



Date: 2020-03-10

## PERFORMANCE DATA SHEET

Meets or exceeds MEPS (Minimum Efficiency Performance Standards), as described by the US Department of Energy in docket 10CFR431 and Natural Resources Canada's Amendment 14

Catalogue #: **MPRP-202CH**

| HP | kW   | Voltage | S.F. @ 60Hz | EFF.  | P.F.  | Frame | Design | L.R. Amps |
|----|------|---------|-------------|-------|-------|-------|--------|-----------|
| 2  | 1.49 | 575     | 1.15        | 86.0% | 0.870 | 56HC  | B      | 20        |

| 60 Hz |     |     |     |     |      |     |      |          |
|-------|-----|-----|-----|-----|------|-----|------|----------|
| FLA   |     |     |     |     |      |     | Code | F.L. RPM |
| 208   | 230 | 416 | 460 | 480 | 575  | 600 |      |          |
| /     | /   | /   | /   | /   | 2.03 | /   | L    | 3502     |

| 50 Hz |    |     |     |             |            |      |      |          |
|-------|----|-----|-----|-------------|------------|------|------|----------|
| HP    | kW | FLA |     | S.F. @ 50Hz | Efficiency | P.F. | Code | F.L. RPM |
|       |    | 190 | 380 |             |            |      |      |          |
| /     | -  | /   | /   | /           | /          | /    | /    | /        |

| Wgt. Lbs | PH | Duty  | Insul. Class | Amb. | Elevation        | Temp. Rise° C |
|----------|----|-------|--------------|------|------------------|---------------|
| 32       | 3  | Cont. | F            | 40°C | 1000M (3,300 Ft) | 58            |

| % Efficiency |       | % Power Factor |      | Torque           |     | Winding Resist. Ω | Safe Cold Start (Secs) |
|--------------|-------|----------------|------|------------------|-----|-------------------|------------------------|
| Full Load:   | 86.0% | Full Load:     | 0.87 | Full Load Ft/Lbs | 3.0 |                   |                        |
| 3/4 Load:    | 86.4% | 3/4 Load:      | 0.82 | Locked Rotor %   | 373 |                   |                        |
| 1/2 Load:    | 83.9% | 1/2 Load:      | 0.74 | Break Down %     | 424 | 9.53              | 12                     |

| Rotor Inertia Wk2 Lb-Ft2 | Max Load Inertia Wk2 Lb-Ft2 | Shaft Material | Frame Material | DE Bracket Type | ODE Bracket Type | Enclosure | NEMA Rating | Lead Wire Size |
|--------------------------|-----------------------------|----------------|----------------|-----------------|------------------|-----------|-------------|----------------|
| /                        | /                           | Steel          | Rolled Steel   | Aluminium Alloy |                  | TEFC      | IP55        | 0              |

| Ball Bearings |      | Grease          | Mount Type | Orientation | Paint | Sound Pressure @ 3FT | Sound Power |
|---------------|------|-----------------|------------|-------------|-------|----------------------|-------------|
| DE            | ODE  |                 |            |             |       |                      |             |
| 6205          | 6203 | Sealed Bearings | Rigid      | Horizontal  | Black | 59                   | /           |

| Inverter Duty.<br>Motor meets MG1 parts 31.4.4.2 | Constant Torque Range | Variable Torque Range | Constant HP RPM |
|--------------------------------------------------|-----------------------|-----------------------|-----------------|
|                                                  | 10:1                  | 20:1                  | /               |

| WIRING CONNECTION DIAGRAM :                                                                                                                                                                                                                                                                                                                                                                                                       | D |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <p>56C, Single Voltage, DOL, 3 Leads WYE Connection<br/>575 VAC 3 phase</p> <div style="text-align: center;"> <div style="display: inline-block; border: 1px solid black; padding: 2px 5px;">1</div> <div style="display: inline-block; border: 1px solid black; padding: 2px 5px;">2</div> <div style="display: inline-block; border: 1px solid black; padding: 2px 5px;">3</div> </div> <p style="text-align: center;">Line</p> |   |

