



PRODUCT
FROM MITSUBISHI

E500 SERIES

A NEW BREED OF COMPACT DRIVE



that's
faster
to set up
and go



**MITSUBISHI
ELECTRIC**

Your partner in automation systems

Plug in for instant compatibility



no other compact drive works faster

The exciting and special feature of the E500 is its 'built-in' communications.

This drive is one of the first in the market place to have the capability to connect to any of

3 open fieldbuses (DeviceNet,

Profibus DP and CC-Link) simply by



mx500

fitting a plug-in option card. With a 19200 Kbaud

RS 485 serial comms capability as standard,

this allows simple and fast connectivity to other manufacturers' equipment in existing plants.

Connectivity is made even simpler using Mx500 software. This is Windows-

based software which enables communication and control between any Mitsubishi 500 Series inverter, from setting parameters automatically to diagnostics functions.

Yet again Mitsubishi Electric has produced a thoroughbred drive with unrivalled performance. It is not just the functionality of the E500 range that is amazing, it's also the way Mitsubishi has packed it all into such small frame-sizes. Quite simply, this new breed of compact drives brings you more benefits than ever before.



E500 is set to be a winner in its class

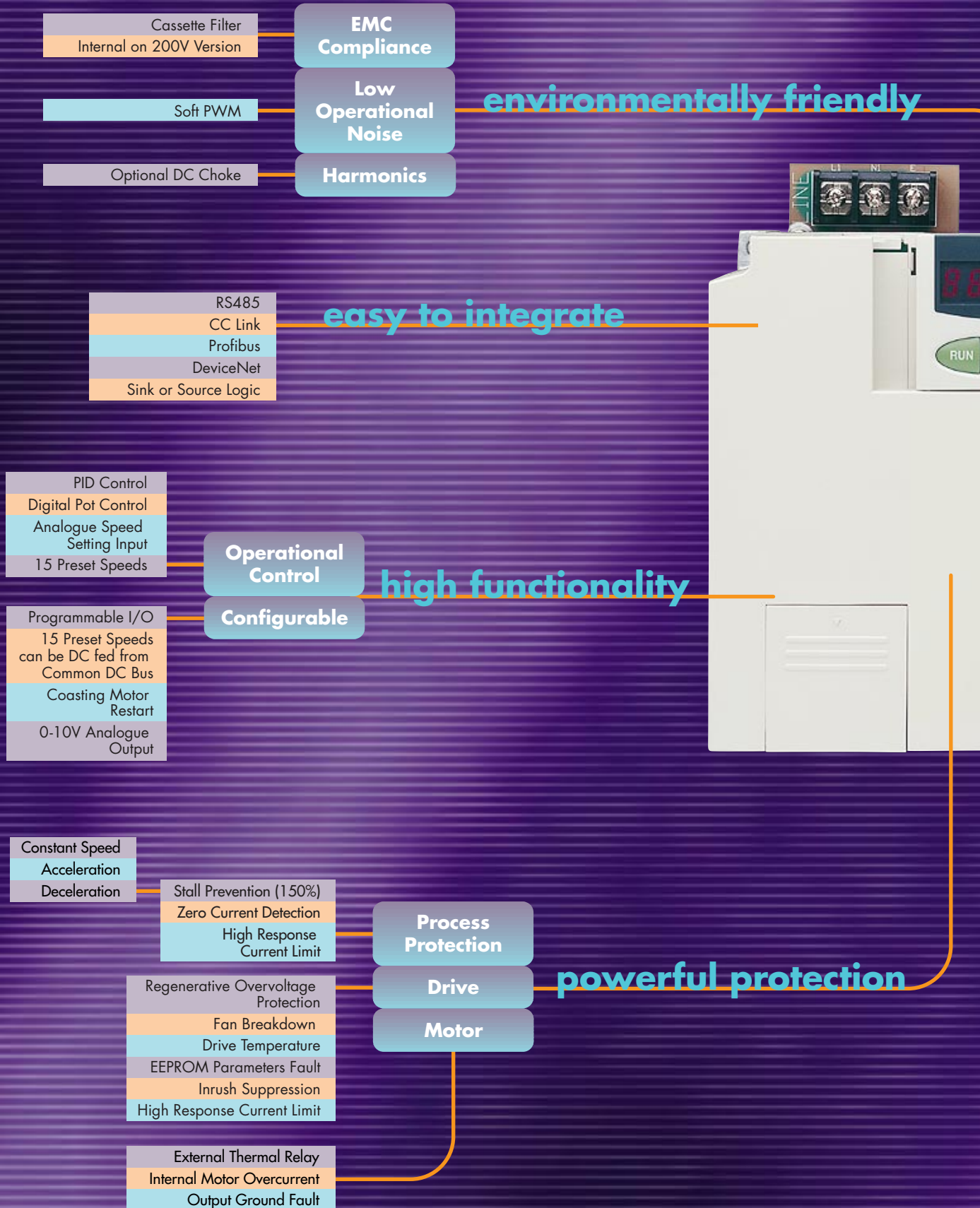


a big appetite for hard work

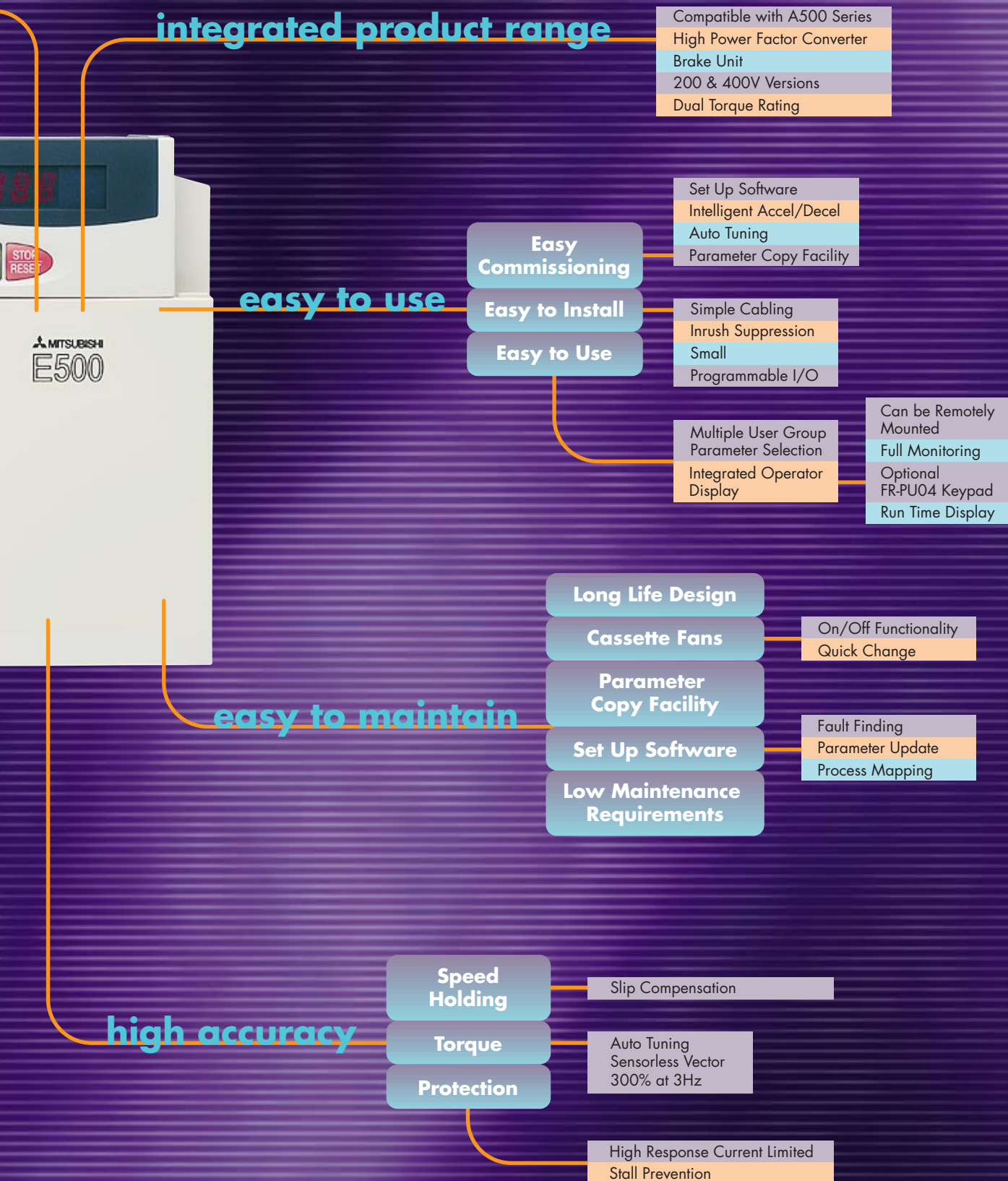
However, don't be fooled by the small size – these drives can tackle the most demanding work load. The flexible, versatile and communication capabilities of the E500 range offer greater speed

