA35
2AK39	2MA38
2AK41	2MA40
2AK44	2MA43
2AK46	2MA45
2AK49	2MA48
2AK51	2MA50
2AK54	2MA53
2AK56	2MA55
2AK59	2MA58
2AK61	2MA60
2AK64	2MA63
2AK74	2MA73
2AK84	2MA83
2AK94	2MA93
2AK104	2MA103
2AK114	2MA113
2AK124	2MA123
2AK134	2MA133
2AK144	2MA143
2AK154	2MA153
2AK184	2MA183

BK-MB SINGLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
BK24	MB24
BK25	MB25
BK26	MB26
BK27	MB28
BK28	MB30
BK30	MB31
BK32	MB34
BK34	MB35
BK36	MB38
BK40	MB40
BK45	MB43
BK47	MB45
BK50	MB48
BK52	MB50
BK55	MB53
BK57	MB55
BK60	MB58
BK62	MB60
BK65	MB63
BK67	MB65
BK70	MB68
BK72	MB70
BK75	MB73
BK77	MB75
BK80	MB78
BK85	MB83
BK90	MB88
BK95	MB93
BK100	MB98
BK105	MB103
BK110	MB108
BK115	MB113
BK120	MB118
BK130	MB128
BK140	MB138
BK160	MB158
BK190	MB188

2BK-2MB DOUBLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
2BK25	2MB25
2BK27	2MB28
2BK28	2MB30
2BK30	2MB32
2BK32	2MB34
2BK34	2MB35
2BK36	2MB38
2BK40	2MB40
2BK45	2MB43
2BK47	2MB45
2BK50	2MB48
2BK52	2MB50
2BK55	2MB53
2BK57	2MB55
2BK60	2MB58
2BK62	2MB60
2BK65	2MB63
2BK67	2MB65
2BK70	2MB68
2BK80	2MB78
2BK90	2MB88
2BK100	2MB98
2BK110	2MB108
2BK120	2MB118
2BK130	2MB128
2BK140	2MB138
2BK160	2MB158
2BK190	2MB188

MASTERDRIVE INTERCHANGE FROM MASKA

X-REF. MASKA L.D. LIGHT DUTY BUSHED TYPE

MASTERDRIVE® POWER TRANSMISSION PRODUCTS

AKH-MAL SINGLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
AK30H	MAL30
AK32H	MAL32
AK34H	MAL34
AK39H	MAL37
AK41H	MAL39
AK44H	MAL42
AK46H	MAL44
AK49H	MAL47
AK51H	MAL49
AK54H	MAL52
AK56H	MAL54
AK59H	MAL57
AK61H	MAL59
AK64H	MAL62
AK66H	MAL64
AK69H	MAL67
AK71H	MAL69
AK74H	MAL72
AK79H	MAL77
AK84H	MAL82
AK89H	MAL87
AK94H	MAL92
AK99H	MAL97
AK104H	MAL102
AK109H	MAL107
AK114H	MAL112
AK124H	MAL122
AK134H	MAL132
AK144H	MAL142
AK154H	MAL152
AK184H	MAL182

2AKH-2MAL DOUBLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
2AK30H	2MAL30
2AK32H	2MAL32
2AK34H	2MAL34
2AK39H	2MAL37
2AK41H	2MAL39
2AK44H	2MAL42
2AK46H	2MAL44
2AK49H	2MAL47
2AK51H	2MAL49
2AK54H	2MAL52
2AK56H	2MAL54
2AK59H	2MAL57
2AK61H	2MAL59
2AK64H	2MAL62
2AK74H	2MAL72
2AK84H	2MAL82
2AK94H	2MAL92
2AK104H	2MAL102
2AK114H	2MAL112
2AK124H	2MAL122
2AK134H	2MAL132
2AK144H	2MAL142
2AK154H	2MAL152
2AK184H	2MAL182

BKH-MBL SINGLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
BK30H	MBL31
BK32H	MBL33
BK34H	MBL35
BK36H	MBL37
BK40H	MBL39
BK45H	MBL42
BK47H	MBL44
BK50H	MBL47
BK52H	MBL49
BK55H	MBL52
BK57H	MBL54
BK60H	MBL57
BK62H	MBL59
BK65H	MBL62
BK67H	MBL64
BK70H	MBL67
BK72H	MBL69
BK75H	MBL72
BK77H	MBL74
BK80H	MBL77
BK85H	MBL82
BK90H	MBL87
BK95H	MBL92
BK100H	MBL97
BK105H	MBL102
BK110H	MBL107
BK115H	MBL112
BK120H	MBL117
BK130H	MBL127
BK140H	MBL137
BK150H	MBL147
BK160H	MBL157
BK190H	MBL187

