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process control
sealing & shielding





AC690+ Integrator Series Drives

Product Catalog



Parker

ENGINEERING YOUR SUCCESS.

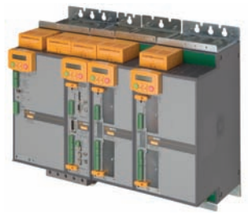
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Together, we can take control of your project. As well as your design, engineering, quality, delivery, installation, after-sales support ...







When a leading company in the paper industry was looking for a drives manufacturer with a proven track record of high quality, on-time project delivery and the capability to produce in-house bespoke engineered systems, they turned to Parker SSD Drives. Using 60 of Parker's highly versatile AC650V high performance drives, we created a turnkey solution that is now delivering significant energy savings and improved control of process pumps and fans. So whether you're looking for a single drive in an enclosure, or a multi-bay drive system, partner with Parker SSD Drives and take control

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www.ssddrives.com email: epic@parker.com

Integrator Series AC Drives

AC690+ Series AC Drive

AC Drives 0.75kW - 1000kW

Description

The AC690+ 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 380-500V 3-phase 0.75 to 1000kW and 220V-240V 0.75 to 55kW.



Modes of Operation

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 modelling 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.

Demanding Environments

For environments that have dusty, humid or corrosive atmospheres, the AC690+ can optionally be supplied with conformally coated circuit boards that improve the drives resistance to corrosion, thereby increasing reliability and service life.
Industries that would typically benefit from conformal coating could include:

- **Water and wastewater**
- **Paper and pulp processing**
- **Steel**
- **Marine and offshore**
- **Outdoor cranes**
- **Wind & wave power generation**
- **Food processing.**

AC690+ Series

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Integrator Series AC Drive

AC690+ Series AC Drive

AC Drives 0.75kW - 1000kW

Features

Encoder feedback option with encoder technology box

The AC 690+ is converted from open-loop control to high performance closed-loop control by simply adding the plug-in encoder feedback technology box.

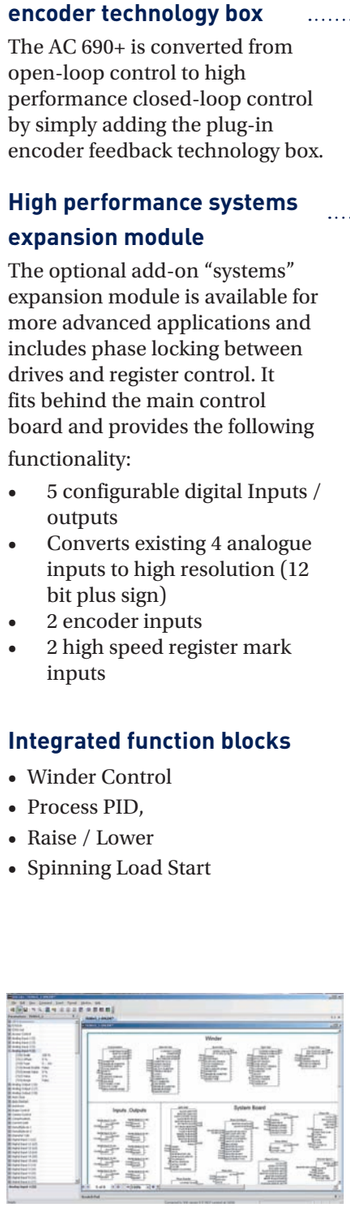
High performance systems expansion module

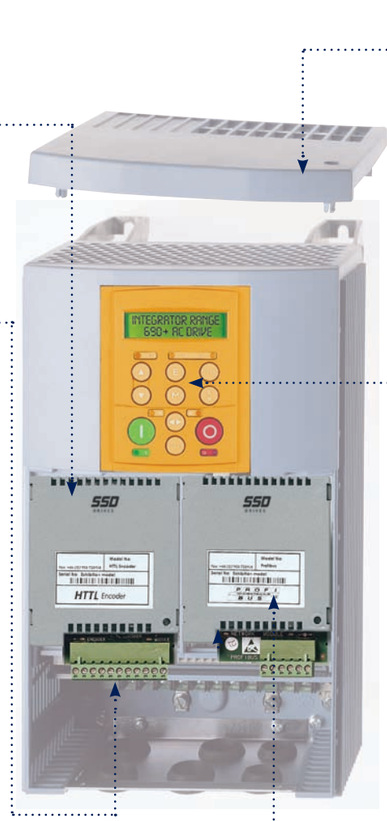
The optional add-on “systems” expansion module is available for more advanced applications and includes phase locking between drives and register control. It fits behind the main control board and provides the following functionality:

- 5 configurable digital Inputs / outputs
- Converts existing 4 analogue inputs to high resolution (12 bit plus sign)
- 2 encoder inputs
- 2 high speed register mark inputs

Integrated function blocks

- Winder Control
- Process PID,
- Raise / Lower
- Spinning Load Start





Open standard fieldbus communications

The AC690+ has a whole host of communication technology box options allowing seamless multi-vendor integration into networked systems using the most common industrial fieldbus communications protocols :

- Profibus-DP
- Ethernet
- Devicenet
- Modbus RTU
- CANopen,
- Controlnet
- Link (Parker SSD proprietary bus)

Mechanical protection options to suit all environments

A choice of mechanical protection options allows the drive to be mounted in a variety of differenct operating environments.

