

AC30 Series AC Drive

For the Control of Pump, Fan and General Purpose Applications
1 - 100 HP (0.75-75 kW)



Engineered for Simplicity:

The AC30 industrial drive has been designed to provide users with exceptional levels of control, from simple open-loop pumps and fans through to closed-loop process line applications. Its flexible and highly modular construction enables a wide range of communication and I/O modules to be easily added as required.

Offering effective and affordable control of either AC induction motors or Permanent Magnet (PMAC) servo motors, the AC30 allows users to optimize their motor performance and save energy.

Its simple to use integrated configuration wizard and application macros remove the complexity of creating specific motor control applications and set-up of the drive.

Conformal coatings and available EMC and harmonic filters allow the AC30 to be used in even the most severe industrial environments.

Now available through 100 HP, with new encoder feedback option!



Contact Information:

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Product Features:

- Conformally coated to 3C3 and 3C4 for H₂S as standard
- Complies with RoHS substance restrictions in accordance with EC Directive 2011/65/EU
- Internal EMC filter to C2 1st environment
- Safe Torque Off (STO) to ISO/EN13849 PL_e/SIL3 as standard
- Easy to use, multi-language LCD graphical keypad
- Ethernet TCP/IP communications as standard
- Worldwide certification
- SD card for backup and cloning
- Control of either AC induction or permanent magnet AC motors
- Optional internal EMC filters to C2 1st environment
- Integrated DC choke reduces line harmonics to IEC/EN61000-3-12 limits (above 3 HP)
- Wide range of communication and I/O module options
- Free to download configuration software for advanced users



ENGINEERING YOUR SUCCESS.

Technical Specifications

Overloads

- Heavy Duty Ratings (CT):
150% for 60 sec, 180% for 3 sec
- Normal Duty Ratings (VT):
110% for 60 sec, 180% of HD FLC for 3 sec

Output Frequency

- 0.5-590 Hz, dependant on switching freq.

Operating Range

- Normal duty ratings: 0-40°C (32°-104°F)
- Heavy duty ratings: 0-45°C (32°-113°F) (50°C max with derating)
- Altitude to 2000 meters ASL derate above 1000 meters

Environment

- Conformally coated to 3C3 and 3C4 as standard
- Optional internal EMC filter meets req of EN61800-3 C2 first environment
- Integral DC choke above 3 HP reduces harmonics to within EN61000-3-12 limits

Switching Frequency

- 4 - 12 kHz (Derating may apply)

Dynamic Braking

- Standard internal d/b switch, 30% continuously rated

Inputs/Outputs

- 2 Analog In: (± 10 V), (± 10 V) or (0-20 mA)
- 2 Analog Out: (0-10 V) or (0-20 mA), (± 10 V)
- 3 Digital Inputs, nominal 24 VDC
- 4 Digital Inputs/Outputs, nominal 24 VDC
- 2 Relay Outputs, volt-free contacts, 3A @ 230 VAC max.
- Reference Supplies
+10 VDC (10 mA max)
-10 VDC (10 mA max)
+24 VDC (140 mA max)

Safe Torque Off (STO)

- STO connection in accordance with EN13849 PLe/SIL3 (EN61800-5-2 Safety, Low Voltage Directive)

Options

- Communications Modules
 - CANopen
 - DeviceNet
 - Modbus TCP/IP
 - ProfiNet
 - BACnet IP
 - RS485/Modbus RTU
 - CC Link
 - Ethernet/IP
 - Profibus
 - EtherCAT
 - ControlNet
- I/O Expansion Modules providing:
 - 6 Digital I/O, configurable
 - 2 Relay outputs, 3A at 230 VAC
 - 3 Analog inputs ± 10 V
 - Real time clock
 - Thermistor input
- Pulse encoder feedback

Standards

- Meets the following, installed per the relevant product manual:
- CE marked to EN61800-5-1 (Safety, Low Voltage Directive)
- CE marked to EN61800-3 (EMC Directive)
- US safety std UL508C
- Canadian std C22.2 #14

Power Ratings

Order Code	Normal Duty Ratings		Heavy Duty Ratings		Frame
	kW/HP	Output Current A_{rms}	kW/HP	Output Current A_{rms}	
		400VAC		480VAC	

380-480 VAC Supply ($\pm 10\%$) - Three Phase

31V-4D0004-B●-■◆...	1.1/1.5	3.5	3.0	0.75/1	2.5	2.1	D
31V-4D0005-B●-■◆...	1.5/2	4.5	3.4	1.1/1.5	3.5	3.0	D
31V-4D0006-B●-■◆...	2.2/3	5.5	4.8	1.5/2	4.5	3.4	D
31V-4D0008-B●-■◆...	3/4	7.5	5.8	2.2/3	5.5	4.8	D
31V-4D0010-B●-■◆...	4/5	10	7.6	3/4	7.5	5.8	D
31V-4D0012-B●-■◆...	5.5/7.5	12	11	4/5	10	7.6	D
31V-4E0016-B●-■◆...	7.5/10	16	14	5.5/7.5	12	11	E
31V-4E0023-B●-■◆...	11/15	23	21	7.5/10	16	14	E
31V-4F0032-B●-■◆...	15/20	32	27	11/15	23	21	F
31V-4F0038-B●-■◆...	18/25	38	36	15/20	32	27	F
31V-4G0045-B●-■◆...	22/30	45	40	18/25	38	36	G
31V-4G0060-B●-■◆...	30/40	60	52	22/30	45	40	G
31V-4G0073-B●-■◆...	37/50	73	65	30/40	60	52	G
31V-4H0087-B●-■◆...	45/60	87	77	37/50	73	65	H
31V-4H0105-B●-■◆...	55/75	105	96	45/60	87	77	H
31V-4H0145-B●-■◆...	75/100	145	124	55/75	105	96	H

●	EMC Filter Options
N	No filter
E	C3 Filter
F	C2 Filter

■	Graphical Keypad Options
2	Graphical Keypad
1	Keypad Blanking Cover
0	No Keypad

◆	Environmental Protection Options
S	Standard Coating
E	Enhanced Coating

See Ordering Information for full order codes and description

