

AC30 Series AC Drive

For the Open- and Closed-Loop Control of Pump, Fan and General Purpose Applications - 0.75 - 75 kW Standard Drive



Engineered for Simplicity, Flexibility and Reliability:

AC30 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 communications and I/O modules to be easily added as required. The AC30 has been designed with simplicity in mind, but this doesn't compromise its functionality. Integrated macros for a range of applications and PLC functionality enable more capable users to create sophisticated control that would previously have required a separate PLC.

Designed for operation in environment class 3C3 and 3C4 for Hydrogen Sulphide (H₂S) as standard, temperatures up to 50 °C with optional integrated EMC filter to C2 1st environment and DC link choke to reduce line harmonics. AC30 also complies with RoHS substance restrictions in accordance with in accordance with EC Directive 2011/65/EU



Contact Information

EMEA Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre

Toll-free number: 1-800-27 27 537

www.parker.com

www.parker.com/ssd/ac30v

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
- Safe Torque Off (STO) to ISO/EN13849 PL_e/SIL3 as standard
- Easy to use, multi-language LCD graphical keypad
- Ethernet and Modbus TCP/IP communications as standard
- Control of either AC induction or permanent magnet servo motors
- Worldwide certification
- SD card for backup and cloning
- Optional Internal EMC filters to C2 1st environment
- Integrated DC choke reduces line harmonics to IEC/EN61000-3-12 limits above 2.2 kW
- Wide range of option modules including communications, I/O options and encoder feedback
- Parker Drive Developer software tool available for advanced AC30 drive users
- Parker Drive Quick software tool available to download for simple drive configuration and monitoring



ENGINEERING YOUR SUCCESS.

Technical Specifications

Overloads

- Heavy Duty Ratings; 150 % for 60 s, 180 % for 3 s
- Normal Duty Ratings; 110 % for 60 s, 180 % of heavy duty FLC for 3 s

Output Frequency

- 0.5 - 1500 Hz dependant upon switching frequency

Operating Range

- Heavy Duty Ratings; 0 - 45 °C
- Normal Duty Ratings; 0 - 40 °C Derate from 40°C to 50 °C max.
- Altitude up to 2000 m ASL Derate above 1000 m

Environment

- IP20 Protection Rating
- Conformally coated to 3C3 and 3C4 for Hydrogen Sulphide (H₂S) as standard
- Optional Internal EMC filter meets requirements of EN61800-3 C2 1st environment
- Integral DC choke above 2.2 kW reduces harmonics to within limits set by EN61000-3-12

Switching Frequency

- Output switching frequencies up to 12 kHz

Dynamic Braking

- Each drive is fitted with an internal dynamic brake switch 100 % continuously rated

Inputs/Outputs

- Analogue Inputs 2; (1 - ±10 V), (1 - ±10 V) or (0-20 mA)
- Analogue Outputs 2; (1 - 0-10 V or 0-20 mA), (1 - ±10 V)
- Digital Inputs 3; Nominal 24 VDC
- Digital Inputs/Outputs 4; Nominal 24 VDC
- Relay Outputs 2; Volt free relay contacts, 3 A at 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 to PLe Cat 3 and SIL3 to EN61800-5-2

Optional Equipment

- Communications Modules
 - CANopen
 - Ethernet/IP
 - Modbus TCP/IP
 - PROFINET
 - BACnet IP
 - RS485/Modbus RTU
 - DeviceNet
 - BACnet MSTP
 - PROFIBUS
 - EtherCAT
 - ControlNet
- I/O Expansion Module providing;
 - 6 Digital I/O; user configurable
 - 2 Relay outputs 3 A at 230 VAC
 - 3 Analogue inputs ±10 V
 - Real time clock
 - Thermistor Input
- Pulse encoder feedback

Standards

- AC30 Series meets the following standards when installed in accordance with the relevant product manual.
- CE marked to EN61800-5-1 (Safety, Low Voltage)
- CE marked to EN61800-3 (EMC)
- NRTL listed to US safety standard UL508C
- NRTL listed to Canadian standard 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}		
		400 VAC	480 VAC		400 VAC	480 VAC	
380-480 (± 10 %) VAC Supplies 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...	18.5/25	38	36	15/20	32	27	F
31V-4G0045-B...	22/30	45	40	18.5/25	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