- **IP20** – for mounting inside an electrical enclosure.
- **IP40/NEMA 1** – The optional top cover, with cable gland plate enables the drive to be directly wall or machine mounted. (Frames B to E)
- **IP54** – Ideal for mounting in aggressive environments. Higher levels of protection are available as a special build option on request. A multitude of control options can be added to the drive using our FASTPACK option.
- **Through panel mounting** - This option allows the drive to be mounted with the major heat producing components and heatsink outside the enclosure, keeping the electronics clean and cool. (Frames C,D and E)

Programming / Operator controls

The AC690+ HMI provides access to all of the drive’s functions in a logical and intuitive manner. The readout is backlit and displays all functions in plain language and engineering units. The HMI can be mounted on the drive itself, or alternatively it can be supplied loose, with a mounting kit, for mounting remotely on a panel door, for example.

Integrator Series AC Drive

AC690+ Integrator Series AC Drive

AC Drive 0.75kW - 1000kW



Vector control with / without encoder feedback
Power ratings 0.37 to 1000kW
Supplied in enclosure above 355kW
Pre-programmed application Macros
Programmable over communications
Programming identical to DC 590+ DC drive
Variable torque ratings
Class B EMC filters

Technical Specification

Power Supply	380-460V (±10%) 3-phase 0.75 to 1000kW ; 380-500V (±10%) 3-phase 2.2 to 110kW; 220-240V (±10%) 1-phase 0.37 to 2.2kW; 220-240V (±10%) 3-phase 0.37 to 37 kW.
Environment	Constant torque - 0-45°C (40°C with IP40 cover) derating possible up to 50°C max Max altitude: 1000m, derate by 1% for every 100m above 1000m
Overload	Constant torque: 150% for 60 seconds, 180% for 1 second; Variable torque - 115% for 10 seconds
Output Frequency	0-480Hz
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
Analogue Inputs	4 Configurable, 10bits (13 bits with optional system card). 0-10V, 0-±10V, 0-20mA, 4-20mA
Analogue Outputs	3 Configurable, 10 bits. 0-10V, 0-±10V, 0-20mA, 4-20mA
Digital Inputs	7 Configurable, nominal 24V dc (30V dc max)
Digital Outputs	3 Configurable, relay contacts 3A/230 Vac
Reference Supplies	+10V dc, -10V dc, +24V dc
Motor Thermistor input	

Function Block Programming	Function block programming allows a tremendously flexible control structure to be created with ease. An almost infinite combination of user functions can be realised often alleviating the need for an external PLC. However, the drive is pre-configured so it can be used straight from the box as a standard AC drive without further adjustment.
Analogue Functions	If So, summing, subtractor, multiplier, divider, if higher then lower then If, Counter, Timer
Boolean Functions	Not, And, Nand, Or, Nor, Xor, Trigger, Flip-Flop
Application Macros	Simple speed control, Forward/Reverse, Raise/Lower, Process PID, Preset speeds, Winder control.
6901 Operator Keypad	The 6901 keypad is designed for setting-up, configuring and operating the AC690+ drive. The intuitive menu navigation and parameter display is simple and easy to use. Main features: • Remote mounting capability on front of enclosure • Backlit display • Multilingual 2x16 alphanumeric display • Customizable display • Local Control : Speed setpoint, Start/Stop, Jog and Direction • Password protection • Quick set-up mode
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

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Integrator Series AC Drive

AC690+ Series AC Drive

400kW - 1000kW





Energy Saving
Fast return on investment in pump and fan applications
Improved power factor
Flux vector control with / without encoder and V/F control
Reduced harmonics through 12 or 18 pulse coupling
Improved HVAC control

Enclosure specifications

(above 355kW for constant torque)

6 pulse Model	Power Rating	Constant torque : 355 - 900 kW Variable torque : 400 - 1000 kW
	Supply Voltage	380-460Vac (±10%) 3-phase
	Disconnect Switch	Standard
	Input inductance	Standard for limiting harmonic current
	Output Choke	Standard
	Operator Panel	6901 operator keypad mounted on enclosure door
12 pulse model (optional)	Harmonics	Reduced harmonic current
	Power Rating	Constant torque : 355 - 600 kW Variable torque : 400 - 650 kW
	Supply Voltage	380-460Vac (±10%) 3-phase
	Disconnect Switch	Standard
	Input Transformer	(not included in the enclosure) optional 2 secondaires U/D
	Output Choke	Standard
	Operator Panel	6901 operator keypad mounted on enclosure door
18 pulse model (option)	Harmonics	Total harmonic distortion (current) in accordance with limits of IEEE 519 (1992)
	Power Rating	Constant torque : 630 - 900 kW Variable torque : 750 - 1000 kW
	Supply Voltage	380-460Vac (±10%) 3-phase
	Disconnect Switch	Standard
	Input Transformer	(not included in the enclosure) optional 3 secondaires phase shifted by 20°
	Output Choke	Standard
	Operator Panel	6901 operator keypad mounted on enclosure door

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 safety standard UL508C.
cUL Listed to Canadian standard C22.2 #14.