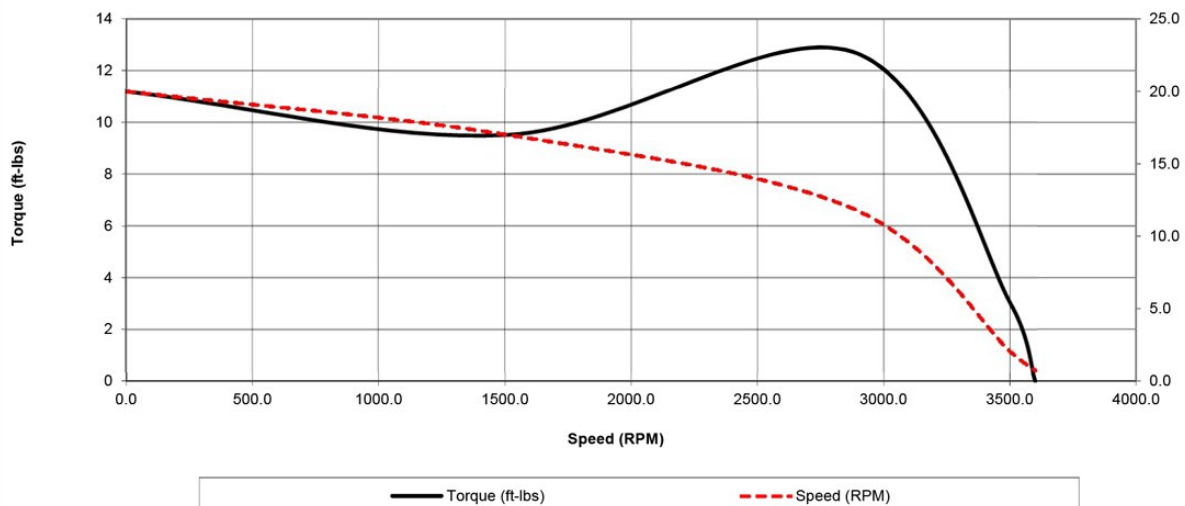
Date: 2020-03-10  
 Customer: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Submittee: J.C. Lavallée

Catalogue #: **MPRP-202CH**

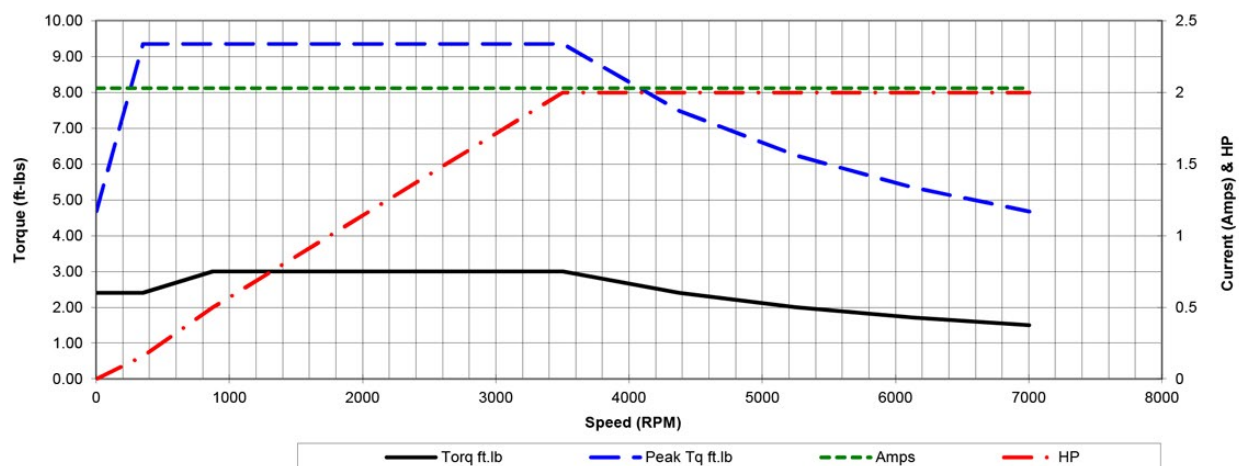
Meets or exceeds MEPS (Minimum Efficiency Performance Standards), as described by the US Department of Energy in docket 10CFR431 and Natural Resources Canada's Amendment 14

