

PowerFlex 4M AC Drive

PowerFlex 4 AC Drive

PowerFlex 40 AC Drive

PowerFlex 40P AC Drive

PowerFlex 400 AC Drive

PowerFlex  
Component Class Drives  
Communications

PowerFlex  
Component Class Drives  
HIMs

Allen Bradley Component Class VFD's

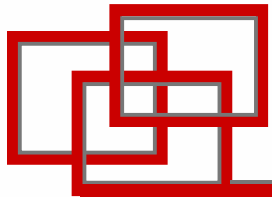
Schaedler Yesco  
EXPO 2008

Rockwell  
Automation

PowerFlex Drives  
Software

PowerFlex Drives  
Add On Profiles





## Complete Automation on the Move

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- **May 13-14, 2008**
  - Valley Forge Convention Center
    - 1210 First Avenue  
King of Prussia, PA 19406
- A **FREE** event featuring:
  - 4 Focused Industry Symposiums
  - 20 Hands-On Labs
  - 27 Technical Sessions
  - 9 Encompass Partner Sessions
  - 25 Show Floor Pedestals and Kiosks
  - 35+ Encompass Partners
- **Visit the Rockwell Automation booth on the Expo show floor for more detailed information and registration!**

- **Drive Ratings:**
  - 100-120V, 1Ø, 0.2-1.1 kW (0.25-1.5 Hp)
  - 200-240V, 1Ø, 0.2-2.2 kW (0.25-3.0 Hp)
  - 200-240V, 3Ø, 0.2-7.5 kW (0.25-10 Hp)
  - 380-480V, 3Ø, 0.4-11.0 kW (0.50-15 Hp)
- **Motor Control**
  - V/Hz Motor Control
  - Slip Compensation
- **Ambient Temperature Limit for Enclosures**
  - IP 20/Open = -10° to 50°C (14° - 122°F)

- **Features**

- Feed through wiring design
- Excellent Panel design
- Drive overload protection





## PowerFlex 4M Frame A

**Ratings:**

100-120V, 1ph, 0.2-0.37 kW (0.25-0.5Hp)  
200-240V, 1ph, 0.2-0.75 kW (0.25-1.0Hp)  
200-240V, 3ph, 0.2-1.5 kW (0.25-2.0Hp)  
380-480V, 3ph, 0.37-1.5 kW (0.50-2.0Hp)

**Dimensions:**

Height = 174mm (6.85")  
Width = 72mm (2.83")  
Depth = 136mm (5.35")

## PowerFlex 4M Frame B

**Ratings:**

100-120V, 1ph, 0.75-1.1 kW (1.0-1.5Hp)  
200-240V, 1ph, 1.5-2.2 kW (2.0-3.0Hp)  
200-240V, 3ph, 2.2-3.7 kW (3.0-5.0Hp)  
380-480V, 3ph, 2.2-3.7 kW (3.0-5.0Hp)

**Dimensions:**

Height = 174mm (6.85")  
Width = 100mm (3.94")  
Depth = 136mm (5.35")

## PowerFlex 4M Frame C

**Ratings:**

200-240V, 3ph, 5.5-7.5 kW (7.5-10Hp)  
380-480V, 3ph, 5.5-11.0 kW (7.5-15Hp)  
FRAME "C" HAS BRAKING CAPABILITY

**Dimensions:**

Height = 260mm (10.24")  
Width = 130mm (5.12")  
Depth = 180mm (7.09")



- **Drive Ratings:**

- 100-120V, 1Ø, 0.2-1.1 kW (0.25-1.5 Hp)
- 200-240V, 1Ø, 0.2-2.2 kW (0.25-3 Hp)
- 200-240V, 3Ø, 0.2-3.7 kW (0.25-5 Hp)
- 380-480V, 3Ø, 0.37-3.7 kW (0.5-5 Hp)

