

Gimbal 2D-360-100-U



Elevation-over-azimuth position table provides precision rotation of load on a azimuth (axis C) and elevation (tilt) on the horizontal axis A.

Two rotary tables of gimbal have torques up to 600 Nm, faceplate diameters 450 mm and load mass up to 50 kg.

Rotary tables are based on direct drives, have no gear and zero backlash, have high accuracy, repeatability and resolution, smooth movement, simple integration.

Tables have optional backlash-free pneumatic clamp, protection grade IP60 and equipped with high-precision cross roller bearing with runout under 10 microns, optical incremental encoder with high accuracy under 10 arc.sec, repeatability 2 arc.sec and resolution 0.1 arc.sec.

Advantages:

- direct drive;
- high precision and protection;
- no backlash, smooth movement;
- high repeatability and resolution;
- simple integration.

Applications:

- high-precision tracking and guidance systems;
- telescope drive.

		axis (C)	axis (A)
Number of poles pairs P		31	25
Peak torque M_p	Nm	660	429
Continuous torque M_a	Nm	326	219
Bearing friction torque M_b	Nm	5	5
Cogging (detent) torque M_c	Nm	10	6
Peak current at M_p	Arms	45,1	21,1
Continuous current at M_a	Arms	16,6	8,2
Inductance L	mH	9	32
Resistance R	Ohm	1,3	4,3
Power supply AC	V	3 x ~380 V AC	3 x ~380 V AC
Max. velocity N_p at M_p	rpm	173	111
Max. velocity N_a at M_a	rpm	247	170
Max. velocity N_b at M=0	rpm	280	205
Max. bearing velocity	rpm	300	300
Rotor moment inertia	kgm ²	2,6	1,2
Max. axial / radial payload	kg	900 / 400	700 / 300
Max. payload tilting torque	Nm	300	250
Axial / radial runout	micron	20 / 20	20 / 20
Number of encoder lines		9000	9000
Position accuracy	arc.sec.	10*	10*
Repeatability	arc.sec.	2*	2*
Resolution	arc.sec.	0,1	0,1
Degree of protection		IP60	
Table weight	kg	450	
Table's size	mm	665x550x675	
Max. Overall dimensions of the load	mm	420x420x300	
Max. load weight	kg	50	
Length of connecting cables	m	3	
Angle of rotation on axis	deg.	±180	±50

*- at temp. 20±1°C