


Product Details and Certifications

Cross Reference RA Part Number: ' , +- - \$!5 \$%

 **Product: 20-750-G**

Description: PowerFlex 750, Úæ^Á/[i~ ^ÁJ~Á [á~ |^



Representative Photo Only (actual product may vary based on configuration selections)

~~CDHCBG'IN: CFA5HCB~~

Communications Kits

PF750-Series Úæ^Á/[i~ ^ÁJ~Á [á~ |^


I/O Option Kits

Description	Cat. No.	Used with PowerFlex Drive		AFE
		70	753/755	
ATEX Option Module with 1 Thermosensor Input Connection (requires 11-Series I/O Module below)	20-750-ATEX		✓ ⁽¹⁾	
24V DC 11-Series I/O Module with 1 Analog In, 1 Analog Out, 3 Digital In and 2 Relay Outputs	20-750-1132C-2R		✓ ⁽¹⁾	
24V DC 11-Series I/O Module with 1 Analog In, 1 Analog Out, 3 Digital In, 1 Relay and 2 Transistor Outputs	20-750-1133C-1R2T		✓ ⁽¹⁾	
115V AC 11-Series I/O Module with 1 Analog In, 1 Analog Out, 3 Digital In and 2 Relay Outputs	20-750-1132D-2R		✓ ⁽¹⁾	
24V DC 22-Series I/O Module with 2 Analog In, 2 Analog Out, 6 Digital In and 2 Relay Outputs	20-750-2262C-2R		✓ ⁽¹⁾	
115V AC 22-Series I/O Module with 2 Analog In, 2 Analog Out, 6 Digital In and 2 Relay Outputs	20-750-2262D-2R		✓ ⁽¹⁾	
24V DC 22-Series I/O Module with 2 Analog In, 2 Analog Out, 6 Digital In, 3 Digital Out, 1 Relay and 2 Transistor Outputs	20-750-2263C-1R2T		✓ ⁽¹⁾	

(1) I/O option kits are not allowed in CIP motion mode.

Safety Options

Description	Cat. No.	Used with PowerFlex Drive	
		70	753/755
DriveGuard Safe Torque-Off	20A-DG01	✓	
Safe Torque-Off	20-750-S		✓ ⁽¹⁾
Safe Speed Monitor	20-750-S1		✓ ⁽¹⁾⁽²⁾



(1) Drive can accommodate only one option.

(2) Requires the Dual Incremental Encoder or Universal Feedback Option. Also requires the 20-750-EMCSSM1-F8 EMC Option Kit with Frame 8...9 drives.

Feedback Options

Description	Cat. No.	Used with PowerFlex Drive	
		70	753/755
5V/12V Encoder ⁽¹⁾	20A-ENC-1	✓	
Incremental Encoder	20-750-ENC-1		✓ ⁽²⁾
Dual Incremental Encoder	20-750-DENC-1		✓ ⁽²⁾
Universal Feedback (includes Stegmann, Heidenhain, SSI, Biss, 5V Incremental)	20-750-UFB-1		✓ ⁽³⁾

(1) Works only with PowerFlex 70 Enhanced Control.

(2) Homing and registration functions are not supported when using this device with Studio 5000 Logix Designer embedded motion instructions. To use these functions, the Universal Feedback Board (20-750-UFB-1) must be used.

(3) PowerFlex 755 only.

PowerFlex 750-Series Option Kits

Integrated Motion Drives

PowerFlex 755 drives can be used as part of a Integrated Motion system.

Configuring Option Modules for Integrated Motion

The following option module combinations are supported by Integrated Motion.

Table 102 - Two Feedback Options

Supported Module	Cat. No.	Valid Port(s)
Single Incremental Encoder	20-750-ENC-1	4...8
Dual Incremental Encoder	20-750-DENC-1	4...8
Universal Feedback	20-750-UFB-1	4...6

Table 103 - Two Feedback Options and One Safe Torque Off Option

Supported Module	Cat. No.	Valid Port(s)
Single Incremental Encoder	20-750-ENC-1	4 and 5
Dual Incremental Encoder	20-750-DENC-1	4 and 5
Universal Feedback	20-750-UFB-1	4 and 5
Safe Torque Off	20-750-S	6

Table 104 - Two Feedback Options and One Safe Speed Monitor Option

Supported Module	Cat. No.	Valid Port(s)
Single Incremental Encoder	20-750-ENC-1	4 and 5
Dual Incremental Encoder	20-750-DENC-1	4 and 5
Universal Feedback	20-750-UFB-1	4 and 5
Safe Speed Monitor	20-750-S1	6

Wiring

Important points to remember about wiring:

- Always use tinned copper wire.
- Wire with an insulation rating of 600V or greater is recommended.
- Control wires should be separated from power wires by at least 0.3 meters (1 foot).

