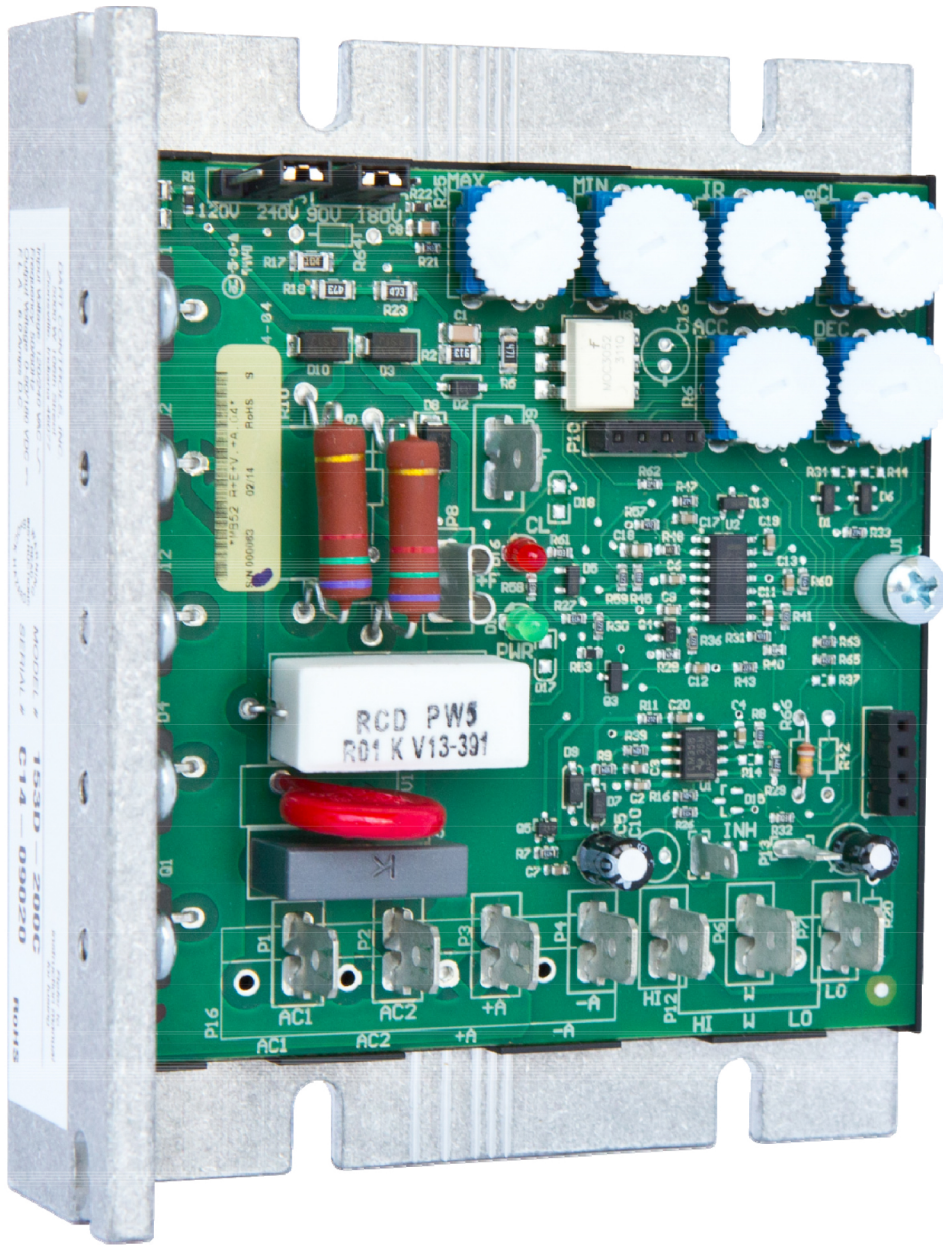


150 Series SCR Drive



OEM DC Drive

Designed with the OEM in mind the NEW 150 Series from Dart Controls offers maximum flexibility and value. Unique features and options make the 150 Series stand alone in the marketplace of DC drives.