4 Quadrant Power Module

AC690+ Integrator Series AC Drive

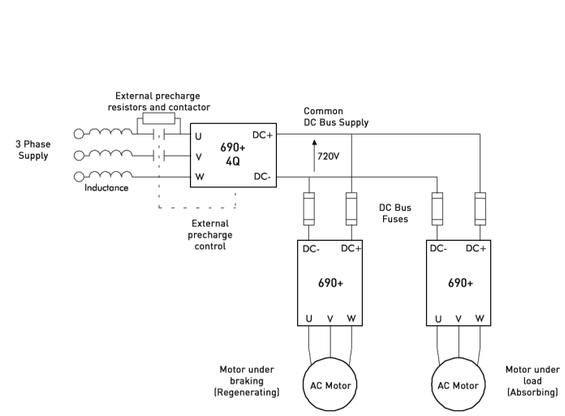
AC Drives 0.75kW - 1000kW





Description

In many applications the overall power consumed by the system is less than the sum of power of the installed motors. Indeed, all sections of a machine do not consume energy at the same time. Typically, some motors will be driven electrically while others are being driven by the momentum of the machine.
For such applications, it is economically advantageous to connect the drives of all sections of the machine to a common DC bus: the energy-generating sections are then fed into the energy-consuming sections, which reduces the overall energy consumption of the system.
The drive AC690+ configured in 4 quadrant mode is the ideal solution to power such systems. Thanks to the 4Q functionality of the AC690+, the excess energy in the system is returned to the network and not dissipated in the form of heat through braking resistors. The current waveforms are almost sinusoidal, which minimizes network harmonics.



Energy saving
No maintenance (No braking resistor)
Reducing the size of the supply required by distributing energy through the DC bus system
Reduced harmonics meeting the limits of IEEE 519
High power factor (cos ø ~ 1)

AC690+ Series

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Electrical Characteristics

AC690+ Integrator Series AC Drive



Power Supply 380-460V (±10%) 50/60 Hz 3-phase

Old Reference	New Order Reference	Frame	Constant Torque		Variable Torque		Inductance	Braking Module
			Nominal Power (kW)	Output Current (A)	Nominal Power (kW)	Output Current (A)		
690B-0007-43-xx	690-431250B0-B...	B	0.75	2.5	-	-	N/A	Standard
690B-0015-43-xx	690-431450B0-B...	B	1.5	4.5	-	-		
690B-0022-43-xx	690-431550B0-B...	B	2.2	5.5	-	-		
690B-0040-43-xx	690-431950B0-B...	B	4.0	9.5	-	-		
690B-0055-43-xx	690-432120B0-B...	B	5.5	12	-	-		
	690-432120C0-B...	C	5.5	12			Standard - Internal Inductance DC Bus	
	690-432140B0-B...	B	6.0	14				
690C-0075-43-xx	690-432160C0-B...	C	7.5	16	11	23		
690C-0110-43-xx	690-432230C0-B...	C	11	23	15	31 (UL=27)*		
690C-0150-43-xx	690-432300C0-B...	C	15	31	18.5	38		
	690-432310D0-...	D	15	31	18.5	38		Option
690D-0180-43-xx	690-432380D0-...	D	18.5	38	22	45		
690D-0220-43-xx	690-432450D0-...	D	22	45	30	59(UL=52)*		
690D-0300-43-xx	690-432590D0-...	D	30	59	37	73		
	690-432590E0-...	E	30	59	37	73	Standard - Inductance Internal 3-phase	
690E-0370-43-xx	690-432730E0-...	E	37	73	45	87		
690E-0450-43-xx	690-432870E0-...	E	45	87	55	105		
690F-0550-43-xx	690-433105F2-...	F	55	105	75	145		
690F-0750-43-xx	690-433145F2-...	F	75	145	90	165		
690F-0900-43-xx	690-433180F2-...	F	90	180	110	205		
690G-1100-43-xx	690-433216G2-...	G	110	216	132	260	External Inductance	
690G-1320-43-xx	690-433250G2-...	G	132	250	150	302		
690G-1600-43-xx	690-433316G2-...	G	160	316	180	361		
690G-1800-43-xx	690-433361G2-...	G	180	361	220	420		
690H-2000-43-xx	690-433375H2-...	H	200	375	250	480		
690H-2200-43-xx	690-433420H2-...	H	220	420	250	480		
690H-2500-43-xx	690-433480H2-...	H	250	480	300	545		
690H-2800-43-xx	690-433520H2-...	H	280	520	315	590		
690J-3150-43-xx	690-433590J2-...	J	315	590	355	650		
690GM1800-43-xx	690GM1800-43-xx + 690GS1800-43-xx	K	355	685	400	798		
690HM2200-43-xx	690HM2200-43-xx + 690HS2200-43-xx	K	400	798	475	912		
690HM2800-43-xx	690HM2800-43-xx + 690HS2800-43-xx	K	500	988	600	1120		
690JM3150-43-xx	690JM3150-43-xx + 690JS3150-43-xx	K	600	1120	650	1235		
690GM1800-43-xx	690GM1800-43-xx + 2 x 690GS1800-43-xx	K	550	1028	630	1197		
690HM2200-43-xx	690HM2200-43-xx + 2 x 690HS2200-43-xx	K	630	1197	750	1368		
690HM2800-43-xx	690HM2800-43-xx + 2 x 690HS2800-43-xx	K	800	1482	900	1681		
690JM3150-43-xx	690JM3150-43-xx + 2 x 690JS3150-43-xx	K	900	1681	1000	1852		