2BKH-2MBL DOUBLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
2BK32H	2MBL33
2BK34H	2MBL35
2BK36H	2MBL37
2BK40H	2MBL39
2BK45H	2MBL42
2BK47H	2MBL44
2BK50H	2MBL47
2BK52H	2MBL49
2BK55H	2MBL52
2BK57H	2MBL54
2BK60H	2MBL57
2BK62H	2MBL59
2BK65H	2MBL62
2BK67H	2MBL64
2BK70H	2MBL67
2BK80H	2MBL77
2BK90H	2MBL87
2BK100H	2MBL97
2BK110H	2MBL107
2BK120H	2MBL117
2BK130H	2MBL127
2BK140H	2MBL137
2BK160H	2MBL157
2BK190H	2MBL187

AIR HANDLING

VL/VM LIGHT DUTY	
MASTERDRIVE PART#	MASKA PART#
1VL25	MVL25
1VL30	MVL30
1VL34	MVL34
1VL40	MVL40
1VL44	MVL44
1VM50	1VM50

AL/AM SINGLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
AL54	MFAL54
AL64	MFAL64
AL74	MFAL74
AL84	MFAL84
AL94	MFAL94
AL104	MFAL104
AL114	MFAL114
AL124	MFAL124
AM144	MFAM144

VARIABLE PITCH

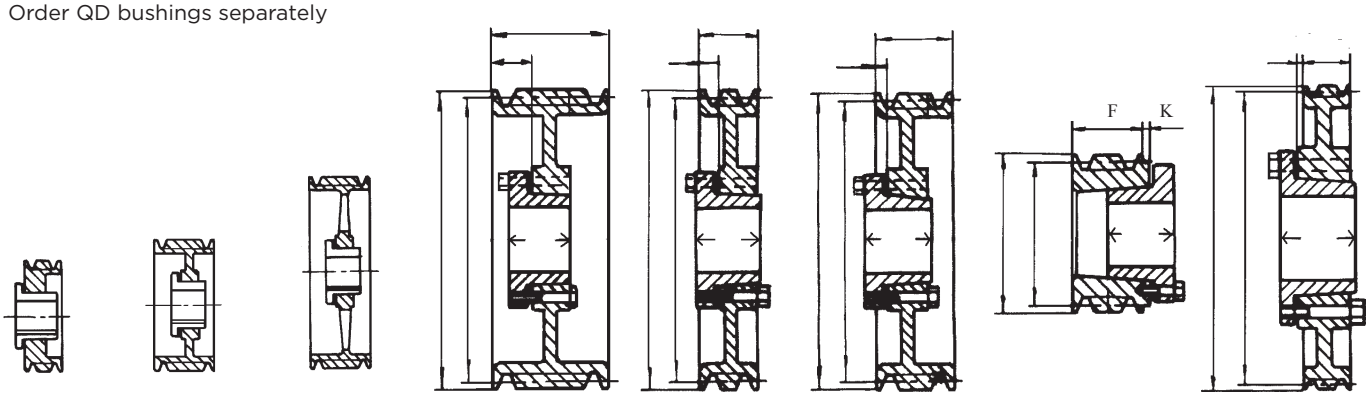
2VP DOUBLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
2VP36	D8350
2VP42	D8400
2VP50	D8450
2VP56	D8550
2VP60/2VP62/ /2VP65	D8600
2VP68/2VP71	D8740
2VP75	D8740

1VP SINGLE GROOVE	
MASTERDRIVE PART#	MASKA PART#
1VP25	-
1VP30	-
1VP34	8325
1VP40	8350
1VP44	8400
1VP50	8450
1VP56	8550
1VP60/1VP62/ 1VP65	8600
1VP68/ 1VP71	8670
1VP75	8740