- **Motor Control**

- V/Hz Motor Control
- Slip Compensation

- **Ambient Temperature Limit for Enclosures**

- Open Type / IP20 = -10° to 50° C (14° - 122°F) with specified distance between drives or
- Open Type / IP20 = -10° to 40° C (14° - 104°F) Zero Stacked
- NEMA/UL Type 1 / IP30 = -10° to 40° C (14° - 104°F) with optional conduit box kit

- **Features**

- Drive Overload Protection
- Flying Start
- All connections from bottom
- Dynamic Braking – add resistor



## PowerFlex 4 Frame A

### Ratings:

100-120V, 1ph, 0.2-0.37 kW (0.25-0.5Hp)

200-240V, 1ph, 0.2-0.75 kW (0.25-1Hp)

200-240V, 3ph, 0.2-1.5 kW (0.25-2Hp)

380-480V, 3ph, 0.37-1.5 kW (0.5-2Hp)

### Dimensions:

Height = 152mm (5.98")

Width = 80mm (3.15")

Depth = 136mm (5.35")

## PowerFlex 4 Frame B

### Ratings:

100-120V, 1ph, 0.75-1.1 kW (1-1.5Hp)

200-240V, 1ph, 1.5-2.2 kW (2-3Hp)

200-240V, 3ph, 2.2-3.7 kW (3-5Hp)

380-480V, 3ph, 2.2-3.7 kW (3-5Hp)

### Dimensions:

Height = 180mm (7.09")

Width = 100mm (3.94")

Depth = 136 (5.35)



## PowerFlex® 40 AC Drive - Specifications

- **Drive Ratings :**

- 100-120V, 1Ø, 0.4-1.1 kW (0.5-1.5 Hp)
- 200-240V, 1Ø, 0.4-2.2 kW (0.5-3 Hp)
- 200-240V, 3Ø, 0.4-7.5 kW (0.5-10 Hp)
- 380-480V, 3Ø, 0.4-11 kW (0.5-15 Hp)
- 480-600V, 3Ø, 0.75-11 kW (1-15 Hp)

- **Motor Control**

- V/Hz Motor Control
- Sensorless Vector Control with Autotune Feature
- Process PID

- **Ambient Temperature Limit for Enclosures**

- Open Type / IP20 = -10° to 50° C (14° - 122°F) with specified distance between drives or
- Open Type / IP20 = -10° to 40° C (14° - 104°F) Zero Stacked
- NEMA/UL Type 1 / IP30 = -10° to 40° C (14° - 104°F) with optional conduit box kit
- NEMA/UL Type 4X/12 / IP66 = -10° to 40° C (14° - 104° F)

- **Features**

- Drive Overload Protection
- PID Control
- StepLogic™
- Flying Start
- Dynamic Braking - add resistor



PowerFlex 40 AC Drives  
NEMA/UL Type 4X/12  
Up through 5 Hp



## PowerFlex® 40 AC Drives Ratings and Dimensions

### PowerFlex 40 Frame B

**Ratings:**

100-120V, 1ph, 0.4-1.1 kW (0.5-15Hp)  
200-240V, 1ph, 0.4-1.5 kW (0.5-2Hp)  
200-240V, 3ph, 0.4-3.7 kW (0.5-5Hp)  
380-480V, 3ph, 0.4-4.0 kW (0.5-5Hp)  
480-600V, 3ph, 0.75-4.0 kW (1-5Hp)

**Dimensions:**

Height = 180mm (7.09")  
Width = 100mm (3.94")  
Depth = 136mm (5.35")

### PowerFlex 40 Frame C

**Ratings:**

200-240V, 1ph, 2.2 kW (3Hp)  
200-240V, 3ph, 5.5-7.5kW (7.5-10Hp)  
380-480V, 3ph, 5.5-11 kW (7.5-15Hp)  
480-600V, 3ph, 5.5-11 kW (7.5-15Hp)

**Dimensions:**

Height = 260mm (10.2")  
Width = 130mm (5.1")  
Depth = 180mm (7.1")





