

FlexPak 3000 Digital DC Drives



460 VAC, 50/60 Hz, Non-Regenerative; 400 Hp-600 Hp 500 VDC Armature; 300 VDC Field

Hp Rating	Full Load RMS AC Line Current	Full Load Rated DC Armature Current	Rated Field Current	Drive Model Number	Mult. Sym.	List Price
400	567	667	15	400FN4041	VS50D	19,025
500	680	800	15	500FN4041	VS50D	19,280
600	816	960	15	600FN4041	VS50D	19,890

460 VAC, 50/60 Hz, Regenerative; 400 Hp-600 Hp 500 VDC Armature; 300 VDC Field

Hp Rating	Full Load RMS AC Line Current	Full Load Rated DC Armature Current	Rated Field Current	Drive Model Number ^(a)	Mult. Sym.	List Price
400	567	640	15	400FR4041	VS50D	30,090
500	680	800	15	500FR4041	VS50D	30,600
600	816	960	15	600FR4041	VS50D	31,110

NOTE: (a) An inverting fault circuit breaker, Model Number 906FK3101 must be specified with 400-600 Hp regenerative drives and is included in Drive price. Refer to OPTIONS section for description.

Dimensions

Model Number	Width Inches (mm)	Height Inches (mm)	Depth Inches (mm)	Weight lbs (kg)
All 460 VAC model numbers, 400 through 600 Hp	26.68 (677.7)	42.25 (1149.2)	18.82 (478.1)	450 (204.5)

NOTE: Option kits may add additional mounting depth. Please allow adequate clearance when option kits are mounted on the drive package.

HVAC Motors

Farm Duty Motors

Definite Purpose Motors

Brake Motors

200 & 575 Volt Motors

IEC Frame Motors

50 Hertz Motors

Inverter/Vector Motors & Controls

DC Motors and Controls

Soft Start & Dynamic Brakes

FlexPak 3000 Digital DC Drives



Special AC Line Voltage Drives ^(b)

For 380 VAC or 415 VAC input, select the required armature amps to price the drive. Hp and kW ratings are estimated and should only be used as an approximation.

Special 380/415 VAC Non-Regenerative FlexPak 3000^(b)

380 VAC 400 VDC Armature 250 VDC Field ^(a)		415 VAC 460 VDC Armature 270 VDC Field ^(a)		460 VAC 500 VDC Armature 300 VDC Field ^(a)		AC Amps	DC Armature Amps	DC Field Amps	Model Number	Mult. Sym.	List Price
Hp	kW	Hp	kW	Hp	kW						
2.4	1.8	2.8	2.1	3	2.2	10	7	10	7FN3042	VS50D	4,380
12	9	13.8	10.3	15	11.2	26	29	10	29FN3042	VS50D	4,550
24	17.9	27.6	20.6	30	22.4	48	55	10	55FN3042	VS50D	4,895
48	35.8	55.2	41.2	60	44.7	94	110	15	110FN3042	VS50D	5,600
120	89.5	138	102.9	150	111.9	226	265	15	265FN3042	VS50D	8,160

Special 380/415 VAC Regenerative FlexPak 3000^(b)

2.4	1.8	2.8	2.1	3	2.2	10	7	10	7FR3042	VS50D	4,890
12	9	13.8	10.3	15	11.2	26	29	10	29FR3042	VS50D	5,060
24	17.9	27.6	20.6	30	22.4	48	55	10	55FR3042	VS50D	5,405
48	35.8	55.2	41.2	60	44.7	94	110	15	110FR3042	VS50D	6,210
120	89.5	138	102.9	150	111.9	226	265	15	265FR3042	VS50D	9,080

^(a) Hp and kW ratings are estimated.

^(b) Requires use of nonstandard voltage DC motors. Contact Baldor-Reliance sales office for motor pricing assistance.

