

ArmorStart LT Distributed Motor Controllers

Overview/Cat. No. Explanation



Bulletin 294 ArmorStart Distributed Motor Controller

- On-Machine starting solution
- Variable frequency drive (V/Hz)
- Internal EMI filter
- Horsepower range 0.5...2 Hp (0.37...1.5 kW)
- EtherNet/IP or DeviceNet communications
- Robust IP66/UL Type 4/12 enclosure
- Quick disconnect for I/O communications
- Conduit entrance or ArmorConnect power media gland plate
- LED status and diagnostic indication
- Local logic technology using DeviceLogix
- Peer-to-peer (ZIP) for DeviceNet versions
- Factory installed options:
 - Hand/Off/Auto (HOA) keypad configuration
 - Source brake receptacle
 - Quick disconnect: power, control, and motor receptacles
 - Internal power supply

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Standards Compliance

UL 508C
 CSA C22.2, No. 14
 EN/IEC 60947-1, EN/IEC 61800-5-1, EN/IEC 61800-3
 CE Marked per Low Voltage Directive 2006/95/EC; EMC 2004/108/EC
 CCC (pending), KCC, C-Tick

Certifications

cULus (File No. E207834, Guide NMMS, NMMS7)

Catalog Number Explanation

Examples given in this section are for reference purposes. This basic explanation should not be used for product selection; not all combinations will produce a valid catalog number.

294	E – F	D1P5	Z – G1 –	Option 1 –	Option 2
<i>a</i>	<i>b</i> <i>c</i>	<i>d</i>	<i>e</i> <i>f</i>	<i>g</i>	<i>h</i>

a

Bulletin Number	
Code	Description
294	VFD Starter

b

Communications	
Code	Description
E	EtherNet/IP
D	DeviceNet

c

Enclosure Type	
Code	Description
F	IP66/UL Type 4/12 ★

d

Output Current	
Code	Description
D1P5	1.5 A (0.37 kW), 0.5 Hp
D2P5	2.5 A (0.75 kW), 1.0 Hp
D4P2	3.6 A (1.5 kW), 2.0 Hp

e

Control Voltage	
Code	Description
Z	External 24V DC control power
P	Internal power supply

f

Gland Plate Options (Power and Motor)	
Code	Description
G1	Conduit entry
G2	ArmorConnect
G3♣	Gland kits

g

Option 1	
Code	Description
3	Hand/Off/Auto selector keypad with Jog function

h

Option 2	
Code	Description
SB	Source brake
blank§	Factory option

★ IP66/UL Type 4 is available with all gland options. UL Type 4/12 is available with G1 and G3 gland option.

♣ See the Accessories section for special gland configurations for daisy chaining.

§ Leave blank unless there is a customer-specific option defined by the factory.

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Product Selection/Options

VFD (V/Hz) - EtherNet/IP Network Communication

IP66/UL Type 4/12 with conduit entrance and EMI filter, VFD (V/Hz)

Input Voltage	Output Voltage [V]	Input Current [A]	Output Current [A]	3-Phase kW Rating	3-Phase Hp Rating	External 24V DC Control Voltage	Internal 24V DC Control Voltage
						Cat. No.	Cat. No.
380Y/220V...480Y/277V AC (+/- 10%), 3-phase, 50/60 Hz	0...460	1.8	1.5	0.37	0.5	294E-FD1P5Z-G1	294E-FD1P5P-G1
		3	2.5	0.75	1	294E-FD2P5Z-G1	294E-FD2P5P-G1
		5.5	3.6	1.5	2	294E-FD4P2Z-G1	294E-FD4P2P-G1

IP66/UL Type 4 with ArmorConnect and EMI filter, VFD (V/Hz)

Input Voltage	Output Voltage [V]	Input Current [A]	Output Current [A]	3-Phase kW Rating	3-Phase Hp Rating	External 24V DC Control Voltage	Internal 24V DC Control Voltage
						Cat. No.	Cat. No.
380Y/220V...480Y/277V AC (+/- 10%), 3-phase, 50/60 Hz	0...460	1.8	1.5	0.37	0.5	294E-FD1P5Z-G2	294E-FD1P5P-G2
		3	2.5	0.75	1	294E-FD2P5Z-G2	294E-FD2P5P-G2
		5.5	3.6	1.5	2	294E-FD4P2Z-G2	294E-FD4P2P-G2

VFD (V/Hz) - DeviceNet Network Communication

IP66/UL Type 4/12 with conduit entrance and EMI filter, VFD (V/Hz)

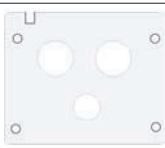
Input Voltage	Output Voltage [V]	Input Current [A]	Output Current [A]	3-Phase kW Rating	3-Phase Hp Rating	External 24V DC Control Voltage	Internal 24V DC Control Voltage
						Cat. No.	Cat. No.
380Y/220V...480Y/277V AC (+/- 10%), 3-phase, 50/60 Hz	0...460	1.8	1.5	0.37	0.5	294D-FD1P5Z-G1	294D-FD1P5P-G1
		3	2.5	0.75	1	294D-FD2P5Z-G1	294D-FD2P5P-G1
		5.5	3.6	1.5	2	294D-FD4P2Z-G1	294D-FD4P2P-G1

IP66/UL Type 4 with ArmorConnect and EMI filter, VFD (V/Hz)

Input Voltage	Output Voltage [V]	Input Current [A]	Output Current [A]	3-Phase kW Rating	3-Phase Hp Rating	External 24V DC Control Voltage	Internal 24V DC Control Voltage
						Cat. No.	Cat. No.
380Y/220V...480Y/277V AC (+/- 10%), 3-phase, 50/60 Hz	0...460	1.8	1.5	0.37	0.5	294D-FD1P5Z-G2	294D-FD1P5P-G2
		3	2.5	0.75	1	294D-FD2P5Z-G2	294D-FD2P5P-G2
		5.5	3.6	1.5	2	294D-FD4P2Z-G2	294D-FD4P2P-G2

✦ If required, replace the G1 suffix code with G3 and refer to the User-Installed Options for kit selection.

Options — Factory Installed

Description		Cat. No. Modification
	Hand/Off/Auto selector and Jog keypad	-3
	Source brake (electromechanical)	-SB
	Conduit/Cord-Ready Gland Plate	-G1
	ArmorConnect Power Media Connectivity Gland Plate	-G2

Options — User-Installed G3 Gland

Description		Pkg. Quantity	For Use With, Bulletin	Cat. No.
Alternative Gland Plates for Daisy Chain Power	Use when punching custom gland.	5 each (screws included)	294	290-G3-A1
	Use when no IPS and no SB options are selected.			290-G3-A2
	Use when SB option is selected and no IPS option is selected.			290-G3-A3
	Use when IPS option is selected and no SB option is selected.			290-G3-A4
	Use when IPS and SB options are selected.			290-G3-A5