

# PowerFlex® Family of Low Voltage Drives

Powerful performance. Flexible control.



LISTEN.  
THINK.  
SOLVE.™

# The PowerFlex Family of Drives Advantage

*Powerful performance. Flexible control.*

The Allen-Bradley® PowerFlex family of drives offers a broad range of control modes to fit virtually any motor control requirement. With the combination of features, options and packaging for application versatility, to helping meet safety requirements, ease programming and configuration the PowerFlex family has a solution to meet your application demands.

Designed to offer you a complete portfolio covering global voltages and a wide range of power ratings, the PowerFlex family of drives offers a common experience out of the box and on the line.

**PowerFlex 4-Class** drives deliver a simple and cost effective solution for machine level, stand alone control applications or simple system integration. Designed for ease of use, this general purpose class of drives provides a compact package to optimize panel space and application versatility.

**PowerFlex 7-Class** drives provide a broad set of features, application specific parameters and are ideal for high performance applications. This class of drives is designed for advanced application flexibility and control system integration.

## Scalable Motor Control

Because there are a wide variety of application requirements, PowerFlex drives offer a broad range of motor control solutions. From open loop speed regulation to precise speed and torque control, the PowerFlex family of drives can meet the simplest to the most demanding applications. The family also features a wide selection of hardware, software, safety and packaging options to help fit your needs.

- Reduce total cost of ownership by selecting a drive built for application requirements, with as many options as the application requires
- Boost productivity with specific application control such as TorqProv™ for lifting applications and Pump-Off for oil wells
- Protect against unplanned downtime with advanced diagnostics and notification of irregular operating parameters
- Easily configure and commission with software tools and wizards

## Improve Productivity with Safety Functionality

Increase productivity and help protect personnel with industry-leading safety options. Select Safe Torque-Off (DriveGuard®) and Safe Speed Monitoring to help protect your personnel, your equipment and conform to specific safety requirements and certifications.

- Protect against potentially hazardous equipment or operating conditions
- Reduce costs and wiring complexity with the Safe Speed Monitor option that does not require the use of an external relay
- Resume production faster after a demand on the safety system has occurred
- Meet safety ratings up to and including PLe, SIL CL3 and CAT 4

## Drive Efficient Operations

Improved motor control performance and motor efficiency means greater overall production efficiency. PowerFlex drives are capable of providing both an immediate and measurable impact on energy use and operational efficiency.

- Help reduce and track energy consumption by applying a PowerFlex drive to your application
- Predict mechanical problems and help improve performance with diagnostics and real time data
- Access historical data directly from the factory floor



## Seamless Drive and Control System Integration

Save configuration and troubleshooting time by seamlessly integrating PowerFlex drives and Logix programmable automation controllers.

- Unite communication between plant floor and the front office and get convenient access to real-time information and production data with EtherNet/IP™, DeviceNet™, ControlNet™, and other networks
- Lower programming, installation and overall ownership costs with consolidated drive system configuration, operation and maintenance with one software tool
- Increase productivity with easy access to system and machine level data and diagnostic information utilizing a single repository for configuration data

## Achieve a New Level of Machine Flexibility and Functionality with Integrated Motion on EtherNet/IP

For the first time, PowerFlex 755 and Kinetix® drives can be configured, programmed and controlled using RSLogix™ 5000 (v19) via motion instruction sets and on the same network – EtherNet/IP. Integrated Motion on EtherNet/IP not only provides high performance closed- and open-loop drive control on a single network but with motion profiles and instructions embedded in the controller, helps ensure device precision and synchronization.

- Rockwell Automation Integrated Motion on EtherNet/IP uses CIP Motion™ and CIP Sync™ technology from ODVA, all built on the Common Industrial Protocol (CIP). Global standards help ensure consistency and interoperability

