

PowerFlex[®] 70 AC Drive - Specifications

- **Drive Ratings (normal duty)**
 - 240V, 0.37-18.5 kW (0.5-25 Hp)
 - 480V, 0.37-37 kW (0.5-50 Hp)
 - 600V, 0.37-37 kW (0.5-50 Hp)
- **Motor Control**
 - Vector Control with FORCE™ Technology
 - Sensorless Vector Control
 - Slip Compensation
 - Encoder Speed Control
 - Encoderless Speed Control
 - Torque Regulation
 - V/Hz Motor Control
- **Ambient Temperature Limit for Enclosures**
 - NEMA/UL Type 1/IP 20 Open = 50° C
 - Flange = 50° C
 - NEMA/UL Type 4X/12, IP 66 = 40° C

- **Features**
 - User Sets
 - Multi Language
 - Adv. Drive Overload Protection
 - Adv. Bus Regulation
 - Adv PID Control (Spd or Trq)
 - Droop
 - Analog Trim/Invert
 - Adv. Flying Start
 - Motor Overload Protection
 - Flux Braking
 - Fiber Features
 - DriveGuard[®] Safe-Off



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DriveGuard[®] 

PowerFlex® 700 AC Drive with Vector Control - Specifications

- **Drive Ratings (normal duty)**

- 240V, 0.5-100 Hp (2.2-260 A)
- 400V, 0.37-500 kW (1.3-875 A)
- 480V, 0.5-700 Hp (1.1-875 A)
- 600V, 1-150 Hp (1.7-144 A)
- 690V, 45-132 kW (52-136 A)

- **Motor Control**

- Vector Control with FORCE™ Technology
- Sensorless Vector Control
- Slip Compensation
- Encoder Speed Control
- Encoderless Speed Control
- Torque Regulation
- V/Hz Motor Control
- Adjustable Voltage Control

- **Ambient Temperature Limit for Enclosures**

- IP 20 / Open = 50° C
- IP 20 / NEMA/UL Type 1 = 40° C
- IP 54 NEMA/UL Type 12 = 40° C (Frames 5-6)
- IP 00 / Open = 40° C
 - Flange mount -- heatsink out the back on Frames 5 – 10

- **Features**

- User Sets
- Multi Language
- Adv. Drive Overload Protection
- Adv. Bus Regulation
- Adv PID Control (Spd or Trq)
- Flux Braking
- Fast Stop
- Scale Blocks
- Droop
- TorqProve™
- Position Indexing/Speed Profiler
- Adv. Flying Start
- Motor Overload Protection
- Common Bus Capability
- Parameter Linking
- Open Motor Lead Detection



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PowerFlex® 700L Liquid-Cooled AC Drive - Specifications

- **Drive Ratings (normal duty)**
 - 400V, 200-715 kW (268-960Hp)
 - 480V, 224-860 kW (300-1150Hp)
 - 600V, 345-650 kW (465-870Hp)
 - 690V, 355-657 kW (475-881Hp)
- **Motor Control**
 - Either PowerFlex 700 or 700S control
 - Vector Control w/FORCE™ Technology
 - Sensorless Vector Control
 - Slip Compensation
 - Encoder & Encoderless Speed Control
 - Torque Regulation
 - V/Hz Motor Control
 - Permanent Magnet Control
 - Adjustable Voltage Control
- **Ambient Temperature Limit for Enclosures**
 - IP00 / Open Type = 50°C – Frame 2
 - IP20 / Type 1 = 40°C – Frames 3A and 3B
- **Enclosure Styles**
 - Panel Mount IP00 / Open Type – Frame 2
 - Floorstanding IP20 / NEMA/UL Type 1
Rittal Style "A" – Frames 3A and 3B
- **Features**
 - Small Footprint for Space Savings
 - Integrated Regeneration for Energy Savings
 - Low AC Line Harmonics w/ Active Converter to meet IEEE-519 and CE
 - User Sets
 - Adv. Drive Overload Protection
 - Adv PID Control (Spd or Trq)
 - Flux Braking
 - Scale Blocks
 - TorqProve™ for lifting Applications
 - Adv. Flying Start
 - DriveLogix™ Option
 - Inertia Adaptation
 - Integral Position Loop
 - SynchLink™ (high speed data link)
 - DriveGuard® Safe-off
 - Stegmann Interface
 - Heidenhain™ Interface
 - Resolver Interface



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PowerFlex® 700S AC Drive - Specifications

- **Drive Ratings (normal duty)**
 - 240V, 1-100Hp (4.2-260A)
 - 400V, 0.75-800 kW (2.1-1450A)
 - 480V, 1-1250Hp (2.1-1450A)
 - 600V, 1-1600Hp (1.7-1500A)
 - 690V, 45-1500 kW (52-1500A)
- **Motor Control**
 - Vector Control with FORCE™ Technology
 - Slip Compensation
 - Encoder Speed Control
 - Encoderless Speed Control
 - Torque Regulation
 - V/Hz Motor Control
 - Permanent Magnet Motor Control
- **Ambient Temperature Limit for Enclosures**
 - IP 20 / Open = 50° C (Frames 1-6)
 - IP 20 / NEMA/UL Type 1 = 40° C (Frames 1-6)
 - IP 21 / NEMA/UL Type 1 = 40° C (Frames 9-14)

