

## Key Features

- Air Bearing Rotary Table with Direct Drive
- Radial Runout <math>< 0.1 \mu\text{m}</math>
- Angular Accuracy <math>< \pm 0.5 \text{ arcsec}</math>
- 660 U/min in the Standard Version
- 1 Vpp or with Interpolation (5-, 10-, 50-, 100-fold)



## Rotary Table EZ-0275

### Concept and Design

The EZ-0275 is a long-proven, direct-driven rotary table of medium size. Due to the torque motor (IDAM RMF 2- or 3-phase) dynamic applications up to 660 rpm can be realized. The rotary table is particularly suitable for applications that require very precise rotary motion and high repeatability.

The measuring system (Numerik Jena RIK4) with 18,000 lines can optionally be supplied with interpolation factors of 5, 10, 50 or 100. Lower interpolation values allow for higher speeds, while higher interpolation values improve repeatability.

The rotor is magnetically preloaded and clamps to the housing when the air supply is switched off, ensuring it remains fixed in position.

There are no restrictions regarding the installation orientation. Due to the materials used and the fact that air bearings are generally operated without lubricants, the rotary table is suitable for use in clean rooms.

The maximum permissible payload is 600 N.

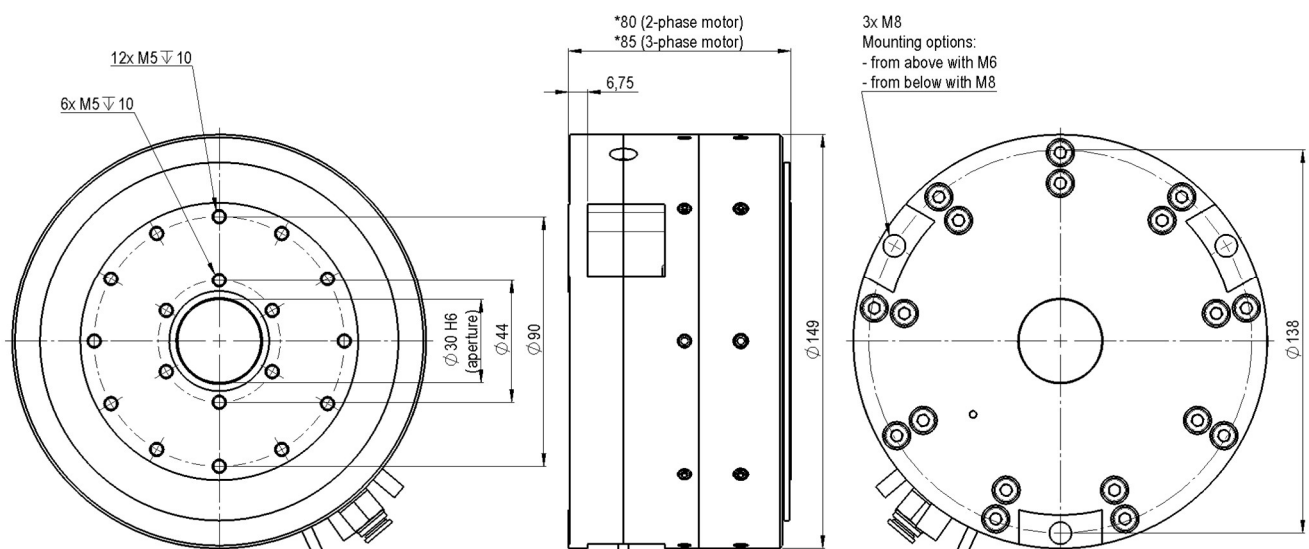
### Applications

High-precision positioning and measuring systems, inspection technology, testing systems, calibration systems, optical alignment, applications with high demands for synchronization and/or repeatability in positioning.

### Drive Control

We offer the rotary table EZ-0275 with the following drive controllers:

- JAT Ecovario 214 AR (2-phase)
- Kollmorgen AKD P00606 (3-phase)
- Kollmorgen Servostar S300 / S700 (3-phase)
- ACS controller (2-/3-phase)



## Specifications

Type	Unit	2-phase	3-phase
Turning Range	°	> 360 (unlimited)	
Error Motion axial (in the center)	µm	< 0.1	
Error Motion radial (at 20 mm height)	µm	< 0.1	
Runout axial (along radius 35 mm)	µm	1	
Repeatability	arcsec / µrad	± 0.3 / ± 1.45	
Accuracy (compensated) <sup>1)</sup>	arcsec / µrad	± 0.5 / ± 2.42	
Max. Speed <sup>2)</sup>	rpm	660	
Mechanical Data			
	Unit	2-phase	3-phase
Mounting Position		unrestricted	
Diameter x Hight	mm	149 x 80	149 x 85
Moving Mass (rotor)	kg	3	3
Total Mass	kg	5.9	6.5
Max. Load Capacity axial push/pull	N	600 / 200	
Nominal Load Capacity axial push/pull	N	480 / 160	
Max. Load Capacity radial	N	225	
Nominal Load Capacity radial	N	180	
Stiffness axial	N/µm	100	
Stiffness radial	N/µm	15	
Max. Moment of Tilt	Nm	14	
Inertial Moment	kg*m <sup>2</sup>	0.0027	
Material		aluminium anodized, steel	
Encoder			
		2-phase	3-phase
Type		incremental	
Lines per Revolution		18,000	
Output Signal		1Vpp / RS422	
Interpolation Options		5-, 10-, 50-, 100-fold	
Drive			
	Unit	2-phase	3-phase
Type		synchronous, iron-core	
Intermediate Circuit Supply 2-/3-phase	V <sub>DC</sub>	60	120
Nominal/Peak Torque	Nm	0.76 / 2.08	0.8 / 2.6
Nominal/Peak Current	A <sub>rms</sub>	1.4 / 3.8	1.9 / 6
Interfaces and Environment			
	Unit	2-phase	3-phase
Supply Pressure	bar	5	
Air Consumption	Sl/min	ca. 13	
Cable Length	m	1.5	
Clean Room Suitability		applicable	
Drive Control			
		2-phase	3-phase
Standard		JAT Ecovario 214 AR	AKD P00606
High End		ACS controller	ACS controller

1) depending on drive control

2) depending on interpolation value

Subject to technical modifications and typographical errors.

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