Electrical Characteristics

AC690+ Integrator Series AC Drive



Power Supply 380-500V (±10%) 50/60 Hz 3-phase

Old Reference	New Order Reference	Frame	Constant Torque		Variable Torque	
			Nominal Power (kW)	Output Current (A)	Nominal Power (kW)	Output Current (A)
690B-0022-53-xx	690-531500B0-B...	B	2.2	5.0	-	-
690B-0040-53-xx	690-531800B0-B...	B	4.0	8.0	-	-
690B-0055-53-xx	690-532110B0-B...	B	5.5	11	-	-
	690-532110C0-B...	C	5.5	11	7.5	14
690C-0075-53-xx	690-532140C0-B...	C	7.5	14	11	21
690C-0110-53-xx	690-532210C0-B...	C	11	21	15	27
690C-0150-53-xx	690-532270C0-B...	C	15	27	18.5	34
	690-532280D0-...	D	15	28	18.5	36
690D-0180-53-xx	690-532360D0-...	D	18.5	36	22	42
690D-0220-53-xx	690-532420D0-...	D	22	42	30	52
690D-0300-53-xx	690-532520D0-...	D	30	52	37	65
	690-532540E0-...	E	30	54	37	67
690E-0370-53-xx	690-532670E0-...	E	37	67	45	79
690E-0450-53-xx	690-532790E0-...	E	45	79	55	98
690F-0550-53-xx	690-533100F2-...	F	55	100	75	125
690F-0750-53-xx	690-533125F2-...	F	75	125	90	156
690F-0900-53-xx	690-533156F2-...	F	90	156	110	180

Power Supply 220-240V (±10%) 50/60 Hz

Old Reference	New Order Reference	Number of phases	Frame	Constant Torque		Variable Torque		Induc-tance	Braking Module
				Nominal Power (kW)	Output Current (A)	Nominal Power (kW)	Output Current (A)		
690B-0007-21-xx 1	690-211400B0-B...	1	B	0.75	4.0	-	-	No	Standard
690B-0015-21-xx 1	690-211700B0-B...	1	B	1.5	7.0	-	-		
690B-0022-21-xx 1	690-212105B0-B...	1	B	2.2	10.5	-	-		
690B-0007-23-xx 3	690-231400B0-B...	3	B	0.75	4.0	-	-		
690B-0015-23-xx 3	690-231700B0-B...	3	B	1.5	7.0	-	-		
690B-0022-23-xx 3	690-232105B0-B...	3	C	2.2	10.5				
690B-0040-23-xx 3	690-232165B0-B...	3	C	4.0	16.5				
690C-0055-23-xx 3	690-232220C0-B...	3	C	5.5	22	7.5	28		
690C-0075-23-xx 3	690-232280C0-B...	3	C	7.5	28	11	42		
690D-0110-23-xx 3	690-232420D0-...	3	D	11	42	15	54	Standard - Internal inductance DC Bus	Option
690D-0150-23-xx 3	690-232540D0-...	3	D	15	54	18.5	68		
690D-0180-23-xx 3	690-232680D0-...	3	D	18.5	68	n.a.	n.a.		
690E-0220-23-xx 3	690-232800E0-...	3	E	22	80	30	104		
690F-0300-23-xx 3	690-233104F2-...	3	F	30	104	37	130	Standard - 3-phase Inductance	
690F-0370-23-xx 3	690-233130F2-...	3	F	37	130	45	154		
690F-0450-23-xx 3	690-233154F2-...	3	F	45	154	55	192		

Power ratings stated based on a supply voltage of 230Vac

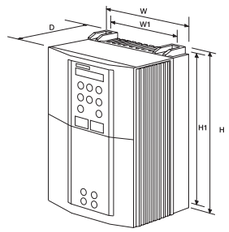
AC690+ Series

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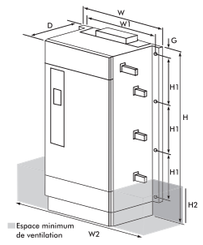
Dimensions

AC690+ Integrator Series AC Drive

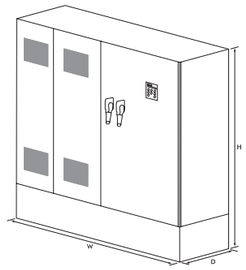




Frame B,C,D,E,F



Frame G,H,J



Frame K

Dimensions

Model	Dimensions (mm)				Mounting Centres (mm)					Weight (kg)
	H without brake	H with brake	W	D	W2	H2	H1	W1	G	
Frame B	233	233	177	181	-	-	223	130	-	4.3
Frame C	348	348	201	208	-	-	335	150	-	9.3
Frame D	453	453	252	245	-	-	440	150	-	17.4
Frame E	669	669	257	312	-	-	630	150	-	32.5
Frame F	720	720	257	349	-	-	700	150	-	41.0
Frame G	1042	1490	455	465	675	225	300	420	16	100
Frame H	1177	1750	570	465	805	360	300	536	16	125
Frame J	1288	1825	1177	465	825	333	300	641	16	170
Frame K 355/400kW*	2000	2000	1600	600	-	-	-	-	-	-
Frame K 400/475kW*	2000	2000	1600	600	-	-	-	-	-	-
Frame K 500/600kW*	2000	2000	1600	600	-	-	-	-	-	-
Frame K 600/650kW*	2000	2000	2000	600	-	-	-	-	-	-
Frame K 550/630kW*	2000	2000	2400	600	-	-	-	-	-	-
Frame K 630/750kW*	2000	2000	2400	600	-	-	-	-	-	-
Frame K 800/900kW*	2000	2000	2400	600	-	-	-	-	-	-
Frame K 900/1000kW*	2000	2000	3000	600	-	-	-	-	-	-