| HP              | VAC          | RPM     | Enclosure | Frame      | Frequency | Design                               | Poles  | LR Code Letter | Insulation Class | Temp. Rise °C |
|-----------------|--------------|---------|-----------|------------|-----------|--------------------------------------|--------|----------------|------------------|---------------|
| 2               | 575          | 3502    | TEFC      | 56HC       | 60        | B                                    | 2      | L              | F                | 58            |
|                 | 0Hz          | 6Hz     | 15Hz      | 30Hz       | 45Hz      | 60Hz                                 | 75Hz   | 90Hz           | 105Hz            | 120Hz         |
| Amps            | 2.03         | 2.03    | 2.03      | 2.03       | 2.03      | 2.03                                 | 2.03   | 2.03           | 2.03             | 2.03          |
| RPM             | 0            | 350.2   | 875.5     | 1751       | 2626.5    | 3502                                 | 4377.5 | 5253           | 6128.5           | 7004          |
| Torq ft.lb      | 2.40         | 2.40    | 3.00      | 3.00       | 3.00      | 3.00                                 | 2.40   | 2.00           | 1.71             | 1.50          |
| Peak Tq ft.lb   | 4.68         | 9.36    | 9.36      | 9.36       | 9.36      | 9.36                                 | 7.49   | 6.24           | 5.35             | 4.68          |
| HP              | 0            | 0.2     | 0.5       | 1.0        | 1.5       | 2.0                                  | 2.0    | 2.0            | 2.0              | 2.0           |
|                 | Locked Rotor | Pull-Up | Breakdown | Rated Load | Idle      | Duty                                 | S. F.  | Ambient        | Elevation        | dBA @ 1M      |
| Speed (RPM)     | 0.0          | 1512    | 2880      | 3502       | 3600      | Continuous                           | 1.15   | 40°C           | 3,300 ft         | 59            |
| Current (Amps)  | 20.0         | 17.0    | 11.9      | 2.0        | 0.8       | VFD Rating: Meets MG1 parts 31.4.4.2 |        |                |                  |               |
| Torque (ft-lbs) | 11.2         | 9.5     | 12.7      | 3.0        | 0.0       | C.T.                                 | 10:1   | V.T.           | 20:1             |               |

Motor Speed Data



Motor Torque Capability vs RPM





Date: 2020-03-10  
 Customer: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Submittee: J.C. Lavallée

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Meets or exceeds MEPS (Minimum Efficiency Performance Standards), as described by the US Department of Energy in docket 10CFR431 and Natural Resources Canada's Amendment 14

| HP | VAC | RPM  | Enclosure | Frame | Frequency | Design | Poles | LR Code Letter | Insulation Class | Temp. Rise °C |
|----|-----|------|-----------|-------|-----------|--------|-------|----------------|------------------|---------------|
| 2  | 575 | 3502 | TEFC      | 56HC  | 60        | B      | 2     | L              | F                | 58            |

