

	Direct Drive Theta Size		
	DDT-100 Direct Drive Theta	DDT-200 Direct Drive Theta	DDT-200MT Direct Drive Theta
Type	Direct Drive Rotary	Direct Drive Rotary	Direct Drive Rotary
Bearing type	Preloaded X-contact ball	Kingpost style angular contact	Kingpost style angular contact
Motor type	3-Phase Brushless	3-Phase Brushless	3-Phase Brushless
Throughhole	15mm (0.59 in.)	50mm (1.97 in.)	50mm (1.97 in.)
Accuracy ( $\pm$ arc-sec)	12	6	6
Kinematic Wobble ( $\pm$ arc-sec)	15	12	10
Kinematic Radial Runout ( $\mu$ m TIR)	8	8	8
Table top parallelism to base ( $\mu$ m TIR)	25	25	10
Table top physical Runout ( $\mu$ m TIR)	20	20	5
Repeatability	Control dependent, $\pm$ 1 Count possible	Control dependent, $\pm$ 1 Count possible	Control dependent, $\pm$ 1 Count possible
Resolution choices (includes index pulse)	1 $\mu$ m, 0.5 $\mu$ m, 0.2 $\mu$ m, 0.1 $\mu$ m (75mm ring)	1 $\mu$ m, 0.5 $\mu$ m, 0.2 $\mu$ m, 0.1 $\mu$ m (200mm ring)	1 $\mu$ m, 0.5 $\mu$ m, 0.2 $\mu$ m, 0.1 $\mu$ m (200mm ring)
Table Resolution (KCPR)	236.8, 473.6, 1184, 2368	472, 944, 236, 4720	472, 944, 236, 4720
Speed Limit (RPM)	178 – 1273	66 – 477	66 – 477
Continuous Torque, N-m(motor)	0.74	1.07	1.07
Load capacity Axial/Radial (kN)	6.5 / 2.6	20.8 / 7.2	20.8 / 7.2
Max. Moment (N-m)	100	460	460
Rotational Inertia (kg-m <sup>2</sup> )	0.0005	0.0052	0.0051
Stage weight (kg)	1.5	3.6	4.5