

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	PFLX-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.



Catalog Number Explanation

1...3	4	5	6	7	8...10	11	12	13	14	15	16	17	18	
20G	1	A	N	D	248	A	A	O	N	N	N	N	N	- LD - P3 - P11...
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f1...f4</i>	<i>g</i>	<i>h</i>	<i>i</i>						Cabinet Options (21G)

<i>a</i> Drive		
Code	Type	Frames
20F	PowerFlex 753	1...7
20G	PowerFlex 755	1...10
21G	PowerFlex 755 Drive with Options	8...10

<i>b</i> Future Use		
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<i>c</i> Input Type		
Code	Description	Frames
1	AC Input with Precharge, includes DC Terminals	1...4, 8...10
	AC Input without Precharge, includes DC Terminals	5
4	DC Input with Precharge	5...10
A	AC Input with Precharge, no DC Terminals	6...8 *

* The DC Bus Bar kit (20-750-DCBB1-Fx) is available for Frames 6...7 AC input drives requiring DC bus terminals.

<i>d</i> Enclosure		
Code	Description	Frames
R	IP20, NEMA/UL Type Open, Frame 1	1
F §	Flange (NEMA/UL Type 4X/12 back)	2...5
G	IP54, NEMA/UL Type 12	2...7
N ‡	IP20/IP00, NEMA/UL Type Open	2...7
B △	IP20, NEMA/UL Type 1, 600 mm (23.6 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
J △	IP54, UL Type 12, 800 mm (31.5 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
K △	IP54, NEMA 12, 2500 MCC Style Cabinet & Options w/MCC Power Bus, 800 mm (31.5 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
L △	IP20, NEMA/UL Type 1, 800 mm (31.5 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
P △	IP20, NEMA/UL Type 1, 2500 MCC Style Cabinet & Options w/MCC Power Bus, 800 mm (31.5 in.) Deep, Standard Cabinet Color (RAL 7032)	8...10
W △	IP20, NEMA/UL Type 1, 2500 MCC Style Cabinet & Options w/MCC Power Bus, 800 mm (31.5 in.) Deep, CenterLine 2100 Gray (ASA49)	8...10
Y △	IP54, NEMA 12, 2500 MCC Style Cabinet & Options w/MCC Power Bus, 800 mm (31.5 in.) Deep, CenterLine 2100 Gray (ASA49)	8...10
T	IP00, UL Open Type without Control POD	8...10

§ For Frames 6...7 a User Installed Flange Kit is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.

‡ Frames 2...5 are IP20, Frames 6...7 are IP00.

△ Available as a drive with options (21G).

<i>e</i> Voltage Rating	
Code	Voltage
C	400V AC/540V DC
D	480V AC/650V DC
E	600V AC/810V DC
F	690V AC/932V DC (not UL listed)

f1

ND Rating								
400V, 50 Hz Input								
Code	Amps	kW	Frame					
			Enclosure Code					
			B, J, L, T	F	G	N	K, P, W, Y	R
2P1	2.1	0.75	-	2	2	2	1	
3P5	3.5	1.5						
5P0	5.0	2.2						
8P7	8.7	4						
011	11.5	5.5						
015	15.4	7.5						
022	22	11						
030	30	15						
037	37	18.5						
043	43	22						
060	60	30						
072	72	37						
085	85	45						
104	104	55						
140	140	75						
170	170	90						
205	205	110						
260	260	132						
302	302	160						
367	367	200						
456	456	250						
460	460	250						
540	540	315						
567	567	315						
650	650	355						
750	750	400						
770	770	400						
910	910	500						
1K0	1040	560						
1K1	1090	630						
1K2	1175	710						
1K4	1465	800						
1K5	1480	850						
1K6	1590	900						
2K1	2150	1250						

§ For Frames 6...7 a User Installed Flange Kit is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.

△ Available as a drive with options (21G).

f2

ND Rating									
480V, 60 Hz Input									
Code	Amps	Hp	Frame						
			Enclosure Code						
			B, J, L, T	F	G	N	K, P, W, Y	R	
2P1	2.1	1	-	2	2	2	-	1	
3P4	3.4	2							
5P0	5.0	3							
8P0	8.0	5							
011	11	7.5							
014	14	10							
022	22	15		3	3	3		-	
027	27	20							
034	34	25							
040	40	30							
052	52	40							
065	65	50							
077	77	60		5	4	4			-
096	96	75							
125	125	100							
156	156	125							
186	186	150							
248	248	200							
302	302	250	5	6	6	-			
361	361	300							
415	415	350							
430	430	350							
485	485	400							
545	545	450							
617	617	500	8	7	7		8 Δ		
710	710	600							
740	740	650							
800	800	700							
960	960	800							
1K0	1045	900							
1K2	1135	1000	9	-	-			9 Δ	
1K3	1365	1100							
1K4	1420	1250							
1K5	1525	1350							
2K0	2070	1750							
									10

§ For Frames 6...7 a User Installed Flange Kit is available to convert a Code N drive that provides a NEMA/UL Type 4X/12 back.

