

Communication Option Kits and Accessories

Description (see page 119 for specifications)	Cat. No.
BACnet/IP Option Module	20-750-BNETIP
Coaxial ControlNet™ Option Module	20-750-CNETC
ControlNet Communication Adapter (Coax)	20-COMM-C ⁽³⁾
ControlNet Communication Adapter (Coax) Conformal Coat	20-COMM-C-MX3 ⁽³⁾
DeviceNet™ Option Module	20-750-DNET
DeviceNet Communication Adapter	20-COMM-D ⁽³⁾
DeviceNet Communication Adapter Conformal Coat	20-COMM-D-MX3 ⁽³⁾
Dual-port EtherNet/IP Option Module	20-750-ENETR
EtherNet/IP™ Communication Adapter	20-COMM-E ⁽³⁾
EtherNet/IP Communication Adapter Conformal Coat	20-COMM-E-MX3 ⁽³⁾
HVAC Communication Adapter (Only Modbus RTU can be used)	20-COMM-H ⁽³⁾
CANopen® Communication Adapter	20-COMM-K ⁽³⁾
LonWorks® Communication Adapter	20-COMM-L ⁽³⁾
Modbus/TCP Communication Adapter	20-COMM-M ⁽³⁾
Profibus DPV1 Option Module	20-750-PBUS
Single-port Profinet I/O Option Module	20-750-PNET
Dual-port Profinet I/O Option Module	20-750-PNET2P
PROFIBUS™ DP Communication Adapter	20-COMM-P ⁽³⁾⁽⁴⁾
ControlNet Communication Adapter (Fiber)	20-COMM-Q ⁽³⁾
Remote I/O Communication Adapter	20-COMM-R ⁽³⁾⁽⁵⁾
Remote I/O Communication Adapter Conformal Coat	20-COMM-R-MX3 ⁽³⁾⁽⁵⁾
RS485 DF1 Communication Adapter	20-COMM-S ⁽³⁾
RS485 DF1 Communication Adapter Conformal Coat	20-COMM-S-MX3 ⁽³⁾
External Communications Kit Power Supply	20-XCOMM-AC-PS1
DPI External Communications Kit ⁽¹⁾	20-XCOMM-DC-BASE
External DPI I/O Option Board ⁽²⁾	20-XCOMM-IO-OPT1
Compact I/O™ Module (3 Channel)	1769-SM1
Serial Null Modem Adapter	1203-SNM
Smart Self-powered Serial Converter (RS232) includes 1203-SFC and 1202-C10 Cables	1203-SSS
Universal Serial Bus™ (USB) Converter includes 2 m USB, 20-HIM-H10 & 22-HIM-H10 Cables	1203-USB
ControlNet T-Tap Straight	1786-TPS
Communication Carrier Card for PowerFlex 750-Series Frame 1 drives	20-750-20COMM-F1 ⁽⁶⁾
Communication Carrier Card for PowerFlex 750-Series Frame 2 or higher drives	20-750-20COMM ⁽⁶⁾

(1) Only compatible with the following; 20-COMM-E EtherNet/IP, 20-COMM-C ControlNet (coax), 20-COMM-Q ControlNet (fiber), 20-COMM-D DeviceNet (Series B or later), 20-COMM-M Modbus/TCP.

(2) For use only with DPI External Communications Kits 20-XCOMM-DC-BASE.

(3) Requires a Communication Carrier Card (20-750-20COMM or 20-750-COMM-F1). Refer to [page 118](#) for compatibility details.

(4) Not supported in Frame 1.

(5) This item has Silver Series status. For information, refer to <http://www.ab.com/silver>.

(6) Refer to the description for applicable frames.