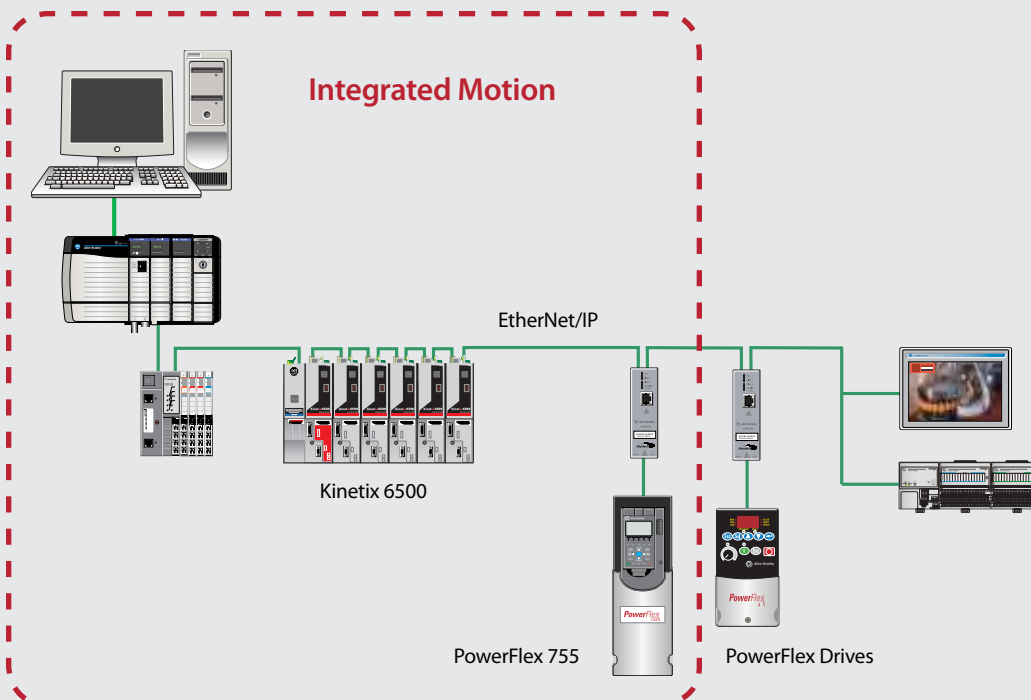
## Entire Plant Solutions from Plant Floor to Top Floor

As a global automation leader, Rockwell Automation® is uniquely positioned to help our customers capitalize on the business benefits of integrating factory floor controls and enterprise systems.

When you choose a PowerFlex drive, you are receiving industry-leading motor control and protection, plus the advanced system-wide communication capabilities of the Rockwell Automation Integrated Architecture™. With this you get an Intelligent Motor Control solution, where you can expect faster programming and installation, decreased mechanical wear, reduced energy consumption and improved motor performance.

- EtherNet/IP uses standard, unmodified Ethernet, and allows you to effectively manage real-time control and information flow for improved plant-wide optimization, more informed decision-making and better business performance
- Time synchronization of drives, I/O and other EtherNet/IP compliant devices provides the performance to help solve the most challenging applications
- A single software package, RSLogix 5000, provides complete system support including motion configuration, programming, commissioning, diagnostics and drive maintenance
- Use of standard Ethernet allows you to connect to a large number of business, commercial and industrial devices; there's no need for proprietary hardware or software

## EtherNet/IP—A Single Network for Complete Machine Control



## Connect Your Entire Enterprise

Benefit from the EtherNet/IP network for complete machine control that simplifies and enhances machine design.

- Low cost, high performance and easy to use as compared to a multi-network architecture
- Easily integrate any PowerFlex drive, I/O, smart actuators and any other EtherNet/IP connected device

## POWERFLEX AC DRIVES

### PowerFlex 4M AC Drive

### PowerFlex 4 AC Drive

### PowerFlex 40 AC Drive



#### Motor Control

• Volts per Hertz

• Volts per Hertz

• Volts per Hertz • Sensorless Vector Control

#### Application

• Open Loop Speed Regulation

• Open Loop Speed Regulation

• Open Loop Speed Regulation

#### Ratings 100-115V 1 Phase In/3 Phase 230V Out

• 0.2...1.1 kW • 0.25...1.5 Hp • 1.6...6 A

• 0.2...1.1 kW • 0.25...1.5 Hp • 1.6...6 A

• 0.37...1.1 kW • 0.5...1.5 Hp • 2.3...6 A

#### Ratings 200-240V

• 0.2...7.5 kW • 0.25...10 Hp • 1.6...33 A

• 0.2...3.7 kW • 0.25...5 Hp • 1.4...17.5 A

• 0.37...7.5 kW • 0.5...10 Hp • 2.3...33 A

#### Ratings 400-480V

• 0.37...11 kW • 0.5...15 Hp • 1.5...24 A

• 0.37...3.7 kW • 0.5...5 Hp • 1.4...8.7 A

• 0.37...11 kW • 0.5...15 Hp • 1.4...24 A

#### Ratings 500-600V

• N/A

• N/A

• 0.75...11 kW • 1...15 Hp • 1.7...19 A

#### Ratings 690V

• N/A

• N/A

• N/A

#### Ambient Temperature Limit for Enclosure Types

• IP20: -10 to 50° C (14 to 122° F)  
• IP20 zero stacking: -10 to 40° C (14 to 104° F)