Cast Iron Sheaves - **Heavy Duty**
Bushed, **One and Two Groove**
A-B QD Sheaves

Ordering part number size
Example: 1B34SH

Order QD bushings separately



TYPE 1 SOLID | TYPE 2 WEB | TYPE 3 SPOKE | TYPE A | TYPE C | TYPE D | TYPE E | TYPE F

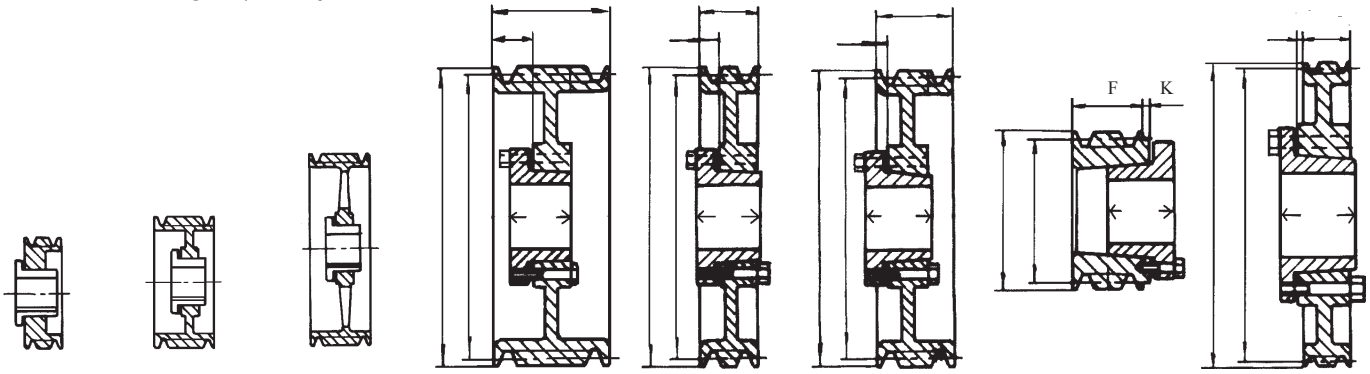
	P.D.		1 Groove F =			1B34SH THRU 1B64SDS = 7/8 1B66SDS THRU 1B300SF = 1			2 GROOVE F = 1 3/4					
O.D.	A	B	PART NO.	BUSH	TYPE	K	L	WT.	PART NO.	BUSH	TYPE	K	L	WT.
3.75	3.00	3.40	1B34SH	SH	D-1	0	1 5/16	1.4	*2B34SH	SH	E-1	0	1 5/16	2.4
3.95	3.20	3.60	1B36SH	SH	D-1	0	1 5/16	1.6	*2B36SH	SH	D-1	3/16	1 5/16	2.7
4.15	3.40	3.80	1B38SH	SH	D-1	0	1 5/16	1.7	*2B38SH	SH	D-1	3/16	1 5/16	2.9
4.35	3.60	4.00	1B40SH	SH	C-1	1/16	1 5/16	1.9	+2B40SH	SH	A-1	11/16	1 5/16	3.2
4.55	3.80	4.20	1B42SH	SH	C-1	1/16	1 5/16	2.2	+2B42SH	SH	A-1	11/16	1 5/16	3.7
4.75	4.00	4.40	1B44SH	SH	C-1	1/16	1 5/16	2.5	2B44SH	SH	A-1	11/16	1 5/16	4.1
4.95	4.20	4.60	1B46SDS	SDS	C-1	1/8	1 5/16	2.5	2B46SDS	SDS	A-1	11/16	1 5/16	4.2
5.15	4.40	4.80	1B48SDS	SDS	C-1	1/8	1 5/16	2.8	2B48SDS	SDS	A-1	11/16	1 5/16	4.6
5.35	4.60	5.00	1B50SDS	SDS	C-1	1/8	1 5/16	3.1	2B50SDS	SDS	A-1	11/16	1 5/16	5.0
5.55	4.80	5.20	1B52SDS	SDS	C-1	1/8	1 5/16	3.3	2B52SDS	SDS	A-1	11/16	1 5/16	5.4
5.75	5.00	5.40	1B54SDS	SDS	C-1	1/8	1 5/16	3.7	2B54SDS	SDS	A-1	11/16	1 5/16	5.8
5.95	5.20	5.60	1B56SDS	SDS	C-1	1/8	1 5/16	4.2	2B56SDS	SDS	A-1	11/16	1 5/16	6.1
6.15	5.40	5.80	1B58SDS	SDS	C-1	1/8	1 5/16	3.9	2B58SDS	SDS	A-1	11/16	1 5/16	6.1
6.35	5.60	6.00	1B60SDS	SDS	C-2	1/8	1 5/16	4.0	2B60SDS	SDS	A-2	11/16	1 5/16	6.4
6.55	5.80	6.20	1B62SDS	SDS	C-2	1/8	1 5/16	4.2	2B62SDS	SDS	A-2	11/16	1 5/16	6.7
6.75	6.00	6.40	1B64SDS	SDS	C-2	1/8	1 5/16	4.3	2B64SDS	SDS	A-2	11/16	1 5/16	7.1
6.95	6.20	6.60	1B66SDS	SDS	C-2	1/4	1 5/16	5.1	2B66SDS	SDS	A-2	11/16	1 5/16	7.6
7.15	6.40	6.80	1B68SDS	SDS	C-2	1/4	1 5/16	5.3	2B68SDS	SDS	A-2	11/16	1 5/16	7.8
7.35	6.60	7.00	1B70SDS	SDS	C-2	1/4	1 5/16	5.6	2B70SK	SK	D-2	7/16	1 15/16	9.5
7.75	7.00	7.40	1B74SDS	SDS	C-2	1/4	1 5/16	6.0	2B74SK	SK	D-2	7/16	1 15/16	10.2

* = Can only be mounted from one direction.
+ = Includes socket head cap screws to be used in place of hex head cap screws that come with the bushing.
Note: Cast iron sheaves may not exceed 6500 FPM. This speed
DOES NOT specify if dynamic balancing (2 plane) is required.
Contact customer service to verify whether dynamic balancing is required.