△ Available as a drive with options (21G).

Certifications and Specifications

Certifications

ABS (Frames 2...8, 400/480V AC)	American Bureau of Shipping Certificate 11-HS743429-PDA								
C-Tick	Australian Communications and Media Authority In conformity with the following: - Radiocommunications Act: 1992 - Radiocommunications Standard: 2008 - Radiocommunications Labelling Notice: 2008 Standards applied: EN 61800-3:2004								
c-UL-us	Listed to UL508C and CAN/CSA-C22.2 No. 14-05 (does not apply to 21G drives with enclosure code "P" or "W").								
CE	In conformity with the following European Directives: - EMC Directive (2004/108/EC) - Low Voltage Directive (2006/95/EC) Standards applied: - EN 61800-3:2004 - EN 61800-5-1:2007								
EPRI/SEMI F47	Electric Power Research Institute Certified compliant with the following standards: - SEMI F47 - IEC 61000-4-34								
GOST-R (Frames 2...8, 400/480V AC)	Russian GOST-R Certificate no. POCC US.ME92.H00040								
Lloyds Register (Frames 2...8, 400/480V AC)	Lloyd's Register Type Approval Certificate 11/60008								
RINA (Frames 2...8, 400/480V AC)	RINA Certificate ELE349811CS								
TÜV	TÜV Rheinland - Certification applies to 20-750-S and 20-750-S1 Safety Options when installed in drive. Standards applied: <table> <tr> <td>EN 61800-3:2004</td><td>EN 61800-5-2:2007</td></tr> <tr> <td>EN 61800-5-1:2007</td><td>EN 61508 PARTS 1-7:2000</td></tr> <tr> <td>EN ISO 13849-1:2008</td><td>EN 62061:2005</td></tr> <tr> <td>EN ISO 13849-2:2003</td><td>EN 60204-1:2006</td></tr> </table>	EN 61800-3:2004	EN 61800-5-2:2007	EN 61800-5-1:2007	EN 61508 PARTS 1-7:2000	EN ISO 13849-1:2008	EN 62061:2005	EN ISO 13849-2:2003	EN 60204-1:2006
EN 61800-3:2004	EN 61800-5-2:2007								
EN 61800-5-1:2007	EN 61508 PARTS 1-7:2000								
EN ISO 13849-1:2008	EN 62061:2005								
EN ISO 13849-2:2003	EN 60204-1:2006								

Approximate Dimensions

Dimension Drawing Index

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Drive Options

Human Interface Modules



Blank Plate



20-HIM-A6



20-HIM-C6S

Description	Cat. No.
No HIM (Blank Plate)	20-HIM-A0
Enhanced, LCD, Full Numeric, Handheld/Local (Drive Mount, Frames 1...5) ⁽¹⁾	20-HIM-A6
Enhanced, LCD, Full Numeric, IP66 NEMA Type 4X/12 (for indoor use only) ⁽²⁾⁽³⁾	20-HIM-C6S

(1) Select for Frames 2...5 IP54, NEMA/UL Type 12 drives.

(2) Use with Frames 6...7 IP54, NEMA/UL Type 12 drives.

(3) Includes a 1202-C30 interface cable (3 meters) for connection to drive.

Specifications - Human Interface Modules

	20-HIM-A6 ⁽¹⁾	20-HIM-C6S ⁽¹⁾
Drive Protocol:	Drive Peripheral Interface (DPI)	
Data Rates:	125 kbps or 500 kbps	
Consumption Drive (DPI)::	140 mA at 12V DC supplied by the Host Drive	
Dimensions - H x W x D		
20-HIM-A6:	116 x 70 x 16 mm (4.57 x 2.75 x 0.63 in.)	
20-HIM-C6S:	180 x 93 x 25 mm (7.08 x 3.66 x 0.98 in.)	
Weight:	91 g (3.2 oz.)	173 g (5.7 oz.)
Temperature		
Operating:	0...50 °C (32...122 °F)	
Storage:	-40...85 °C (-40...185 °F)	
Relative Humidity:	5...95% non-condensing	
Atmosphere:	Important: The module must not be installed in an area where the ambient atmosphere contains volatile or corrosive gas, vapors or dust. If the module is not going to be installed for a period of time, it must be stored in an area where it will not be exposed to a corrosive atmosphere.	
UV Radiation	The HIM is not UV rated.	
Vibration		
Operating:	2.5 G at 5...2000 Hz	
Non-Operating:	5 G at 5...2000 Hz	
Shock		
Operating:	30 G peak acceleration, 11 (±1) ms pulse width	
Non-Operating:	50 G peak acceleration, 11 (±1) ms pulse width	
UL	UL508C	
c-UL	CAN / CSA C22.2 No. 14	
CE	EN61800-3	
C-Tick	EN61800-3	
FCC ID	—	
IC	—	

(1) NOTE: This is a product of category C2 according to IEC 61800-3. In a domestic environment this product may cause radio interference in which case supplementary mitigation measures may be required.