



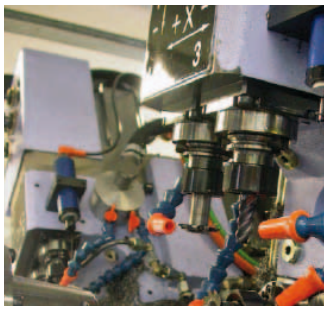
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AC650

Variable Speed AC Drives



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WARNING — USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

- This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
- The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.
- To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

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AC650 Variable Speed AC Drives

General Purpose AC Drives

Description

Whether you need to control a conveyor belt, automatic barrier, machine spindle or other general purpose application, the AC650 delivers reliable, cost-effective voltage/frequency speed control of your motor.
Designed with simplicity in mind, the AC650 comes in a compact format with DIN rail mounting as standard allowing easy integration into any electrical control panel.
The operator/programming keypad can be removed after setup to prevent unauthorised changes to inverter configuration.
For simple motor speed control up to 7.5 kW, the AC650 is an easy to use, out of the box solution that will have your system up and running in no time.



Features

- Integrated operator keypad with option for remote mounting
- Integrated EMC filter ensures compliance while maintaining a compact footprint
- Pre-programmed macros allowing quick and simple drive setup
- DIN rail mounting for easy integration into any electrical cabinet
- Flexible I/O including analogue and relay output and motor thermister input allowing greater control options
- 6514 cloning module (option) allows easy back-up and transfer of parameters between different drives

International Standards

The AC650 and AC650V series AC drives meets the following standards when installed in accordance with the relevant product manual.

- CE marked to EN 50178 (Safety, Low Voltage Directive)
- CE marked to EN 61800-3 (EMC Directive)
- UL listed to US Standard UL508C
- cUL listed to Canadian Standard C22.2 #14

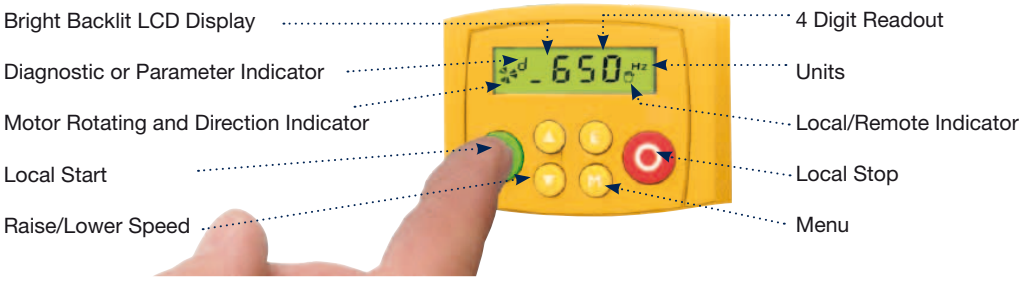
Characteristics

Power Supply	Single Phase Units : 220-240 VAC ±10 %, 50-60 Hz ±5 % Three Phase Units : 380-460 VAC ±10 %, 50-60 Hz ±5 %
AC650 Series 0.25-7.5 kW	The AC650 is a simple, compact, cost effective solution to basic Volts/Hertz open-loop motor speed control applications to 7.5 kW, such as: • Conveyors • Automatic barriers • Machine spindles
AC650V Series 0.25-110 kW	The AC650V expands upon the AC650 and benefits from the addition of sensorless flux vector control. This makes it ideally suited for applications up to 110 kW where improved speed regulation of variable loads and higher starting torques for high inertia systems is required. • Centrifugal pumps • Industrial blower fans • Mixers

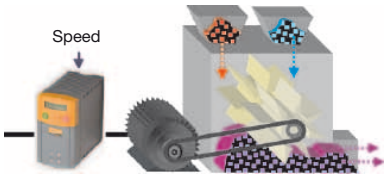
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Diagnostic and control through the operator keypad

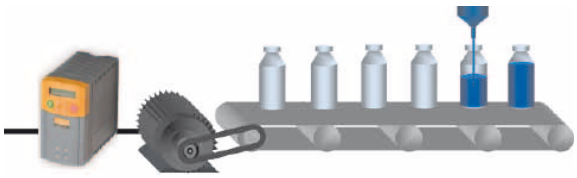
Easy-to-use Operator/Programming Controls



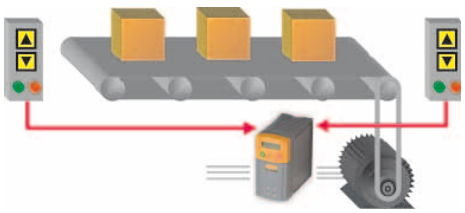
Simplified operation throught the use of pre-programmed macros