• IP20, NEMA/UL Type Open: -10 to 50° C (14 to 122° F)  
• IP30, NEMA/UL Type 1: -10 to 40° C (14 to 104° F)  
• Flange = 50° C (122° F)

• IP20, NEMA/UL Type Open: -10 to 50° C (14 to 122° F)  
• IP30, NEMA/UL Type 1: -10 to 40° C (14 to 104° F)  
• IP66, NEMA/UL Type 4X/12: -10 to 40° C (14 to 104° F)  
• Flange = 50° C (122° F)

#### EMC Filters

• Internal (1 phase 240V and 3 phase 480V)  
• External (1 & 3 phase)

• Internal (1 phase) • External (3 phase)

• Internal (1 phase) • External (3 phase)

#### Standards and Certifications

• UL, CE, cUL, C-Tick

• UL, CE, cUL, C-Tick

• UL, CE, cUL, C-Tick

#### Overload Capability

• 150% for 60 secs • 200% for 3 secs

• 150% for 60 secs • 200% for 3 secs

• 150% for 60 secs • 200% for 3 secs

#### Output Frequency Range

• 0...400Hz

• 0...240Hz

• 0...400Hz

#### User Interface

• Local Keypad • Remote Keypad  
• RSLogix 5000 • DriveExplorer™  
• DriveTools™ SP

• Local Keypad • Remote Keypad  
• RSLogix 5000 • DriveExplorer  
• DriveTools SP

• Local Keypad • Remote Keypad • RSLogix 5000  
• DriveExplorer • DriveTools SP

#### Communications Options

• Integral RS485 (Modbus RTU)  
• Optional: \*DeviceNet™, \*EtherNet/IP, \*PROFIBUS DP™,  
\*ControlNet, \*LonWorks™, \*Bluetooth™  
\*Optional network for use only with DSI External Communications Kit

• Integral RS485 (Modbus RTU)  
• Optional: \*DeviceNet, \*EtherNet/IP, \*PROFIBUS DP,  
\*ControlNet, \*LonWorks, \*BACnet, \*Bluetooth  
\*Optional network for use only with DSI External Communications Kit

• Integral RS485 (Modbus RTU)  
• Optional: DeviceNet, EtherNet/IP, PROFIBUS DP, ControlNet, LonWorks, BACnet, Bluetooth

#### Analog Inputs

• Qty. 1 (unipolar voltage)

• Qty. 1 (unipolar voltage)

• Qty. 2 (1 bipolar voltage, 1 current)

#### Analog Outputs

• None

• None

• Qty. 1 (unipolar voltage or current)

#### PTC Inputs

• Qty. 1 (uses an Analog Input)

• Qty. 1 (uses an Analog Input)

• Qty. 1 (uses an Analog Input)

#### Digital Inputs

• Qty. 5 (24V DC, 2 programmable)

• Qty. 5 (24V DC, 2 programmable)

• Qty. 7 (24V DC, 4 programmable)

#### Relay Outputs

• Qty. 1 (form C)

• Qty. 1 (form C)

• Qty. 1 (form C)

#### Transistor Outputs

• None

• None

• Qty. 2

#### Dynamic Braking

• Internal IGBT except catalog numbers ending in "3"

• Internal IGBT except catalog numbers ending in "3"

