

DC3R Regenerative DC Drives

PRICING

1/4 - 1.0 HP @ 115 VAC, 1-Ph, 50/60 Hz: 90 VDC Armature

1/2 - 2.0 HP @ 230 VAC, 1-Ph, 50/60 Hz: 180 VDC Armature

For the Operation of Permanent Magnet & Shunt Wound DC Motors



Product Features: DC3R Plate Models

- Isolated reference input card included
- Selectable voltage input: 115 or 230 VAC
- Fused AC line input connections: L1 & L2
- Selectable armature voltage output: 90 or 180 VDC
- Dual Voltage Field supply rated at 1 amp continuous
- Tachometer feedback acceptable range of: 7 VDC/1000 to 50 VDC/1000
- Speed regulation and range:
 - 0.1% speed regulation with tachometer feedback; 1.0% speed regulation with armature voltage feedback
 - 60:1 speed range with tachometer feedback
- Control speed from an external reference:
 - DC3R-12D-00-010-AN model requires an isolated analog reference source: ± 10 VDC
 - DC3R-12D-00-010-AI model includes reference input isolation for use when the analog reference source is not isolated: ± 25 VDC or ± 250 VDC, and 1-5 mA DC, 4-20 mA DC, 10-50 mA DC
- Inhibit circuit connection for interfacing to external control logic allows zero speed operation
- Independent potentiometer adjustments for:
 - Minimum speed: 0-35%
 - Maximum speed: 0-100%
 - Forward accel: 0.5-6 sec.
 - Reverse accel: 0.5-6 sec.
 - Forward torque: < 200% adj. ⁽¹⁾
 - Reverse torque: < 200% adj. ⁽¹⁾
 - Tach voltage: adj.
 - IR compensation: 0-15%
 - Deadband compensation: adj.

HP Rating		"Non-Isolated" Controller Selection - DC3R Model - 115/230 VAC, 1 Phase, 50/60 Hz						
115 VAC	230 VAC	Enclosure	Rated AC	DC Armature	Rated Armature	Motor Field	Model Number	List
Input	Input	Type	Line (Amps)	Voltage	Current (Amps)	Voltage		
1/4 to 1/2	--	Plate	4.2 to 7.5	90	2.7 to 5.0	50/100	* DC3R-12D-00-010-AN	\$210
1/2 to 1.0	--	Plate	7.5 to 12.1	90	*** 5.0 to 10	50/100		
--	1/2 to 1.0	Plate	3.8 to 6.7	180	2.5 to 5.0	100/200		
--	1.0 to 2.0	Plate	6.7 to 11.7	180	*** 5.0 to 9.2	100/200		
HP Rating		"Isolated" Controller Selection - DC3R Model - 115/230 VAC, 1 Phase, 50/60 Hz						
1/4 to 1/2	--	Plate	4.2 to 7.5	90	2.7 to 5.0	50/100	* DC3R-12D-00-010-AI	\$270
1/2 to 1.0	--	Plate	7.5 to 12.1	90	*** 5.0 to 10	50/100		
--	1/2 to 1.0	Plate	3.8 to 6.7	180	2.5 to 5.0	100/200		
--	1.0 to 2.0	Plate	6.7 to 11.7	180	*** 5.0 to 9.2	100/200		