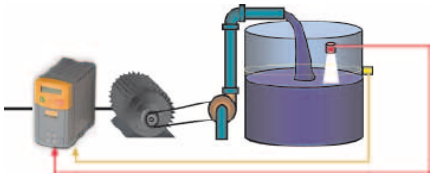
- Simple speed control
  set speed and voltage or current with start / stop direction control



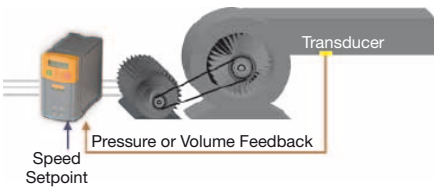
- Manual / Automatic control
  set to run with local speed setting or external reference



- Preset speed control
  select up to 8 pre-programmed speeds using digital inputs



- Increase / Decrease
  Increase or reduce speed using digital inputs



- PID Control
  Control the pressure, flow, temperature or any process variable

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AC650V - High Performance AC Drives

0.25 kW - 110 kW

Description

The AC650V expands upon the simple, no-fuss philosophy of the AC650 and provides reliable, robust motor control from 0.25 kW through to 110 kW. With the addition of sensorless flux vector technology, the AC650V allows improved motor control at lower speeds, better speed regulation of variable loads and higher starting torques for high inertia systems. The variable torque configuration option above 5.5 kW makes the AC650V ideally suited to energy saving in pump and fan applications.



Features

The AC650V offers the same high level of specification as the AC650 and also includes :

- High torque sensorless vector control mode for advanced motor control
- Selectable constant torque or (higher) variable torque rating for centrifugal pump and fan applications allowing optimum inverter sizing to suit the application
- Fully configurable with graphical software tools such as DSE Lite provided at no additional charge.
- Additional user configurable I/O points offering increased control capabilities
- Additional PROFIBUS communications options for integration into PLC systems
- Wall and panel mounting options above 7.5 kW
- Extended power range to 110 kW makes the AC650V suited to a wide of uses

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Technical Specification

AC650 and AC650V Series

Power Supply	**Single Phase Units :** 220-240 VAC ±10 %, 50-60 Hz ±5 % **Three Phase Units :** 380-460 VAC ±10 %, 50-60 Hz ±5 %
Environment	0-40 °C (derate to 50 °C) Up to 1000 m ASL (derate >1000 m)
Protection	IP20
Overload	**Constant torque rating :** 150 % for 60 s **Variable torque rating (pumps and fans) :** 110 % for 60 s
Output Frequency	0-240 Hz
Analogue Inputs	2; Speed Control 0-10 V, 0-10 V/4-20 mA
Analogue Outputs	1; User configurable output frequency / load 0-10 V
Digital Inputs	AC650 - 3, AC650V - 5; User configurable Start / Stop / Direction / pre-set speeds (8)
Digital Inputs / Outputs	AC650 - 1, AC650V - 2; User configurable as inputs or outputs
Digital Relay Outputs	1; Relay output 4 A @240 V All digital outputs configurable for; at (not at) speed / at (above) minimum speed / running (stopped) / health (tripped) / above (below) pre-set load
Motor Thermistor Input	1
Power Supply Outputs	24 VDC (50 mA) - Digital I/O Supply 10 VDC (10 mA) - Analogue reference supply
Communications Options	**AC650V and AC650 :** RS485 / RS232 **AC650V :** PROFIBUS

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Electrical Characteristics

AC650 and AC650V Series

220-240 VAC (+10 %) 50 Hz (+5 %) 1phase

Old Order Reference**	New Order Reference	Nominal Power [kW]	Output Current [A]	Frame
650(V)-002-230-...	650(V)-21115010-...	0.25	1.5	1
650(V)-003-230-...	650(V)-21122010-...	0.37	2.2	1
650(V)-005-230-...	650(V)-21130010-...	0.55	3.0	1
650(V)-007-230-...	650(V)-21140010-...	0.75	4.0	1
650(V)-011-230-...	650(V)-21155020-...	1.1	5.5	2
650(V)-015-230-...	650(V)-21170020-...	1.5	7.0	2

220-240 VAC (+10 %) 50 Hz (+5 %) 1/3 phase

Old Order Reference**	New Order Reference	Nominal Power [kW]	Output Current [A]	Frame
	650(V)-22196030-...	2.2	9.6	3