Cast Iron Sheaves - **Heavy Duty**
Bushed, **One and Two Groove**
A-B QD Sheaves

Ordering part number size
Example: 1B34SH

Order QD bushings separately



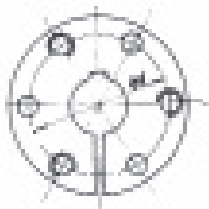
TYPE 1 SOLID | TYPE 2 WEB | TYPE 3 SPOKE | TYPE A | TYPE C | TYPE D | TYPE E | TYPE F

CHART CONTINUED FROM PREVIOUS PAGE

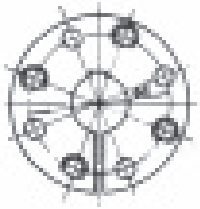
	P.D.		1 Groove F =			1B34SH THRU 1B64SDS = 7/8 1B66SDS THRU 1B300SF = 1			2 GROOVE F = 1 3/4					
O.D.	A	B	PART NO.	BUSH	TYPE	K	L	WT.	PART NO.	BUSH	TYPE	K	L	WT.
8.35	7.60	8.00	1B80SDS	SDS	C-2	1/4	1 5/16	6.6	2B80SK	SK	D-2	7/16	1 15/16	10.8
8.95	8.20	8.60	1B86SDS	SDS	C-3	1/4	1 5/16	6.8	2B86SK	SK	D-3	7/16	1 15/16	11.7
9.35	8.60	9.00	1B90SDS	DS	C-3	1/4	1 5/16	7.0	2B90SK	SK	D-3	7/16	1 15/16	13.0
9.75	9.00	9.40	1B94SDS	SDS	C-3	1/4	1 5/16	7.4	2B94SK	SK	D-3	7/16	1 15/16	13.2
11.35	10.60	11.00	1B110SDS	SDS	C-3	1/4	1 5/16	10.5	2B110SK	SK	D-3	7/16	1 15/16	16.4
12.75	12.00	12.40	1B124SDS	SDS	C-3	1/4	1 5/16	11.5	2B124SK	SK	D-3	7/16	1 15/16	18.3
13.95	13.20	13.60	1B136SDS	SDS	C-3	1/4	1 5/16	12.9	2B136SK	SK	D-3	7/16	1 15/16	20.3
15.75	15.00	15.40	1B154SK	SK	F-3	1/4	1 15/16	17.1	2B154SK	SK	D-3	7/16	1 15/16	23.8
16.35	15.60	16.00	1B160SK	SK	F-3	1/4	1 15/16	18.6	2B160SK	SK	D-3	7/16	1 15/16	24.3
18.75	18.00	18.40	1B184SK	SK	F-3	1/4	1 15/16	23.8	2B184SK	SK	D-3	7/16	1 15/16	31.8
20.35	19.60	20.00	1B200SK	SK	F-3	1/4	1 15/16	27.0	2B200SF	SF	D-3	3/8	2 1/16	33.4
25.35	24.60	25.00	1B250SF	SF	F-3	1/4	1 1/4	39.0	2B250SF	SF	D-3	3/8	2 1/16	45.0
30.35	29.60	30.00	1B300SF	SF	F-3	1/4	1 1/4	57.0	2B300SF	SF	D-3	3/8	2 1/16	71.2
38.35	37.60	38.00							2B380SF	SF	D-3	3/8	2 1/16	103.0

* = Can only be mounted from one direction.
+ = Includes socket head cap screws to be used in place of hex head cap screws that come with the bushing.
Note: Cast iron sheaves may not exceed 6500 FPM. This speed
DOES NOT specify if dynamic balancing (2 plane) is required.
Contact customer service to verify whether dynamic balancing is required.

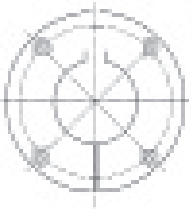
JA-N bushings are reverse mountable



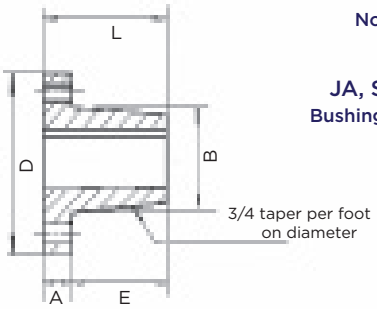
JA to J Bushing



M to N Bushing



P to W Bushing



Note: All bushings include a set screw over the keyway. Except JA.

JA, SH, SDS, SD, SK, SF, E, F, J & M
Bushings are machined out of ductile iron.