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Accessories and Options

AC690+ Integrator Series AC Drive



Options	Frame	Fitting	Order Reference	Page
Operator Keypad				
AC690+ (removable)	B - J	Option	6901-00-G	51
Advanced operator keypad (removable)	B - J	Option	6911-01-00-G	
Remote mounting kit	B - J	Option	6052/00	
Communication Cards				
Ethernet Modbus/TCP and Ethernet IP	B	Option	6053-ETH-00	48
	C - J	Option	6055-ETH-00	
ControlNet	B	Option	6053-CNET-00	
	C - J	Option	6055-CNET-00	
Modbus Plus	B	Option	6053-MBP-00	
	C - J	Option	6055-MBP-00	
DeviceNet	B	Option	6053-DNET-00	
	C - J	Option	6055-DNET-00	
RS485 / Modbus	B	Option	6053-EI00-00	
	C - J	Option	6055-EI00-00	
Profibus-DP	B	Option	6053-PROF-00	
	C - J	Option	6055-PROF-00	
CANopen DS402	B	Option	6053-CAN-00	
	C - J	Option	6055-CAN-00	
LonWorks	B	Option	6053-LON-00	
	C - J	Option	6055-LON-00	
Link	B	Option	6053-LINK-00	
	C - J	Option	6055-LINK-00	
Speed Feedback / Systems Module				
HTTL Encoder Card	B	Option	LA467461	49
	C - J	Option	6054/HTTL/00	
Systems Expansion Module	B	Option	LA467471U002	50
	C - J	Option	AH463889U001	
Accessories				
Brake Resistor				92
Chokes				95
IP40 Cover for Wall Mounting	B	Option	LA467452	
	C	Option	LA465034U002	
	D	Option	LA465084U002	
	E	Option	LA465058U002	
DSE Lite Programming Software				86
HMI Operator interace 3 to 15”				87
Motors				
Asynchronous Motors				96

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Communication Cards

AC690+ Integrator Series AC Drive



The AC690+ Communication cards allow the AC690+ to be connected to the most common industry standard fieldbuses

Features

- Communications cards can be factory fitted as part of the drive, or purchased separately for fittingg on-site
- Dimensions H x W x D : 127mm x 76.2mm x 25.4mm
- LED indication of network and card status

Ethernet Communications Interface	
*Order Code: 6053-ETH-00 and 6055-ETH-00	
Supported Protocols	Modbus/TCP and Ethernet IP
Communication Speed	10/100M bits/s
Station Address	Selectable via switch or Internet Explorer
Suitable for	AC690+ version 4.7+ DC590+ version 7.1+

Devicenet Communications Interface	
*Order Code: 6053-DNET-00 and 6055-DNET-00	
Supported Protocols	DeviceNet Drive Profile Drive – Group 2 slave only
Station Address	DeviceNet Drive Profile Drive – Group 2 slave only
Suitable for Drives	AC690+ DC590+ version 5.x+

CANopen Communications Interface	
*Order Code: 6053-CAN-00 and 6055-CAN-00	
Profile	DS402
Supported Messages	SDO, PDO, NMT, SYNC
Communication Speed	20K, 50K, 125K, 250K, 500K, 1M bits/s selectable
Station Address	Selectable via Switch
Suitable for	AC690+ DC590+ version 5.x+

RS485/Modbus Communications Interface	
*Order Code: 6053-EI-00 and 6055-EI-00	
Supported Protocols	Modbus RTU, EI Bisynch ASCII
Cabling	RS485 2 or 4 wire
Communication Speed	300 to 115200 bits/s
Station Address	Selectable via Software
Suitable for	AC690+ version 4.7+ DC590+ version 5.17+

* Refer to page 45 for details of drive frame compatibility

ControlNet Communications Interface	
*Order Code: 6053-CNET-00 and 6055-CNET-00	
Supported Messages	Polled I/O
Station Address	Selectable via Software
Suitable for	AC690+ version 4.7+ DC590+ version 5.17+

Modus Plus Communications Interface	
*Order Code: 6053-MBP-00 and 6055-MBP-00	
Supported Protocols	Modbus Plus
Cabling	RS485 2 or 4 wire
Communication Speed	1 M bits/s
Station Address	Selectable via Software
Suitable for	AC690+ version 4.7+ DC590+ version 7.1+

Profibus-DP Communications Interface	
*Profibus-DP (6053-PROF-00 and 6055-PROF-00)	
Supported Protocols	Profibus-DP
Communication Speed	Automatically Detected
Station Address	Selectable via Software
Suitable for	AC690+ version 1.x+ DC590+ version 5.x+

LonWorks	
*Order Code: 6053-LON-00 and 6055-LON-00)	
Supported Protocols	LonWorks
Delivered	with a resource file compatible with LonMaker software (or equivalent)
Suitable for	AC690+ version 5.1+

Johnson Controls	
*Order Code: 6053-JMET-00 and 6055-JMET-00)	
Supported Protocols	Johnson Controls N2

HTTL Encoder Feedback Card

AC690+ Integrator Series AC Drive



Description

The HTTL Encoder Feedback Card allows an incremental encoder to be connected to the AC690+ AC drive, allowing users to take full advantage of the integrated torque control and speed regulation functionality.