Specifications - Communication Options and Accessories

	20-750-CNETC	20-COMM-C	20-750-DNET	20-COMM-D	20-COMM-E	20-COMM-H
Network Protocol: Data Rate:	ControlNet 5 Mbps (fixed)	ControlNet 5 Mbps	DeviceNet 125, 250, and 500 kbps	DeviceNet 125, 250, and 500 kbps	EtherNet/IP 10/100 Mbps, Half/Full Duplex	Modbus RTU, Metasys N2 or Siemens P1 FLN RTU: 4800...38400 bps N2: 9600 bps P1: 4800 or 9600 bps
Drive Protocol: Data Rates:	DPI 500 Kbps	DPI 125 or 500 Kbps	DPI 500 Kbps	DPI 125 or 500 Kbps	DPI 125 or 500 Kbps	DPI 125 or 500 Kbps
Consumption Drive (DPI): Network:	250 mA at 14V DC None	275 mA at 5V DC None	50 mA at 14V DC 60 mA at 24V DC	150 mA at 5 VDC 60 mA at 24 VDC	370 mA at 5 VDC N/A	150 mA at 5 VDC N/A
Dimensions: H x L x W	68.0 x 150.0 x 26.0 mm (2.70 x 5.90 x 1.00 in.)	16.0 x 103.0 x 80.0 mm (0.62 x 4.00 x 3.13 in.)	68.0 x 150.0 x 26.0 mm (2.70 x 5.90 x 1.00 in.)	19.0 x 86.0 x 78.5 mm (0.75 x 3.39 x 3.09 in.)	19.0 x 86.0 x 78.5 mm (0.75 x 3.39 x 3.09 in.)	19.0 x 86.0 x 78.5 mm (0.75 x 3.39 x 3.09 in.)
Weight:	62 g (2.1 oz.)	85 g (3 oz)	62 g (2.1 oz.)	85 g (3 oz)	85 g (3 oz)	85 g (3 oz)
Compliance UL: c-UL: CE: C-Tick:	UL508C CAN/CSA C22.2 No. 14-05 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN50178 and EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN50178 and EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN50178 and EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN50178 and EN61800-3 EN61800-3

	20-COMM-K	20-COMM-L	20-COMM-M	20-750-PBUS	20-COMM-Q
Network Protocol: Data Rate:	CANopen 10 Kbps...1 Mbps	LonWorks 78 Kbps	Modbus/TCP 10/100 Mbps, Half/Full Duplex	Profibus 9600 bps...12 Mbps (autobauds)	ControlNet 5 Mbps
Drive Protocol: Data Rates:	DPI 125 or 500 Kbps	DPI 125 or 500 Kbps	DPI 125 or 500 Kbps	DPI 500 Kbps	DPI 125 or 500 Kbps
Consumption Drive (DPI): Network:	500 mA at 5V DC None	200 mA on DPI N/A	350 mA at 5V DC N/A	250 mA at 14V DC None	275 mA at 5V DC N/A
Dimensions: H x L x W	19.0 x 86.0 x 78.5 mm (0.75 x 3.39 x 3.09 in.)	20.0 x 86.0 x 78.5 mm (0.79 x 3.39 x 3.09 in.)	19.0 x 86.0 x 78.5 mm (0.75 x 3.39 x 3.09 in.)	15.8 x 130.0 x 83.0 mm (0.62 x 5.12 x 3.27 in.)	16.0 x 103.0 x 80.0 mm (0.62 x 4.00 x 3.13 in.)
Weight:	85 g (3 oz)	85 g (3 oz)	85 g (3 oz)	57 g (2 oz)	85 g (3 oz)
Compliance UL: c-UL: CE: C-Tick:	UL508C CAN/CSA C22.2 No. 14 EN61000-6-4 & EN61000-6-2 —	UL508C — EN50081-2 (93), EN61000-6-2 (99) —	UL508C CAN/CSA C22.2 No. 14 EN50178 & EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No.14-M91 IEC50178 and IEC61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN50178 & EN61800-3 EN61800-3

	20-COMM-R ⁽¹⁾	20-COMM-S	1203-SSS	1203-USB	1769-SM1
Network Protocol: Data Rate:	Remote I/O 57.6, 115.2 or 230.4 kbps	DF1 1200...38400 bps	DF1 9600...38400 bps	Universal Serial Bus (USB) 115.2 kbps	—
Drive Protocol: Data Rates:	DPI 125 or 500 Kbps	DPI 125 or 500 Kbps	DPI or SCANport 125 or 500 Kbps (DPI only)	SCANport, DPI or DSI 125, 125/500, 19.2 Kbps	DPI or SCANport 125 or 500 Kbps (DPI only)
Consumption Drive (DPI): Network:	250 mA at 5V DC N/A	150 mA at 5V DC N/A	130 mA at 12V DC N/A	130 mA at 12V DC 170 mA at +5V DC (DSI)	Module:280 mA at 5V DC Channel: 60 mA at 12V DC
Dimensions: H x L x W	19.0 x 86.0 x 78.5 mm (0.75 x 3.39 x 3.09 in.)	16.0 x 86.0 x 81.0 mm (0.63 x 3.34 x 3.16 in.)	103.5 x 73.4 x 23.6 mm (4.08 x 2.89 x 0.93 in.)	103.5 x 73.4 x 23.6 mm (4.08 x 2.89 x 0.93 in.)	103.5 x 73.4 x 23.6 mm (4.08 x 2.89 x 0.93 in.)
Weight:	85 g (3 oz)	60 g (2 oz)	71 g (2.5 oz)	71 g (2.5 oz)	71 g (2.5 oz)
Compliance UL: c-UL: CE: C-Tick:	UL508C CAN/CSA C22.2 No. 14 EN50178 and EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN50178 and EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN50178 and EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN50178 and EN61800-3 EN61800-3	UL508C CAN/CSA C22.2 No. 14 EN50081-2 and EN61000-6-2 AS/NZS 2064, 1997, Group 1, Class A