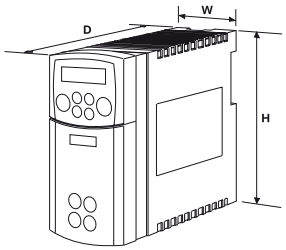
380-460 VAC (+10 %) 50 Hz (+5 %) 3phase

		Constant Torque		Variable Torque		
Old Order Reference**	New Order Reference	Nominal Power [kW]	Output current [A]	Nominal Power [kW]	Output Current [A]	Frame
650(V)-003-400-...	650(V)-43115020-...	0.37	1.5	-	-	2
650(V)-005-400-...	650(V)-43120020-...	0.55	2.0	-	-	2
650(V)-007-400-...	650(V)-43125020-...	0.75	2.5	-	-	2
650(V)-011-400-...	650(V)-43135020-...	1.1	3.5	-	-	2
650(V)-015-400-...	650(V)-43145020-...	1.5	4.5	-	-	2
650(V)-022-400-...	650(V)-43155020-...	2.2	5.5	-	-	2
650(V)-030-400-...	650(V)-43168030-...	3.0	6.8	-	-	3
650(V)-040-400-...	650(V)-43190030-...	4.0	9.0	-	-	3
650(V)-055-400-...	650(V)-43212030-...	5.5	12	-	-	3
650(V)-075-400-...	650(V)-43216030-...	7.5	16	-	-	3
650VC-0075-4-...	650V-432160C0-...	7.5	16	11	23	C
650VC-0110-4-...	650V-432230C0-...	11	23	15	30	C
650VC-0150-4-...	650V-432300C0-...	15	30	18	38	C
650VD-0180-4-...	650V-432380D0-...	18	38	22	45	D
650VD-0220-4-...	650V-432450D0-...	22	45	30	59	D
650VD-0300-4-..	650V-432590D0-...	30	59	37	73	D
650VE-0370-4-...	650V-432730E0-...	37	73	45	87	E
650VF-0450-4-...	650V-432870E0-...	45	87	55	105	E
650VF-0550-4-...	650V-433105F1-...	55	105	75	145	F
650VF-0750-4-...	650V-433145F1-...	75	145	90	165	F
650VF-0900-4-...	650V-433180F1-...	90	180	110	205	F

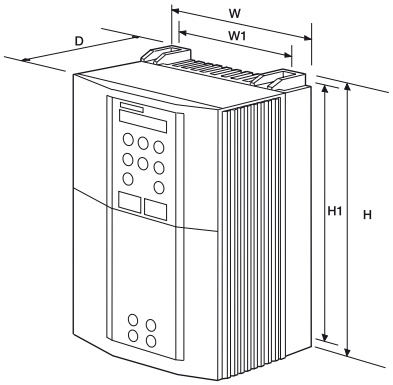
Note: **Old reference refers to legacy part references prior to 2009.
See "Selection and Order Code" to complete product reference.
230 VAC 3phase supply also available as an option.

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Dimensions



Frame 1,2,3



Frame C, D, E, F

Dimensions and Weights

Frame	Overall Dimensions			Fixing Centres		
	Height (H) [mm]	Width (W) [mm]	Depth (D) [mm]	Height (H1) [mm]	Width (W1) [mm]	Weight [kg]
1	132	73	142	-	-	-
2	188	73	173	-	-	-
3	242	96	200	-	-	-
C	348	201	208	335	150	9.3
D	453	252	245	440	150	17.4
E	669	257	312	630	150	32.5
F	720	257	355	700	150	41.0

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Selection and Order Code

AC650 Series



						Example	Block 1		Block 2				Block 3						Block 4	
							650	-	21	1150	1	0	-	0	0	0	P	00	-	A	0
Product family																					
AC650 AC Drive - V/F							650														
Rating data																					
	Supply voltage	kW	Output current A	HP	Frame																
	230 V 1phase								21												
Power/ Current Rating		0.25	1.5	0.3	1					1150	1										
		0.37	2.2	0.5	1					1220	1										
		0.55	3	0.75	1					1300	1										
		0.75	4	1	1					1400	1										
		1.1	5.5	1.5	2					1550	2										
		1.5	7	2	2					1700	2										
	230 V 1/3phase								22												
		2.2	9.6	3	3					1960	3										
	230 V 3phase								23												
		3	12.3	4	3					2123	3										
		4	16.4	5	3					2164	3										
	400/460 V 3phase								43												
		0.37	1.5	0.5	2					1150	2										
		0.55	2	0.75	2					1200	2										
		0.75	2.5	1	2					1250	2										
		1.1	3.5	1.5	2					1350	2										
		1.5	4.5	2	2					1450	2										
		2.2	5.5	3	2					1550	2										
		3	6.8	4	3					1680	3										
		4	9	5	3					1900	3										
		5.5	12	7.5	3					2120	3										
		7.5	16	10	3					2160	3										
Auxiliary supply																					
Not required												0									
Brake switch																					
Not fitted (not available on frames 1-2 230 V products)													0								
Brake switch fitted (must be fitted on frame 2 400/460 V, and all frame 3 products)													B								
Filter																					
Not fitted														0							
Filter fitted														F							
Communications																					
No communications port															0						
RS232 port fitted (must be selected if remote mounting of keypad required)															1						
Mounting																					
Panel mounting																P					
Special option																					
None																	00				
Documented special options (01-99) (Refer to local sales office)																					
Language																					
English (50 Hz)																			A		
English (60 Hz)																			B		
German																			D		
Spanish																			E		
French																			F		
Italian																			I		
Swedish																			S		
Keypad																					
None																					0
6511 TTL fitted (local mounting only)																					1
6511 RS232 fitted (local or remote mounting - RS232 port must be selected for remote mounting)																					2

