AccurET VHP 100
Very high performance controller

EA-H2M-100-xxxxxA controller

CONTROLLERS		UNIT	EA-H2M-100-07/15A	EA-H2M-100-10/30A
Number of axes		-	2	2
Current range	Continuous current (per axis)	Arms	7	10
	Max. overload current (per axis)	Arms	15	30
Current loop SNR (Signal to Noise Ratio)		dB	100	100
Power input	DC voltage	VDC	30 - 100	30 - 100
	Max. current	Arms	12	12
Weight		kg	3.65	3.65
PWM frequency		Hz	N/A	N/A

CONTROL FEATURES		UNIT	
General	Motion profile and command management sampling time	µs	400 (down to 200)
	Current loop sampling time	µs	12.5
	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
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
		-	Max. 6 MHz input frequency (on HSEI encoders)
	Digital (TTL)	-	Max. 10 MHz input frequency
	EnDat 2.1 and 2.2	-	RS485
User's inputs / outputs	Digital inputs	-	4 DINs (per axis)
	Fast digital inputs	-	6 FDINs (common to both axes)
	Digital outputs	-	2 DOUTs (per axis)
	Fast digital outputs	-	4 FDOUTs (common to both axes)
	Analog inputs	-	4 AINs (common to both axes), ±10V, 16 bits
	Analog outputs	-	4 AOUTs (common to both axes), ±20V, 16 bits
Software / programmability	ComET commissioning software	-	For setting / monitoring (Windows 7, 8 and 10)
	ETEL Device Interface (EDI)	-	DLL files for C/C++/.NET (Windows 7, 8 and 10 (32/64-bit)), RTX2016 (32-bit) and RTX64
	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 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.
High Speed Encoder Interface (HSEI)	6MHz encoder input for high resolution and high speed axes
Built-in analog Input/Output	Four built-in 16 bits analog inputs/outputs to read/control external devices

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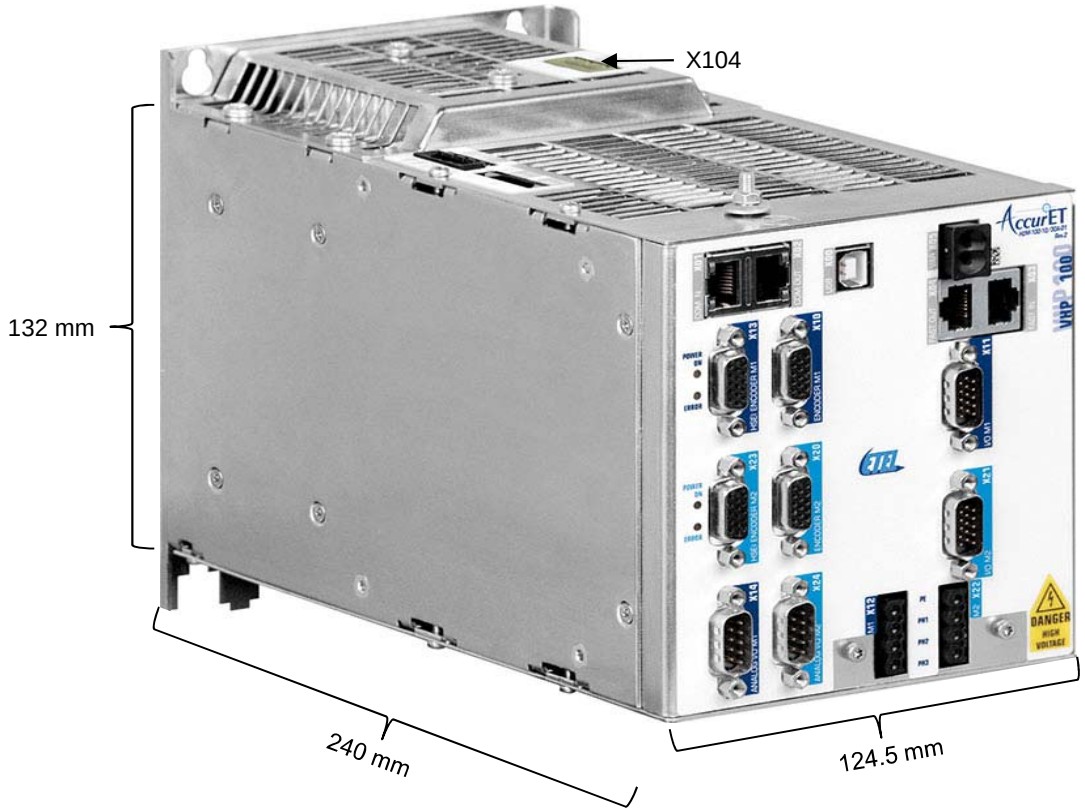

