AccurET MODULAR 300

EA-P2M-300-xxxxxA controller
EA-S0M-300-xx/xxA power supply

CONTROLLERS		UNIT	EA-P2M-300-4/7.5A	EA-P2M-300-07/15A
Number of axes		-	2	2
Current range	Continuous current (per axis)	Arms	4	7 (PWM at 10 kHz)
	Max. overload current (per axis)	Arms	7.5	15
Power input	DC voltage	VDC	48 - 340	48 - 340
	Max. current	Arms	8	8
PWM frequency		kHz	10, 20	10, 20
Weight		kg	1.4	1.6

POWER SUPPLY		UNIT	EA-S0M-300-40/80A
Power input	AC voltage (single phase)	VAC	71 - 240 (50 / 60Hz)
	Max. AC current	A	10 (at 71 - 240 VAC)
	Max. inrush current	Apeak	15 at 240 VAC
	Max. continuous power	kW	2.4
Auxiliary input	DC voltage	VDC	24 ± 10%
	Max. current	A	10
Power output	DC voltage	VDC	100 - 340
	Max. continuous current	Arms	10 (limited by max. AC input current)
	Max. pulse current	A	40
Auxiliary output	DC voltage	VDC	24 ± 10%
	Max. continuous current	A	10

CONTROL FEATURES		UNIT	
General	Motion profile and command management sampling time	µs	400 (down to 200)
	Current loop sampling time	µs	50
	Position loop sampling time	µs	50
	Basic motion profiles	-	Trapezoidal, S-curve, Sine, Look-up table, …, Interpolated (refer to UltimET)
	Advanced motion profiles	-	Refer to UltimET motion controller
	Power safety relay	-	Relay disabling the output power bridge
Communication interface	USB 2.0 (for setting only)	-	Full speed (12 Mbps)
	ETEL real-time bus / cycle time	-	TransnET at 1 Gbps / 100 µs (down to 50 µs)
	Ethernet (TCP/IP)	-	10 / 100 MHz
Position encoder interface	Analog 1 Vpp	-	Max. 500 kHz input frequency
	Digital (TTL)	-	Max. 10 MHz input frequency
	EnDat 2.1 and 2.2	-	RS485
User's inputs / outputs	Digital inputs / outputs	-	4 / 2 (per axis)
	Fast digital inputs / outputs	-	6 / 4 (common to both axes)
	Analog inputs / outputs	-	0 / 0
	With additional optional board	-	8 digital inputs and outputs / 4 analog inputs and outputs (16 bits)
Software / programmability	ComET commissioning software	-	For setting / monitoring (for software compatibility, refer to the ComET manual)
	ETEL Device Interface (EDI)	-	DLL files for C / C++ / .NET (for software compatibility, refer to the EDI manual)
	Firmware update	-	USB, Ethernet TCP/IP and TransnET

ADVANCED FEATURES	
Fast triggers (1D and 2D)	Fast trigger based on theoretical or real position with less than 20ns reaction time.
Force control	Precise force control with or without force sensor. Zero stop time for outstanding troughput.
Identification tools	Powerfull indentification tool for fine tuning and machine performance evaluation.
Gantry control	Advanced control algorithm to drastically reduce settling times on gantry type machines.
Stage protection	Safety algorithm to handle very fast and controlled axis stop.
Cogging and friction compensation	Learning algorithm to compensate disturbances like friction and cogging.
Dual encoder feedback	Optimized management of dual encoder feedback on a single axis.
RTV (Real Time Values)	8 channels of real time data per axis for upper level motion management.
Trajectory filters	Advanced trajectory shapes to avoid axis vibrations and reduce settling times.

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