The HTTL Encoder Feedback card has the following features:

- 4 Optically isolated differential inputs A, B, M and H
- Adjustable isolated 10 - 20V encoder power output

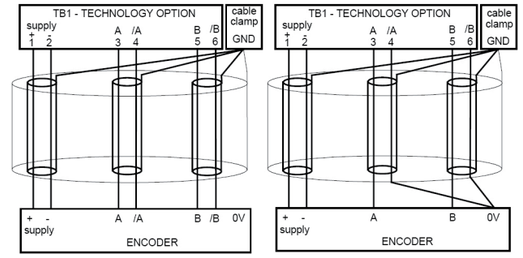
Specifications

Maximum Input Frequency	250kHz
Receiver current consumption	≤10mA per channel
Input Format	2-channels in quadrature, clock / direction, or clock only
De-phasing	>1µs
Differential Input Voltage	10 - 30V Maximum
Encoder Power	Maximum Load: Card AH467407U001: 200mA or 2W Housing 6054/HTTL/00: 250mA or 2.5W Voltage 10-20V software adjustable.

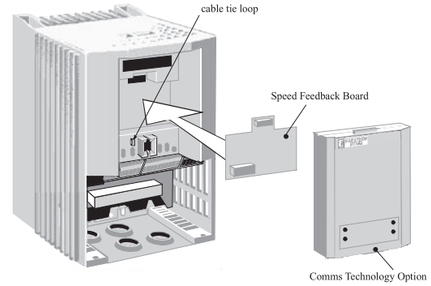
Product Codes

Order Code	Drives
AH467407U001	AC690+ Frame B (690-xxxxxxB...) drives
6054/HTTL/00	AC690+ Frames C - K drives

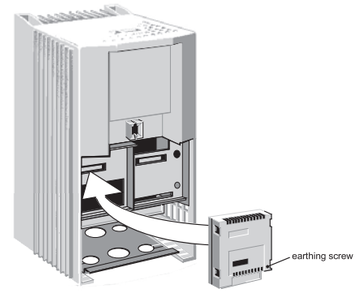
Installation and cabling



AC690+ Frame B AC Drives



AC690+ Frames C-K Drives



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System Expansion Module

AC690+ Integrator Series AC Drive

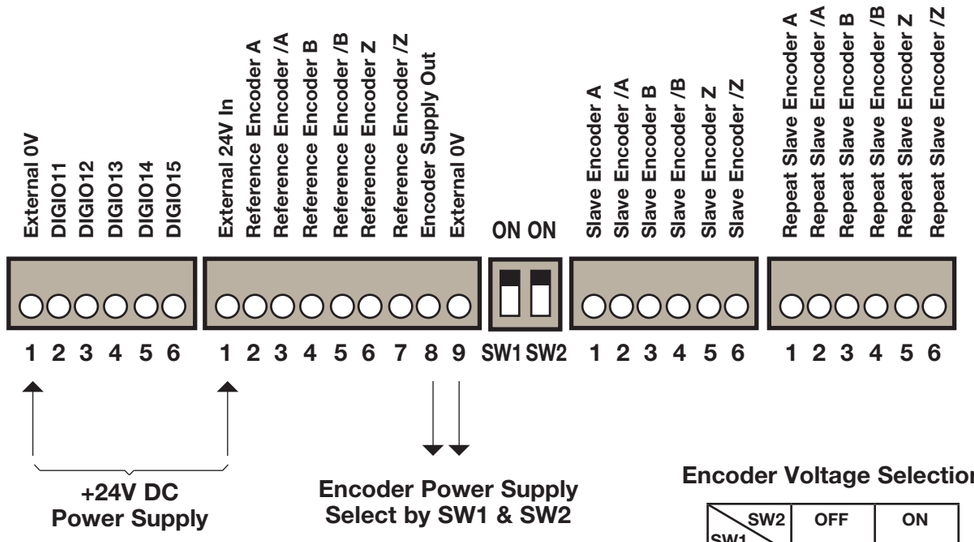
Description

With the System expansion module, the AC690+ can be used in sophisticated applications, or where a small amount of automation is required to be used in conjunction with the drive.
The following features are available:

Analogue Inputs AIN1-4 are become high resolution (12 bit plus sign)
5 isolated I/O points, configurable as either inputs or outputs
Variable isolated output power for encoders
Master encoder inputs (Isolated HTTL): A, A/, B, B/, Z and Z/
Slave encoder inputs (Isolated HTTL): A, A/, B, B/, Z and Z/
Slave encoder output retransmission (Isolated HTTL): A, A/, B, B/, Z and Z/.

External Power Supply

An external 1A / 24Vdc(±10%) must be connected to the card.



Encoder Voltage Selection

SW1 \ SW2	OFF	ON
OFF	24V	18V
ON	12V	5V

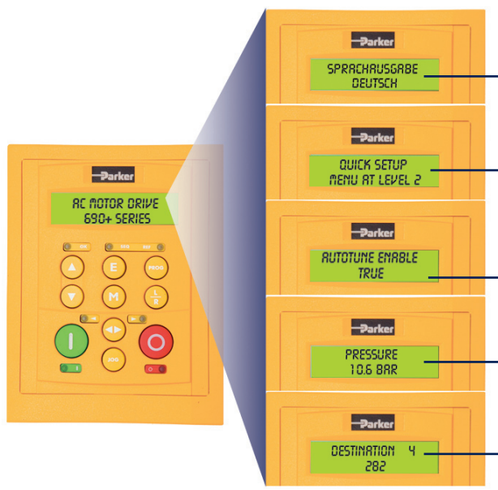
Operator Keypads

AC690+ Integrator Series AC Drive

Standard operator keypad 6901-00-G

Features

- Local motor control : start, speed, direction, diagnostics
- Operator menus and parameter configuration
- Quick setup menu
- Password protection for parameter configuration