Table 1 - Safe Torque Off Option Terminal Block Specifications

Wire Size Range		Torque		Strip Length
Maximum	Minimum	Maximum	Recommended	
0.8 mm ² (18 AWG)	0.3 mm ² (28 AWG)	NA		10 mm (0.39 in.)

Table 2 - TB2 Terminal Designations

Terminal	Name	Description
SP+	+24 Volt Safety Power	User-supplied 24 volt power. 45 mA typical
SP-	Safety Power Common	
SE+	+24 Volt Safety Enable	User-supplied 24 volt power. 25 mA typical
SE-	Safety Enable Common	
Sd	Shield	Terminating point for wiring shields when an EMC plate or conduit box is not installed.
Sd	Shield	

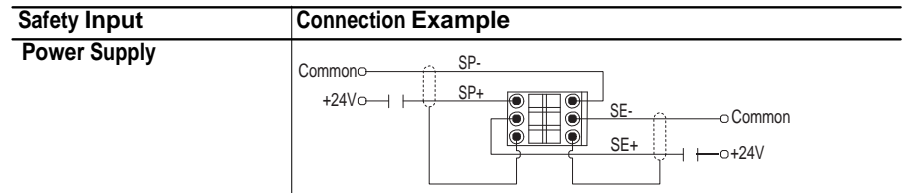
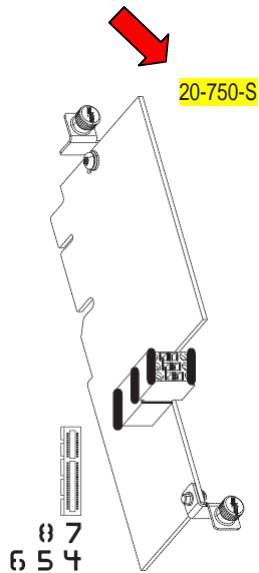


Table 35 - I/O Wire Recommendations

Type		Wire Type(s)	Description	Min. Insulation Rating
Signal ⁽¹⁾⁽²⁾⁽³⁾	Standard Analog I/O	–	0.750 mm ² (18 AWG), twisted pair, 100% shield with drain.	300V, 75...90 °C (167...194 °F)
	Remote Pot	–	0.750 mm ² (18 AWG), 3 conductor, shielded.	
	Encoder/ Pulse I/O < 30 m (100 ft)	Combined	0.196 mm ² (24 AWG) individually shielded pairs.	
	Encoder/ Pulse I/O 30 to 152 m (100 to 500 ft)	Signal	0.196 mm ² (24 AWG) individually shielded pairs.	
		Power	0.750 mm ² (18 AWG) in. individually shielded pairs	
		Combined	0.330 mm ² (22 AWG), power is 0.500 mm ² (20 AWG) individually shielded pairs.	
	Encoder/ Pulse I/O 152 to 259 m (500 to 850 ft.)	Signal	0.196 mm ² (24 AWG) individually shielded pairs.	
		Power	0.750 mm ² (18 AWG) individually shielded pairs.	
		Combined	0.750 mm ² (18 AWG) individually shielded pairs.	
	Digital I/O Safety Inputs Homing Inputs ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾	Shielded	Multi-conductor shielded cable	
Digital I/O Homing Inputs ⁽¹⁾⁽²⁾⁽³⁾	Un-shielded	–	Per US NEC or applicable national or local code.	

(1) Control and signal wires should be separated from power wires by at least 0.3 meters (1 foot).

(2) If the wires are short and contained within a cabinet which has no sensitive circuits, the use of shielded wire may not be necessary, but is always recommended.

(3) I/O terminals labeled "(–)" or "Common" are not referenced to earth ground and are designed to greatly reduce common mode interference. Grounding these terminals can cause signal noise.

(4) Safety option modules 20-750-S and 20-750-S1 require shielded cable.