of set up, greater control, and the ability to easily integrate into a huge range of applications – from food to pharmaceuticals, elevators to HVAC.

packed out with



th functionality



SPECIFICATIONS

			FR-E520S-K-EC				FR-E540-K-EC							
Output Rating	Model Reference		0.4	0.75	1.5	2.2	0.4	0.75	1.5	2.2	3.7	5.5	7.5	
	Motor capacity(kW) (Note 1)		0.4 (0.75)	0.75 (1.1)	1.5 (2.2)	2.2 (3)	0.4 (0.75)	0.75 (1.1)	1.5 (2.2)	2.2 (3)	3.7 (5.5)	5.5 (7.5)	7.5 (11)	
	Rated capacity (kVA) (Note 2)		0.95	1.5	2.7	3.8	1.2	2.0	3.0	4.6	7.2	9.1	13.0	
	Rated output current (A)		2.5 (3)	4 (5)	8 (11)	11 (12.8)	1.6 (1.8)	2.6 (3)	4 (6)	6 (7.5)	9 (10.5)	12 (17)	17 (23)	
	Overload capacity (Note 1)		150 (120)% for 60 secs, 200 (150)% for 0.5 secs											
	Rated output voltage (Note 4)		Three phase, 200V to 240V 50Hz/60Hz				Three phase, 380V to 480V 50Hz/60Hz							
Power supply	Rated input AC voltage, frequency		Single phase, 200V to 240V 50Hz/60Hz				Three phase, 380V to 480V 50Hz/60Hz							
	Permissible AC voltage fluctuation		Single phase, 170 to 264V 50Hz/60Hz				Three phase, 325V to 528V 50Hz/60Hz							
	Permissible frequency fluctuation		Within ±5%											
	Power supply capacity (kVA) (Note 5)		1.5	2.3	4.0	5.2	1.5	2.5	4.5	5.5	9	12	17	
Protective structure			Enclosed type (IP20)											
Cooling system			Self-cooling		Forced air cooling		Self-cooling		Forced air cooling					
Dimensions (mm)			W	140	140	140	140	140	140	140	140	220	220	
			H	150	150	150	150	150	150	150	150	150	150	
			D	136	136	166	166	116	116	136	136	136	148	148
Control Specifications	Control system		Soft-PWM control/high carrier frequency PWM control can be selected. V/F control or general-purpose magnetic flux vector control can be selected.											
	Operation functions		Maximum/minimum frequency setting, frequency jump operation, external thermal relay input selection, automatic restart operation after instantaneous power failure, forward/reverse rotation prevention, slip compensation, operation mode selection, offline auto tuning function, PID control, computer link operation (RS-485).											
	Output signals	Operating status		2 open collector output signals can be selected from inverter running, up to frequency, frequency detection, overload alarm, zero current detection, output current detection, PID upper limit, PID lower limit, PID forward/reverse rotation, operation ready, minor fault and alarm, and 1 contact output (230VAC 0.3A, 30VDC 0.3A) can be selected.										
		For meter		1 signal can be selected from output frequency, motor current and output voltage. Analog output (0 to 10VDC).										
	Output frequency range		0.2 to 400Hz (starting frequency variable between 0 and 60Hz)											
	Voltage/frequency characteristic		Base frequency set as required between 0 and 400Hz. Constant torque or variable torque pattern can be selected.											
	Acceleration/deceleration time setting		0.01, 0.1 to 3600 s (acceleration and deceleration can be set individually), linear or S-pattern acceleration/deceleration mode can be selected.											
	Braking torque	Regenerative (Note 3)		0.4K, 100% or more, 0.75K, 1.5K, 2.2K 20% or more				0.4K, 0.75K, 100% or more, 1.5K, 50% or more, 2.2K, 3.7K, 5.5K, 7.5K, 20% or more						
