

## Feedback Options

Description	Cat. No.
Incremental Encoder	20-750-ENC-1 <sup>(2)</sup>
Dual Incremental Encoder	20-750-DENC-1 <sup>(2)</sup>
Universal Feedback (includes Stegmann, Heidenhain, SSI, Biss, Incremental) <sup>(1)</sup>	20-750-UFB-1

(1) PowerFlex 755 only.

(2) Homing and registration functions are not supported when using this device with Integrated Motion. To use these functions, the Universal Feedback Board (20-750-UFB-1) must be used.

## I/O Option Kits

Description <sup>(1)</sup>	Cat. No.
24V DC I/O with 2 Analog In, 2 Analog Out, 6 Digital In and 2 Relay Outputs	20-750-2262C-2R
115V AC I/O with 2 Analog In, 2 Analog Out, 6 Digital In and 2 Relay Outputs	20-750-2262D-2R
24V DC I/O with 2 Analog In, 2 Analog Out, 6 Digital In, 3 Digital Out, 1 Relay & 2 Transistor Outputs	20-750-2263C-1R2T

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

## Safety Options

Two safety options are available for the PowerFlex 750-Series:

- Safe Torque-Off
- Safe Speed Monitor

Safe Torque-Off is ideal for safety related applications requiring removal of rotational power to the motor without shutting down the drive. Safe Torque-Off functionality offers the benefit of quick start-up after a demand on the safety system and helps reduce wear from repetitive start-up and provides safety ratings up to and including SIL CL3, PLe, and Category 3.

In applications where the speed needs to be controlled and monitored, the Safe-Speed Monitor option combines Safe Torque-Off capability with integrated safety relay functionality and the Safe-Speed Control technology in one hardware option to provide safety ratings up to and including SIL CL3, PLe, and Category 4.

With the Safe Speed Monitor option you can safely monitor and control the speed of your application which allows operators to perform process or maintenance work without stopping the machine.

Note that the drive can accommodate only one option.

Description	Cat. No.
Safe Torque-Off	20-750-S
Safe Speed Monitor <sup>(1)</sup>	20-750-S1

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

## 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.)