




# 4Q PWM

D

Drive	Input Voltage (VAC)	Output Voltage Range (VDC)	Max. Armature Current	HP Rating @ 90/130 VDC Output	HP Rating @ 180/240 VDC Output	Enclosure	Reversing *****	Isolation	Field Supply (VDC)	UL Listed 	CSA 	CE TUV 
NRG02-D240AC-4Q	115 230	0-130 0-240	2	1/20 - 1/6	1/10 - 1/3	CHASSIS	YES	-	-	YES	-	-
NRG02-D240AC-4Q-PCM	115 230	0-130 0-240	2	1/20 - 1/6	1/10 - 1/3	CHASSIS	YES	0 to ±10 VDC 4-20 mA	-	YES	-	-
NRG05-D240AC-4Q	115 230	0-130 0-240	5	1/8 - 1/2	1/4 - 1	CHASSIS	YES	-	-	YES	-	-
NRG05-D240AC-4Q-PCM	115 230	0-130 0-240	5	1/8 - 1/2	1/4 - 1	CHASSIS	YES	0 to ±10 VDC 4-20 mA	-	YES	-	-
NRG10-115AC-4Q	115	0-130	10	1/4 - 1	-	CHASSIS	YES	-	-	YES	-	-
NRG10-115AC-4Q-PCM	115	0-130	10	1/4 - 1	-	CHASSIS	YES	0 to ±10 VDC 4-20 mA	-	YES	-	-

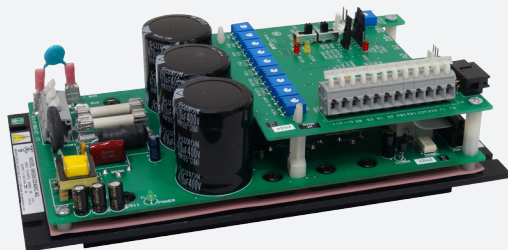
\*\*\*\*\* Applications that require braking and/or reversing of high inertia loads require a Regenerative Dumping resistor. Refer to the user's manual for resistor sizing. See the Accessories section for resistor part numbers (Pg 48).

The NRG-4Q Series, with a robust set of features, is easy to use and at the same time, will satisfy demanding application requirements. This family of drives is the highest performance drive line in the Minarik Drives arsenal. Our OEM customers often refer to the drive as a DC Servo. In addition to on-board fusing to protect your motor and drive, the NRG will accept any AC input voltage between 90 and 240 VAC at 50 or 60Hz. With the auto-ranging power supply there are no switches to set, no settings to change.

These highly efficient, near unity form factor PWM regenerative drives will increase motor performance while reducing your energy costs. MOSFET power in PWM drives switch at 16kHz (double edge modulation), to provide fast circuit response and the constant 1.05 (pure DC is 1.00) form factor throughout the entire 100:1 speed range.

The NRG-4Q will work with logic signals, motion controllers, and programmable logic controllers. It is also compatible with Minarik Drives' popular 200-0386A limit switch logic board (page 43).

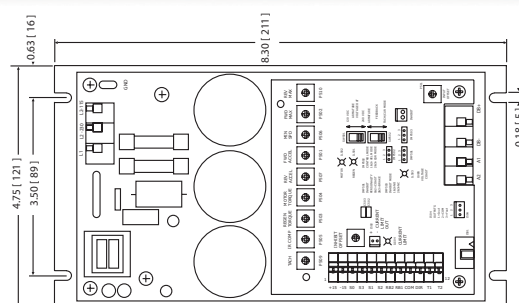
See page 52 for an in-depth comparison of the different 4Q drives.



NRG02-D240AC-4Q  
NRG05-D240AC-4Q  
NRG10-115AC-4Q

NRG02-D240AC-4Q-PCM  
NRG05-D240AC-4Q-PCM  
NRG10-115AC-4Q-PCM

## NRG-4Q SERIES DIMENSIONS



HEIGHT	
NRG02	2.79 [71]
NRG05	3.13 [80]
NRG10	3.62 [92]

All dimensions in inches [millimeters]

Wiring diagrams can be found on page 67.

## FEATURES

- **4Q reversing:** Regenerative / 4 quadrant drives have the ability to perform quick and contactorless reversing on-the-fly. Change the 4Q to a 2Q for a lower cost regenerative stopping (no reversing) model.
- **Speed range, regulation, & form factor:** 1% of base speed regulation with a 100:1 speed range. 0.1% of base speed regulation with a 100:1 speed range with the tachogenerator feedback. 1.05 form factor over the entire range.
- **User adjustable calibration pots:** Minimum Speed, Forward Maximum Speed, Reverse Maximum Speed, Motor Torque, Regen Torque, IR Compensation, Forward Acceleration, Reverse Acceleration, Tachogenerator Feedback, Inhibit Offset and Input Offset.
- **Diagnostic LEDs:** LEDs for motoring, regen (torque or braking), current limit and overvoltage coast.
- **Stopping modes:** User can decelerate (N.O.), regeneratively brake (N.O. or N.C.) or coast the motor to a stop (N.O. or N.C.).
- **Outputs:** Signals proportional to motor voltage, motor current, and to signal the drive is in current limit.
- **Inhibit personality switch:** Choose whether you brake or coast to a stop. Use inhibit plug (201-0024).
- **Auto-ranging power supply:** Can accept a 90-240 VAC or 80-340 VDC as an alternative to an AC input. Connection will vary.
- **RoHS:** All NRG-4Q series models are RoHS compliant.