		DC dynamic brake		Operation frequency (0 to 120Hz), operation time (0 to 10 s), operation voltage (0 to 30%) variable.										
	Current stall prevention operation level		Operation current level can be set (0 to 200% variable), presence or absence can be selected.											
	Voltage stall prevention operation level		Operation level is fixed, presence or absence can be selected.											
	Fast-response current limit level		Operation level is fixed, presence or absence can be selected.											
	Input signals	Frequency setting signal	Analog input	0 to 5VDC, 0 to 10VDC, 4 to 20mADC										
			Digital input	Entered from control panel (optional FR-PA02-02).										
		Start signal		Forward and reverse rotation, start signal automatic self-holding input (3-wire input) can be selected.										
		Alarm reset		Used to reset alarm output provided when protective function is activated.										
Multi-speed selection		Up to 15 speeds can be selected. (Each speed can be set between 0 and 400Hz, running speed can be changed during operation from the control panel.)									Use Pr. 180 to Pr. 183 for selection.			
Second function selection		Used to select second functions (acceleration time, deceleration time, torque boost, base frequency, electronic overcurrent protection).												
Protective/alarm functions			Overcurrent shut-off (during acceleration, deceleration, constant speed), regenerative overvoltage shut-off, undervoltage (Note 1), instantaneous power failure (Note 1), overload shut-off (electronic overcurrent protection), brake transistor alarm, output short circuit, stall prevention, brake resistor overheat protection, fan overheat, fan failure (Note 4), parameter error, PU disconnection, ground fault over current protection.											
Display	Control panel display	Operating status	Output voltage, output current, set frequency, running.											
		Alarm definition	Alarm definition is displayed when protective function is activated. 4 alarm definitions are stored.											
	LED display		Power application (POWER), Alarm (ALARM).											

- Note:
- Figures in brackets indicate ratings for variable torque loads (e.g. pump and fan).
 - The rated output capacity indicated assumes that the output voltage is 220V/380V.
 - The overload capacity indicated in % is the ratio of the overload current to the inverter's rated output current. For repeated duty, allow time for the inverter and motor to return to or below the temperatures under 100% load.
 - The maximum output voltage does not exceed the power supply voltage. The maximum output voltage may be set as desired below the power supply voltage.
 - The power supply capacity changes with the values of the power supply side inverter impedances (including those of the input reactor and cables). Use the power supply capacity larger than the indicated.

THE AUTOMATION NETWORK

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BPX & Pneumatic Lines
Dudley Tel: 01384 355455 (BPX)
Tel: 01384 357400 (PL)

BPX Electro Mechanical Co Ltd CTE
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Staffs Tel: 01782 564 400
Leeds Tel: 0113 270 5656

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Automation & Control

Engineering Ltd
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Nenagh, County Tipperary
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