

650/650V 0.25 to 110kW

The 650 and 650V series is a family of ac drives that provide a no-fuss, cost effective solution for the simplest to most complex open-loop ac motor control applications. The 650 has single key selectable pre-programmed applications so set-up is quick and easy without unnecessary complications. In addition the 650V has the added benefit of an ultra-high torque sensorless vector algorithm and the control flexibility of fully configurable Function Block Programming. Powers are available up to 110kW on 400V three-phase supplies and 1.5kW on 230V supplies and all units are available with integral EMC compliant filters.



INTEGRAL EMC COMPLIANT FILTERS

EXTREMELY SIMPLE SET-UP AND OPERATION

INTEGRAL OPERATOR CONTROLS WITH OPTIONAL REMOTE MOUNTING

EXCEPTIONALLY COMPACT DESIGN

150% OVERLOAD FOR 30 SECONDS

MOTOR THERMISTOR INPUT

TECHNICAL SPECIFICATION

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

Overload - 150% for 30 seconds

Output Frequency - 0-240Hz

Environmental Protection - IP20

Inputs/Outputs

Analogue Inputs - 2; Speed control (0-10V, 4-20mA)

Analogue Outputs - 1; User configurable output frequency/load (0-10V)

Digital Inputs - 3 (650V 6); User configurable start/stop/direction/pre-set speeds (8)

Digital Input/Outputs - 1 (650V 2); User configurable as inputs or outputs

Digital Relay Outputs - 1; User configurable relay output (1A @ 240V)

All outputs configurable for; at (not at) speed / at (above) min speed / running (stopped) / healthy (tripped) / above (below) preset load.

Motor Thermistor Input

Integral Programming/Control Module

6 Button password protectable keypad giving control of

- start/stop
- direction
- raise/lower speed
- menu navigation
- parameter setting

Back lit LCD giving 4 digit readout of

- output current
- setpoint frequency
- output frequency
- drive rotating warning
- status alarms
 - drive ready
 - overcurrent trip
 - overvoltage trip
 - heatsink overtemperature
 - motor overtemperature
 - 1 x \uparrow overload
 - undervoltage
 - 4-20mA signal loss
 - stall trip
 - external trip
 - dynamic brake trip

AC DRIVES

650/650V 0.25 to 110kW

Single Phase Controllers (230V Nominal)

Type	Nominal Power (kW)	Output Current (A)	Package Size	Prices (£)	
				650	650V
650(V)-002-230-F	0.25	1.5	1	129	230
650(V)-003-230-F	0.37	2.2	1	139	249
650(V)-005-230-F	0.55	3.0	1	152	262
650(V)-007-230-F	0.75	4.0	1	178	288
650(V)-011-230-F	1.1	5.5	2	240	350
650(V)-015-230-F	1.5	7.0	2	255	365

Three Phase Controllers (400V Nominal)

Type	Nominal Power (kW)	Output Current (A)	Package Size	Prices (£)	
				650	650V
650(V)-003-400-F	0.37	1.5	2	255	345
650(V)-005-400-F	0.55	2.0	2	269	370
650(V)-007-400-F	0.75	2.5	2	284	395
650(V)-011-400-F	1.1	3.5	2	295	420
650(V)-015-400-F	1.5	4.5	2	325	465
650(V)-022-400-F	2.2	5.5	2	395	535
650(V)-030-400-F	3.0	6.8	3	492	561
650(V)-040-400-F	4.0	9.0	3	521	604
650(V)-055-400-F	5.5	12	3	623	707
650(V)-075-400-F	7.5	16	3	825	905
650VC-0110-400	11 (15)	23 (31)	C		1,145
650VC-0150-400	15 (18)	30 (37)	C		1,595
650VD-0180-400	18 (22)	38 (45)	D		2,020
650VD-0220-400	22 (30)	45 (59)	D		2,355
650VD-0300-400	30 (37)	59 (73)	D		2,715
650VE-0370-400	37 (45)	73 (87)	E		3,405
650VE-0450-400	45 (55)	87 (105)	E		3,890
650VF-0550-400	55 (75)	105 (145)	F		4,735
650VF-0750-400	75 (90)	145 (165)	F		5,100
650VF-0900-400	90 (110)	180 (205)	F		6,085

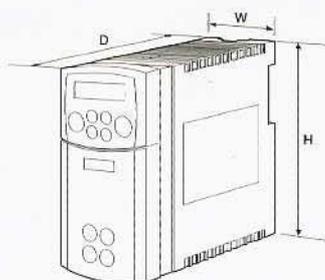
All 650 prices include integral (DISP) Operator Controls as standard

All 650V prices include remote mountable (DSPR) Operator Controls as standard



Dimensions

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



STANDARDS

The 650V series meets the following standards when installed in accordance with relevant product manual.

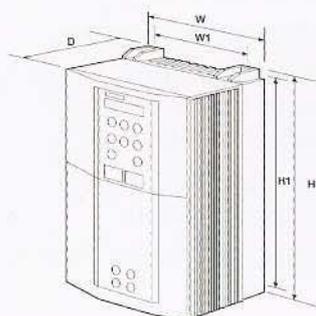
CE marked to EN50178 (Safety, Low Voltage Directive)

EN61800-3 (EMC Compliance) with integral filters

UL listed to US and cUL listed to Canadian safety standards

Dimensions

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



Frame B,C,D,E,F