



ACCURET+ 300 Position Controllers

Data sheet

CONTROLLERS		UNIT	EA+P2M-300-4/7.5A	EA+P2M-300-07/15A	EA+P2M-300-10/20A
Number of axes		-	2		
Current range	Continuous current (per axis)	Arms	4	7	10
	Max. overload current (per axis)	Arms	7.5	15	20
Power input	DC voltage	VDC	96 - 340		
	Max. current	Arms	15		
Control input	DC voltage	VDC	24 ($\pm 10\%$)		
	Max. current at 24 VDC	A	Typ. 1.3 / Max. 2.5		
PWM frequency		kHz	20		
Weight (without / with optional board slot)		kg	1.4 / 1.6		

POWER SUPPLY		UNIT	EA+SOM-300-10/40A		
Power input	AC voltage (single phase)	VAC	100 - 240 (50 / 60 Hz)		
	Max. AC current	A	13		
	Max. inrush current	Apeak	15 at 240 VAC		
	Max. continuous power	kW	2.4 (at 240 V input) or 1kW (at 100 V input)		
Auxiliary input	DC voltage	VDC	24 $\pm 10\%$		
	Max. current	A	10		
Power output	DC voltage	VDC	140 - 340		
	Max. continuous current	Arms	10 (limited by max. AC input current)		
	Max. pulse current	A	40		
Auxiliary output	DC voltage	VDC	24 $\pm 10\%$		
	Max. continuous current	A	9.5		

CONTROL FEATURES		UNIT			
General	Motion profile and command management sampling time	μ s	400		
	Current loop sampling time	μ s	50		
	Position loop sampling time	μ s	50		
	Motion profiles	-	For basic and advanced profiles, refer to ULTIMET motion controllers		
Standard interfaces	USB 2.0 (for setting only)	-	Full speed (12 Mbps), type-C		
	ETEL real-time bus	-	TRANSNET at 1000 Mbps		
	Ethernet	-	100 / 1000 Mbps		
Position encoders interfaces	Analog 1 Vpp	-	Max. 2 MHz input / Max. 32768 interpolation factor		
	EnDat 2.2	-	Max. 6.25 Mbps		
	Digital EnDat 3	-	Max. 25 Mbps, 4-wire only (bus operation not supported)		
	TTL	-	Max. 40 MHz input frequency		
GPIOs	Home / limit switch	-	TTL signal (EHS / L1 & ELS / L2)		
	Standard digital inputs	-	8 (common to both axes)		
	Standard digital outputs	-	4 (common to both axes)		
	Fast digital inputs	-	6 (common to both axes)		
Software / programmability	Fast digital outputs	-	4 (common to both axes)		
	COMET commissioning software	-	For setting / monitoring (for software compatibility, refer to the COMET manual)		
	EDI (ETEL Device Interface)	-	DLL files (for software compatibility, refer to the EDI manual)		
	Firmware update	-	USB, Ethernet and TRANSNET		

ADVANCED FEATURES		
Fast triggers (1D and 2D)		Fast trigger based on theoretical or real position with less than 20 ns reaction time.
Force control		Precise force control with or without force sensor. Zero stop time for outstanding throughput.
Identification tools		Powerful identification 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		Tuning 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)		Max. 16 channels of real time data per axis for upper level motion management.
Trajectory filters		Advanced trajectory profiles to avoid axis vibrations and reduce settling times.
Functional safety		Safe Torque Off (STO): SIL3, Cat. 3, PLd.
EnDat 3 Multi-DOF		Ability to read EnDat 3 Multi-DOF devices up to three positions (typ. X-Y-Rz).

