

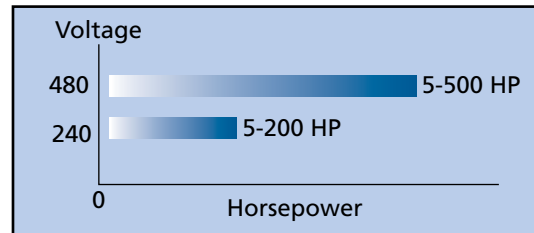
# DC StandardPak NEW

The DC StandardPak is a highly reliable, superior performing DC drive package. Featuring the Mentor II and Quantum III DC drive (depending on the options selected), this package is fully equipped with everything you would need to power and precisely control a DC motor. It features non-regenerative or regenerative operation, high speed fusing, field power supply, DC or AC contactor and control power. It also offers optional fieldbus communications & coprocessor accessories for demanding applications. This packaged solution has several optional features including; a circuit breaker, non-fused disconnect switch, fused blower motor starter, door mounted devices and remote mount dynamic braking resistor.



MentorPak PN: DEN4255AN1A0-E  
Nema -12 (PPBF), Ventilated Encl., 150 hp, 460 VAC, Non-Regen, Circuit Breaker, AC Contactor, BMS

The DC StandardPak has one of the shortest lead times in the industry and can provide an expertly packaged, DC drive solution within days of placing your order. Standard lead time for the DC StandardPak is 1-3 weeks depending on options.



## Standard Features

- Input Voltage 208-480 VAC
- Enclosure or Panel
- 120 VAC Control Logic
- AC Line semiconductor Fuse
- DC Output Fuse for Regenerative Drives.
- Standard field voltage - 240 VAC = 150 VDC  
480 VAC = 300 VDC
- CT Soft Windows™-based Programming Tool

### QuantumPak

- DC Contactor with DB pole (5-100 hp @ 500 VDC)
- DC/AC or Encoder Feedback
- 55°C Drive Ambient

### MentorPak

- AC Contactor (125-500 hp @ 500 VDC)
- DC or Encoder Feedback
- 40°C Drive Ambient

## Enclosure Design

- Standard Enclosure N12 (PPBF), Fully Gasketed, (PPBF), Positive Pressure Blown and Filtered
- Painted with ANSI-61 Grey Paint
- Panel Design is with all the Standard Features and Options on a Back Panel
- 14 Gauge Steel

## Options

- Door Mounted Operator Devices
- Circuit Breaker or Non-fused Disconnect Switch
- Fused Blower Motor Starter
- Non-Standard 240 VDC Field Supply
- 20 Amp Field Regulator
- Dynamic Braking Resistor (shipped loose)
- Door Mounted Keypad

## Approvals

- UL508A

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## Non-Regenerative 208-240-380-480 VAC, 3-Phase Input, 50/60 Hz

QuantumPak: Panel or N12 (PPBF) Enclosure, DC Drive, 120 VAC CPT, DC contactor with DB contact, Input fusing.						
HP 240 VDC	HP 500 VDC	Armature Amps @		Field Amps	Panel Order Code	Enclosure Order Code
		40 ° C	55 ° C			
3-10	5-20	n/a	38	Max 8A Field Current Regulator	DPNx038B0-x	DENx038B0-x
15	25-30		55		DPNx055B0-x	DENx055B0-x
20-30	40-60		106		DPNx106B0-x	DENx106B0-x
40-50	75-100		172		DPNx172B0-x	DENx172B0-x

MentorPak: Panel or N12 (PPBF) Enclosure, DC Drive, 120VAC CPT, AC Input contactor without DB contact, Input fusing.						
HP 240 VDC	HP 500 VDC	Armature Amps @		Field Amps	Panel Order Code	Enclosure Order Code
		40 ° C	55 ° C			
60	125	210	Call Factory	Max 8A Field Current Regulator	DPNx210A0-x	DENx210A0-x
75	150	255		Max 10A Fixed Field Supply	DPNx255A0-x	DENx255A0-x
100	200	350			DPNx350A0-x	DENx350A0-x
125	250	420			DPNx420A0-x	DENx420A0-x
150	300	550			DPNx550A0-x	DENx550A0-x
200	400	700			DPNx700A0-x	DENx700A0-x
	500	825			DPNx825A0-x	DENx825A0-x

## Regenerative 208-240-380-480 VAC, 3-Phase Input, 50/60 Hz

QuantumPak: Panel or N12 (PPBF) Enclosure, DC Drive, 120 VAC CPT, DC contactor with DB contact, Input fusing.						
HP 240 VDC	HP 500 VDC	Armature Amps @		Field Amps	Panel Order Code	Enclosure Order Code
		40 ° C	55 ° C			
3-10	15-20	n/a	38	Max 8A Field Current Regulator	DPRx038B0-x	DERx038B0-x
15	25-30		55		DPRx055B0-x	DERx055B0-x
20-30	40-60		106		DPRx106B0-x	DERx106B0-x
40-50	100		172		DPRx172B0-x	DERx172B0-x