- **Drive Ratings :**
  - 200-240V, 3Ø, 0.4-7.5 kW (0.5-10 Hp)
  - 380-480V, 3Ø, 0.4-11 kW (0.5-15 Hp)
  - 480-600V, 3Ø, 0.75-11 kW (1-15 Hp)
- **Motor Control**
  - V/Hz Motor Control
  - Sensorless Vector Control with Autotune Feature
    - Slip Compensation or Encoder Trim
  - Process PID
  - Position Control Mode
- **Ambient Temperature Limit for Enclosures**
  - Open Type / IP20 = -10° to 50° C (14° - 122°F)
  - Plate drive for external Heatsink mounting up to IP66
  - NEMA/UL Type 1 / IP30 = -10° to 40° C (14° - 104°F) with optional conduit kit

- **Features**
  - Drive Overload Protection
  - PID Control
  - StepLogic™
  - Flying Start
  - Encoder/Pulse Train Feedback
  - DriveGuard® Safe-off (optional)



**DriveGuard®** 



## PowerFlex® 40P AC Drive: Ratings and Dimensions

### PowerFlex 40P Frame B

**Ratings:**

200-240V, 3ph, 0.4-3.7 kW (0.5-5Hp)

380-480V, 3ph, 0.4-4.0 kW (0.5-5Hp)

480-600V, 3ph, 0.75-4.0 kW (1-5Hp)

**Dimensions:**

Height = 180mm (7.09")

Width = 100mm (3.94")

Depth = 136mm (5.35")

### PowerFlex 40P Frame C

**Ratings:**

200-240V, 3ph, 5.5-7.5kW (7.5-10Hp)

380-480V, 3ph, 5.5-11 kW (7.5-15Hp)

480-600V, 3ph, 5.5-11 kW (7.5-15Hp)

**Dimensions:**

Height = 260mm (10.2")

Width = 130mm (5.1")

Depth = 180mm (7.1")



## PowerFlex® 400 AC Drive: Specifications

- **Drive Ratings**
  - 200-240V, 2.2-37 kW (3-50 Hp)
  - 380-480V, 2.2-250 kW (3-350 Hp)
- **Motor Control**
  - V/Hz Motor Control
  - Slip Compensation
- **Ambient Temperature Limit for Enclosures**
  - IP30 / NEMA/UL Type 1 =
    - -10 to 45°C (14 to 113°F)
    - C frame requires conduit box option
- **Features**
  - Sleep/Wake
  - PID Control
  - Flying Start
  - Purge Input
  - Damper Input
  - Multi-stage pump control
  - Hand/Off/Auto
  - Drive Overload Protection
  - Integral Metasys N2 and Apogee FLN P1 communications
  - Optional LonWorks and BACnet communications
  - 3 contactor bypass

### Stand-Alone Drives



### Packaged Drives



## PowerFlex® 400 AC Drive: Ratings and Dimensions

### PowerFlex 400 Frame C

**Ratings:**

200-240V, 2.2-7.5 kW (3-10Hp)

380-480V, 2.2-15 kW (3-20Hp)

**Dimensions:**

Height = 260mm (10.2")

Width = 130mm (5.1")

Depth = 180mm (7.1")

### PowerFlex 400 Frame D

**Ratings:**

200-240V, 11-22 kW (15-30Hp)

380-480V, 18.5-30 kW (25-40Hp)

**Dimensions:**

Height = 436mm (17.2")

Width = 250mm (9.8")

Depth = 206mm (8.1")

### PowerFlex 400 Frame E

**Ratings:**

200-240V, 30-37 kW (40-50Hp)

380-480V, 37-75 kW (50-100Hp)

**Dimensions:**

Height = 606mm (23.8")

Width = 370mm (14.6")

Depth = 259mm (10.2")





## PowerFlex 400 Frame F

**Ratings:**

380-480V, 90-100 kW (125–150Hp)

**Dimensions:**

Height = 850mm (33.5")

Width = 425mm (16.7")

Depth = 280mm (11.0")