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AC650V Series High Performance AC Drive - 230 V



	Example	Block 1		Block 2				Block 3						Block 4	
		650V	-	21	1150	1	0	-	0	0	0	P	00	-	A	0
Product family																
AC650V AC Drive - Sensorless Flux Vector Control		650V														
Rating data																
Power/ Current Rating	Supply voltage / Constant Torque kW/A / Constant Torque HP/A / Variable Torque kW/A / Variable Torque HP/A / Frame															
	230 V 1phase			21												
	0.25/1.5 / 0.3/1.5 / / / 1				1150	1										
	0.37/2.2 / 0.5/2.2 / / / 1				1220	1										
	0.55/3.0 / 0.75/3.0 / / / 1				1300	1										
	0.75/4.0 / 1.0/4.0 / / / 1				1400	1										
	1.1/5.5 / 1.5/5.5 / / / 2				1550	2										
	1.5/7.0 / 2.0/7.0 / / / 2				1700	2										
	230 V 1/3phase			22												
	2.2/9.6 / 3.0/9.6 / / / 3				1960	3										
	230 V 3phase			23												
	3.0/12.3 / 4/12.3 / / / 3				2123	3										
	4.0/16.4 / 5/16.4 / / / 3				2164	3										
	5.5/22 / 7.5/22 / 7.5/28 / 10/28 / C				2220	C										
	7.5/28 / 10/28 / 11/42 / 15/42 / C				2280	C										
	11/42 / 15/42 / 15/54 / 20/54 / D				2420	D										
	15/54 / 20/54 / 18.5/68 / 25/68 / D				2540	D										
	18.5/68 / 25/68 / 18.5/68 / 25/68 / D				2680	D										
	22/80 / 30/80 / 30/104 / 40/104 / E				2800	E										
	30/104 / 40/104 / 37/130 / 50/130 / F				3104	F										
	37/130 / 50/130 / 45/154 / 60/154 / F				3130	F										
	45/154 / 60/154 / 55/192 / 75/192 / F				3154	F										
Auxiliary supply																
Not required (not available on frames 1-3 & frames C-E)							0									
115 V 1ph (frame F only)							1									
230 V 1ph (frame F only)							2									
Brake switch																
Not fitted (not available on frames 1-2 230 V products)								0								
Brake switch fitted (must be fitted on frame 2 400/460 V, and all frame 3 products)								B								
Filter																
Not fitted									0							
Filter fitted									F							
Communications																
RS232 port fitted										1						
RS232 & RS485 port fitted (frame C-F only)										2						
Mounting																
Panel mounting (standard fitting)											P					
Wall mount (option on frames C-F only)											W					
Through panel mount (option on frames C-E only)											T					
Special option																
None													00			
Documented special options (01-99) (Refer to local sales office)																
Language																
English (50 Hz)															A	
English (60 Hz)															B	
German															D	
Spanish															E	
French															F	
Italian															I	
Swedish															S	
Keypad																
None																0
6511 TTL fitted (option on frames 1-3 only, local mounting only)																1
6511 RS232 fitted (option on frames 1-3 only, local or remote mounting)																2
6521 RS232 fitted (option on frames C-F only, local or remote mounting)																3

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AC650V Series High Performance AC Drive - 400 V