(1) Settable to < 200%, drive rated for 150% for 1 minute

*** Requires addition of Heatsink Kit Option: DC3R-HS-00

INSTRUCTION MANUALS

DC3R-12D-00-010-AN: D2-3453

DC3R-12D-00-010-AI: D2-3453

DC3R Isolation Option Board: D2-3454

* Normally carried in stock

DISCOUNT VS-1AC

DC3R Regenerative DC Drives

Introduction

AC Drives

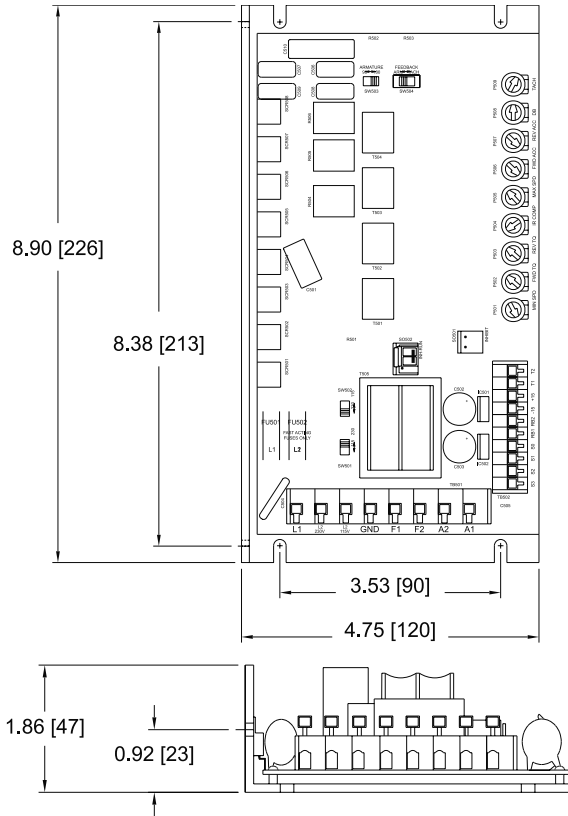
Analog DC Drives

Digital DC Drives

Options & Accessories

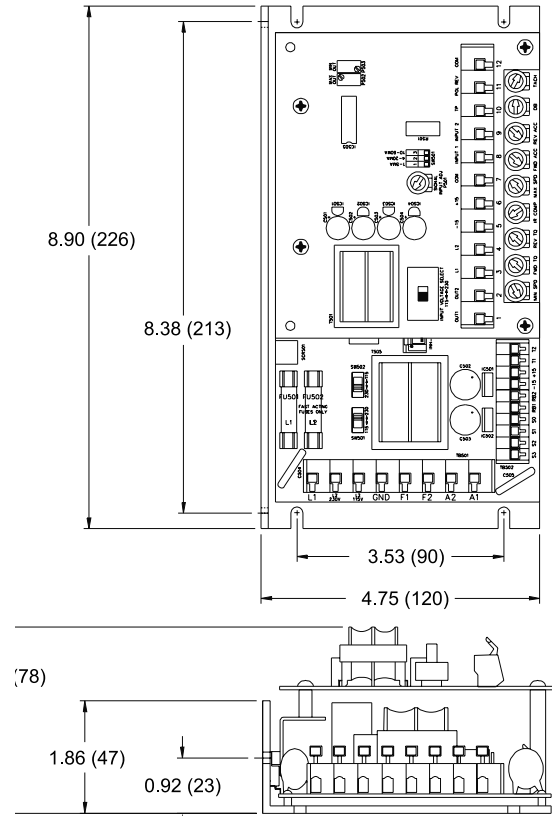
Product Demonstrators and Training

DC3R-12D-00-010-AN Dimensions



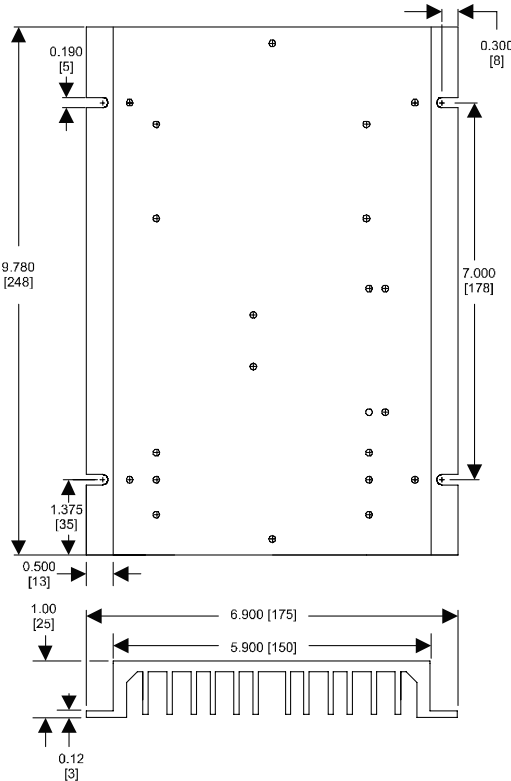
ALL DIMENSIONS IN INCHES [MILLIMETERS]

DC3R-12D-00-010-AI Dimensions



ALL DIMENSIONS IN INCHES (MILLIMETERS)

