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need it FAST!**



EMERSON
Industrial Automation

**One Week
Shipment
Standard**

RAPIDPAK

Quantum III - Compact Pre-Engineered DC Drive Package

Drive Selection

- ▶ 5 to 50HP at 208-240VAC
- ▶ 5 to 100HP at 380-480VAC
- ▶ Overload capacity is 150% for 30 seconds repeated every 10 minutes
- ▶ Non-regenerative (unidirectional) or regenerative (reversing)
- ▶ Modbus standard; Fieldbus options

Enclosure Selection

- ▶ Ventilated NEMA 12 enclosure (PPBF)
- ▶ Panel mount
- ▶ UL508A approved
- ▶ Options
 - Input circuit breaker
 - Non-fused disconnect switch
 - Fused blower motor starter
 - Door mounted devices
 - 240VDC field supply
- ▶ Slimline enclosure style



**RAPIDPAK
EXPRESS**
24 hour shipment
20% premium

SAFTRONICS

'RAPID' for fast delivery - 'PAK' for packaged drives



Part Number Configurator

R x QUx x xxx x N x - x x x x x

Product

R = RapidPak

Enclosure Style

S = Slimline Enclosure
P = Slimline Panel

Drive Model

QUN = Quantum Non-Regenerative
QUR = Quantum Regenerative

Voltage Rating

8 = 208 VAC
2 = 240 VAC
3 = 380 VAC
4 = 480 VAC

Amp Rating

038 = 38A
055 = 55A
106 = 106A
172 = 172A

Door Mounted Operator Station^{1,5}

0 = Blank (default)
1 = E-Stop PB, Start PB, Stop PB, Speed Pot
2 = #1 & Jog PB
3 = #1 & Fwd/Rev SS
4 = #2 & #3

Door Mounted Keypad²

N = No Keypad available (default)

Options

Encoder Cable⁴

A = DB9 Encoder Cable

Field Supply³

B = 240Vdc @ 2A
C = 240Vdc @ 8A

Fused Blower Motor Starter

D = Range 0.4 - 0.65A
E = Range 0.6 - 1.1A
F = Range 1.0 - 1.5A
G = Range 1.3 - 1.9A
H = Range 1.8 - 2.7A
J = Range 2.5 - 4.1A
K = Range 4.0 - 6.3A

Additional Door Mounted Device

0 = Reset PB
1 = Drive "ON" PL

Input Power

0 = None (default)
1 = Circuit Breaker
2 = Non-Fused Disconnect Switch

(1) To meet UL508A for industrial applications the E-Stop PB is required when door mounted devices are selected.

(2) This option is not available in the DC RapidPak product line.

(3) For 240 VAC application requiring 240 VDC armature and 240 VDC field voltage

(4) The drive requires a DB9 connector for encoder feedback. The cable is supplied with the DB9 connector and a wired terminal block.

(5) Abbreviation Key: PB = Pushbutton; SS = Selector Switch

Approvals

- ▶ UL508A

Design

- ▶ Slimline: compact packaging with common drive options available. Suitable for side by side mounting (only 1/2" clearances required for door)
- ▶ Textured, beige powder coat finish
- ▶ Ventilated Nema 12 enclosure
- ▶ Drive input fusing standard

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Quantum III

For options not included in the part number configurator, please consult factory.

Definition - Part Number Configurator

Item	Description
Enclosure Style S = Slimline enclosure P = Slimline panel	The enclosure option is a ventilated NEMA 12, positive pressure blown and filtered. 14 gauge steel enclosure.
Drive Type QUN = Non-regenerative QUR = Regenerative	N for Non-regenerative DC drive or R for Regenerative DC drive. Regenerative provides FWD and REV direction with a controlled braking action. Non-Regenerative is unidirectional and will have a coast to a stop action, unless dynamic braking is used.
Voltage Rating 2 = 208 - 240 VAC 4 = 380 - 480 VAC	208-240 VAC for 240 VDC motor armature. 380-480 VAC for 500 VDC motor armature.
Drive Amp Rating - Armature	Select the armature amp rating from the motor nameplate data.
Door Mounted Operator Station 0 = Blank 1 = E-Stop, Start PB, Stop PB, Speed Pot 2 = # 1 & Jog PB 3 = # 1 & FWD / REV SS 4 = # 2 & FWD / REV SS	The blank option requires a cover plate and defines that the devices are remote mounted. Selection #1 to #4 defines that the devices are door mounted and wired to the drive terminals. To meet UL508A for industrial locations the E-Stop pushbutton is required with door mounted devices.
Input Power Disconnect 0 = None 1 = Circuit breaker 2 = Non-fused disconnect	Selecting "None" requires a cover plate to be added. When selecting #1 or #2, an input power disconnect is used. All Rapidpaks DC include drive input fuses.

OPTIONS

Encoder Cable A = Encoder cable	The drive has a DB9 connector for encoder feedback. The encoder cable is supplied with the DB9 connector wired to a terminal block.
Field Supply B = 240 VDC @ 2A Rating C = 240 VDC @ 8A Rating	When a 240 VDC field is required, the field amps are required to size the buck-boost transformer.
Blower Motor Starter D to K	Select the correct blower motor amps. The value must be selected to complete the part number for order entry.
Additional Door Mounted Devices 0 = Reset pushbutton 1 = Drive "ON" pilot light	Reset pushbutton is required when the E-stop pushbutton is used. Drive ON pilot light indicates drive running.