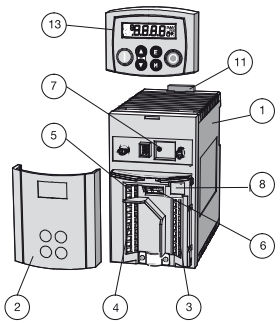
		Example	Block 1		Block 2				Block 3						Block 4	
			650V	-	21	1150	1	0	- B	0	0	P	00	-	A	0
Product family																
AC650V AC Drive - Sensorless Flux Vector Control			650V													
Rating data																
	Supply voltage	Constant Torque kW/A @400 VAC	Constant Torque HP/A @460 VAC	Variable Torque kW/A @400 VAC	Variable Torque HP/A @460 VAC	Frame										
	400/460 V 3phase							43								
Power/ Current Rating		0.37/1.5	0.5/1.5			2			1150	2						
		0.55/2.0	0.75/2.0			2			1200	2						
		0.75/2.5	1.0/2.5			2			1250	2						
		1.1/3.5	1.5/3.5			2			1350	2						
		1.5/4.5	2.0/4.5			2			1450	2						
		2.2/5.5	3.0/5.5			2			1550	2						
		3.0/6.8	4.0/6.8			3			1680	3						
		4.0/9.0	5.0/9.0			3			1900	3						
		5.5/12	7.5/12			3			2120	3						
		7.5/16	10/16			3			2160	3						
	400/460 V 3phase							43								
		7.5/16	10/14	11/23	15/21	C			2160	C						
		11/23	15/21	15/30	20/27	C			2230	C						
		15/30	20/27	18.5/37	25/34	C			2300	C						
		15/31	20/31	18.5/38	25/38	D			2310	D						
		18.5/38	25/38	22/45	30/45	D			2380	D						
		22/45	30/45	30/59	40/52	D			2450	D						
		30/59	40/52	37/73	50/65	D			2590	D						
		30/59	40/59	37/73	50/73	E			2590	E						
		37/73	50/73	45/87	60/87	E			2730	E						
		45/87	60/87	55/105	75/105	E			2870	E						
		55/105	75/100	75/145	100/125	F			3105	F						
		75/145	100/130	90/165	125/156	F			3145	F						
		90/180	150/180	110/205	150/205	F			3180	F						
Auxiliary supply																
Not required (not available on frames 1-3 & frames C-E)							0									
115 V 1ph (frame F only)							1									
230 V 1ph (frame F only)							2									
Brake switch																
Not fitted									0							
Brake switch fitted (must be fitted on frame 2 400/460 V, and all frame 3 products)									B							
Filter																
Not fitted (option on frames 1-3 and must be selected for frames C-F)										0						
Filter fitted (option on frame 1-3 only)										F						
Communications																
RS232 port fitted											1					
RS232 & RS485 port fitted (frame C-F only)											2					
Mounting																
Panel mounting (standard fitting)												P				
Wall mount (option on frames C-E only)												W				
Through panel mount (option on frames C-E only)												T				
Special option																
None													00			
Documented special options (01-99) (Refer to local sales office)																
Language																
English (50 Hz)															A	
English (60 Hz)															B	
German															D	
Spanish															E	
French															F	
Italian															I	
Swedish															S	
Keypad																
None																0
6511 TTL fitted (option on frames 1-3 only, local mounting only)																1
6511 RS232 fitted (option on frames 1-3 only, local or remote mounting)																2
6521 RS232 fitted (option on frames C-F only, local or remote mounting)																3

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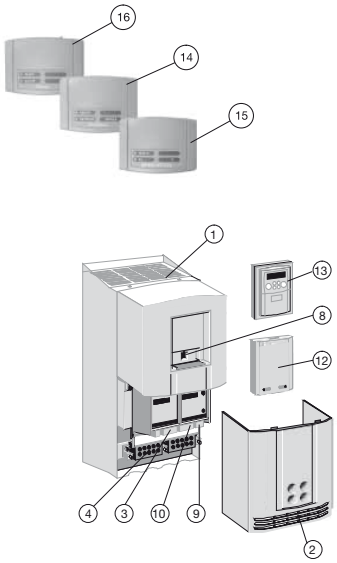
Accessories and Options