MentorPak: Panel or N12 (PPBF) Enclosure, DC Drive, 120 VAC cntrl logic, AC Input contactor without DB contact, Input fusing.						
HP 240 VDC	HP 500 VDC	Armature Amps @		Field Amps	Panel Order Code	Enclosure Order Code
		40 ° C	55 ° C			
60	125	210	Call Factory	Max 8A Field Current Regulator	DPRx210A0-x	DERx210A0-x
75	150	255		Max 10A Fixed Field Supply	DPRx255A0-x	DERx255A0-x
100	200	350			DPRx350A0-x	DERx350A0-x
125	250	420			DPRx420A0-x	DERx420A0-x
150	300	550			DPRx550A0-x	DERx550A0-x
200	400	700			DPRx700A0-x	DERx700A0-x
	500	825			DPRx825A0-x	DERx825A0-x

Notes:

- 1) HP rating is a guide, please verify the motor armature amps at 40° or 55° C, then select the drive amps to be equal or greater than the motor amps.
- 2) The voltage code suffix is the 4th digit in the order string.

## Dimensions & Weights

Armature Amps @		Dimensions H x W x D (inches)		Weights (lbs)	
40° C	55° C	Panel	Enclosure	Panel	Enclosure
n/a	38	33x27x13	36x30x16	75	170
	55				
	106				
	172				
210	Call Factory	45x33x12	48x36x16	125	400
255					
350		60x32x14	72x36x18 or 90x36x20 with NFD	210	600
420					
550					
700					
825					

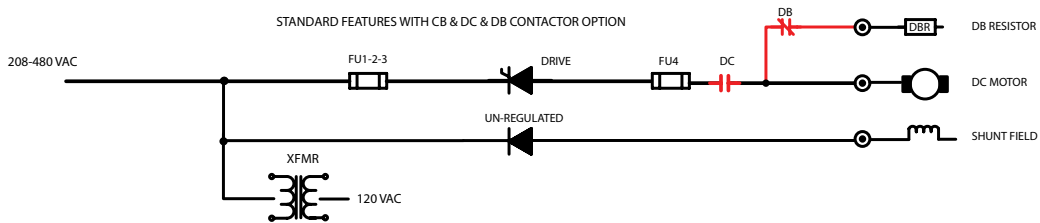
Note: Package Size 2, when adding the FXM5 option to the panel or enclosure the package size changes to Size 3.

DB Braking Resistor <sup>1</sup>			
Motor HP		DB Resistor for 240 VDC	DB Resistor for 500 VDC
240 VDC	500 VDC	Order Code	Order Code
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
60	125	005-4310	005-4362
75	150	005-4311	005-4363
100	200	005-4312	005-4364
125	250	call factory	005-4365
150	300	call factory	005-4366
200	400	call factory	005-4367

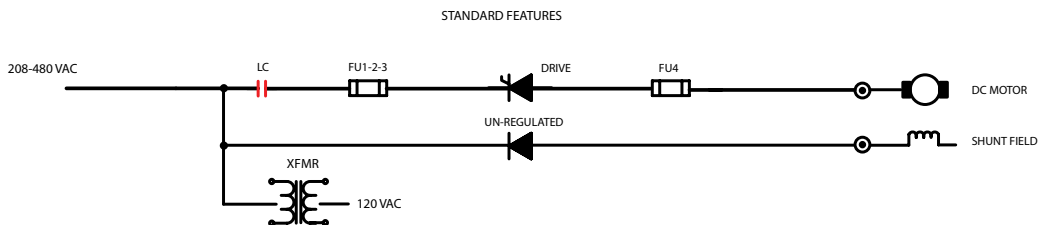
(1) The Nema 1 DB resistor is shipped loose and is to be mounted externally to the StandardPak by the customer to meet UL508A.

### Power One Line Diagram

#### QuantumPak DC Contactor with DB pole



#### MentorPak AC Input Line Contactor



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**DC StandardPak Order Code Configurator**

Order String



**Product**  
D = DC StandardPak

**Enclosure Style**  
P = Panel  
E = Enclosure

**Drive Model**  
N = Non-Regenerative  
R = Regenerative

**Voltage Rating**  
8 = 208 VAC  
2 = 240 VAC  
3 = 380 VAC  
4 = 480 VAC

**Amp Rating**  
Amps are based on drive size

**Dynamic Braking**<sup>1</sup>  
A = AC Input Contactor  
B = DC Contactor with DB pole

**Input Power**  
0 = None (default)  
1 = Circuit Breaker (C/B)  
2 = Non Fused Disconnect Switch (NFD)

**Additional Options (if required)**

**Fused Blower Motor Starter**

- 1 = Range 0.4-0.65A
- 2 = Range 0.6 - 1.1A
- 3 = Range 1.0 - 1.5A
- 4 = Range 1.3-1.9A
- 5 = Range 1.8-2.7A
- 6 = Range 2.5-4.1A
- 7 = Range 4.0-6.3A