• Internal IGBT

#### Integrated Safety

• No

• No

• No

## PowerFlex 40P AC Drive



- Volts per Hertz • Sensorless Vector Control
- Closed Loop Speed Regulation
- N/A
- 0.37...7.5 kW • 0.5...10 Hp • 2.3...33 A
- 0.37...11 kW • 0.5...15 Hp • 1.4...24 A
- 0.75...11 kW • 1...15 Hp • 1.7...19 A
- N/A
- IP20, Open Type: -10 to 50° C (14 to 122° F)
- IP30, NEMA Type 1, UL Type 1: -10 to 40° C (14 to 104° F)
- Flange and Plate Mount: Heatsink: -10 to 40° C (14 to 104° F)
- Drive: -10 to 50° C (14 to 122° F)
- External
- UL, CE, cUL, C-Tick, TUV FS ISO/EN13849-1 (EN954-1)
- 150% for 60 secs • 200% for 3 secs
- 0...500Hz
- 4 Digit LED Display and Fault Reset
- Remote Keypad • RSLogix 5000
- DriveExplorer • DriveTools SP
- Integral RS485 (Modbus RTU)
- Optional: DeviceNet, EtherNet/IP, PROFIBUS DP, ControlNet, LonWorks, *Bluetooth*
- Qty. 2 (1 bipolar voltage, 1 current)
- Qty. 1 (unipolar voltage or current)
- Qty. 1 (uses an Analog Input)
- Qty. 7 (24V DC, 5 programmable)
- Qty. 1 (form C)
- Qty. 2
- Internal IGBT
- Safe Torque-Off, SIL2, PLd, Cat3

## PowerFlex 400 AC Drive



- Volts per Hertz
- Open Loop Speed Regulation
- N/A
- 2.2...37 kW • 3.0...50 Hp • 12...145 A
- 2.2...250 kW • 3.0...350 Hp • 6...460 A
- N/A
- N/A
- IP20, NEMA/UL Type Open: -10 to 50° C (14 to 122° F)
- IP30, NEMA/UL Type 1: -10 to 45° C (14 to 113° F)
- External
- UL, CE, cUL, C-Tick
- 110% for 60 secs
- 0...320Hz
- Local Keypad • Remote Keypad • RSLogix 5000
- DriveExplorer • DriveTools SP
- Integral RS485 ( Modbus RTU, Metasys N2, P1-FLN)
- Optional: DeviceNet, EtherNet/IP, PROFIBUS DP, ControlNet, LonWorks, BACnet, *Bluetooth*
- Qty. 2 (1 bipolar voltage or current, 1 unipolar voltage or current)
- Qty. 2 (unipolar voltage or current)
- Qty. 1 (uses an Analog Input)
- Qty. 7 (24V DC, 4 programmable)
- Qty. 2 (form C)
- Qty. 1
- No
- No

## POWERFLEX DC DRIVE



- Motor Control**
  - Application Performance**
  - Single-phase Input w/Derate**
  - Ratings 200-240V**
  - Ratings 400-480V**
  - Ratings 500-600V**
  - Ratings 690V**
  - Ambient Temperature Limit for Enclosure Types**
  - EMC Filters**
  - Standards and Certifications**
  - Overload Capability**
  - Output Speed Range**
  - User Interface**
  - Communications Options**
  - Preset Speeds**
  - Standard Analog Inputs**
  - Standard Digital Inputs**
  - Standard Analog Outputs**
  - Standard Digital Outputs**
  - Dynamic Braking**
  - Safety Input**
- Full-wave, Full Control, 6-SCR
  - Field Weakening and Economise
  - Open Loop Speed Regulation • Closed Loop Speed Regulation • Precise Torque Regulation
  - N/A
  - 1.2...224 kW • 1.5...300 Hp • 7...1050 A
  - 0.5...671 kW • 2...900 Hp • 4.1...1494 A
  - N/A
  - N/A
  - IP 20 / Open = 50° C (104° F)
  - External
  - UL, C-Tick, CSA, CE
  - Heavy Duty Application
  - 150% - 60s, 200% - 3s
  - 1000:1 DC Tach
  - 200:1 Armature feedback
  - 1000:1 Speed Range w/enc
  - Local PowerFlex HIMs • Remote PowerFlex HIMs
  - RSLogix 5000 • DriveExplorer • DriveTools SP
  - Internal DPI • DeviceNet • ControlNet (Coax or Fiber)
  - EtherNet/IP • Remote I/O • RS485 DF1
  - PROFIBUS DP • Bluetooth
  - 7
  - 3 - Configurable (13 bit + sign, each ±V or mA)
  - 8 - Configurable (24V DC)
  - 2 - Configurable (11-Bit + sign, each ±V)
  - 4 - Configurable (24V DC)
  - 2 - Configurable Relay (NO)
  - Armature Regen or Dynamic Braking Resistor
  - No

# POWERFLEX AC DRIVES

## PowerFlex 70 AC Drive



## PowerFlex 700 AC Drive



## PowerFlex 700H AC Drive



### Motor Control

- Vector Control w/FORCE™ Technology
- Sensorless Vector Control • Volts per Hertz