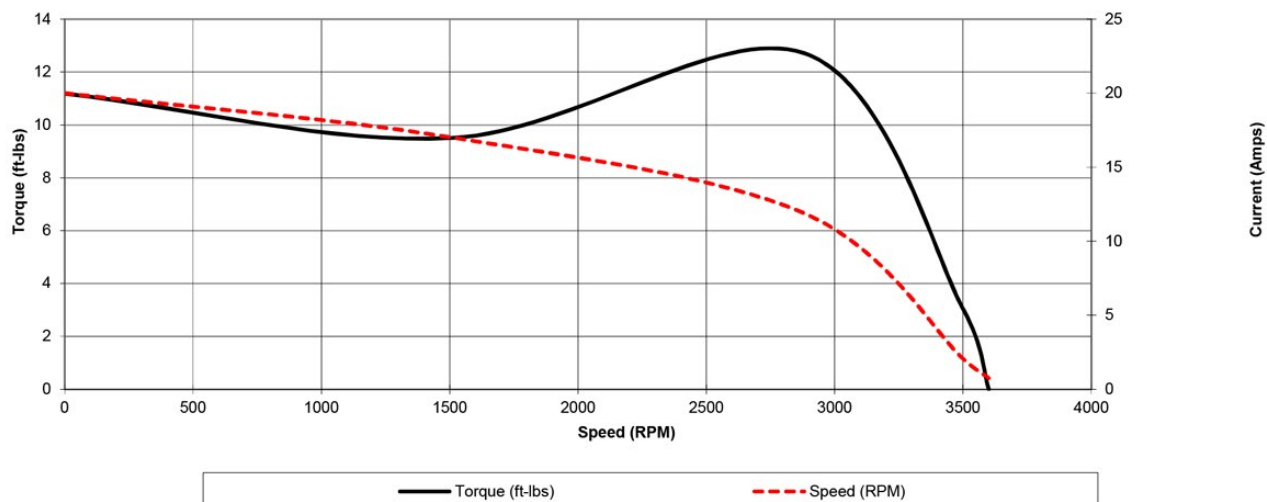
  

| Load %      | 0%   | 25%    | 50%   | 75%    | 100%  | 125%   | 150%  |
|-------------|------|--------|-------|--------|-------|--------|-------|
| Amps        | 0.76 | 1.02   | 1.22  | 1.59   | 2.03  | 2.54   | 3.05  |
| Torq ft/lbs | 0    | 0.73   | 1.48  | 2.23   | 3.00  | 3.78   | 4.56  |
| RPM         | 0    | 3575.5 | 3551  | 3526.5 | 3502  | 3477.5 | 3453  |
| Eff         | 0    | 73.44  | 83.90 | 86.40  | 86.00 | 83.16  | 80.79 |
| PF          | 0    | 50.0   | 74    | 82     | 87.0  | 88.7   | 91.4  |

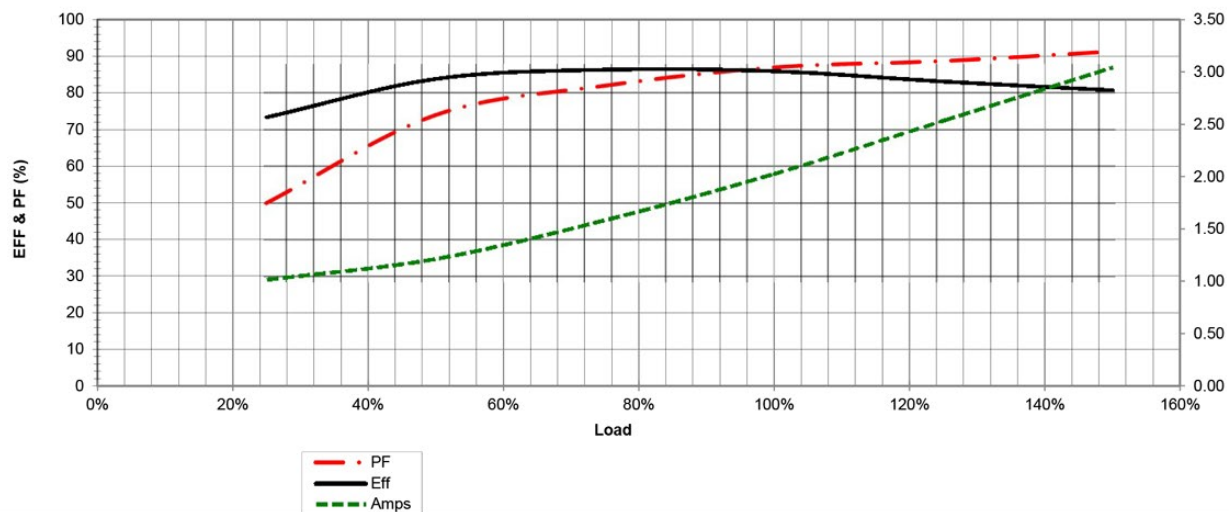
  

|                 | Locked Rotor | Pull-Up | Breakdown | Rated Load | Idle  | Duty                                 | S. F. | Ambient | Elevation | dBA @ 1M |
|-----------------|--------------|---------|-----------|------------|-------|--------------------------------------|-------|---------|-----------|----------|
| Speed (RPM)     | 0            | 1512    | 2880      | 3502       | 3600  | Continuous                           | 1.15  | 40°C    | 3,300 ft  | 59       |
| Current (Amps)  | 20           | 17.0    | 11.9      | 2.03       | 0.759 | VFD Rating: Meets MG1 parts 31.4.4.2 |       |         |           |          |
| Torque (ft-lbs) | 11.19        | 9.51    | 12.72     | 3.00       | 0.0   | C.T.                                 | 10:1  | V.T.    | 20:1      |          |