**Field Supply Options**

- A = 20A FXM-5 Field Current Regulator<sup>2</sup>
- B = 240 VDC @ 2A<sup>3</sup>
- C = 240 VDC @ 8A<sup>3</sup>
- D = 240 VDC @ 20A<sup>3</sup>

**Door Mounted Devices**<sup>4</sup>

- E = E-Stop, Start PB, Stop PB, Speed Pot
- F = Fwd/Rev Switch<sup>5</sup>
- H = HOA Selector Switch
- J = Jog PB
- K = Keypad (CTVue-303)
- P = Drive Power "ON" PL
- R = Reset PB
- V = Analog Armature Ammeter & Voltmeter
- W = Analog Field Ammeter & Voltmeter

**Encoder Cable**<sup>6</sup>

- Y = DB9 Encoder Cable to Terminal Block

(1) E-Stop Braking option requires a DB contactor and an external DB resistor. Consult factory for DC contactor for DC drives rated 210 Amps and up.  
 (2) Drives 255A and greater have fixed voltage field supply. A field current regulator is required to operate above base motor speed.  
 (3) For 240 VAC application requiring 240 VDC armature and 240VDC Field Voltage.  
 (4) To meet UL508A for industrial applications the E-Stop PB is required when door mounted devices are selected.  
 (5) The Fwd/Rev Selector Switch applies to regenerative drives only.  
 (6) Encoder feedback requires DB9 connector at drive. This option includes cable from DB9 connector to a terminal block.

**Standard Enclosure is UL1 rated (NEMA 12 - PPBF (Positive Pressure Blown and Filtered))**

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Order String requires a minimum of 9 characters.

Examples:

Standard Order Code for Non-Regen: 200 hp @ 480 VAC, N12-(PPBF) enclosure, at 40° C

PN = DEN4350A0

Standard Order Code as above with the following options: Circuit Breaker, Fused Blower Motor Starter, Field Regulator, Start/Stop PB, Reset PB, Armature Ammeter, Field Ammeter, Encoder Cable.

PN = DEN4350A1-4ARVWY

### Definition - DC StandardPak Order Code Configurator

Item	Description
<b>Enclosure Style</b> P = Panel E = Enclosure	P = Panel allows additional options to be added to the Quantum III module. E = The enclosure option is a UL1 rated, ventilated Nema -12 (PPBF), positive pressure blown and filtered. 14 gauge steel enclosure.
<b>Drive Type</b> N = Non-regenerative R = 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.
<b>Voltage Rating</b> 8 = 208 VAC 2 = 240 VAC 3 = 380 VAC 4 = 480 VAC	240 VAC for 240 VDC motor armature. 480 VAC for 500 VDC motor armature.
<b>Drive Amp Rating - Armature</b>	Motor hp ratings are based on typical motor current ratings. Actual motor currents and the type of applications should be reviewed before selecting drive size.
<b>Dynamic Braking (DB)</b> A = AC Input Contactor B = DC Contactor with DB pole	QuantumPak supplied with DC contactor (B), MentorPak supplied with AC contactor (A) as standard. Consult Factory for drives 210A or above with DC contactor. A = AC Input Contactor (210-825A) B = DC Contactor with DB pole (38-172A)
<b>Input Power Disconnect</b> 0 = None 1 = Circuit breaker (CB) 2 = Non-fused disconnect (NFD)	1 – CB with through the door operator, Thermal-magnetic overload protection and main circuit disconnect. Includes drive input semiconductor fuses. 2 – NFD with through the door operator, main circuit disconnect. Includes drive input semiconductor fuses.

#### ADDITIONAL OPTIONS

Item	Description
<b>Blower Motor Starter</b> 1 to 7	Select the correct blower motor amps. The value must be selected to complete the Order Code for order entry.
<b>Door Mounted Devices</b> E = E-Stop, Start PB, Stop PB, Speed Pot F = Fwd/Rev Switch <sup>5</sup> H = HOA Selector Switch J = Jog PB K = Keypad (CTVue-303) P = Drive Power "ON" PL R = Reset PB V = Analog Armature Ammeter & Voltmeter W = Analog Field Ammeter & Voltmeter	To meet UL508A for industrial locations the E-Stop push button is required with door mounted devices. E = E-Stop, Start, & Stop Push buttons, Speed Potentiometer F = Forward / Reverse Switch - FWD/REV Selector Switch applies to regenerative drives only. H = Hand (Manual) - Off - Automatic Switch J = Jog Push button K = Keypad (CTVUE-303 with standard program, mounted and wired on the door) P = Drive Power "ON" pilot light indicates drive running. R = Drive can be reset by means of the door mounted push button (PB), Remote (PB) or (PB) on the cover of the drive. V = Analog Armature Ammeter (150%) & Voltmeter (100%). W = Analog Field Ammeter (100%) & Voltmeter (100%)
<b>Encoder Cable</b> Y = 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.

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For options not included in the Order Code configurator, please consult factory.