- Vector Control w/FORCE™ Technology
- Volts per Hertz
- Adjustable Voltage Control

- Volts per Hertz
- Sensorless Vector Control

### Application

- Open Loop Speed Regulation • Closed Loop Speed Regulation • Precise Torque Regulation

- Open Loop Speed Regulation • Closed Loop Speed Regulation • Precise Torque Regulation • Precise Torque & Speed Regulation

- Open Loop Speed Regulation

### Single-phase Input w/Derate

- Yes

- Yes

- Yes

### Ratings 200-240V

- 0.37...18.5 kW • 0.5...25 Hp • 2.2...70 A

- 0.37...75 kW • 0.5...100 Hp • 2.2...260 A

- N/A

### Ratings 400-480V

- 0.37...37 kW • 0.5...50 Hp • 1.1...72 A

- 0.37...500 kW • 0.5...700 Hp • 1.1...875 A

- 132...1600 kW • 200...2300 Hp • 261...2700 A

### Ratings 500-600V

- 0.37...37 kW • 0.5...50 Hp • 0.9...52 A

- 0.75...110 kW • 1...150 Hp • 1.7...144 A

- 160...2000 kW • 150...2400 Hp • 170...2250 A

### Ratings 690V

- N/A

- 45...132 kW • 50...150 Hp • 52...142 A

- 160...2000 kW • 150...2400 Hp • 170...2250 A

### Ambient Temperature Limit for Enclosure Types

- IP20, NEMA/UL Type 1: 0 to 50° C (32 to 122° F)
- Flange Mount: 0 to 50° C (32 to 122° F)
- IP66, NEMA/UL Type 4X/12 indoor: 0 to 40° C (32 to 104° F)

- IP20, NEMA/UL Type Open: Frames 0-6: 0 to 50° C (32 to 122° F), typical Frames 7-10: 0 to 40° C (32 to 104° F) for chassis 0 to 65° C (32 to 149° F) for control
- NEMA/UL Type 1: Frames 0-6: 0 to 40° C
- IP 00/NEMA Open/Flange = 40° C (104° F)

- IP 21/NEMA/UL Type 1
- Normal Duty = 0-40° C (32-104° F)
- Heavy Duty = 0-40° C (32-104° F)

### EMC Filters

- Internal

- Internal (frame 0-6 only)

- Internal

### Standards and Certifications

- UL, CE, cUL, C-Tick, RINA, Lloyds Registry, ABS, SEMI F47
- TUV FS ISO/EN13849-1 (EN954-1)

- UL, CE, cUL, C-Tick, RINA\*, Lloyds Registry\*, ABS\*, SEMI F47\* • ATEX
- \*Does not apply to frames 7-10

- UL, CE, cUL, C-Tick
- ATEX with Safe Torque-Off option
- TUV FS ISO/EN13849-1 (EN954-1)

### Overload Capability

- Normal Duty Application • 110% - 60s, 150% - 3s
- Heavy Duty Application • 150% - 60s, 200% - 3s

- Normal Duty Application • 110% - 60s, 150% - 3s
- Heavy Duty Application • 150% - 60s, 200% - 3s

- Normal Duty Application • 110% - 60s
- Heavy Duty Application • 150% - 60s, 200% - 2s\*
- \*Limits Apply

### Output Frequency Range

- 0 - 500Hz

- 0 - 420Hz

- 0 - 320Hz

### User Interface

- Local PowerFlex HIMs • Remote PowerFlex HIMs
- RSLogix 5000 • DriveExplorer • DriveTools SP

- Local PowerFlex HIMs • Remote PowerFlex HIMs
- RSLogix 5000 • DriveExplorer • DriveTools SP

- Local PowerFlex HIMs • Remote PowerFlex HIMs
- RSLogix 5000 • DriveExplorer • DriveTools SP

### Communications Options

- Internal DPI • DeviceNet • ControlNet (Coax or Fiber)
- EtherNet/IP • Remote I/O • RS485 DF1 • BACnet
- RS485 HVAC (Modbus RTU, Metasys N2, Siemens P1)
- PROFIBUS DP • Interbus • *Bluetooth* • External SCANport
- Modbus/TCP • CANopen • LonWorks

- Internal DPI • DeviceNet • ControlNet (Coax or Fiber)
- EtherNet/IP • Remote I/O • RS485 DF1 • BACnet
- RS485 HVAC (Modbus RTU, Metasys N2, Siemens P1)
- PROFIBUS DP • Interbus • *Bluetooth* • Modbus/TCP
- CANopen • LonWorks (SC only)