***Shallow Keyseat** - Keystock supplied with bushing

†Oversize Key

Note: A rectangular key is supplied with bushings that have shallow keyseats. This key will fit the standard depth keyseat on the shaft and the shallow keyseat on the bushing.
Ordering Example: (JA1.1/16)

QD BUSHINGS - DIMENSIONS (INCHES)

BUSHING	A	B	D	E	L	Φ D BOLT REQUIRED	CAP SCREW GRADE 5		SET SCREW SIZE
							QTY.	SIZE	
JA	5/16	1.375	2	11/16	1	1 21/32	3	10 x 1	-
SH	7/16	1.871	2 11/16	7/8	1 5/16	2 1/4	3	1/4 x 1 3/8	1/4
SDS	7/16	2.187	3 1/8	7/8	1 5/16	2 11/16	3	1/4 x 1 3/8	1/4
SD	7/16	2.187	3 1/8	1 3/8	1 13/16	2 11/16	3	1/4 x 1 7/8	1/4
SK	9/16	2.812	3 7/8	1 3/8	1 15/16	3 5/16	3	5/16 x 2	5/16
SF	5/8	3.125	4 5/8	1 7/16	2 1/16	3 7/8	3	3/8 x 2	3/8
E	7/8	3.834	6	1 7/8	2 3/4	5	3	1/2 x 2 3/4	3/8
F	1	4.437	6 5/8	2 3/4	3 3/4	5 5/8	3	9/16 x 3 5/8	1/2
J	1 1/8	5.148	7 1/4	3 1/2	4 5/8	6 1/4	3	5/8 x 4 1/2	5/8
M	1 1/4	6.500	9	5 1/2	6 3/4	7 7/8	4	3/4 x 6 3/4	3/4
N	1 1/2	7.000	10	6 5/8	8 1/8	8 1/2	4	7/8 x 8	3/4
P	1 3/4	8.250	11 3/4	7 5/8	9 3/8	10	4	1 x 9 1/2	3/4
W	2	10.437	15	9 3/8	11 3/8	12 3/4	4	1 1/8 x 11 1/2	3/4

BUSHING	BORE RANGE INCH	KEY SEAT INCH	WT.
JA	1/2, 9/16	1/8 x 1/16	.50
	5/8, 11/16, 3/4, 13/16, 7/8	3/16 x 3/32	.45
	15/16, 1	1/4 x 1/8	.35
	1 1/16, 1 1/8, 1 3/16	1/4 x 1/16*	.35
	1 1/4	No Key	.30
SH	1/2, 9/16	1/8 x 1/16	1.20
	5/8, 11/16, 3/4, 13/16, 7/8	3/16 x 3/32	1.20
	15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1 1/4	1/4 x 1/8	.95
	1 1/4†, 1 5/16, 1 3/8	5/16 x 5/32	.80
	1 7/16, 1 1/2, 1 9/16, 1 5/8	3/8 x 1/16*	.75
	1 11/16	No Key	60
SDS	1/2, 9/16	1/8 x 1/16	1.70
	5/8, 11/16, 3/4, 13/16, 7/8	3/16 x 3/32	1.65
	15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1 1/4	1/4 x 1/8	1.45
	1 1/4†, 1 5/16, 1 3/8	5/16 x 5/32	1.30
	1 3/8†, 1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16	3/8 x 3/16	1.10
	1 3/4	3/8 x 1/8*	1.00
	1 13/16	1/2 x 1/8*	1.00
	1 7/8, 1 15/16	1/2 x 1/16*	.90
	2	No Key	.80

BUSHING	BORE RANGE INCH	KEY SEAT INCH	WT.
SD	1/2, 9/16	1/8 x 1/16	2.00
	5/8, 11/16, 3/4, 13/16, 7/8	3/16 x 3/32	2.00
	15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1 1/4	1/4 x 1/8	1.80
	1 1/4†, 1 5/16, 1 3/8	5/16 x 5/32	1.60
	1 3/8†, 1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16	3/8 x 3/16	1.40
	1 3/4	3/8 x 1/8*	1.20
	1 13/16	1/2 x 1/8*	1.20
	1 7/8, 1 15/16	1/2 x 1/16*	1.00
	2	No Key	.80
SK	1/2, 9/16	1/8 x 1/16	3.80
	5/8, 11/16, 3/4, 13/16, 7/8	3/16 x 3/32	3.75
	15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1 1/4	1/4 x 1/8	3.50
	1 1/4†, 1 5/16, 1 3/8	5/16 x 5/32	3.25
	1 5/16†, 1 3/8†, 1 7/16, 1 1/2, 1 9/16, 1 5/8,	3/8 x 3/16	3.00
	1 11/16, 1 3/4	3/8 x 3/16	2.75
	1 3/4†, 1 13/16, 1 7/8, 1 15/16, 2, 2 1/16, 2 1/8	1/2 x 1/4	2.40
	2 3/16, 2 1/4	1/2 x 1/8*	2.00
	2 1/4†, 2 5/16, 2 3/8, 2 7/16, 2 1/2	5/8 x 1/16*	1.75
	2 9/16, 2 5/8	No Key	1.20

Note: All bushings include a set screw over the keyway. Except JA.