## PowerFlex 400 Frame G

**Ratings:**

380-480V, 132-160 kW (200–350Hp)

**Dimensions:**

Height = 892mm (35.1")

Width = 425mm (16.7")

Depth = 264mm (10.4")

## PowerFlex 400 Frame H

**Ratings:**

380-480V, 200-250 kW (300–350Hp)

**Dimensions:**

Height = 1364mm (53.7")

Width = 529mm (20.8")

Depth = 359mm (14.1")



# DSI Communication Products



22-SCM-232  
RS-232 DF1



22-COMM-B  
BACnet MS/TP



22-COMM-C  
ControlNet



22-COMM-D  
DeviceNet



22-COMM-E  
EtherNet/IP



22-COMM-L  
LonWorks



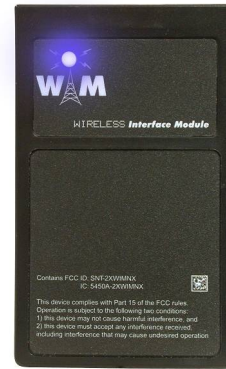
22-COMM-P  
Profibus DP



1203-USB  
USB Converter



22-XCOMM  
Ext. DSI Kit



22-WIM-Nx  
*Bluetooth*



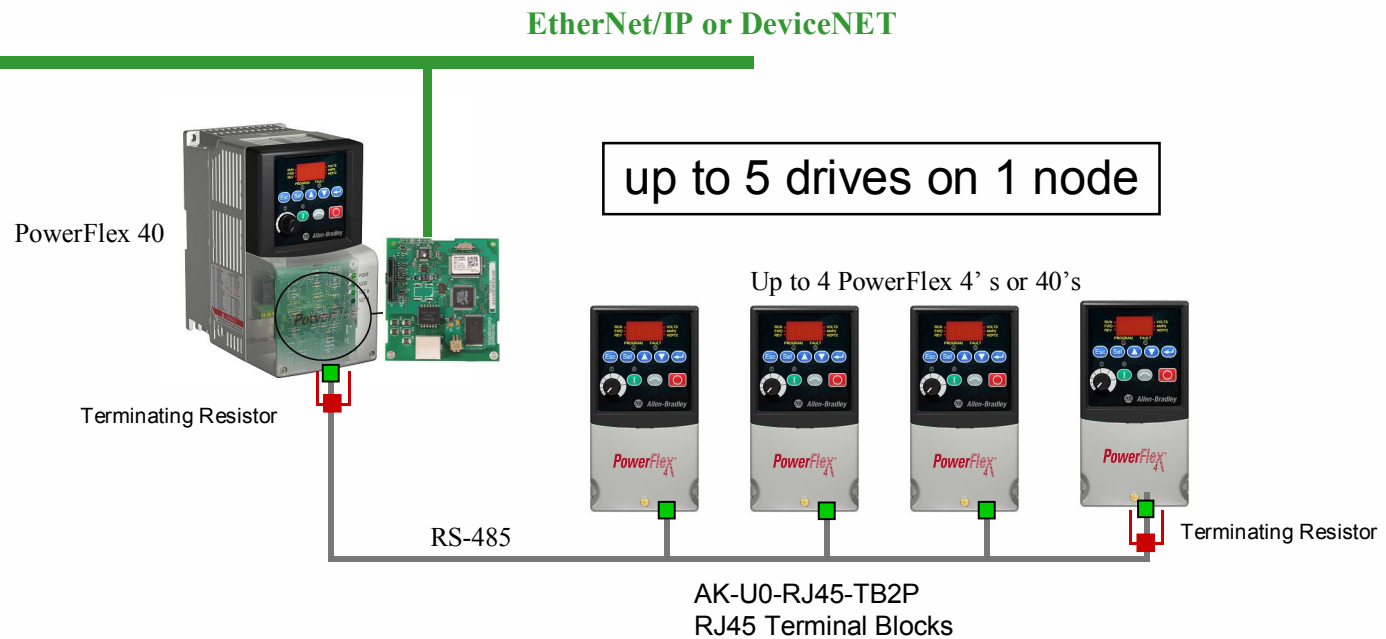
1769-SM2  
Compact I/O



AK-U0-RJ45-\*  
Cable Accessories



- “Multi-Drive” Mode
  - Allows up to (5) PowerFlex 4-Class drives on 1 node
    - requires (1) PowerFlex 40 with 22-COMM-E or 22-COMM-D
    - the remaining (4) drives can be PowerFlex 4’s or 40’s
  - Control, Configure and Collect data for all five drives











Type I Remote  
& Hand-Held  
HIM  
(22-HIM-A3)



Type I Remote  
Mount Bezel  
(22-HIM-B1 with 22-  
