



Model	Units	8-0240		
<b>KINEMATICS &amp; FEEDBACK INFORMATION</b>				
Active axes		X	Y	Z
Travel range (X, Y, Z)	mm	1000	1300	100
Encoder type		Optical		
Encoder model		Len1		
Encoder resolution	nm	down to 0.3 nm		
Encoder interface		1Vpp or Differential RS422		
Internal multiplier		YES		
Multiplication factor <sup>1)</sup>		up to x65536		
Encoder grating period	µm	20		
Reference mark (index)		YES		
Absolute accuracy (after calibration)	µm	±2	±2	±0.5
Bi-directional repeatability (RMS) <sup>2)</sup>	µm	±0.5	±0.5	±0.1
Pitch <sup>3)</sup>	µrad / arcsec	±15 / ±3.1	±42 / ±8.66	±55 / ±11.34
Yaw <sup>3)</sup>	µrad / arcsec	±7.5 / ±1.55	±42 / ±8.66	±55 / ±11.34
Roll	µrad / arcsec	±7.5 / ±1.55	±42 / ±8.66	±55 / ±11.34
Maximum velocity (no load; 4 motors) <sup>4)</sup>	mm/s	>1000		
Maximum acceleration (no load; 4 motors) <sup>5)</sup>	mm/s <sup>2</sup>	>10000		
Limits switches type (safety)		Hall sensors		
Limit switch polarity (safety)		Positive end of run		
Limit switch voltage	V	5 ... 24		
<b>LOAD, GUIDING &amp; TRANSMISSION INFORMATION</b>				
Design type		Real gantry	Traverse axis	Vertical linear motor axis
Linear motor model		LM12	LM13	LM3
Linear motor design type		Ironless BLDC motor		
Maximum bus voltage	V <sub>DC</sub>	325		
Maximal continues current	A <sub>PK</sub>	3.4	2.27	2.2
Maximal peak current	A <sub>PK</sub>	16.9	11.3	13.6
Maximal continues force	N <sub>N</sub>	423	282	28.4
Maximal peak force	N <sub>PK</sub>	2100	1400	175.4
Pole pitch NN	mm	57	57	30
Quantity of motors		2	1	1
Load capacity (centrally placed) <sup>6)</sup>	kg	30		
Moving mass <sup>7)</sup>	kg	265	35	2.2
Guiding system		Recirculating linear rails and carriages units with caged balls		Recirculating linear rails and carriages units
<b>MATERIAL AND ENVIRONMENT CONDITIONS</b>				
Housing material		Granite		
Housing coating (finish)		N/A		
Environment pressure		Normal Atmosphere		
Operating temperature	°C	20±2		
<b>CONTROL, COMMUNICATION AND CABLING</b>				
Recommended controllers <sup>8)</sup>		CMXA		
Recommended drivers <sup>9)</sup>		CMXA/DUMXA		
Recommended power supply <sup>9)</sup>		1 phase 220 VAC ~ 50 Hz supply		
Recommended communication interface <sup>12)</sup>		EtherCAT / RS232 / TCP-IP		
Cable length	m	up to 5		
Differential outputs <sup>10)</sup>		can be requested separately		
<b>ACCESSORIES INFORMATION</b>				
Base for mechanical interface		1TS08-12-05-AP-1000		
Cable management		Included for 3 axes. May be developed for application requirements		
<b>ADDITIONAL DETAILS</b>				
Dimensions of moving platform (W × L)	mm	2300 × 1690 × 912		
Stage dimensions (W × L × H)	mm	295 × 130		
Measurement system		Metric/Imperial		
Orthogonality <sup>11)</sup>	µrad / arcsec	48.48 / 10		
Aperture (center placed) (W × L)	mm	can be requested separately		
Weight	kg	TBD		