JA, SH, SDS, SD, SK, SF, E, F, J & M Bushings are machined out of ductile iron.

BUSHING	BORE RANGE INCH	KEY SEAT INCH	WT.
SF	1/2, 9/16	1/8 x 1/16	5.45
	5/8, 3/4, 7/8	3/16 x 3/32	5.25
	15/16, 1, 1 1/16, 1 1/8, 1 3/16, 1 1/4	1/4 x 1/8	5.00
	1 5/16, 1 3/8	5/16 x 5/32	4.80
	1 3/8†, 1 7/16, 1 1/2, 1 9/16, 1 5/8,	3/8 x 3/16	4.50
	1 11/16, 1 3/4	3/8 x 3/16	4.25
	1 13/16, 1 7/8, 1 15/16, 2, 2 1/16	1/2 x 1/4	4.00
	2 1/8, 2 3/16, 2 1/4	1/2 x 1/4	3.55
	2 1/4†	5/8 x 5/16	3.50
	2 5/16, 2 3/8, 2 7/16, 2 1/2	5/8 x 3/16*	3.30
	2 9/16, 2 5/8, 2 11/16, 2 3/4	5/8 x 1/16*	2.80
	2 13/16, 2 7/8	3/4 x 1/16*	2.45
	2 15/16	No Key	2.30
E	7/8, 15/16	3/16 x 3/32	11.45
	1, 1 1/8, 1 3/16, 1 1/4	1/4 x 1/8	11.30
	1 5/16, 1 3/8	5/16 x 5/32	11.00
	1 3/8†, 1 7/16, 1 1/2, 1 9/16, 1 5/8,	3/8 x 3/16	10.60
	1 11/16, 1 3/4	3/8 x 3/16	10.30
	1 13/16, 1 7/8, 1 15/16, 2, 2 1/16,	1/2 x 1/4	9.80
	2 1/8, 2 3/16, 2 1/4	1/2 x 1/4	9.30
	2 1/4†, 2 5/16, 2 3/8, 2 7/16, 2 1/2,	5/8 x 5/16	8.70
	2 9/16, 2 5/8, 2 11/16, 2 3/4	5/8 x 5/16	8.00
	2 13/16, 2 7/8, 2 15/16, 3, 3 1/8, 3 3/16, 3 1/4	3/4 x 1/8*	7.00
	3 5/16, 3 3/8, 3 7/16, 3 1/2	7/8 x 1/16*	5.80
F	1, 1 1/8, 1 3/16, 1 1/4	1/4 x1/8	18.60
	1 3/8	5/16 x 5/32	18.60
	1 7/16, 1 1/2, 1 9/16, 1 5/8, 1 11/16, 1 3/4	3/8 x 3/16	18.00
	1 13/16, 1 7/8, 1 15/16, 2, 2 1/16,	1/2 x 1/4	16.80
	2 1/8, 2 3/16, 2 1/4	1/2 x 1/4	16.00
	2 1/4†, 2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 9/16,	5/8 x 5/16	15.50
	2 5/8, 2 11/16, 2 3/4	5/8 x 5/16	14.20
	2 13/16, 2 7/8, 2 15/16, 3, 3 1/8, 3 3/16, 3 1/4	3/4 x 3/8	12.50
	3 5/16, 3 3/8, 3 7/16, 3 1/2, 3 5/8, 3 11/16,	7/8 x 3/16*	10.50
	3 3/4	7/8 x 3/16*	9.80
	3 7/8, 3 15/16	1 x 1/8*	9.00
	4	No Key	7.90