DC3R-HS-00 Heatsink Dimensions



DISCOUNT VS-1AC

DC3R Regenerative DC Drives

PRICING

1/4 - 1.0 HP @ 115 VAC, 1-Ph, 50/60 Hz: 90 VDC Armature

1/2 - 2.0 HP @ 230 VAC, 1-Ph, 50/60 Hz: 180 VDC Armature

For the Operation of Permanent Magnet & Shunt Wound DC Motors



Product Features: DC3R Enclosed Model

- **Selectable input voltage:** 115 or 230 VAC
- **Fused AC line input connections:** L1 & L2
- **Armature voltage output switch selectable:** 90 or 180 VDC
- **Dual Voltage Field supply rated at 1 amp continuous**
- **Tachometer feedback acceptable range of:** 7 VDC/1000 to 50 VDC/1000
- **Speed regulation and range:**
 - 0.1% speed regulation with tachometer feedback;
 - 1.0% speed regulation with armature voltage feedback
 - 60:1 speed range with tachometer feedback
- **Door mounted operator devices (enclosed model only):**
 - Power on/power off selector switch and power on indicator light
 - Speed potentiometer
 - Forward/brake/reverse selector switch
- **Control speed from an external reference:**
 - DC3R model requires an isolated analog reference source ± 10 VDC, 0-10 VDC
- **Inhibit circuit connection for interfacing to external control logic allows zero speed operation**
- **Independent potentiometer adjustments for:**
 - Minimum speed: 0-35%
 - Maximum speed: 0-100%
 - Forward accel: 0.5-6 sec.
 - Reverse accel: 0.5-6 sec.
 - Forward torque: < 200% adj. ⁽¹⁾
 - Reverse torque: < 200% adj. ^f
 - Tachometer voltage: adj.
 - IR compensation: 0-15%
 - Deadband compensation: adj.

HP Rating		"Non-Isolated" Controller Selection - DC3R Model - 115/230 VAC, 1 Phase, 50/60 Hz						
115 VAC Input	230 VAC Input	Enclosure Type	Rated AC Line (Amps)	DC Armature Voltage	Rated Armature Current (Amps)	Motor Field Voltage	Model Number	List
1/4 to 1.0	--	NEMA 4X/12	4.2 to 12.1	90	2.7 to 10	50/100	* DC3R-12D-4X-010-AN	\$375
--	1/2 to 2.0	NEMA 4X/12	3.8 to 11.7	180	2.5 to 9.2	100/200		