- Internal DPI • DeviceNet • ControlNet (Coax or Fiber)
- EtherNet/IP • Remote I/O • RS485 DF1 • BACnet
- RS485 HVAC (Modbus RTU, Metasys N2, Siemens P1)
- PROFIBUS DP • Interbus • *Bluetooth* • Modbus/TCP
- CANopen • LonWorks

### Conformal Coating

- Option

- Option

- Option

### Analog Inputs

- Qty. 2 (1 bipolar voltage or current, 1 unipolar voltage or current)

- Qty. 2 (bipolar voltage or current)

- Qty. 2 (bipolar voltage or current)

### Analog Outputs

- Qty. 1 (unipolar voltage or current)

- Qty. 2 (bipolar voltage or current)

- Qty. 2 (bipolar voltage or current)

### PTC Inputs

- Qty. 1 (uses an Analog Input)

- Qty. 1 (dedicated)

- Qty. 1 (uses an Analog Input)

### Digital Inputs

- Qty. 6 (24V DC or 115V AC)

- Qty. 6 (24V DC or 115V AC)

- Qty. 6 (24V DC or 115V AC)

### Relay Outputs

- Qty. 2 (form C)

- Qty. 3 (1 form A, 1 form B, 1 form C)

- Qty. 3 (1 form A, 1 form B, 1 form C)

### Transistor Outputs

- None

- None

- None

### Internal Brake Transistor

- Standard

- Standard (frame 0-6 only)

- Optional (frame 9 only)

### AC Input Choke

- No

- No

- Yes

### DC Link Choke

- FR C-E Yes

- Yes

- No

### Common Mode Choke

- External option

- Internal (frame 0-6 only)

- Internal

### Integrated Safety

- Safe Torque-Off SIL CL2, PLd, Cat 3

- No

- Safe Torque-Off SIL CL2, PLd, Cat 3

### PowerFlex 700S AC Drive



- Vector Control w/FORCE Technology with and without an encoder • Volts per Hertz
- Permanent Magnet Motor Control
- Closed Loop Speed Regulation • Precise Torque Regulation
- Precise Torque & Speed Regulation • Accurate Positioning
- Yes
- 0.75...66 kW • 1...100 Hp • 4.2...260 A
- 0.75...800 kW • 1...1250 Hp • 2.1...1450 A
- 75...1500 kW • 1...1600 Hp • 1.7...1500 A
- 75...1500 kW • 75...1600 Hp • 77...1500 A
- IP20, NEMA/UL Type Open: 0 to 50°C (32 to 122°F)
- IP21, NEMA/UL Type 1: 0 to 40°C (32 to 104°F)

- Internal
- UL, CE, cUL, C-Tick, RINA\*
- TUV FS ISO/EN13849-1 (EN954-1)
- \* Applies to frames 1-6

- Normal Duty Application • 110% - 60s, 150% - 3s
- Heavy Duty Application • 150% - 60s, 200% - 3s

- 0 - 400 Hz (Frames 1-6) • 0 - 320 Hz (Frames 9-14)

- Local PowerFlex HIMs • Remote PowerFlex HIMs
- RSLogix 5000 • DriveExplorer • DriveTools SP

- Internal DPI • DeviceNet • ControlNet (Coax or Fiber)
- EtherNet/IP • Remote I/O • RS485 DF1
- RS485 HVAC (Modbus RTU, Metasys N2, Siemens P1)
- PROFIBUS DP • Interbus • Bluetooth

- Qty. 3 (2 bipolar voltage or current, 1 unipolar voltage)

- Qty. 2 (bipolar voltage or current)

- Qty. 1 (uses an Analog Input)

- Qty. 6 (3 - 24V DC or 115V AC, 3 - 24V DC)

- Qty. 1 (form C)

- Qty. 2

- Standard (frames 1-6) Optional (frame 9)

- FR1-6 No, FR9-15 Yes

- FR1-6 No, FR9-15 Yes

- Internal (frame 1-9 only)

