



DC ADJUSTABLE SPEED DRIVES

SCR THYRISTOR CONTROLS



FOR NEMA FRAME MOTORS & GEARMOTORS SCR CONTROLS • ENCLOSED • SINGLE PHASE 50/60 HZ

Description	Catalog Number	Output Current Amps	HP Range		App. Wgt. (lbs.)
			115V	230V	
NEMA 1 General Purpose					
—Non-Reversing	174307.00	10	1/8 to 1 [Ⓜ]	1/4 to 2 [Ⓜ]	5
—Reversing with dynamic braking	174308.00	10	1/8 to 1 [Ⓜ]	1/4 to 2 [Ⓜ]	5
—Heat Sink	174316.00	—	—	—	1
NEMA 4X Washdown—Dust-Tight					
—Non-Reversing, Plastic Enclosure	174102.00	10	1/8 to 1	1/4 to 2	6
—Non-Reversing, Plastic Enclosure with Signal Follower	174103.00	10	1/8 to 1	1/4 to 2	7
—Reversing, Plastic Enclosure *	174107.00	10	1/8 to 1	1/4 to 2	7
NEMA 4					
—Non-Reversing 3HP	174709.00	15	—	3	8

SCR CONTROLS • OPEN CHASSIS

Description	Catalog Number	Output Current Amps	HP Range		App. Wgt. (lbs.)
			115V	230V	
Chassis with Speed Pot-Non Reversing	174311.00	10	1/8 to 1 [Ⓜ]	1/4 to 2 [Ⓜ]	1
Chassis Heat Sink [Ⓜ]	174314.00	—	—	—	1

REGENERATIVE SCR DRIVES • FOUR QUADRANT • FULL WAVE

Description	Catalog Number	Output Current Amps	HP Range		App. Wgt. (lbs.)
			115V	230V	
NEMA 4X Washdown ✓	175720.00	10	1/4 to 1 [Ⓜ]	1/2 to 2 [Ⓜ]	8
Open Chassis with Speed Pot ✓	175721.00	10	1/4 to 1 [Ⓜ]	1/2 to 2 [Ⓜ]	2
Chassis Heat Sink [Ⓜ]	175722.00	—	—	—	2

FOR SUBFRACTIONAL HP MOTORS & GEARMOTORS PWM & SCR CONTROLS • ENCLOSED • SINGLE PHASE 50/60 HZ

Description	Catalog Number	Output Current Amps	HP Range		App. Wgt. (lbs.)
			115V	230V	
NEMA 1 General Purpose					
—SCR Non-Reversing	M1740005.00	3	1/40 to 1/8	1/40 to 1/4	5
—SCR Reversing With Dynamic Braking	M1740006.00	3	1/40 to 1/8	1/40 to 1/4	5
—PWM Non-Reversing	M1740008.00	3	1/40 to 1/8	1/40 to 1/4	2

PWM & SCR CONTROLS • OPEN CHASSIS

Description	Catalog Number	Output Current Amps	HP Range		App. Wgt. (lbs.)
			115V	230V	
Open Chassis SCR Type					
—Chassis with Speed Pot-Non Reversing	M1740007.00	1.5	1/40 to 1/8	1/40 to 1/4	1
Open Chassis PWM Type					
—Chassis with Speed Pot-Non Reversing	M1740009.00	2.0	1/40 to 1/8	—	1

- * Drive does not have dynamic braking. Motor shaft must be at zero speed before reversing.
- Ⓜ Heat sink #174316 is required for NEMA 1 type 3/4 and 1HP 115V and 1 1/2 and 2HP 230V when the amp draw of the motor exceeds 5 amps.
- Ⓜ Chassis Heat Sink #174314 required for 3/4 and 1HP 115V and 1 1/2 and 2HP 230V when the amp draw of the motor exceeds 5 amps.
- Ⓜ Chassis Heat sink #175722 required for 1HP and above when the amp draw of the motor exceeds 5 amps.
- ✓ Regenerative drives are reversible and have regenerative braking.

LEESON Speedmaster DC Control information

PWM and SCR Controls

General Specifications:

- General purpose for Permanent Magnet or Shunt wound DC motors
- NEMA 4X and 4/12 suitable for Washdown applications
- Dual Voltage capable on most designs – see HP range
- 115 / 230 volt single-phase input voltage – DC 90 volt or 180 volt output
- Adjustable Minimum and Maximum speed
- Speed Pot included on Chassis controls
- Adjustable IR Compensation
- Heat Sinks required as noted
- PWM Controls provide quieter operation, lower motor temperature and greater motor overload capacity.

Regenerative Controls

General Specifications:

- Four Quadrant controls for Precise Motion Control
- NEMA 4X or Chassis Style
- Motoring and Braking torque regulation 1/4 HP through 2 HP.

15 Series

General Specifications:

- Dual Voltage – 12/24 VAC or 120/240 VAC Input
- Adjustable Minimum and Maximum speed
- Adjustable IR compensation
- Fixed Acceleration – (0.5 seconds)
- 5K ohm Speed Pot included
- 25:1 speed range and 1% speed regulation

PDF file of Manual available at www.leeson.com

Specifications are subject to change without notice