(1) Settable to < 200%, drive rated for 150% for 1 minute

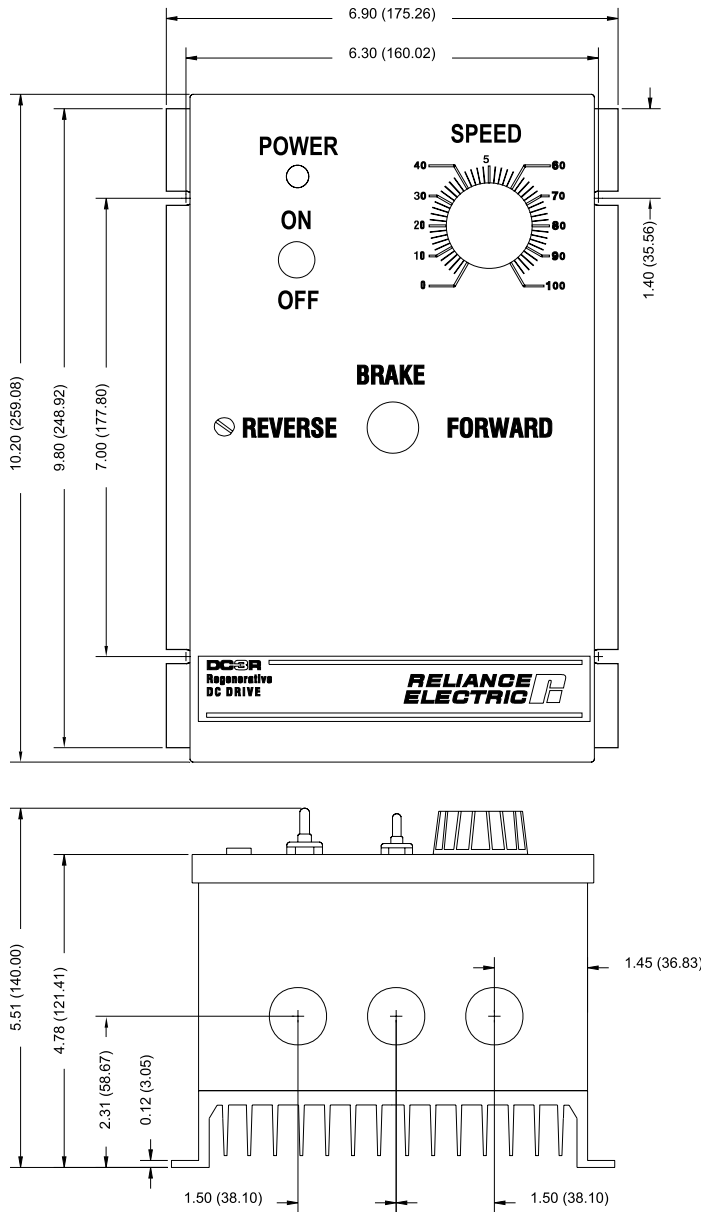
INSTRUCTION MANUAL

D2-3453

* Normally carried in stock

DISCOUNT VS-1AC

DC3R-12D-4X-010-AN Dimensions



DISCOUNT VS-1AC

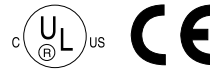
DC3R Regenerative DC Drives

PRICING

1/4 - 1.0 HP @ 115 VAC, 1-Ph, 50/60 Hz Input: 90 VDC Armature

1/2 - 2.0 HP @ 230 VAC, 1-Ph, 50/60 Hz Input: 180 VDC Armature

For the Operation of Permanent Magnet & Shunt Wound DC Motors



Product Features: DC3R Enclosed Model with Door Keypad

- **Dual voltage input switch selectable:** 115 or 230 VAC
- **Fused AC line input connections:** L1 & L2
- **Armature voltage output switch selectable:** 90 or 180 VDC
- **Dual Voltage Field supply rated 1 amp continuous**
- **Tachometer feedback acceptable range of:** 7 VDC/1000 to 50 VDC/1000
- **Speed regulation and range:**
 - 0.1% speed regulation with tachometer feedback; 1.0% speed regulation with armature voltage feedback
 - 60:1 speed range with tachometer feedback
- **Door mounted operator devices:**
 - Power on/power off selector switch
 - Forward & reverse speed potentiometers for independent speed settings
 - NEMA 4X/12 membrane keypad & LED indicators lights for: forward, reverse, stop and jog
- **Control speed from an isolated external reference:**
 - This DC3R model requires an isolated analog reference source ± 10 VDC, 0-10 VDC
- **Inhibit circuit connection for interfacing to external control logic allows zero speed operation**
- **Limit switch input for cyclic forward/reverse operation including 4 selectable modes:**
 - Half cycle with 2 switches, single cycle with 1 or 2 switches and continuous cycle between 2 switches
- **Independent potentiometer adjustments for:**
 - Minimum speed: 0-35%
 - Maximum speed: 0-100%
 - Forward jog speed
 - Reverse jog speed
 - Forward acceleration: 0.5-15 sec.
 - Reverse acceleration: 0.5-15 sec.
 - Forward torque limit: < 200% adj. ⁽¹⁾
 - Reverse torque limit: < 200% adj. ⁽¹⁾
 - Tachometer voltage: adj.
 - IR compensation: 0-15%
 - Deadband compensation: adj.
 - Limit switch dwell time: 0.1-1 sec.

HP Rating		"Non-Isolated" Controller Selection - DC3RD Model - 115/230 VAC, 1 Phase, 50/60 Hz						
115 VAC Input	230 VAC Input	Enclosure Type	Rated AC Line (Amps)	DC Armature Voltage	Rated Armature Current (Amps)	Motor Field Voltage	Model Number	List
1/4 to 1/2	--	NEMA 4X/12	4.2 to 7.5	90	2.7 to 5.0	50/100	DC3R-12D-4X-010-DN	\$625
1/2 to 1.0	--	NEMA 4X/12	7.5 to 12.1	90	5.0 to 10	50/100		
--	1/2 to 1.0	NEMA 4X/12	3.8 to 6.7	180	2.5 to 5.0	100/200		
--	1.0 to 2.0	NEMA 4X/12	6.7 to 11.7	180	5.0 to 9.2	100/200		