Multilingual
English · French · German · Italian · Portuguese · Swedish · Polish

Quick setup menu
Intuitive menus allowing easy and quick setup of the drive

Auto-tuning
Automatic tuning of motor parameters ensures maximum dynamic motor performance

Diagnostics messages
Display input and output parameters as well as drive operating units

Drive configuration

Advanced operator keypad 6911-01-00-G

Features

- 128 x 64 pixels semi-graphical resolution
- RS232 and RS485 ports
- Recording of paramters to keypad and restore to drive (Memory card 256Mb to 2Gb)



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At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further info call (800) C-PARKER



AEROSPACE

Key Markets
- Aircraft engines
- Business & general aviation
- Commercial transports
- Land-based weapons systems
- Military aircraft
- Missiles & launch vehicles
- Regional transports
- Unmanned aerial vehicles

Key Products
- Flight control systems & components
- Fluid conveyance systems
- Fluid metering delivery & atomization devices
- Fuel systems & components
- Hydraulic systems & components
- Inert nitrogen generating systems
- Pneumatic systems & components
- Wheels & brakes



CLIMATE CONTROL

Key Markets
- Agriculture
- Air conditioning
- Food, beverage & dairy
- Life sciences & medical
- Precision cooling
- Processing
- Transportation

Key Products
- CO^2 controls
- Electronic controllers
- Filter driers
- Hand shut-off valves
- Hose & fittings
- Pressure regulating valves
- Refrigerant distributors
- Safety relief valves
- Solenoid valves
- Thermostatic expansion valves



ELECTROMECHANICAL

Key Markets
- Aerospace
- Factory automation
- Food & beverage
- Life science & medical
- Machine tools
- Packaging machinery
- Paper machinery
- Plastics machinery & converting
- Primary metals
- Semiconductor & electronics
- Textile
- Wire & cable

Key Products
- AC/DC drives & systems
- Electric actuators
- Controllers
- Gantry robots
- Gearheads
- Human machine interfaces
- Industrial PCs
- Inverters
- Linear motors, slides and stages
- Precision stages
- Stepper motors
- Servo motors, drives & controls
- Structural extrusions



FILTRATION

Key Markets
- Food & beverage
- Industrial machinery
- Life sciences
- Marine
- Mobile equipment
- Oil & gas
- Power generation
- Process
- Transportation

Key Products
- Analytical gas generators
- Compressed air & gas filters
- Condition monitoring
- Engine air, fuel & oil filtration & systems
- Hydraulic, lubrication & coolant filters
- Process, chemical, water & microfiltration filters
- Nitrogen, hydrogen & zero air generators



FLUID & GAS HANDLING

Key Markets
- Aerospace
- Agriculture
- Bulk chemical handling
- Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Welding

Key Products
- Brass fittings & valves
- Diagnostic equipment
- Fluid conveyance systems
- Industrial hose
- PTFE & PFA hose, tubing & plastic fittings
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects



HYDRAULICS

Key Markets
- Aerospace
- Aerial lift
- Agriculture
- Construction machinery
- Forestry
- Industrial machinery
- Mining
- Oil & gas
- Power generation & energy
- Truck hydraulics

Key Products
- Diagnostic equipment
- Hydraulic cylinders & accumulators
- Hydraulic motors & pumps
- Hydraulic systems
- Hydraulic valves & controls
- Power take-offs
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects



PNEUMATICS

Key Markets
- Aerospace
- Conveyor & material handling
- Factory automation
- Food & beverage
- Life science & medical
- Machine tools
- Packaging machinery
- Transportation & automotive

Key Products
- Air preparation
- Compact cylinders
- Field bus valve systems
- Grippers
- Guided cylinders
- Manifolds
- Miniature fluidics
- Pneumatic accessories
- Pneumatic actuators & grippers
- Pneumatic valves and controls
- Rodless cylinders
- Rotary actuators
- Tie rod cylinders
- Vacuum generators, cups & sensors



PROCESS CONTROL

Key Markets
- Chemical & refining
- Food, beverage & dairy
- Medical & dental
- Microelectronics
- Oil & gas
- Power generation

Key Products
- Analytical sample conditioning products & systems
- Fluoropolymer chemical delivery fittings, valves & pumps
- High purity gas delivery fittings, valves & regulators
- Instrumentation fittings, valves & regulators
- Medium pressure fittings & valves
- Process control manifolds



SEALING & SHIELDING

Key Markets
- Aerospace
- Chemical processing
- Consumer
- Energy, oil & gas
- Fluid power
- General industrial
- Information technology
- Life sciences
- Military
- Semiconductor
- Telecommunications
- Transportation

Key Products
- Dynamic seals
- Elastomeric o-rings
- EMI shielding
- Extruded & precision-cut, fabricated elastomeric seals
- Homogeneous & inserted elastomeric shapes
- High temperature metal seals
- Metal & plastic retained composite seals
- Thermal management

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380-460V (±10%) AC Supply Three Phase