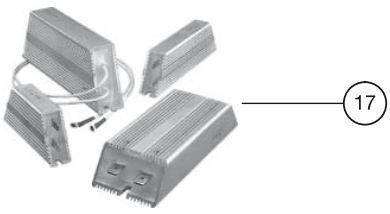
AC650/AC650V/AC650S Series AC Drive

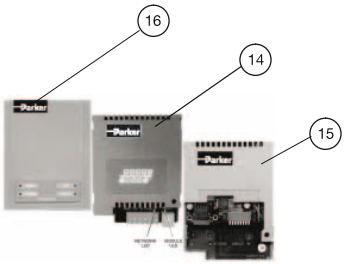
Options		Frame	AC650V only	Fitting	Reference
AC Inverters					
1	Inverter housing	1–F		Standard	See order code
2	Terminal Cover (simplified wiring diagram)				
3	Control wiring terminals				
4	Power wiring terminals				
5	Volt-free relay contact				
6	Encoder / Digital Inputs		√		
7	Power On LED				
8	RS232 P3 port for remote mounting of operator keypad		√		
9	RS232 P3 port for programming	C-F	√		
10	RS485 port	C-F			
11	DIN Rail mounting clip	1-3			
12	Front cover	C-F			
Operator keypad					
13	TTL keypad (local mounting only)	1-3		Standard	6511-TTL-00
	RS232 keypad (remote mountable)	1-3	√	Option	6511-RS232-00
		C-F	√	Standard	6521/00/G
Communication					
14	Profibus communications card	1-3	√	Factory Option	6513-PROF-00
		C-F	√	Factory Option	6523/PROF/00
15	RS232/RS485 communication card (Modbus RTU, EI Bisync F1/3)	1-3	√	Factory Option	6513-EI00-00
		C-F	√	Factory Option	See order codes
Other options					
16	Cloning module for the storage and transfer of up to 10 drive configurations	1-3, C-F		Option	6514-00
Accessories					
17	Brake resistor	See corresponding section			



Frames 1 - 3 up to 7.5 kW







Frames C - F up to 110 kW

Options

Cloning Module

Description

The cloning module can be used with the complete range of the AC650 / AC650V series of AC drives.
It allows the user to store up to 10 separate drive configurations which can then be transferred between different drives. The configurations can be mapped between different drive sizes. This is an invaluable tool for commissioning or plant maintenance personnel allowing drives to be backed up and reconfigured simply and easily.



Product Codes

Order Code	Description	Suitable for
6514-00	Cloning Module	AC650/AC650V

RS485 Modbus Interface

Description

The RS485/RS232 communications interface provides serial data communication, allowing an AC650V drive to connect to a Modbus RTU network as a slave station.

Features



- Protocols : ModBus RTU or EI-6ASCII
- Compatible with AC650/650V version 4.x and above
- Connection by shielded twisted pair cable (RS485)
- Connection by shielded 3 core cable (RS232)
- Configuration of input function blocks
- Baud rate configurable by software
- Slave address configurable by software
- Direct access to all drive parameters

Product Codes

Order Code	Description	Suitable for
6513-E100-00	RS485/RS232 Communications Interface	AC650V Frames 1-3

Operator Keypads



6511-xxxx-00



6521-00-G

Product Codes

Order Code	Description	Suitable for
6511-TTL-00	TTL keypad (local mounting)	AC650, AC650V Frames 1-3
6511-RS232-00	RS232 keypad (remote mountable)	AC650, AC650V Frames 1-3
6521-00-G	RS232 kepad (remote mountable)	AC650V Frames C-F

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Options

PROFIBUS-DP Interface

Description

The PROFIBUS option supports the PROFIBUS-DP PROFIBUS protocol, designed specifically for communication between a PLC system and remote I/O. The PROFIBUS interface enables the drive to connect to a PROFIBUS-DP as a slave station.



PROFIBUS Module 6513-PROF-00
(AC650V Frames 1, 2, 3)

Features

- PROFIBUS-DP network
- Connection by shielded twisted pair
- Baud rate configurable by software up to 12M Baud
- LED indication of card and communication status
- Compatible with AC inverters AC650V vers 4.9+



PROFIBUS Module 6523-PROF-00
(AC650V Frames C-F)

Product Codes

Order Code	Description	Suitable for
6513-PROF-00	PROFIBUS-DP communications interface	AC650, AC650V Frames 1-3
6523-PROF-00	PROFIBUS-DP communications interface	AC650V Frames C, D, E & F

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Braking Resistors



for AC Drives

Description

Brake resistors are used with AC650, AC650V, or AC690 drives equipped with a braking option modules. They are designed to allow the drive to stop a motor at full load during deceleration or an overhauling load.

Brake resistor selection
Brake resistor assemblies must be rated to absorb both peak braking power during deceleration and the average power over the complete cycle.

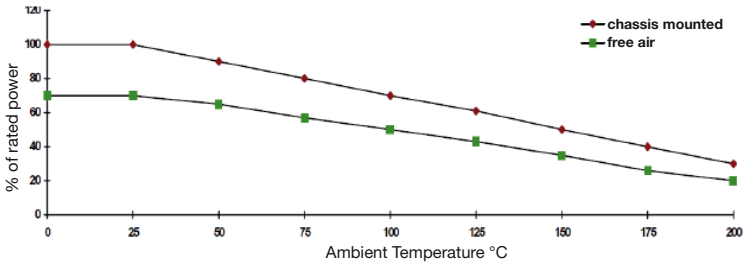
Resistors above 500 W
Resistors above 500 W are available upon request :