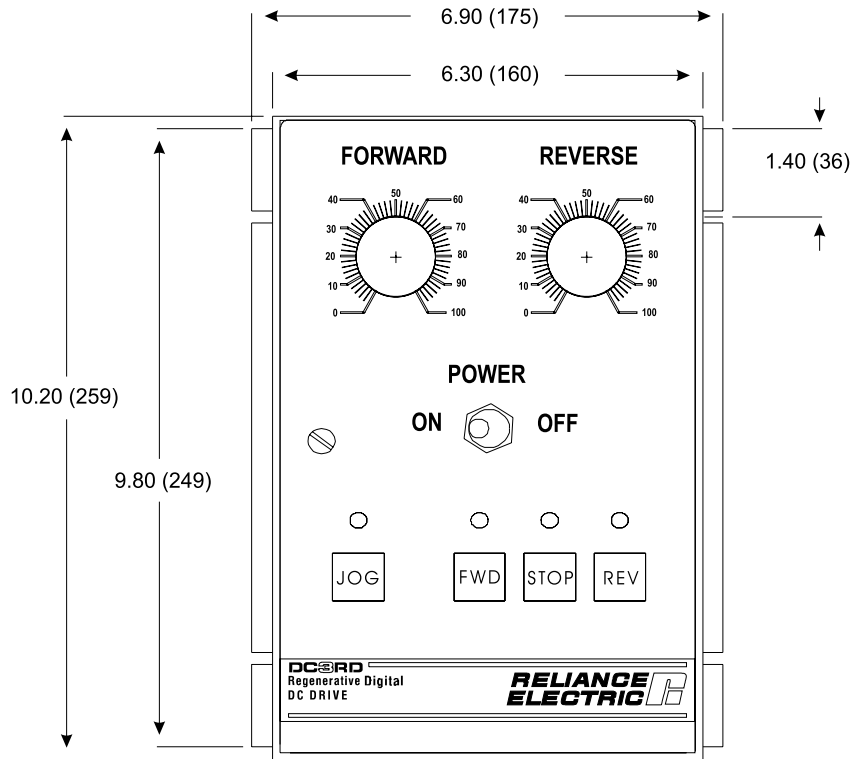
(1) Settable to < 200%, drive rated for 150% for 1 minute

INSTRUCTION MANUAL

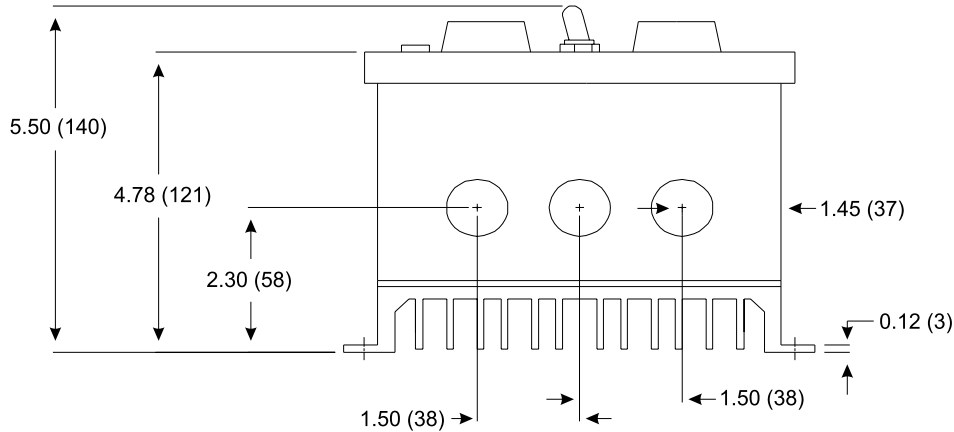
D2-3455

DISCOUNT VS-1AC

DC3R-12D-4X-010-DN DIMENSIONS



FOUR (4) EACH MOUNTING SLOTS,
6.3 (160) X 7.0 (178)
ON CENTERS



THREE 0.88 (22) KNOCKOUTS
ALL DIMENSIONS IN INCHES (MILLIMETERS)