BUSHING	BORE RANGE INCH	KEY SEAT INCH	WT.
J	1 7/16, 1 1/2, 1 11/16, 1 3/4	3/8 x 3/16	28.00
	1 7/8, 1 15/16, 2, 2 1/16, 2 1/8, 2 3/16, 2 1/4	1/2 x 1/4	26.50
	2 5/16, 2 3/8, 2 7/16, 2 1/2, 2 5/8,	5/8 x 5/16	24.50
	2 11/16, 2 3/4	5/8 x 5/16	23.50
	2 7/8, 2 15/16, 3, 3 1/8, 3 3/16, 3 1/4	3/4 x 3/8	21.50
	3 5/16, 3 3/8, 3 7/16, 3 1/2,	7/8 x 7/16	19.50
	3 5/8, 3 11/16, 3 3/4	7/8 x 7/16	17.80
	3 13/16, 3 7/8, 3 15/16	1 x 3/8*	17.50
	4, 4 1/8, 4 3/16, 4 1/4, 4 3/8, 4 7/16, 4 1/2	1 x 1/8*	14.00
M	1 15/16, 2, 2 3/16, 2 1/4	1/2 x 1/4	61.50
	2 3/8, 2 7/16, 2 1/2, 2 5/8, 2 11/16, 2 3/4	5/8 x 5/16	57.00
	2 7/8, 2 15/16, 3, 3 1/8, 3 3/16, 3 1/4	3/4 x 3/8	53.50
	3 3/8, 3 7/16, 3 1/2, 3 5/8, 3 11/16, 3 3/4	7/8 x 7/16	50.00
	3 13/16, 3 7/8, 3 15/16, 4, 4 1/8, 4 3/16, 4 1/4,	1 x 1/2	45.00
	4 3/8, 4 7/16, 4 1/2	1 x 1/2	40.00
	4 5/8, 4 11/16, 4 3/4	1 1/4 x 5/8	37.00
	4 7/8, 4 15/16, 5, 5 3/16, 5 1/4, 5 3/8, 5 7/16,	1 1/4 x 1/4*	34.00
	5 1/2	1 1/4 x 1/4*	28.70
N	2 15/16, 3, 3 1/4	3/4 x 3/8	80.00
	3 3/8, 3 7/16, 3 1/2	7/8 x 7/16	76.50
	3 5/8, 3 3/4	7/8 x 7/16	73.50
	3 7/8, 3 15/16, 4, 4 3/16, 4 1/4, 4 3/8, 4 7/16,	1 x 1/2	68.00
	4 1/2	1 x 1/2	63.00
	4 5/8, 4 3/4, 4 7/8, 4 15/16, 5	1 1/4 x 5/8	58.00
	5 3/16, 5 7/16, 5 1/2	1 1/4 x 1/4*	53.00
	5 7/8	1 1/2 x 1/4*	44.00
	6	1 1/2 x 1/8*	44.00
P	3 3/4	7/8 x 7/16	97.00
	3 15/16, 4 7/16, 4 1/2	1 x 1/2	122.00
	4 7/8, 4 15/16, 5, 5 7/16, 5 1/2	1 1/4 x 5/8	115.00
	5 15/16	1 1/2 x 3/4	95.00
	6, 6 7/16	1 1/2 x 1/4*	95.00
	6 3/4, 7	1 3/4 x 1/8*	97.00
W	6, 6 1/2	1 1/2 x 3/4	190.00
	7, 7 1/4, 7 1/2	1 3/4 x 7/8	200.00
	7 3/4, 8, 8 1/2	2 x 1/8*	198.00

***Shallow Keyseat** - Keystock supplied with bushing

†Oversize Key

Note: A rectangular key is supplied with bushings that have shallow keyseats. This key will fit the standard depth keyseat on the shaft and the shallow keyseat on the bushing. Ordering Example: (JA1.1/16)

Note: All bushings include a set screw over the keyway. Except JA.

JA, SH, SDS, SD, SK, SF, E, F, J & M Bushings are machined out of ductile iron.

BUSHING	BORE RANGE MM	KEY SEAT MM	WT.
JA	15, 16	5 x 2.3	50
	19, 20, 22	6 x 2.8	.40
	24, 25, 28	8 x 3.3	.40
SH	15	5 x 2.3	1.20
	20, 22	6 x 2.8	1.15
	24, 25,	8 x 3.3	1.00
	28, 30	8 x 3.3	.95
	32, 35, 38	10 x 3.3	.80
SDS	15	5 x 2.3	1.50
	20	6 x 2.8	1.50
	24, 25, 28, 30	8 x 3.3	1.50
	32, 35, 38	10 x 3.3	1.30
	40, 42	12 x 3.3	1.10
SD	24, 25, 28, 30	8 x 3.3	1.80
	32, 35, 38	10x 3.3	1.60
	40, 42	12 x 3.3	1.30
SK	14	5 x 2.3	3.80
	20	6 x 2.8	3.30
	24, 25, 28, 30	8 x 3.3	3.50
	32, 35, 38	10 x 3.3	3.20
	40, 42	12 x 3.3	3.00
	45, 48, 50	14 x 3.8	2.50
	55	16 x 4.3	2.10
	60	18 x 4.4	1.70
SF	28, 30	8x 3.3	5.00
	32, 35, 38	10x 3.3	4.70
	40, 42	12 x 3.3	4.50
	45, 48, 50	14 x 3.8	4.00
	55	16 x 4.3	3.60
	60, 65	18x 4.4	3.00