- IP20 protection up to 3 kW
- IP13 protection between 4.2 and 9.8 kW

$$\text{Peak braking power} = \frac{0.0055J \times (n12-n22)\ (W)}{tb}$$

$$\text{Average braking power Pav} = \frac{Ppk \times tb}{tc}$$

J - total inertia in kgm^2
n1 - initial speed in min^{-1}
n2 - final speed min^{-1}
tb - braking time in s
tc - cycle time in s

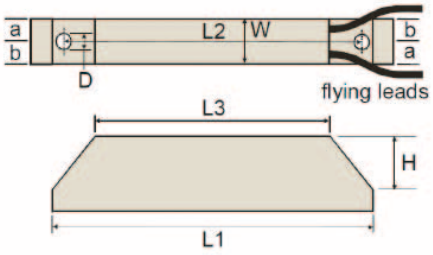


Dimensions

Nominal Power [kW]	Dimensions		
	L [mm]	H [mm]	P [mm]
1.0	137	450	140
1.6	182	450	140
2.0	182	450	140
2.5	227	450	140
3.0	227	450	140
4.2	450	440	540
5.6	530	440	540
7.0	530	440	540
8.4	610	440	540
9.8	610	440	540

Model	Impedance [Ω]	Nom. Power [W]	Dimensions							
			L1	L2	L3	W	H	D	a	b
CZ467715	500	60	100	87	60	22	41	4.3	10	12
CZ467714	200	100	165	152	125	22	41	4.3	10	12
CZ389853	100	100	165	152	125	22	41	4.3	10	12
CZ467717	100	200	165	146	125	30	60	4.3	13	17
CZ463068	56	200	165	146	125	30	60	4.3	13	17
CZ388397	56	200	165	146	125	30	60	4.3	13	17
CZ388396	36	500	335	316	295	30	60	4.3	13	17
CZ467716	28x2	500	335	316	295	30	60	4.3	13	17

Overload 5 s : 500 %
Overload 3 s : 833 %
Overload 1 s : 2500 %



EMC Filters

for AC Drives

Description

A range of custom designed optional EMC (Electromagnetic Compatibility) filters are available for use with Parker SSD Drives product range.

They are used to help achieve conformance with the EMC directive BS EN 61800-3:2004 - “Adjustable speed electrical power drive systems - Part 3”.

Installation of the drive must be in accordance with the installation guidelines in the product manual. The filters comply with the relevant standards as outlined in the following table.

1st Environment : Drives directly connected without intermediate transformers to a low voltage (<100 Vrms) supply network that is part of a network that also supplies buildings used for domestic purposes.
2nd Environment : Establishments where there is no direct connection to a low voltage supply network that also supplies buildings used for domestic purpose.
TN Earthing = Grounded neutral AC supply <460 VAC
IT Earthing = Ungrounded neutral AC supply <500 VAC
Ext. Filter = External filter
Ext. Filter FP = Footprint external filter

EMC Filters

AC Drives		2nd Environment (Industrial)	1st Environment (Domestic)
650 / 650V			
Frame 1-3		Indicated by an F in the product code	Indicated by an F in the product code
650V / 690P			
Frame B		Indicated by an F in the product code	Indicated by an F in the product code
Frame C		Standard	TN/IT AC Supply Ext. Filter FP C0467842U044
Frame D		Standard	TN/IT AC Supply Ext. Filter FP C0467842U084
Frame E		Standard	TN/IT AC Supply Ext. Filter FP C0467842U105
Frame F		Standard	TN/IT AC Supply Ext. Filter FP C0467842U215
Frame G/H/J	(690PG-1100 and 690PG-1320)	Standard	TN and IT AC Supply Ext. Filter FP C0467842U340
	(690PG-1600 and 690PG-1800 and frame H and J)	Standard	TN and IT Ext. Filter 2 x FP C0467842U340

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EMC Filters

for AC Drives

IP40 mounted: use mounting kits below

Filter	Mounting Kit
CO467842U020	BA467840U020
CO467842U044	BA467840U044
CO467842U084	BA467840U084
CO467842U105	BA467840U105

Dimensions

Filter Reference	Terminal size [mm²]	Earth terminal [mm]	Gland mountings [mm]	Filter dimensions [mm]	Fixing centres [mm]	Weight [kg]
CO467842U044	10	5	4 x 4	400 x 178x 55	384 x 150	2.1
CO467842U084	25	6	4 x 4	513 x 233 x 70	495 x 208	4.2
CO467842U105	50	8	4 x 4	698 x 250 x 80	680 x 216	6.2
CO467842U215	95	8	N/A	825 x 250 x 115	795 x 216	N/A