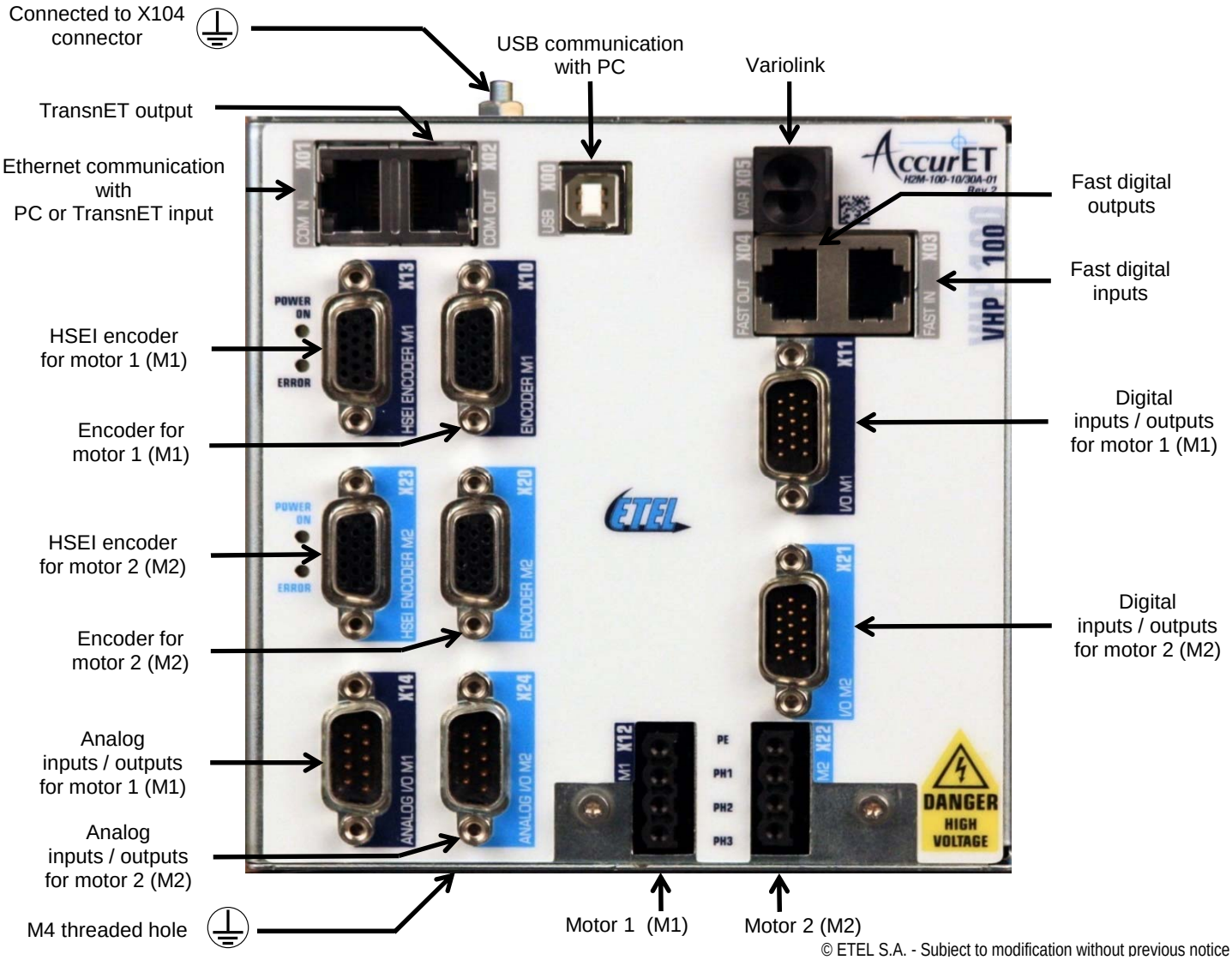

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