Dimensions

Model Number	Height Inches (mm)	Width Inches (mm)	Depth Inches (mm)	Weight lbs (kg)
7 to 110A Rated Output	18.79 (477.3)	10.65 (270.5)	12.23 (310.6)	58 lb (26.4)
265A Rated Output	19.29 (490.0)	18.11 (460.0)	13.46 (341.9)	122 (55)

FlexPak 3000 Power Module Style Drives



Three-Phase DC Power Module Drive for Regenerative and Non-Regenerative Applications from 5 to 400 Hp

FlexPak 3000 Power Module drives can support 200-460 VAC line input voltages. The customer must select and provide the appropriate fusing, control transformer, and contactor for the desired line input voltage. Keypad Operator Interface Module (OIM) must be ordered separately.

Non-Regenerative Power Module						
Hp at 460 VAC (a)	Nom. Current Rating (b)(d)	Unit Type Current Rating (c)(d)	North American Model Number	European Stock Number	Mult. Sym.	List Price
10	20	25	20FN8742	848.00.73	VS50D	3,570
29	50	60	50FN8742	848.02.73	VS50D	3,685
75	125	150	125FN8742	848.04.73	VS50D	4,115
125	208	250	200FN8742	848.06.73	VS50D	4,895
200	375	450	375FN8742	848.08.73	VS50D	7,140
400	667	800	650FN8742	848.10.73	VS50D	9,280
Regenerative Power Module						
10	20	25	20FR8742	848.01.73	VS50D	3,925
29	50	60	50FR8742	848.03.73	VS50D	4,080
75	125	150	125FR8742	848.05.73	VS50D	4,750
125	208	250	200FR8742	848.07.73	VS50D	5,825
200	375	450	375FR8742	848.09.73	VS50D	8,260
400	667	800	650FR8742	848.11.73	VS50D	11,525

(a) Hp based on 40°C ambient & 460 VAC line input voltage at nominal rating. Derate at 1.5% per °C above 40°C

(b) Nominal current rating is 100% continuous operation with 50% overload capability.

(c) Unit-type current rating based on maximum continuous operation without overload.

(d) Field current regulator rating: 4A (25-60A Ratings), 10A (150-450A Ratings), 12A (800A Rating). Rating is based on unit-type amp rating.

Note: All ratings are based on 40°C Ambient

Power Module Style Drive Options

Description	North American Model Number	European Stock No.	Mult. Sym.	List Price
Keypad Operator Interface Module (OIM)	317C160D	922.95.00	VS50D	600
Configuration Software (CS3000)	2CS3000		VS50D	350

Power Module Dimensions

Hp at 460 VAC Rating (a)	Nom. Current (b)	Unit Type Current Rating (c)	Width Inches (mm)	Height Inches (mm)	Depth Inches (mm)	Weight lbs (kg)
10	20	25	10.6 (269)	15.8 (400)	11.3 (287)	22 (10)
29	50	60	10.6 (269)	15.8 (400)	11.3 (287)	22 (10)
75	125	150	10.6 (269)	16.9 (428)	11.3 (287)	31 (14)
125	208	250	10.6 (270)	21.7 (550)	13.3 (337)	88 (40)
200	375	450	10.6 (270)	21.7 (550)	13.3 (337)	88 (40)
400	667	800	12.1 (306)	26.0 (660)	17.2 (436)	183 (83)

(a) Hp based on 40°C Ambient & 460 VAC line input voltage at Nominal Rating. Derate at 1.5% per °C above 40°C.

(b) Nominal Current Rating is 100% continuous operation with 50% overload capability.

(c) Unit Type Current Rating based on maximum continuous operation without overload.

FlexPak 3000 Drive Options Enhanced Field Supply

This FlexPak 3000 Field Supply option provides the following additional features:

- Electronic Field trim
- Field economy
- Capability to provide 240 VDC field supply with 230 VAC input

AC Line Input	DC Field Voltage Output
230 VAC	103 to 207 DC
	207 to 259 DC
460 VAC	207 to 414 DC
	414 to 575 DC

This modification replaces the standard field supply or field current regulator. Motor field weakening is not possible with this kit.