Type	Frame Size	Constant Torque Rating		Quadratic (Fan) Torque Rating	
		Nominal Power (KW))	Output Current (A)	Nominal Power (KW)	Output Current (A)
690PB-0007-400-3	B	0.75	2.5	-	-
690PB-0015-400-3	B	1.5	4.5	-	-
690PB-0022-400-3	B	2.2	5.5	-	-
690PB-0040-400-3	B	4.0	9.5	-	-
690PB-0055-400-3	B	5.5	12	-	-
690PC-0075-400-3	C	7.5	16	11	23
690PC-0110-400-3	C	11	23	15	31 (UL=27)*
690PC-0150-400-3	C	15	31	18.5	38
690PD-0180-400-3	D	18.5	38	22	45
690PD-0220-400-3	D	22	45	30	59 (UL=52)*
690PD-0300-400-3	D	30	59	37	73
690PE-0370-400-3	E	37	73	45	87
690PE-0450-400-3	E	45	87	55	105
690PF-0550-400-3	F	55	105	75	145
690PF-0750-400-3	F	75	145	90	165
690PF-0900-400-3	F	90	180	110	205
690 -1100-400-3		110/110**	216	132/150**	260
690 -1320-400-3		132/150	250	150/150	302
690 -1600-400-3		160/185	316	200/225	361
690-1800-400-3		180/200	361	220/250	420
690-2000-400-3		200/220	375	250/280	480
690-2200-400-3		220/250	420	250/280	480
690-2500-400-3		250/280	480	300/315	545
690-2800-400-3		280/315	520	315/355	590
690-3150-400-3		315/315	590	315/355	650

* Max current for UL listing. 3 Phase 230V and 500V 690+ are also available., **KW Rating at 380/415V. - For Frame sizes above 90KW please contact our sales offices

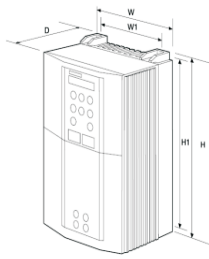
220-240V (±10%) AC Supply Single Phase

Type	Frame Size	Constant Torque Rating	
		Nominal Power (KW)	Output Current (A)
690PB-0007-230-1	B	0.75	4.0
690PB-0015-230-1	B	1.5	7.0
690PB-0022-230-1	B	2.2	10.5

Dimensions

Frame	Overall Dimensions H	W	D	Fixing Centre H1	W1	Weight (Kg)
Frame B	233	177	181	223	130	4.3
Frame C	348	201	208	335	150	9.3
Frame D	453	252	245	440	150	17.4
Frame E	669	257	312	630	150	32.5
Frame F	720	257	349	700	150	41.0

Dimensions of higher frames will be provided on request



Frame B, C, D, E, F

Options

6901 Programming/Control Module		
6052 Remote mounting bezel and 3m lead		
Internal Brake Switch - Frame B, C,D, E		
Communicaton Technology boxes	690B	690C-J
Profibus	6053/PROF	6055/PROF
Modbus/RS422/RS482/EI Bisynch	6053/EI00	6055/EI00
Link	6053/LINK	6055/LINK
Devicenet	6053/DNET	6055/DNET
Encoder Feedback	AH467407 U001(Board)	6054/HTTL
Wall Mount IP40 Covers	LA467452 (Frame B)	
	LA465034U002 (Frame C)	
	LA465048U002 (Frame D)	
	LA465058U002 (Frame E)	
System Expansion Module		
DSE Lite, Windows™, graphical configuration software		
Optional external EMC Filters, line chokes, brake resistors		

Value added services

System Solutions

Parker has the capability of designing the most demanding systems. We also have a network of integrators that can help you with yourapplication.







Training

Parker organizes In- house and customized on-site Training Programmes



Quality Systems

Parker are committed to quality products and system solutions



Premier Customer Service

Parker measures on-time delivery each day based on customer Request Date... We deliver when others cant ..





Project Engineering Tools

Sophisticated Project Engineering Tools are used at Parker –

- ePLAN
- Autocad
- Programming and development tools for drives, all popular PLCs and HMIs



Technical Services

To support installations Parker' worldwide, field service and start-up assistance is available through domestic and international teams of service engineers. An experienced staff of product specialists provides an around-the-clock product support service to help customers solve problems whenever they occur.



Sales & Distribution networks

Parker has sales offices and distribution network all over India to ensure our customers have products available locally to support their manufacturing operations.



Sales Offices:

:West: * **Mumbai:** Plot no : EL 30, MIDC TTC, Industrial Area, Mahape, Navi Mumbai, Maharashtra - 400709, Phone no: 022-27671715, Fax No:022-27671716 * **Ahmedabad:** 220, second floor, Sunrise Mall, B/s. Swaminarayan Temple, Judge's Bunglow Road, Vastrapur, Ahemedabad- 380015, Gujarat,Telefax - 079 40032197, 079 26769344 **:North:** * **Noida:** CS - 171, 7th Floor, Tower A,The Corenthum, Plot No. A41, Sector 62,Noida 201 301, UP , Phone no:0120 4742920 (Recep), 0120 4742900-919, Fax No:0120 4742914 **:South:** * **Bangalore:** V-2 (A), 14th Cross, 2nd Stage, Pennya Industrial Estate, Bangalore 560 058, Tel/Fax no: 080-2836 3976/77/78 * **Hyderabad:** #26-29,18-19,16A,Phase IV,I.D.A, Patancheru, Dist: Medak-502 319, Andhra Pradesh , Phone no : 08455-248731(Direct) **:East:** * **Kolkata:** B 502, 5th Floor, City Centre, Sector-1, Salt Lake, Kolkata-700 064, West Bengal, Phone no:033 2358 4415 / 6 / 7, Fax No:033 2358 4418

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Product Upgradation is a continuous process,hence, data in this catalog is subject to change without prior notice. For latest information, please get in touch with our Sales Offices mentioned above.

Parker SSD Drives-India-Catalogue-AC Integrator Series 2 (Issue 2, November'2011)

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We buy equipment

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