HIM-A3)



Type 4 Remote  
Mount HIM  
(22-HIM-C2S)



- DriveExplorer™



- An intuitive, Windows Explorer-like software package for basic online programming of Allen-Bradley drive products
- Multiple versions:
  - DriveExplorer Full
  - DriveExplorer Lite – Freeware.
  - Pocket DriveExplorer

- DriveTools™ SP

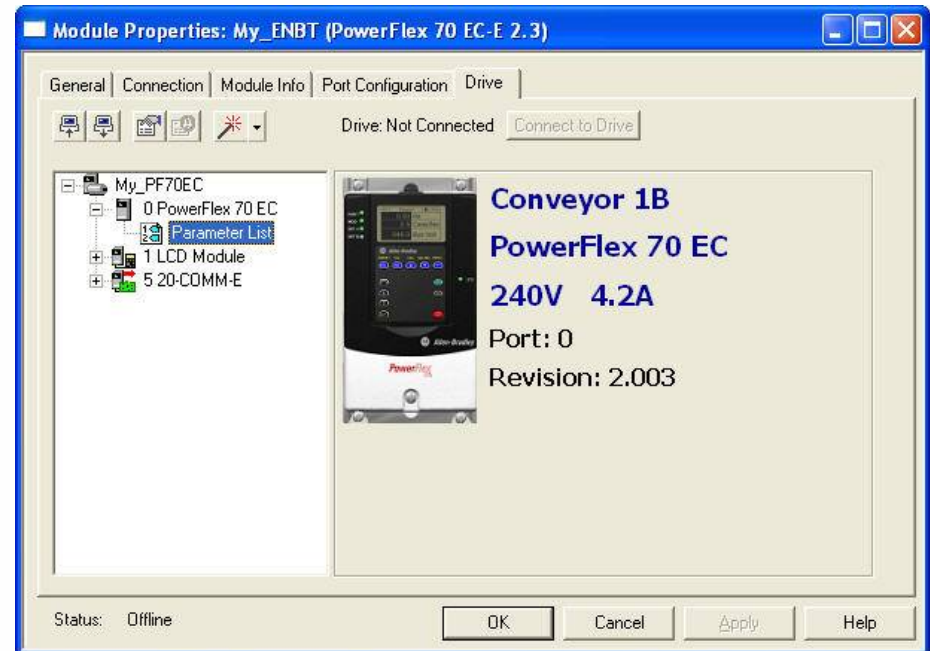


- A family of software planned and designed to accommodate demanding user requirements:
  - DriveExecutive™ - Online/offline drive configuration tool
  - DriveObserver™ - Samples and plots parameter values



## Software Tools - Premier Integration with PowerFlex® AC Drives

- RSLogix 5000 v16 Drive Add-On Profiles (AOPs)
  - Auto-generation of descriptive tag names with respective data types
  - Utilizes existing features found in our drive software tools today, such as:
    - Linear List / File Group Editor
    - Wizards
    - Diagnostics
    - Fault / Alarm / Event Queues
    - Flash



### Module Properties window in RSLogix 5000 v16

- Drive configuration stored in RSLogix 5000 .ACD file and in the controller
- Allows stand-alone software tool use