230 VAC Hp	460 VAC Hp	DC Amps	Model Number	Mult. Sym.	Kit List Price
1-1/2 - 15	3 - 30	10	923FK0101	VS50D	500
20 - 300	40 - 600	20	923FK0201	VS50D	650

Field Current Regulator

The field current regulator kit replaces the standard field voltage supply with a current regulated supply. It provides field economy and constant horsepower above, base speed operation. It can be used in drive version 3.0 and later.

Approx. Hp ^(a)		Motor Hot Field Amps	Field Current Regulator Model Number ^{(b)(c)}	Mult. Sym.	Kit List ^(b)
230 VAC Hp	460 VAC Hp				
1-1/2 - 10	3 - 20	4	911FK0041	VS50D	280
1-1/2 - 15	3 - 30	10	911FK0101	VS50D	300
20-60	40-125	15	911FK0151	VS50D	320
75-300	150-600	15	—	—	Std.

^(a) For estimating only. Field current regulator should be sized according to motor hot field amps.

^(b) Requires V3.0 or later FlexPak 3000. (Second to last digit of drive M/N must be a "3" or larger.)

This kit is standard on all FlexPak 3000 drives 75 Hp @ 230 VAC/150 Hp @ 460 VAC and larger and on FlexPak 3000 Power Module drives.

^(c) A field current regulator kit cannot be used when using an Enhanced Field Supply kit.