BUSHING	BORE RANGE MM	KEY SEAT MM	WT.
E	35, 38	10 x 3.3	10.90
	40, 42	12 x 3.3	10.50
	45, 48, 50	14 x 3.8	10.00
	55	16x 4.3	9.30
	60, 65	18 x 4.4	8.60
	70, 75	20x 4.9	7.50
	80	22 x 4.4	6.50
F	42	12 x 3.3	17.80
	45, 48, 50	14x 3.8	17.10
	55	16 x 4.3	16.40
	60, 65	18 x 4.4	15.20
	70, 75	20 x 4.9	13.50
	80, 85	22 x 5.4	11.00
	90	25x 5.4	10.30
J	50	14 x 3.8	27.00
	55	16 x 4.3	26.20
	60, 65	18 x 4.8	24.50
	70, 75	20x 4.9	22.90
	80, 85	22 x 5.4	20.80
	90, 95	25x 5.4	18.00
	100	28 x 6.4	18.20
M	80	22 x 5.4	54.40
	90	25 x 5.4	50.80
	100	28 x 6.4	46.00
	120	32x 7.4	37.40
N	90	25 x 5.4	72.30
	100	28 x 6.4	72.30
	120	32 x 7.4	59.75
P	120	32 x 7.4	100.00
	150	36 x 8.4	95.80

Ordering Example: (JA15MM) or (E35MM)

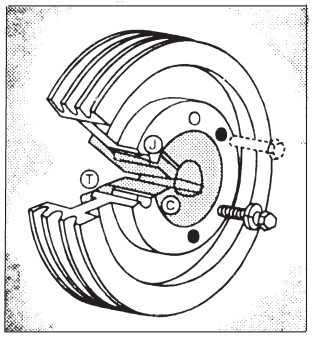
* **Shallow Keyseat** - (Ductile Iron) Keystock supplied with bushing

† **Oversize Key**

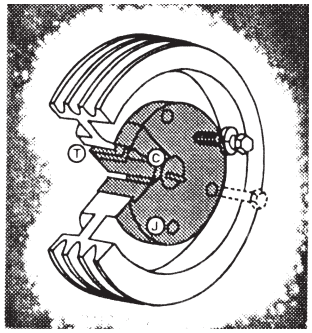
Note: A rectangular key is supplied with bushings that have shallow keyseats. This key will fit the standard depth keyseat on the shaft and the shallow keyseat on the bushing.

Ordering Example: (F1) or (F1.1/8) or (N5.7/8)

QD bushing sizes JA through N can be assembled in either of the two positions shown below. Sizes P through S should be assembled in position one. *Position One* is the conventional or standard mounting. *Position Two* (Reverse Mounting) may be necessary in some cases, such as mounting small sheaves with blind holes (not drilled through).



Position 1



Position 2

BUSING SIZE	CAP SCREW SIZE-THREAD	FOOT POUDS WRENCH TORQUE*
JA	10-24	3
SH-SDS-SD	1/4-20	6
SK	5/16-18	10
SF	3/8-16	20
E	1/2-13	40
F	9/16-12	50
J	5/8-11	90
M	3/4-10	150
N	7/8-9	200
P	1-8	300
W	1-1/8-7	400
S	1-1/4-7	500

*For Normal Applications. *For Severe* (Rock-crusher type) applications these values can be increased by a maximum of 50%
Caution: Excessive cap-screw torque can cause sheave and/or bushing breakage. The use of lubricants can cause sheave breakage. Therefore,

DO NOT USE LUBRICANTS IN THIS INSTALLATION!

INSTALLATION:

1. Make sure the tapered-cone surface of the bushing and the mating bore of the sheave are free of all foreign substances, such as dirt, excess paint accumulations, metal chips, lubricants, etc.
2. For position one or two (whichever applies), line up the unthreaded holes (C) with the threaded holes (t) and insert cap screws with lock washers engaging only two or three threads. (*a)
3. With key in shaft keyway, slide the loosely-assembled unit onto shaft and position for good belt alignment. (*b, *c) **Use no lubricants or anti-seize compound on threads or tapered surfaces.**
4. Carefully tighten the capscrews alternately and progressively until the tapers are seated (at approximately half the recommended torque).
5. Check alignment and sheave runout (wobble) and correct as necessary.
6. Continue careful alternate and progressive tightening of the cap screws to the recommended torque values shown in the table. **Maximum torque should be achieved on each individual bolt only two times in the consecutive tightening.**

Note: When properly mounted, there will be a gap between the bushing flange and sheave after the screws are tightened.
Caution: Use of Lubricants and or excessive screw torque can cause breakage

7. Tighten the set screw, when available, to hold the key securely during installation and until cap screws are securely tightened.

REMOVAL

1. Loosen and remove all mounting cap screws.
2. Insert cap screws in all threaded jack screw holes (J).
3. Start with the screws furthest from the bushing saw slot and tighten all jack screws alternately and progressively. Keep turning the screws in small equal amounts until the tapered surfaces disengage.

(*a) When mounting a sheave on M through W size bushing, position the threaded jack-apart hole (J) as far from the bushing saw as possible to reduce the possibility of bushing breakage.
(*b) When installing large or heavy parts in *Position One,* it may be easier to mount the key and bushing on the shaft first. Then place the sheave on the bushing and align the holes.
(*c) **Caution**: When mounting on a vertical shaft, provisions must be made, which will positively prevent the sheave and/or bushing from dropping during installation.

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NOTES

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