- Safe Torque-Off SIL CL2, PLd, Cat 3

### PowerFlex 700L AC Drive



- Available with PowerFlex 700 Vector Control or PowerFlex 700S Phase II Control boards.
- Open Loop Speed Regulation • Closed Loop Speed Regulation • Precise Torque Regulation
- Precise Torque & Speed Regulation
- No
- N/A
- 200...715 kW • 300...1150 Hp • 360...1250 A
- 345...650 kW • 465...870 Hp • 425...800 A
- 355...657 kW • 475...881 Hp • 380...705 A
- IP00, NEMA/UL Type Open (frame 2): 0 to 50°C (32 to 122°F)
- IP20, NEMA/UL Type 1 (frame 3A and 3B): 0 to 40°C (32 to 104°F)

- Internal
- UL, CE, cUL, C-Tick
- TUV FS ISO/EN13849-1 (EN954-1) (with 700S control)

- Normal Duty Application • 110% - 60s, 150% - 3s
- Heavy Duty Application • 150% - 60s, 200% - 3s

- Output frequency dependant on control boards

- Local PowerFlex HIMs • Remote PowerFlex HIMs
- RSLogix 5000 • DriveExplorer • DriveTools SP

- Internal DPI • DeviceNet • ControlNet (Coax or Fiber)
- EtherNet/IP • Remote I/O • RS485 DF1 • BACnet
- RS485 HVAC (Modbus RTU, Metasys N2, Siemens P1)
- PROFIBUS DP • Interbus • Bluetooth

- See PowerFlex 700 or 700S based on control version

- Integral Regenerative capability

- Yes

- No

- External option

- Safe Torque-Off SIL CL2, PLd, Cat 3 (with 700S control)

### PowerFlex 753 AC Drive



- Vector Control w/FORCE Technology with and without an encoder • Sensorless Vector Control
- Volts per Hertz
- Open Loop Speed Regulation • Closed Loop Speed Regulation • Precise Torque Regulation
- Precise Torque & Speed Regulation • Indexer Positioning
- Yes
- N/A
- 0.75...250 kW (2.1...456A) • 1...350 Hp (2.1...415 A)
- N/A
- N/A
- IP00/IP10/IP20, NEMA/UL Open Type = 0-50°C (32-122°F)
- Flange Mount Front: IP00/IP20, NEMA/UL Open Type = 0-50°C (32-122°F) • Flange Mount Back: IP66, NEMA/UL Type 4X = 0-40°C (32-104°F)
- IP54, NEMA/UL Type 12 = 0-40°C (32-104°F)

- Internal
- UL, CE, cUL, C-Tick, SEMI F47, GOST-R
- TUV FS ISO/EN13849-1 (EN954-1) for Safe Torque-Off and Safe Speed Monitor options • ROHS compliant materials • Conformal Coating standard

- Normal Duty Application • 110% - 60s, 150% - 3s
- Heavy Duty Application • 150% - 60s, 180% - 3s

- 0...325 Hz @ 2 kHz PWM • 0...650 Hz @ 4 kHz PWM

- Local PowerFlex 750 Series HIMs
- Remote PowerFlex 750 Series HIMs
- RSLogix 5000 • DriveExplorer • DriveTools SP

- EtherNet/IP • ControlNet (Coax or Fiber) • DeviceNet
- Remote I/O • RS485 DF1 • PROFIBUS DP
- Modbus/TCP • HVAC (Modbus RTU mode) • Bluetooth

- Standard

- Up to 7 total (bipolar voltage or current)

- Up to 7 total (bipolar voltage or current)

- Up to 3 total

- Up to 21 total (Qty. 21 - 24V DC or Qty. 19 - 115V AC)

- Up to 7 total

- Up to 7 total

- Standard (frames 2-5) Optional (frame 6-7)

- No

- Yes

- External option

- Safe Torque-Off SIL CL3, PLe, Cat 3
- Safe Speed Monitor SIL CL3, PLe, Cat 4

### PowerFlex 755 AC Drive



- Vector Control w/FORCE Technology with and without an encoder • Sensorless Vector Control • Volts per Hertz
- Permanent Magnet Motor Control • TorqueProv™
- Open Loop Speed Regulation • Closed Loop Speed Regulation
- Precise Torque Regulation • Precise Torque & Speed Regulation
- Accurate Positioning with PCAM, Indexer and Gearing
- Kinematics and multi-axis support with Integrated Motion
- Yes
- N/A
- 0.75...450 kW (2.1...832A) • 1...700 Hp (2.1...800 A)
- N/A
- N/A
- IP00/IP10/IP20, NEMA/UL Open Type = 0-50°C (32-122°F)
- Flange Mount Front: IP00/IP20, NEMA/UL Open Type = 0-50°C (32-122°F) • Flange Mount Back: IP66, NEMA/UL Type 4X = 0-40°C (32-104°F)
- IP54, NEMA/UL Type 12 = 0-40°C (32-104°F)

