

PowerFlex® DC Drive

Powerful Performance. Flexible Control.

The Allen-Bradley® PowerFlex DC digital drive has been designed for the most demanding stand-alone and coordinated drive control and drive system applications. The PowerFlex DC drive combines powerful performance with flexible control to produce a highly functional, cost-effective drive and control solution.

The DC drive offers many features that allow the user to easily configure the drive for most application needs. Basic drive modules are available from 0.5...1044 kW/1.5...1400 Hp / 7...1582 A at 200...690V AC in both regenerative and non-regenerative configurations. The standard hardware offering consists of an open type enclosure, armature converter, regulated field converter for field weakening or economy applications, an advanced regulator with integrated DPI functionality, DC tachometer and encoder capability.

Easy to Use

- Full-featured LCD Human Interface Module (HIM) with multi-line and multi-lingual display simplifies programming
- PC tools such as DriveTools™ SP or RSLogix™ 5000, assist with programming, configuration, monitoring and troubleshooting
- DPI capability fully integrated into the regulator allows the DC drive to be fully compatible with all PowerFlex architecture class AC drive communication cards, HIM's, and software tools
- PowerFlex drives offer internal communication options helping the user to cost-effectively assemble highly integrated applications
- Status indicators for all internal communications options are visible on the cover for easy set-up and monitoring of drive communications
- Flash upgradable — firmware can be updated anytime via DPI



Integrated Installation

- Drive design incorporates proven noise and voltage suppression characteristics, reducing installation concerns for noise-sensitive environments
- Pull-apart control terminal blocks allow for easy wiring and quick disconnect
- The flexible feedback and communication options within the PowerFlex DC drive assure an effective integration solution
- DC Tachometer and encoder feedback capabilities are embedded into the control circuitry as a standard feature, saving space and providing additional functionality
- The extensive I/O provides installation flexibility including up to 12 digital inputs and outputs as well as 3 analog inputs and 4 outputs
- Optimized global voltage settings designed to worldwide standards allow quick set-up anywhere in the world

Premier Integration with PowerFlex Drives

For simplified drive start-up and reduced development time, PowerFlex DC drives can be configured with RSLogix 5000 software. This single software approach simplifies parameter and tag programming while still allowing stand-alone drive software tool use on the factory floor.

LISTEN.
THINK.
SOLVE.™

230V AC, Three-Phase

Drive Output Rating			
Normal Duty kW	Normal Duty Hp	Amps	Frame Size
1.2	1.5	7	A
1.5	2	9	A
2.2	3	12	A
3.7	5	20	A
5.5	7.5	29	A
7.5	10	38	A
11	15	55	A
15	20	73	A
18.5	25	93	A
22	30	110	A
30	40	146	B
37	50	180	B
45	60	218	B
56	75	265	B
75	100	360	B
93	125	434	B
112	150	521	C
149	200	700	C
186	250	875	D
224	300	1050	D

575V AC, Three-Phase

Drive Output Rating			
Normal Duty kW	Normal Duty Hp	Amps	Frame Size
37	50	67.5	B*
56	75	101.25	B*
75	100	135	B*
149	200	270	B*
224	300	405	B*
298	400	540	C*
373	500	675	C*
447	600	810	D
597	800	1080	D
671	900	1215	D
746	1000	1350	D
932	1250	1688	D

*Check with your local sales representative for availability

460V AC, Three-Phase

Drive Output Rating			
Normal Duty kW	Normal Duty Hp	Amps	Frame Size
1.5	2	4.1	A
2.2	3	6	A
3.7	5	10	A
5.5	7.5	14	A
7.5	10	19	A
11	15	27	A
15	20	35	A
18.5	25	45	A
22	30	52	A
30	40	73	A
37	50	86	A
45	60	100	A
56	75	129	A
75	100	167	B
93	125	207	B
112	150	250	B
149	200	330	B
187	250	412	B
224	300	495	C
298	400	667	C
373	500	830	D
447	600	996	D
552	700	1162	D
597	800	1328	D
671	900	1494	D

690V AC, Three-Phase

Drive Output Rating			
Normal Duty kW	Normal Duty Hp	Amps	Frame Size
298	400	452	C*
373	500	565	C*
447	600	678	D
552	700	791	D
559	750	847	D
597	800	904	D
671	900	1017	D
746	1000	1130	D
820	1100	1243	D
895	1200	1356	D
932	1250	1413	D
1044	1400	1582	D

PowerFlex DC Drive Specifications

Control I/O

- Up to 8 digital outputs
- 12 programmable digital inputs
 - 24V DC sink/source (115V AC adapter available)
- 4 analog outputs 0-10V
- 3 analog inputs
 - 1 unipolar 0-10V or 4-20 mA
 - 1 bipolar -10 to +10V or 4-20 mA

Standards

- UL and cUL (CSA) listed
- C-Tick
- EMC EN61800-3
- Low voltage EN60204-1/EN50178

Input Specifications

- 3-Phase voltage: 230/460/575/690V
- Frequency: 50 and 60 Hz +/- 5%

Output Specifications

- DC output voltage: Adjustable based on AC input
- Overload current: 150% for 60 seconds, 200% for 3 seconds

Enclosure and Ambient Operating Temperatures

- Drive – IP20, NEMA/UL Type 0 0° - 50° C without derating
- Enclosure – NEMA/UL Type 1 0° - 50° C
- Panel mount – IP00, NEMA UL Type 0 0° - 50° C

Approximate Dimensions mm (in.)

Frame	Width	Height	Depth
A	267 (10.5)	359 (14.0)	287 (11.3)
B	311 (12.2)	388 (15.3)	350 (13.8)
C	521 (20.5)	511 (20.1)	416 (16.4)
D	711 (28)	1448 (57)	559 (22)

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