Additional Part Number

DB Resistor See chart for part numbers	The DB resistor is shipped loose and is to be mounted externally to the Rapidpak by the customer to meet UL508A. Note: The DB part number is not part of the part number configurator.
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Non-Regenerative 208-240VAC, 3 Phase Input, 50/60 Hz

HP	240VDC Armature A	Slimline Panel Part Number	Slimline Enclosure Part Number
3 - 10	38	RPQUN20380N0-X	RSQUN20380N0-X
15	55	RPQUN20550N0-X	RSQUN20550N0-X
20-30	106	RPQUN21060N0-X	RSQUN21060N0-X
40-50	172	RPQUN21720N0-X	RSQUN21720N0-X

Regenerative 208-240VAC, 3 Phase Input, 50/60Hz

HP	240VDC Armature A	Slimline Panel Part Number	Slimline Enclosure Part Number
3 - 10	38	RPQUR20380N0-X	RSQUR20380N0-X
15	55	RPQUR20550N0-X	RSQUR20550N0-X
20 - 30	106	RPQUR21060N0-X	RSQUR21060N0-X
40 - 50	172	RPQUR21720N0-X	RSQUR21720N0-X

Non-Regenerative 380-480VAC, 3 Phase Input, 50/60Hz

HP	500VDC Armature A	Slimline Panel Part Number	Slimline Enclosure Part Number
5 - 20	38	RPQUN40380N0-X	RSQUN40380N0-X
25 - 30	55	RPQUN40550N0-X	RSQUN40550N0-X
40 - 60	106	RPQUN41060N0-X	RSQUN41060N0-X
75 - 100	172	RPQUN41720N0-X	RSQUN41720N0-X

Regenerative 380-480VAC, 3 Phase Input, 50 /60Hz

HP	500VDC Armature A	Slimline Panel Part Number	Slimline Enclosure Part Number
5 - 20	38	RPQUR40380N0-X	RSQUR40380N0-X
25 - 30	55	RPQUR40550N0-X	RSQUR40550N0-X
40 - 60	106	RPQUR41060N0-X	RSQUR41060N0-X
75 -100	172	RPQUR41720N0-X	RSQUR41720N0-X

Dimensions & Weights

Dimensions H x W x D (inches)		Weights (lbs)	
Panel	Enclosure	Panel	Enclosure
34.25 x 14 x 13.05	38 x 16 x 16	100	180

DB Braking Resistor¹

Motor HP		DB Resistor for 240VDC Part Number	DB Resistor for 500 VDC Part Number
240VDC	500VDC		
5	7.5	005-4301	005-4351
7.5	10	005-4302	005-4352
10	15	005-4303	005-4353
15	20	005-4304	005-4354
20	25	005-4305	005-4355
25	30	005-4306	005-4356
30	40	005-4307	005-4357
40	50	005-4308	005-4358
50	60	005-4309	005-4359
	75		005-4360
	100		005-4361

(1) The DB resistor is shipped loose and is to be mounted externally to the Rapidpak by the customer to meet UL508A.

Quantum III RapidPak

Compact Pre-Engineered DC Drive Package

The RapidPak Quantum III features a complete DC drive package that is very reliable and features superior performance. This drive is fully equipped with everything you need to power and precisely control a DC motor. It features non-regenerative or regenerative operation, high speed fusing, field power supply, DC loop contactor and control power. It also offers optional fieldbus communications & coprocessor accessories for demanding applications. This packaged solution offers the added options of a circuit breaker, non-fused disconnect switch, fused blower motor starter, door mounted devices and remote mount dynamic braking resistor.

With the RapidPak Quantum III, and the shortest lead times in the industry, you will have an expertly packaged, DC drive solution within days of placing your order. Use the Part Number Configurator to customize the package to your exact requirements.

Choose the RapidPak Quantum III when you need a reliable, digital DC drive package fast.

Powered with
Quantum III



RAPIDPAK - QUANTUM III KEY FEATURES

- ▶ High speed semiconductor fusing
- ▶ DC loop contactor (with DB pole up to 50 HP @ 240 VDC / 100 HP @ 500 VDC)
- ▶ 115 VAC control interface
- ▶ Profibus-DP, Modbus+, Modbus RTU, Interbus-S, DeviceNet, and CTNet plug-in communication cards
- ▶ RS485 serial communication
- ▶ Plug-in 32 bit application coprocessor card (MD29)
- ▶ MentorSoft, Microsoft® Windows™ based drive configuration tool
- ▶ Programmable threshold comparator
- ▶ Extensive and configurable analog and digital I/O
- ▶ Programmable boolean logic (AND, NAND, OR, NOR) gates with delay outputs
- ▶ Built-in digital lock function for frequency following
- ▶ Accommodates AC/DC tachometer feedback or encoder feedback
- ▶ Extensive diagnostics and fault indicators
- ▶ DC output fuse on all regenerative models
- ▶ Field regulator selectable for 2 or 8 Amps
- ▶ Overload capacity is 150% for 30 seconds repeated every 10 minutes rated at a maximum of 40°C ambient temperature



All Rapidpak enclosures and peripheral equipment have a 1 year warranty. The drive modules have a standard 2 year warranty. 5 year extended warranty available on the drive modules.