- Internal
- UL, CE, cUL, C-Tick, SEMI F47, GOST-R • TUV FS ISO/EN13849-1 (EN954-1) for Safe Torque-Off and Safe Speed Monitor options • ROHS compliant materials • Conformal Coating standard

- Light Duty Application (frames 8 and larger) • 110% - 60s
- Normal Duty Application • 110% - 60s, 150% - 3s
- Heavy Duty Application • 150% - 60s, 180% - 3s

- 0...325 Hz @ 2 kHz PWM • 0...650 Hz @ 4 kHz PWM

- Local PowerFlex 750 Series HIMs • Remote PowerFlex 750 Series HIMs
- RSLogix 5000 • DriveExplorer • DriveTools SP
- RSLogix 5000 v19 Motion Instructions

- Embedded EtherNet/IP port • CIP Motion • ControlNet (Coax or Fiber) • DeviceNet • Remote I/O • RS485 DF1
- PROFIBUS DP • Modbus/TCP • HVAC (Modbus RTU) • Bluetooth

- Standard

- Up to 10 total (bipolar voltage or current)

- Up to 10 total (bipolar voltage or current)

- Up to 5 total

- Up to 31 total (24V DC or 115V AC)

- Up to 10 total (form C)

- Up to 10 total

- Standard (frames 2-5) Optional (frame 6-7)

- No

- Yes

- External option

- Safe Torque-Off SIL CL3, PLe, Cat 3
- Safe Speed Monitor SIL CL3, PLe, Cat 4

# eTOOLS

## RSLogix™ 5000 — Add-on-Profiles

RSLogix 5000 now includes drive add-on profiles that are designed to save system development time and to make your systems easier to maintain. With one software tool to configure your entire Logix drive system, you can reduce your drive system configuration time by as much as 70%. And with drive diagnostic, fault, alarm and event information integral to RSLogix 5000, your systems will be easier to maintain.

## RSLogix 5000 — Integrated Motion

Use a single software package – RSLogix 5000 (v19) – for complete system support, including motion configuration. Benefit from a common user experience using the same motion instruction sets for configuring, programming, commissioning, and diagnosing a PowerFlex 755 in an Integrated Motion application.



## DriveTools™ SP Software Suite

A powerful PC based software suite, for programming, configuring, and troubleshooting.

- DriveExecutive™ — for online/offline configuration and management of drives and drive peripherals
- DriveObserver™ — for real-time trending of drive information



## DriveExplorer™ Software

Allen-Bradley DriveExplorer software is an easy-to-use, cost effective online programming tool designed for Microsoft® Windows™ operating systems. It provides the user with the means to monitor and configure PowerFlex drive and communication adapter parameters.

## PowerFlex Accelerator Toolkit

The PowerFlex Accelerator Toolkit contains a variety of tools to help you easily design, install, operate and maintain a drive system. Download the tool at: [www.ab.com/go/iatools](http://www.ab.com/go/iatools)

## Motion Analyzer

For applications requiring more than a constant load and steady speed, Motion Analyzer software can help by handling the necessary complex calculations. Motion Analyzer features an easy-to-use format which can reduce design risk for speed and positioning applications that include PowerFlex drives or Kinetix servo drives. Download the tool at: [www.rockwellautomation.com/go/imcmotion](http://www.rockwellautomation.com/go/imcmotion)

## Product Selection Toolbox

The Product Selection Toolbox offers a complete suite of programs for product selection and configuration across product lines from project conception through final design. Use this tool to help build your PowerFlex drive catalog numbers, download the tool at: [www.ab.com/e-tools](http://www.ab.com/e-tools)

## DRIVES START-UP SERVICES AND EXTENDED WARRANTY

*ProtectionPlus Drive Start-up & Warranty Services from Rockwell Automation allow you to leverage the extensive product and industry experience of Rockwell Automation technicians to quickly commission your PowerFlex drives and reduce the time between integration and actual start-up. Additionally, you'll receive a 2 year parts and labor warranty to help stabilize your maintenance budget. \**

\* Protection Plus is not available on the PowerFlex 700L, PowerFlex 700H, or PowerFlex 700S drives. Check with your Rockwell Automation representative for availability.

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