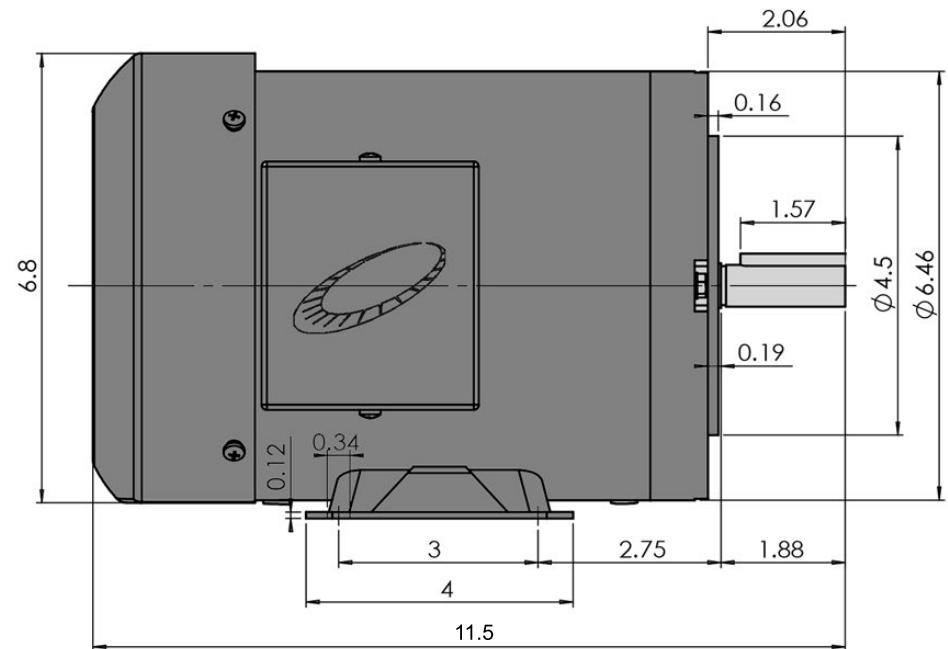
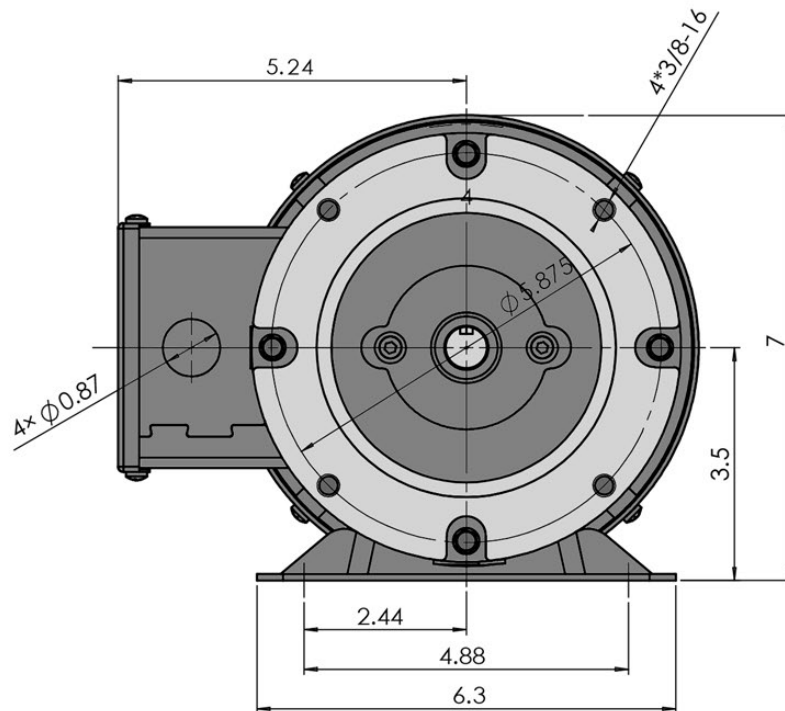
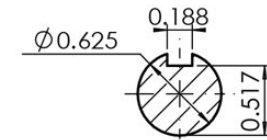
Motor Speed Data