- SMT Design
- Compact
- Customizable
- 3 Terminations
- 120/240VAC
- 90/180VDC
- 1/50 – 2HP
- AC & CL LED's
- No HP Resistors
- 4-20mA and 0-10V Follower*
- AC/Arm Fusing*
- Serial Comm Interface*
- cULs, CE, RoHS
- Fast Delivery
- Reliable Service

*Optional



Dart Controls, Inc.
5000 W. 106th Street
Zionsville, IN 46077
www.dartcontrols.com

317-873-5211
317-873-1105 FAX
sales@dartcontrols.com



In 2010 Dart engineers set out to design the most innovative and flexible SCR drive on the market. The new 150 Series is the result of that effort.



Designed Specifically for OEM Applications

Flexibility

- ✓ A single drive handles 120/240VAC supply voltages, 50/60 Hz with selectable 90 or 180VDC output
- ✓ PCB pads under all trimpots to allow for fixed resistor placement – enabling the OEM to avoid ANY drive tuning on the line
- ✓ PCB pads for fixed resistor placement in 2 or 3 speed applications
- ✓ Three options for wire terminations – spade, terminal strip and plug style terminal strip
- ✓ Dart's Lean Manufacturing expertise allows for precision scheduling of shipments, managing the OEM's cash flow
- ✓ Models for single voltage supply; elimination of motor Field supply; elimination of adjustable ACCEL and DECEL – all cost saving options with the OEM in mind

Innovation

- ✓ Space-saving Auxiliary Heat Sink that doubles HP rating
- ✓ Isolated mA/voltage follower – jumper selectable signal input
- ✓ Exclusive serial communication option to allow direct, multi-drop connection to low cost HMI's, PLC's and plant networks**

Support

- ✓ Ability to ship within 72 hours only those units needed each week or month – allowing the OEM to manage cash flow
- ✓ Easy access to over 100 years combined motor and control expertise to discuss applications and make recommendations before and after the sale
- ✓ Nationwide availability from a wide Distribution Network

** Available 2015

The Name You Know – The Quality You Expect

Your Local Representative

(317) 873-5211

www.DartControls.com

250 Series **FEATURED PRODUCT**



The 250 Series offers superb flexibility, reliability, and value. A general purpose, economical drive rated to 2HP, the 250 Series is our top-selling enclosed drive. Where most other drives require options to include soft start adjustment, AC line fuse protection and additional heat sink to handle higher HP motors, these are all included in every 253G model as standard features. Reliability is enhanced from the use of a rugged packaged power bridge. Chassis or NEMA 4/12 enclosure styles are available. Many options further extend the 250's capabilities.

Typical applications include conveyors and material handling, process pumps and machine tools.



253G-200C

253G-200E-7



253G-200E-29

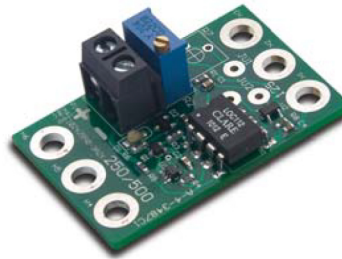


250 SERIES FEATURES + SPECIFICATIONS

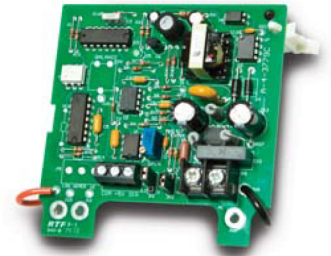
- Dual Voltage 120/240 VAC, 50/60Hz
- Full HP rated - no auxiliary heat sink required
- $\pm 10\%$ rated line voltage
- Adjustable horsepower settings
- Barrier terminal strip
- Full wave bridge supply
- 1% speed regulation
- Adjustable Minimum speed (0–30% of base)
- Adjustable Maximum speed (66–100% of base)
- Adjustable IR Compensation
- Adjustable Current Limit
- Adjustable Linear Acceleration
- -10° to +45°C ambient temperature
- Line voltage compensation
- 5K ohm speed potentiometer kit included
- 50:1 speed range
- Overload capacity: 150% for one minute
- Transient voltage protection
- Voltage follower mode - isolated signal (0–10 VDC)
- Inhibit circuit—permits low power start & stop

