

AC VARIABLE FREQUENCY DRIVES, HP RATED - AC690 SERIES

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The AC690 is designed to meet the requirements of all variable speed drive applications up to 1500HP, from simple single motor speed control through to the most sophisticated integrated multi-drive systems

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INPUT VOLTAGE:

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OUTPUT HP RATING (NORMAL DUTY):

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BRAKE SWITCH OPTION:

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SYSTEM BOARD FITTED:

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MOUNTING STYLE:

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PRODUCT OVERVIEW

Print Product Overview

The AC690+ Integrator Series is a single range of AC drives designed to meet the requirements of all variable speed applications from simple single motor speed control through to the most sophisticated integrated multi-drive systems. The heart of the AC690+ is a highly advanced 32-bit microprocessor based motor control model. This provides an exceptional dynamic performance platform to which can be added a host of communications and control options, enabling you to tailor the drives to meet your exact requirements. The AC690+ is available in 380-460V 3-phase 1 to 1500 HP and 220V-240V 1 to 75 HP.

Features:

The AC690 can be user configured for 3 different modes of operation :

- Open-loop (volts/frequency) control

This mode is ideal for basic motor speed control, or multiple motors driven in parallel. The quick set-up menu and plain language display ensures the quickest and easiest, trouble free start up.

- Sensorless vector control

High starting torque and tight speed regulation is provided by a sophisticated MRAS (Model Reference Adaptive System) motor control strategy. MRAS provides accurate speed simulation (without the need for any speed measuring transducer) by continually modeling the motor.

- Closed-loop vector control

Full closed-loop flux vector performance can be achieved with the AC690+ by simply adding an encoder feedback 'technology box'. This provides 100% continuous full load standstill torque plus a highly dynamic speed loop (up to 45 Hz bandwidth) ; more than sufficient for the most demanding of applications.

Advantages:

- Pre-programmed application macros
- Open standard fieldbus communications
- Programming identical to DC 590+ DC drives
- Mechanical protection options to suit all environments : IP 20 - IP40/NEMA 1 - IP54 - Through panel mounting
- Class B EMC filters
- Energy Saving (fast return on investment in pump and fan applications)
- Line regenerative AFE units available
- HVAC series available with line bypass

Standards:

The AC690+ series meets the following standards when installed in accordance with the relevant product manual:

- CE Marked to EN50178 (Safety, Low Voltage Directive)
- CE Marked to EN61800-3 (EMC Directive)
- UL listed to US Standard UL508C
- cUL listed to Canadian Standard C22.2 #14

Technical Specifications:**Power Supply:****Single Phase Units**

- 220-240VAC +/- 10 %, 50-60 Hz +/- 5% (1 to 3HP)

Three Phase Units

- 220-240VAC +/- 10 %, 50-60 Hz +/- 5% (1 to 75HP)

- 380-460VAC +/- 10 %, 50-60 Hz +/- 5% (1 to 1500HP)

Environment:

0-45°C (Constant torque / 40°C with IP40 cover / derate to 50°C)

Up to 1000m ASL (derate 1% per 100m above 1000m)

Protection:

IP 20 - IP40/NEMA 1 - IP54

Overload:

Constant torque rating : 150% for 60 seconds, 180% for 1 second

Variable torque rating (pumps and fans) : 115% for 10 seconds

Output Frequency:

Volts/Hertz mode: 0-590Hz

Sensorless vector mode: 0-120Hz

Closed loop vector mode: 0-300Hz

Switching Frequency:

Frame B = 3, 6 or 9kHz / Frame C, D, E and F = 3 or 6kHz - All with audibly silent switching frequency.

Dynamic Braking:

Each drive can be fitted with an internal dynamic brake switch

(Frame B and C : standard / Frame D, E and F : optional)

Analog Inputs:

4 Configurable, 10bits (13 bits with optional system card) / 0-10V, 0-±10V, 0-20mA, 4-20mA

Analog Outputs:

3 Configurable, 10 bits / 0-10V, 0-±10V, 0-20mA, 4-20mA

Digital Inputs:

7 Configurable, nominal 24Vdc (30V dc max)

Digital Outputs:

3 Configurable, relay contacts 3A/230 Vac

Reference Supplies:

+10Vdc, -10Vdc, +24Vdc

Motor Thermistor Input**Systems Expansion Module:**

The optional systems expansion module allows for advanced applications such as phase locking between drives and register control. Key features include :

- 5 additional user configurable Inputs / Outputs
- 4 high resolution analogue inputs (12 bits plus sign)
- 2 additional encoder inputs
- 2 high speed register mark inputs
- Encoder slave repeater

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TECH SPECIFICATIONS	+
PRODUCT SUPPORT	+

CONTACT US

PARKER HANNIFIN INDUSTRIAL (M) SDN.BHD.
 11, Persiaran Pasak Bumi,
 Seksyen U8, Jelutong Ind Park,
 40150 Shah Alam, Selangor
 Malaysia

Phone
 +60 3 7849 0800

Fax
 +60 3 7842 4349

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