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- **Features**
 - Motor Overload Retention
 - DriveGuard® Safe-off
 - Assisted Start-up Routine
 - Advanced Diagnostics
 - Analog Loss Detection
 - Feedback Loss Switchover (in speed mode)
 - Stegmann Interface
 - Heidenhain™ Interface
 - Resolver Interface
 - Stahltronic and Temposonics® SSI Interface
 - Integral Position Loop
 - SynchLink™ (high speed data link)
 - DriveLogix™ Option
 - Inertia Adaptation
 - User Function Blocks
 - Common Bus Capability
 - Adv. Drive Overload Protection
 - Bus Regulation



DriveGuard® 

PowerFlex® 700S AC Drive - Specifications

- **Drive Ratings (normal duty)**
 - 400V, 132-800 kW (261-1450A)
 - 480V, 200-1250Hp (261-1450A)
 - 600V, 150-1600Hp (170-1500A)
 - 690V, 160-1500 kW (170-1500A)
- **Motor Control**
 - Vector Control with FORCE™ Technology
 - Slip Compensation
 - Encoder Speed Control
 - Encoderless Speed Control
 - Torque Regulation
 - V/Hz Motor Control
 - Permanent Magnet Motor Control
- **Ambient Temperature Limit for Enclosures**
 - IP 21 / NEMA/UL Type 1 = 40° C
- **Enclosure Styles (Wall mount)**
 - IP21 / NEMA/UL Type 1 – Frame 9
- **Enclosure Styles (Floorstanding)**
 - Rittal Style "A" – Frames 10-14
 - IP21 / NEMA/UL Type 1
 - MCC Style "B" – Frames 10-12 (400,480, and 600V)
 - IP21 / NEMA/UL Type 1
- **Features**
 - DriveGuard® Safe-off
 - Assisted Start-up Routine
 - Analog Loss Detection
 - Multiple Feedback Interfaces
 - Integral Position Loop
 - SynchLink™ (high speed data link)
 - DriveLogix™ Option
 - Inertia Adaptation
 - User Function Blocks
 - Common Bus Capability
 - Adv. Drive Overload Protection
 - Motor Overload Retention
 - Bus Regulation
 - Feedback Loss Switchover (in speed mode)



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PowerFlex® 700H AC Drive - Specifications

- **Drive Ratings (normal duty)**
 - 400V , 132-1600 kW (261-2700A)
 - 480V, 200-2300Hp (261-2200A)
 - 600V, 150-2400Hp (170-2250A)
 - 690V, 160-2000 kW (170-2250A)
- **Motor Control**
 - V/Hz Motor Control
 - Sensorless Vector
 - Slip Compensation
- **Ambient Temperature Limit for Enclosures**
 - IP 21 / NEMA/UL Type 1 Normal Duty = 40° C
 - IP 54 / NEMA /UL Type 12 Normal Duty = 40° C
- **Enclosure Styles**
 - Wall mount IP21 / NEMA/UL Type 1 – Frame 9
 - Floorstanding
 - IP21 / NEMA/UL Type 1 Rittal Style “A” – Frames 10-14
 - IP21 / NEMA/UL Type 1 MCC Style “B” – Frame 10-12 400-480 and 600V
 - IP 54 / NEMA/UL Type 12 Rittal Style “H” -- Frame 10- 12
 - Conformal coating
- **Features**
 - User Sets
 - Multi Language
 - Drive Overload Protection
 - Bus Regulation
 - PID Control Speed
 - Droop
 - Analog Trim
 - Flying Start
 - Motor OL Protection



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PowerFlex® 755 AC Drive - Specifications

- **Drive Ratings (normal duty)**

- 400/480V, 7.5-250 kW / 10-350Hp
(15-415 A)

- **Motor Control**

- Vector Control with FORCE™ Technology
- V/Hz Motor Control
- Permanent Magnet Motor Control
- Sensorless

- **Ambient Temperature Limit for Enclosures**

- IP 20 / NEMA/UL TYPE 0 = 50° C
- IP 20 / NEMA/UL Type 1 = 40° C
- IP 54 / NEMA/UL Type 12 = 40° C

Flange (IP66 / Type 4X backside)

- Cabinet Interior = 50° C
- External Ambient = 40° C

- **Features**

- Flexible Packaging
- Easy Integration
- Safe Speed Monitoring
- Safe Torque-Off
- Embedded Ethernet
- DeviceLogix
- Preventative Diagnostics
- Integral Position Loop w/
Indexing
- Electronic Gearing
- PCAM functions
- Expanded I/O, Feedback
- Slot based structure for options
- 24V Aux Power
- Real Time Clock
- New HIM
- RoHS Compliant



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DPI Communication Products

- These communication cards can be used in all PowerFlex architecture class drives.
 - Select based on application network



1203-SSS
RS-232 DF1



20-COMM-E
EtherNet/IP™



20-COMM-C
ControlNet™



20-COMM-Q
ControlNet™



20-COMM-D
DeviceNet™



20-COMM-R
Remote I/O



20-COMM-S
RS-485 DF1



20-COMM-P
Profibus™



20-COMM-I
Interbus



20-COMM-H
RS485 HVAC



20-COMM-L
LonWorks®



20-XCOMM
Ext. DPI Kit



20-WIM-N*
Bluetooth®



1769-SM1
Compact I/O



20-COMM-B
BACnet® MS/TP



1203-USB
USB Converter



20-COMM-M
Modbus/TCP

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PowerFlex[®] Architecture Class - HIM's

- Configure your drive parameters and PowerFlex HIMs, compatible with all PowerFlex component class drives.
 - DSI HIMs
 - Removable or mountable

NEMA/UL Type 1 (Hand-held / Drive Mount / Bezel Mount)



-A3



-A5

NEMA/UL Type 4 (Remote Mount)



-B1

NEMA/UL Type 1 Bezel Kit



-C3S



-C5S

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