FlexPak 3000 Drive Options

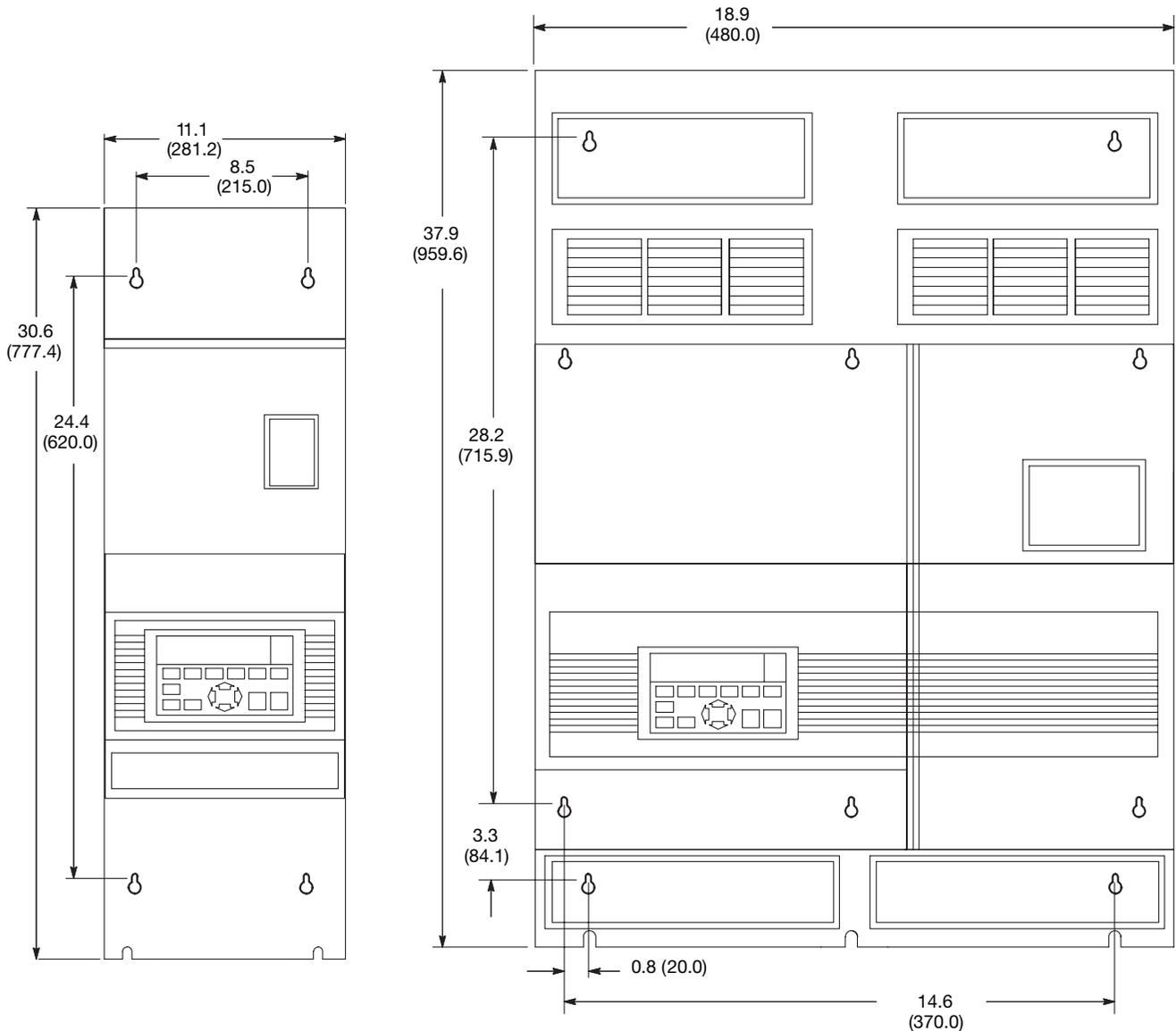
NEMA 1 Conversion Kit

This modification allows conversion of standard chassis to NEMA 1 enclosure. This kit cannot be used with FlexPak 3000 Power Module drives.

230 VAC Hp	460 VAC Hp	Kit Model Number	Mult. Sym.	Kit List Price
1-1/2 - 30	3-60	904FK0101	VS50D	900
40-75	75-150	904FK0201	VS50D	1,100
100-150	200-300	N/A	N/A	N/A
—	400-600	N/A	N/A	N/A

Dimensions

Hp Rating 230VAC	Hp Rating 460VAC	Width Inches (mm)	Height Inches (mm)	Attached Depth Inches (mm)
1-1/2 - 30	3-60	11.1 (281.2)	30.6 (777.4)	12.15 (308.57)
40-75	75-150	18.9 (480)	37.8 (959.6)	13.1 (332.8)



FlexPak 3000 Drive Options

AC Line Disconnects for Chassis or NEMA 1 Enclosed Drives

Select and price disconnect per the table below. This kit cannot be mounted on the FlexPak 3000 Power Module drives.

AC Line Disconnects Selection

Incoming Line Voltage		Disconnect for Chassis Drives			Disconnect for NEMA 1 Conversion Kit Mounting ^(a)		
230 VAC	460 VAC	Model Number	Mult. Sym.	List Price	Model Number	Mult. Sym.	List Price
1-1/2 - 25	3-50	901FK0101	VS50D	555	901FK0101	VS50D	555
30	60	901FK0201	VS50D	660	901FK0201	VS50D	660
40-60	75-125	901FK1102	VS50D	1,350	901FK1112	VS50D	1,425
75	150	901FK1202	VS50D	2,100	901FK1212	VS50D	2,175
100	200	901FK2101	VS50D	2,500	—	—	—
125-150	250-300	901FK2201	VS50D	4,075	—	—	—
—	400	901FK2401	VS50D	5,070	—	—	—
—	500	901FK2401	VS50D	5,070	—	—	—
—	600	901FK2501	VS50D	7,625	—	—	—

^(a) Enclosure not included in price.

Blower Motor Starter

This option provides a fused AC starter with adjustable overload and interlocking for control of the three-phase blower motor used to cool the DC motor. This kit cannot be mounted on FlexPak 3000 Power Module drives.

Blower 3-Phase Current Amps	Single Starter Model Number
.4-.63	902FK0101
.63-1.0	902FK0201
1.0-1.4	902FK0301
1.4-1.8	902FK0401
1.7-2.4	902FK0501
2.2-3.1	902FK0601
2.8-4.0	902FK0701
3.5-5.0	902FK0801
4.5-6.5	902FK0901
6.0-8.5	902FK0111
7.5-11.0	902FK0121

Description	List Price	Mult. Sym.
Kit	400	VS50D