Model	Width	Length	Depth	Weight
251/253 chassis	5.53 in [14.1 cm]	7.00 in [17.78 cm]	1.63 in [4.14 cm]	14.25 oz [404 gm]
251/253 enclosed	5.53 in [14.1 cm]	7.25 in [18.42 cm]	2.75 in [6.98 cm]	17.50 oz [486 gm]

OPTIONS



-5 option board



-55H2 option board



-29 switch option

Base Model						Options							
Model	Supply Voltage	Motor Voltage	Current	HP	Body	-4X	-5	-7	-17B	-29	-34A	-55H2	-56H2
251G-12C	120/240 VAC	90/180 VDC	1.2 ADC	1/50-1/4	C	N/A	✓	✓	F	✓	N/A	✓	✓
253G-200C	120/240 VAC	90/180 VDC	10 ADC	1/8-2	C	N/A	✓	✓	F	✓	N/A	✓	✓
251G-12E	120/240 VAC	90/180 VDC	1.2 ADC	1/50-1/4	E	F	N/A	✓	F	✓	F	N/A	✓
253G-200E	120/240 VAC	90/180 VDC	10 ADC	1/8-2	E	F	N/A	✓	F	✓	F	N/A	✓

C – open chassis
E – NEMA 4 enclosed

✓ - Option is available
S - Standard Feature

N/A – Option Not available
F – Option is available as Factory Installed only

OPTION DESCRIPTION

- 4X: NEMA 4X wash down rated - enclosed models only
- 5: Isolated 4-20mA signal follower input - loop power NOT provided
- 7: Same as -5 option, with provision to add manual speed pot for Auto/Manual operation
- 17B: Adjustable Acceleration rate = Deceleration rate
- 29: 4PDT center block (no pass) switch motor reversing. Cuts off supply power while changing motor direction
- 34A: Torque Control (enclosed models only) - changes speed pot to Torque adjustment
- 55H2: Isolated 0-5 to 0-250VDC signal follower input
- 56H2: Same as -55H2, with provision to add manual speed pot for Auto/Manual operation

Analog SCR Drive *Team*

SCR drives are the workhorse of the variable speed DC motor industry. This technology continues to dominate not only installed base but new sales every year, and will continue to do so well into the future. The reason is simplicity, reliability and value.

We refer to the drives in this section as 'Analog' because we also make 'Digital' SCR drives – more on those in the next section.

SCR drives convert single phase line voltage (120/240VAC) into full-wave rectified DC for use with both DC permanent magnet and shunt or field wound DC motors. SCR drives control the motor speed by adjusting the voltage output to the motor. Current (amp) draw is determined by the motor and its load – drives with Current Limit feature will protect both the motor and control from damage.

Dart drives are designed with both the OEM designer and the user in mind – some common features include:

- Auto-sensing dual supply voltage (120 or 240 VAC)
- Wide adjustable HP range
- No additional parts to order/manage (speed pots; resistors)
- Both 'chassis' (open frame) and enclosed models
- Popular options to address reversing, signal following, wash down
- Continued investment in product development and improvement

All Dart products are 100% designed and built in the USA, backed by a generous warranty policy. Most products ship in 24 hours or less from our ISO certified, Lean Manufacturing facility.

Service and Support are what separate us from the rest – we appreciate the opportunity to discuss your application needs and invite your call any time.

Experience the Dart Difference for yourself today!



125 Series



253 Series



15 Series



530 Series



130 Series