Motor Load Data



# MaxMotion



## MPRP-202CH

Version:2HUA

Revised: July 2020

HP

RPM

FRAME

ENCLOSURE

Customer is responsible in determining that MaxMotion product will fit/perform suitably in the intended application

2

3600

56C

TEFC

## THREE PHASE 56HC AC MOTORS

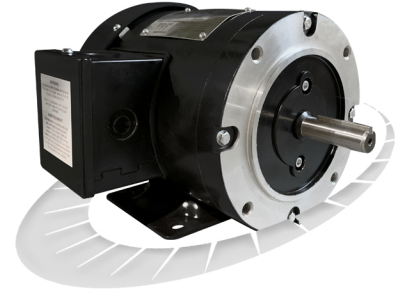
HEAVY GAUGE ROLLED STEEL CONSTRUCTION

TEFC TOTALLY ENCLOSED FAN COOLED

MaxMotion

### Applications:

A versatile design allowing replacement of C-Face or rigid base TEFC motors, for use on gear reducers, pumps, fans, blowers, conveyors, and all agricultural equipment requiring a motor to meet demanding high starting torque applications in severe environmental conditions.



### Features:

**Design** - NEMA Standard MG-1, design B, ambient temperature of 40°C, altitude 1000M, temperature rise B.

**Agency Listings and Standard** - NEMA MG1, IEEE, IEC, DOE registered, NRCAN, CSAus and CSA Certified, CE and RoHS Compliant

**Service Factor** - 1.15

**Electrical Supply** - 3 phase, 230/460VAC, 575VAC @ 60 hz, 3 phase 190/380VAC @ 50 Hz rated to the next lower HP. (± 10% Voltage tolerance)

**Windings** - Highest quality Corona resistant, Inverter duty copper wire. VPI impregnated with additional dip and bake.

**Efficiency** - Integral HP models meet or exceed NEMA Premium efficiency levels.

**Insulation** - Class F insulation, with non-hydroscopic motor leads.

**Bearings** - Permanently Lubricated High quality Double Shielded Ball Bearings with oversized DE bearings. Lithium based grease operating temperature range – 25° through 175°C.

**Enclosure Protection** - IP55

**Frame Construction** - Rolled Steel with cast aluminum end shields.

**Conduit Box** - With ½ NPT knockouts positioned for wiring access every 90° with rubber gasket between box and motor frame.