Drive mounted on an external footprint filter

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Three Phase Line Reactors

for AC Drives

Description

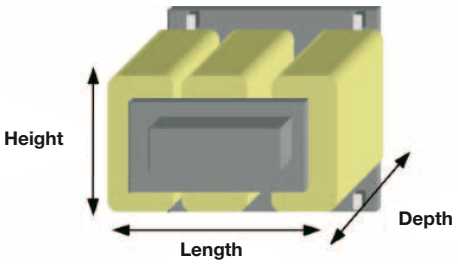
Parker's range of line reactors have been especially selected to match the requirements of the Parker AC drive range and can be used on both the input and output sides of the drive. They are used to reduce the harmonic content of the supply current. A choke fitted in the drive output limits the capacitive current when motor cable runs in excess of 50 m are used. It prevents overcurrent trips and temperature rise of the motor.
As well as helping with compliance with IEEE 519 there are other benefits to using line/load reactors including:

- Increased drive system reliability
- Reduced harmonics / surge currents
- Reduced motor noise and temperature
- Improved true power factor

Dimensions

Order Reference	Inductance	In [A]	Height [mm]	Length [mm]	Depth [mm]	Fixing Centres mm]	Weight (approx.) [kg]
CO389936U401	75 µH	315	215	330	320	175 x 225	70
CO389936U402	50 µH	480	215	330	320	175 x 225	95
CO466448U040	50 µH	36	70	155	127	48 x 140	2.5
CO466448U165	50 µH	148.5	115	190	155	93 x 170	12
CO466709U038	30 µH	342	370	350	226	240 x 320	38
CO466709U050	25 µH	450	431	420	226	290 x 381	53
CO466709U073	20 µH	653	431	420	226	290 x 381	60
CO466709U083	15 µH	747	431	420	226	290 x 381	69
CO468314U650	5 µH	650	30	300	325*	100 x 250	35
CO468325U006	1.749 mH	12.7	83	157	160*	60 x 80	6
CO468325U037	0.416 mH	54	110	240	250*	80 x 200	13
CO468325U110	0.137 mH	165	140	300	310*	110 x 240	30
CO468326U006	2.917 mH	12.8	170	240	260*	80 x 140	17
CO468326U037	0.693 mH	54	240	360	380*	120 x 200	50
CO468326U110	0.227 mH	165	320	390	490*	280 x 260	130
CO468325U055	0.282 mH	79	130	240	250*	100 x 200	19
CO466448U015	50 µH	13.5	60	80	67	64 x 40	1
CO466448U110	50 µH	100	100	190	155	170 x 75	7.5
CO468326U006	2.917 mH	12.8	170	240	260	80 x 140	17
CO466448U070	50 µH	63	85	155	127	140 x 63	4.5
CO466250U012	15 µH	1080	400	420	450	300 x 140	170

* Include Earth Stud



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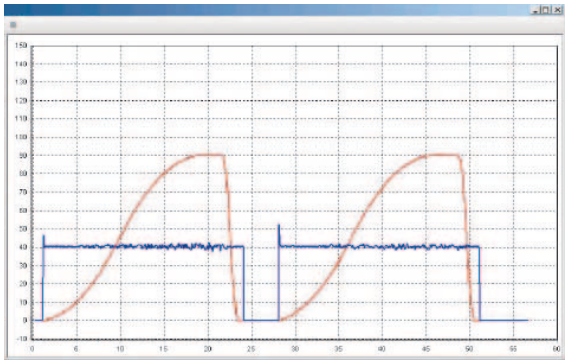
Accessories For All AC Drives

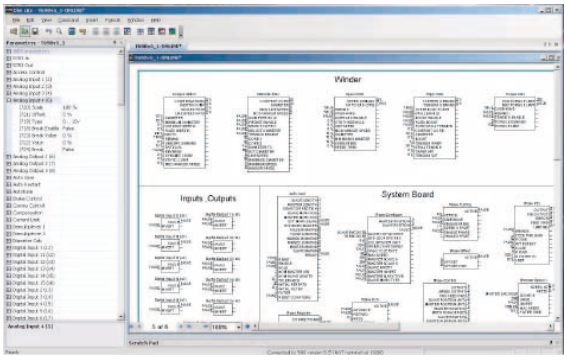
Drive System Explorer Lite (DSE Lite) Software

Description

DSE LITE software is an easy to use configuration, commissioning and monitoring tool with graphical interface for the Parker SSD Drives range of AC and DC drives.
While the drive is in running mode the oscilloscope function allows “on-line” monitoring of selected parameters and the recording of trends.

DSE LITE, allows the user to create, parameterize and configure user defined applications thanks to function blocks dedicated to speed control, Winder, PID, Diameter calculator, Shaftless...
DSE LITE is downloadable from our website.
www.parker.com





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