

AC DRIVES

620 Vector 0.75 to 315kW



Exceptional dynamic performance combined with a highly flexible systems capability ensure the 620 VECTOR series is ideal for demanding ac motor control applications from 0.75 to 315kW.

TECHNICAL SPECIFICATION

Power Supply – 380 - 460V ± 10%, three phase or 208 - 240V ± 10%, three phase (sizes 4-7) 50 - 60 Hz ± 5%
 380-460V ± 10%, 50-60Hz (sizes 8-10)
Ambient – 0 - 50°C (0 - 40°C with top cover fitted) (sizes 4-7)
 0-40°C (sizes 8-10) up to 1000m ASL without derating
Overload – 150% for 60 seconds
Output Frequency – 0 - 240 Hz (sizes 4-7), 0 - 120 Hz (sizes 8-10)
Switching Frequency – 5 kHz (sizes 4-6), 3 kHz (sizes 7-10) with audibly silent switching pattern

FEATURES

Man Machine Interface

32 character plain language display
 Selectable English, French, German or Code
 Wide viewing angle back lit LCD
 Logical menu structure programming
 Local control of forward/reverse, run/stop, jog
 Selectable first up diagnostic readout
 Health, run, brake, local LED identification
 Password and function lock out security

User Facilities 620 (all versions)

Linear or 'S' ramps
 Raise/Lower ramp
 Jog control
 Crawl control
 Process PID control
 Slack take-up
 Normal and program stop
 8 presets
 3 setpoint sums
 Four quadrant operation

620 STD (Standard)

RS232 or RS485 - user selectable
 Fieldbus options



- Highest bandwidth response
- Continuous 100% torque at zero speed
- 1000:1 speed range
- Configurable block diagram and I/O
- Simple autotune commissioning
- Three communication versions

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620 COM (Comms)

RS232
 RS485
 Reference encoder input
 Fieldbus options

620 ADV LINK (Advanced and Link)

RS232
 RS485
 LINK fibre optic
 Open and closed loop winder control
 Phase locking ('electronic gearbox')
 Maths functions
 Sequencing
 Signal Processing
 Fieldbus options

For full details of the Eurotherm Drives LINK control strategy – turn to pages 28/29.

Inputs/Outputs

Analogue inputs (±10V)
 5 - programmable, default: ramped Input (x2), direct input (x1), undefined (x2)
 Analogue outputs (±10V)
 2 - programmable, default: speed feedback (x1), torque demand (x1)
 Digital inputs (+24V)
 4 - programmable, default: ramp hold (x1), Preset speed (x3)
 6 - defined start, jog, enable, thermistor, program stop, coast stop
 Digital outputs (+24V)
 4 - programmable, default; zero speed, health, ready
 Power supplies
 - 10/0/+10V dc analogue reference supplies + 24V dc digital input supply
 Feedback encoder (all 620 versions)
 Reference Encoder 620COM, 620ADV LINK
 A, A, B, B, Z, Z, 15V supply, 0V, Gnd.

Protection

Short circuit phase-phase
 Short circuit phase-earth
 Overcurrent > 220%
 Overvoltage/under voltage
 Stall
 Overspeed
 External trip
 Heatsink overtemperature
 Motor thermistor overtemperature

STANDARDS

CE marked
 EN50081-1 (1992) (EMC emissions, light industrial with external filter fitted and drive mounted in suitable metal enclosure) - sizes 4-7
 EN50081-2 (1992) (EMC emissions, heavy industrial with internal filter fitted) - sizes 8-10
 pr EN50082-2 (1992) (EMC immunity, heavy industrial).
 VDE 0160 (1994)/pr EN50178 (1995) (safety, low voltage directive).
 UL listed to US and Canadian safety standards.

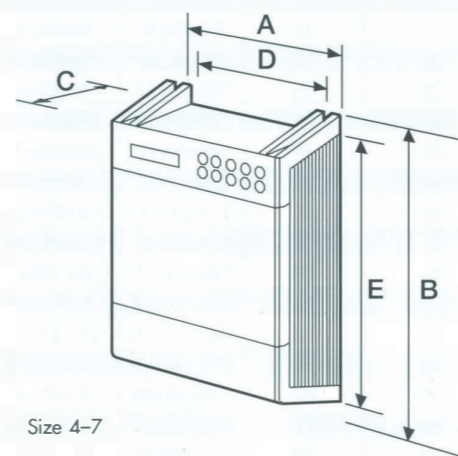
AC DRIVES

380 - 460V (±10%) 0.75 to 75kW

Type	Package size	Nominal Power (kW)	Output Current (A)	Prices (£) 620STD
620STD/0007/400	4	0.75	2.3	865
620STD/0015/400	4	1.	4.5	905
620STD/0022/400	4	2.2	6.3	974
620STD/0040/400	4	4.0	9.4	1024
620STD/0055/400	4	5.5	13	1365
620STD/0075/400	4	7.5	16	1565
620STD/0110/400	5	11	24	2025
620STD/0150/400	5	15	30	2755
620STD/0180/400	6	18	39	3225
620STD/0220/400	6	22	46	3725
620STD/0300/400	6	30	61	4255
620STD/0370/400	6	37	72	5270
620STD/0450/400	7	45	91	6355
620STD/0550/400	7	55	110	6785
620STD/0750/400	7	75	150	7425

380-460V (±10%) 90 to 315kW

Type	Package size	Nominal Power (kW)		Output Current (A)	Prices (£) 620STD
		380V	415/460V		
620STD/0900/400	8	90	90	180	9270
620STD/1100/400	8	110	110	216	9625
620STD/1320/400	8	132	150	250	10,535
620STD/1600/400	9	160	180	316	12,875
620STD/1800/400	9	180	200	360	13,225
620STD/2200/400	9	200	250	420	13,775
620STD/2500/400	10	250	280	480	16,025
620STD/3150/400	10	315	315	550	18,125



Size 4-7

For diagram of package sizes 8-10 see page 11.

Dimensions W H D

Package Size	A	B	C	D	E	Weight (kg)
4	228	318	157	200	300	7.5
5	228	468	157	200	450	11
6	234	672	298	200	650	24
7	398	838	336	370	800	96
8	456	1042	465	420	300	115
9	572	1177	465	536	300	132
10	677	1288	465	641	300	140



208 - 240V (±10%) 0.75 to 37kW

Type	Package size	Nominal Power (kW)	Output Current (A)	Prices (£) 620STD
620STD/0007/230	4	0.75	4.3	905
620STD/0015/230	4	1	8	1024
620STD/0022/230	4	2.2	11	1024
620STD/0040/230	4	4.0	17	1565
620STD/0055/230	5	5.5	24	2025
620STD/0075/230	5	7.5	30	2755
620STD/0110/230	6	11	46	3725
620STD/0150/230	6	15	61	4255
620STD/0180/230	6	18	72	5270
620STD/0220/230	7	22	86	6355
620STD/0300/230	7	30	120	6785
620STD/0370/230	7	37	145	7425

620 COM Price = 620STD + £175
 620 ADV LINK Price = 620STD + £250

OPTIONS

Integral Dynamic Brake Controller

Package	Prices (£)
Size 4	60
Size 5	140
Size 6	180
Size 7	261
Size 8	1238
Size 9	1445
Size 10	1750

For a full range of optional EMC filters and line chokes see pages 60/61.
 ac vector motors ready fitted with encoder and force ventilation fan see pages 32/33.
 Wall Mount Cable Gland Box and Top Cover available for all 620 Series - for details refer to 584SV see pages 9/11.