

AC650 Series

AC Inverters 0.25kW–110kW

Product Overview

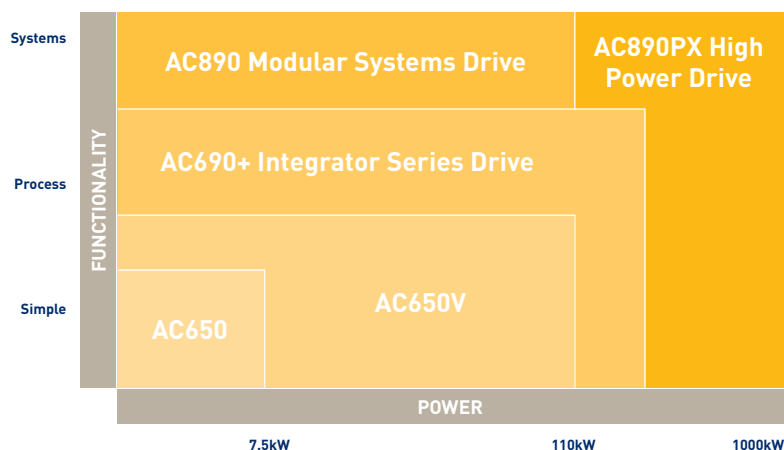
The AC650 series, comprising of AC650 General Purpose and AC650V General Purpose High Performance, have been specifically designed to provide simple, no-fuss speed control of standard three phase AC induction motors from 0.25kW to 110kW.

Designed with a full range of useful features including pre-programmed applications, integrated EMC filter and options for local or remote mountable operator controls – the drives are simple to set-up, install and operate.

With the AC650 series you are in control of your application immediately – no complicated set-up procedures, no confusing menu navigation; just quick and easy operation straight from the box.



AC Drives Product Overview



Easy-to-use Operator/ Programming Controls

- | | | |
|--|-------|------------------------|
| Bright Backlit LCD Display | | 4 Digit Readout |
| Diagnostic or Parameter Indicator | | Parameter Units |
| Motor Rotating and Direction Indicator | | Local/Remote Indicator |
| Local Start | | Local Stop |
| Raise/Lower Speed | | Programme Menu |



AC650 General Purpose

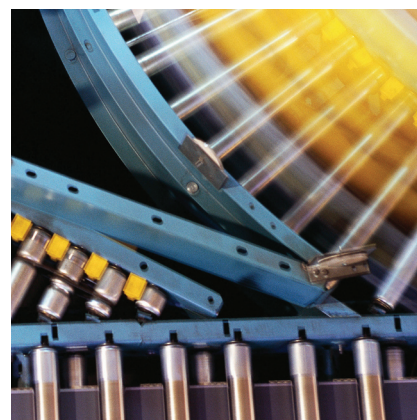
Ratings 0.25kW–7.5kW

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 to prevent unauthorised changes to inverter configuration.

For simple motor speed control up to 7.5kW, the AC650 is an easy to use, out of the box solution that will have your system up and running in no time.



220 – 240Vac (+10%) 50Hz (+5%) 1 ph

Order Reference	Nominal Power (kW)	Output Current (A)	Frame
650-002-230	0.25	1.5	1
650-003-230	0.37	2.2	1
650-005-230	0.55	3.0	1
650-007-230	0.75	4.0	1
650-011-230	1.1	5.5	2
650-015-230	1.5	7.0	2

220 – 240Vac (+10%) 50Hz (+5%) 1/3 ph

Order Reference	Nominal Power (kW)	Output Current (A)	Frame
650-022-230	2.2	9.6	3

380 – 460Vac (+10%) 50Hz (+5%) 3 ph

Order Reference	Nominal Power (kW)	Output Current (A)	Frame
650-003-400	0.37	1.5	2
650-005-400	0.55	2.0	2
650-007-400	0.75	2.5	2
650-011-400	1.1	3.5	2
650-015-400	1.5	4.5	2
650-022-400	2.2	5.5	2
650-030-400	3.0	6.8	3
650-040-400	4.0	9.0	3
650-055-400	5.5	12	3
650-075-400	7.5	16	3

Remote mounting of operator keypad requires additional cable.
Part No. CM057375U300 (3m length)

Contact your local Parker Sales Office for other product configurations and additional options.

Features

- Pre-programmed application macros allowing quick and simple setup
- Optional integrated EMC filter allows compliance with regulations while maintaining compact footprint
- Flexible I/O including analogue and relay output and motor thermistor input allows greater control options
- Integrated operator/programming controls with option for remote mounting
- DIN rail mount on all AC650 inverters up to 7.5kW reduces installation time
- 6514 cloning module allows easy back-up and transfer of parameters between different inverters
- RS485/RS232 communications giving additional control capabilities

Specifications

Power Supply

Single phase units;

220-240Vac $\pm$ 10%, 50-60Hz $\pm$ 5%

Three phase units;

380-460Vac $\pm$ 10%, 50-60Hz $\pm$ 5%

Ambient

0-40°C (derate to 50°C)

Up to 1000m ASL (derate > 1000m)

IP20 protected

Overload

150% Constant torque ratings

110% Variable torque rating (pump and fan)

Output Frequency

0-240Hz

Standards

The AC650 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.

Inputs/Outputs

Analogue Inputs

2; Speed Control.

0-10V, 0-10V/4-20mA (summing)

Analogue Outputs

1; User configurable output frequency/load
0-10V

Digital Inputs

3-AC650; User configurable start/stop/
direction/ pre-set speeds (8)

Digital Input/Outputs

1-AC650; User configurable
as inputs or outputs

Digital Relay Outputs

1; Relay output 4A @ 240V

All digital outputs configurable for; at (not at) speed/at (above) min speed/running (stopped)/healthy (tripped)/above (below) pre-set load

Motor Thermistor Input

Power Supply Outputs

24V dc (50mA) – Digital I/O supply

10V dc (10mA) – Analogue reference supply

Communications Options

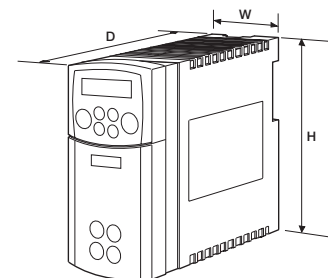
RS485/RS232

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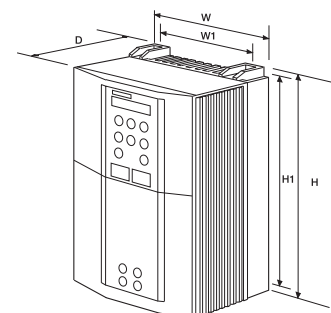
User Selectable Pre-programmed Application Macros

Simply select your relevant application and the drives inputs/outputs and parameter list is automatically configured for you.

- **Basic Speed Control** – voltage or current source speed demand with digital start/stop and direction.
- **Manual/Auto Control** – switch between a local or remote speed demand signal.
- **Preset Speeds** – select up to 8 preprogrammed speeds selected by digital inputs.
- **Raise/Lower** – increase and decrease speed from raise/lower digital inputs.
- **PID Control** – control pressure, flow, temperature or other variable by monitoring transducer feedback.



Frame 1,2,3



Frame C, D, E, F

Dimensions

Frame Size	H	W	D
1	137	73	142
2	192	73	173
3	257	96	195

Dimensions

Model	Overall Dimensions			Fixing Centre		Weight
	H	W	D	H1	W1	(kg)
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



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