(1) This item has Silver Series status. For information, refer to <http://www.ab.com/silver>.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Title	Publication
PowerFlex 750-Series Drive Installation Instructions	750-IN001
PowerFlex 750-Series Programming Manual	750-PM001
Enhanced PowerFlex 7-Class Human Interface Module (HIM) User Manual	20HIM-UM001
PowerFlex 750-Series Safe Torque Off User Manual	750-UM002
Safe Speed Monitor Option Module for PowerFlex 750-Series AC Drives Reference Manual	750-RM001
PowerFlex 7-Class Network Communication Adapter User Manuals	750COM-UM
Dynamic Braking Resistor Calculator	PFLEX-AT001
Wiring and Grounding Guidelines for PWM AC Drives	DRIVES-IN001
Preventive Maintenance of Industrial Control and Drive System Equipment	DRIVES-TD001
Safety Guidelines for the Application, Installation and Maintenance of Solid State Control	SGL-1.1

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

Product Overview

The PowerFlex 750-Series is a robust family of AC drives that provide ease of use, flexibility, and performance for a variety of industrial applications. The PowerFlex 753 provides general purpose control for applications ranging up to 350 Hp and 250 kW. The PowerFlex 755 provides maximum flexibility and performance ranging up to 2000 Hp and 1500 kW.

Maximize your productivity by taking advantage of the following key features offered in the PowerFlex 750-Series:

- **DeviceLogix™** – Embedded control technology that supports the manipulation of discrete outputs and drive control functions, while using discrete inputs and drive status information onboard the drive.
- **Predictive Diagnostics** – Allows the drive to keep track of information that affects the life of its cooling fans and relay outputs. The drive can also be programmed to monitor the run time hours for machine or motor bearings.
- **Option Cards** – Each drive has a slot-based architecture. Supported hardware control options are common for both products, to help reduce your inventory and spare parts requirements.
- **Safe Torque-Off and Safe Speed Monitor** – provides a choice for safety levels depending on your application requirements.
- **Communications** – The PowerFlex 755 comes with a built-in Ethernet port. Ethernet can easily be added to the PowerFlex 753 with a communication module.



- **I/O** – option cards are available for additional analog and discrete I/O. The PowerFlex 753 comes with built-in I/O that can also be easily expanded with option cards.
- **Packaging** – Factory and field installable enclosure options are available to meet most environmental requirements: Open Type and Flange Mount options to support Cabinet Mount requirements, Extra Protection Wall Mount for harsh environments, and supporting debris hoods and conduit plate kits.
- **Standard Power Structure** – a common power structure is shared to provide the same physical footprint and power range.

PowerFlex 750-Series Drive Family



Frame 1...7
IP00/IP20, NEMA/UL Type Open Drive

includes:

- DC link choke
- Internal brake transistor standard on Frames 1...5 and optional on Frames 6...7



Frames 8...10
IP20, NEMA/UL Type 1 Drive
(2500 MCC Style Cabinet)

includes:

- DC link choke
- Integrated AC line fuses
- Roll-out design



Frames 8...10
IP20, NEMA/UL Type 1 Drive with Options
(2500 MCC Style Cabinet)

includes:

- DC link choke
- Integrated AC line fuses
- Roll-out design
- Option bay for control/protection devices



Roll-out Cart

- Required for Frame 8 and larger drives
- Adjustable Curb Height: 0...182 mm (0...7.2 in.)
- Adjustment for Curb Offset/Reach: 0...114 mm (0...4.5 in.)