**Inverter Duty** - Constant torque: 10/1 ratio, variable torque: 20/1 ratio

**Nameplate** - Stainless steel with etched details.

**Drain Hole** - Positioned in the stator frame at the lowest point, when motors are horizontally mounted.

**Fan cover** - Plastic fan & heavy duty plastic fan guard

**Warranty** - 1 year

100% CANADIAN OWNED



# THREE PHASE 56HC AC MOTORS

HEAVY GAUGE ROLLED STEEL CONSTRUCTION

TEFC TOTALLY ENCLOSED FAN COOLED



| HP   | FL RPM | VOLTS       | FRAME | CAT NO.    | CONSTRUCTION | NOM EFF. | F.L. AMPS      | CODE | WT (Lbs) | DE BRG | ODE BRG | "C" Dimension (Inch) |
|------|--------|-------------|-------|------------|--------------|----------|----------------|------|----------|--------|---------|----------------------|
| 0.33 | 3481   | 208-230/460 | 56C   | MQR-132CH  | Rolled Steel | 67.6     | 1.28-1.31/0.66 | L    | 21       | 6205   | 6203    | 10.7                 |
|      | 3470   | 575         | 56C   | MPR-132CH  | Rolled Steel | 62.8     | 0.57           | L    | 21       | 6205   | 6203    | 10.7                 |
|      | 1744   | 208-230/460 | 56C   | MQR-134CH  | Rolled Steel | 66.1     | 1.53-1.63/0.82 | L    | 22       | 6205   | 6203    | 10.7                 |
|      | 1750   | 575         | 56C   | MPR-134CH  | Rolled Steel | 69.2     | 0.58           | L    | 22       | 6205   | 6203    | 10.7                 |
| 0.50 | 3466   | 208-230/460 | 56C   | MQR-122CH  | Rolled Steel | 71.6     | 1.74-1.67/0.84 | L    | 21       | 6205   | 6203    | 10.7                 |
|      | 3471   | 575         | 56C   | MPR-122CH  | Rolled Steel | 69.3     | 0.672          | L    | 21       | 6205   | 6203    | 10.7                 |
|      | 1741   | 208-230/460 | 56C   | MQR-124CH  | Rolled Steel | 74.1     | 1.9-1.95/0.98  | L    | 24       | 6205   | 6203    | 10.7                 |
|      | 1753   | 575         | 56C   | MPR-124CH  | Rolled Steel | 77.1     | 0.71           | L    | 24       | 6203   | 6203    | 10.7                 |
| 0.75 | 3469   | 208-230/460 | 56C   | MQR-342CH  | Rolled Steel | 80.3     | 2.24-2.08/1.04 | L    | 22.5     | 6205   | 6203    | 10.7                 |
|      | 3474   | 575         | 56C   | MPR-342CH  | Rolled Steel | 76.2     | 0.86           | L    | 22.5     | 6205   | 6203    | 10.7                 |
|      | 1738   | 208-230/460 | 56C   | MQR-344CH  | Rolled Steel | 80.7     | 2.43-2.34/1.18 | L    | 25.3     | 6205   | 6203    | 10.7                 |
|      | 1744   | 575         | 56C   | MPR-344CH  | Rolled Steel | 80.5     | 0.91           | L    | 25.3     | 6205   | 6203    | 10.7                 |
| 1    | 3506   | 208-230/460 | 56C   | MQRP-102CH | Rolled Steel | 82.7     | 2.92-2.75/1.38 | L    | 25       | 6205   | 6203    | 10.7                 |
|      | 3510   | 575         | 56C   | MPRP-102CH | Rolled Steel | 80.7     | 1.14           | L    | 25       | 6205   | 6203    | 10.7                 |
|      | 1752   | 208-230/460 | 56C   | MQRP-104CH | Rolled Steel | 86.5     | 3.01-2.82/1.41 | L    | 27       | 6205   | 6203    | 10.7                 |
|      | 1756   | 575         | 56C   | MPRP-104CH | Rolled Steel | 85.6     | 1.14           | L    | 27       | 6205   | 6203    | 10.7                 |
| 1.5  | 3492   | 208-230/460 | 56C   | MQRP-152CH | Rolled Steel | 86.6     | 4.03-3.81/1.9  | L    | 28       | 6205   | 6203    | 10.7                 |
|      | 3478   | 575         | 56C   | MPRP-152CH | Rolled Steel | 85.1     | 1.61           | L    | 28       | 6205   | 6203    | 10.7                 |
|      | 1752   | 208-230/460 | 56C   | MQRP-154CH | Rolled Steel | 86.6     | 4.59-4.41/2.21 | L    | 31       | 6205   | 6203    | 11.5                 |
|      | 1745   | 575         | 56C   | MPRP-154CH | Rolled Steel | 86.7     | 1.65           | L    | 31       | 6205   | 6203    | 11.5                 |
| 2    | 3500   | 208-230/460 | 56C   | MQRP-202CH | Rolled Steel | 85.5     | 5.39-5.05/2.53 | L    | 32       | 6205   | 6203    | 11.5                 |
|      | 3502   | 575         | 56C   | MPRP-202CH | Rolled Steel | 86       | 2.03           | L    | 32       | 6205   | 6203    | 11.5                 |
|      | 1741   | 208-230/460 | 56HC  | MQRP-204CH | Rolled Steel | 87.1     | 6.0-5.43/2.74  | L    | 37       | 6205   | 6203    | 12.5                 |
|      | 1752   | 575         | 56HC  | MPRP-204CH | Rolled Steel | 87.6     | 2.15           | L    | 37       | 6205   | 6203    | 12.5                 |
| 3    | 3513   | 208-230/460 | 56HC  | MQRP-302CH | Rolled Steel | 87.6     | 7.81-7.18/3.54 | L    | 42       | 6205   | 6203    | 12.5                 |
|      | 3512   | 575         | 56HC  | MPRP-302CH | Rolled Steel | 87.6     | 3.05           | L    | 42       | 6205   | 6203    | 12.5                 |