

**The universal solution for handling, assembly technology, machine tools, laser processing and...**

**... for your application as well**

The rotary table combination RT3A100 consists of two directly driven rotary tables of the RT3A100 series. The B-axis has a swivelling range from approx.  $-10^{\circ}$  to  $+110^{\circ}$ ; the C-axis can be rotated infinitely.

The unit is driven by two integrated 3-phase synchronous motors. The drive guarantees highest dynamics and precision.

An innovative clamping unit integrated in the housing guarantees high holding forces when the drives are switched off without position changes on the axes. By means of compressed air impact, the holding torque can be increased from 15Nm to 20Nm for special applications.

The complete system is supplied as ready-to-connect unit.



## Features

- 3-phase synchronous drives, permanent-magnetic
- B-axis swivelling range:  $-10^{\circ}$  to  $+110^{\circ}$
- C-axis rotary range: Infinite
- Maximum load capacity: 6kg
- Mechanical clamping without position influence, 20Nm
- Blocking air connections
- Compact installation space
- Ready-to-connect structure

## Measuring system

- Absolute, optical measuring system Renishaw Resolute™
- Connection via external interface
- Available data protocols:  
Fanuc, Siemens DRIVE-CliQ, BiSS, Mitsubishi

## Protection class

- Protection class without blocking air: IP40
- Protection class with blocking air: IP54

## Directives, standards

- CE conformity
- EU Machinery Directive 2006/42/EC
- EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) 2011/65/EU

## Operating conditions

- Temperatures
  - Bearing temperature:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
  - Operating temperature:  $0^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$

## Weight

- Total weight: 8.4kg

**Technical data**

Dimensions and loads		B-axis	C-axis
Rotary plate	mm	---	Ø99
Rotary plate centre fit	mm	---	Ø30H7
Positioning accuracy ( not comp.)	arc sec	60	60
Positioning accuracy (comp.)	arc sec	5	5
<b>Clamping mech. / pneum.</b>	Nm	15/20	15/20
Repeat accuracy	arc sec	2	2
Concentricity	µm	4	4
Evenness	µm	4	4
Load capacity	kg	---	6
Permissible moment of tilt	Nm	81	81
Maximum rotational speed	%s / rpm	900	1,300

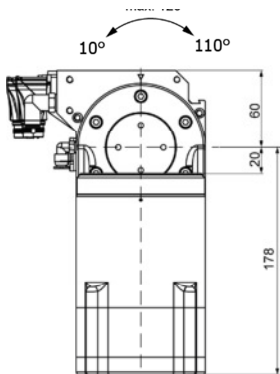
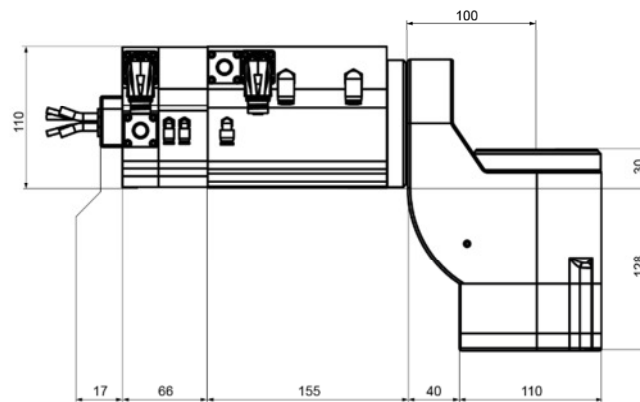
**Motor data**

Motor data		B-axis	C-axis
Nominal torque (convection-cooled)	Nm	4.5	1.5
Nominal current (convection-cooled)	A	1.09	2.64
Nominal torque (water-cooled)	Nm	7.5	2.5
Nominal current (water-cooled)	A	1.82	4.4
Peak torque (water-cooled, 3s)	Nm	10	5
Peak current (water-cooled, 3s)	A	2.5	8.8
Standstill torque	Nm	4	---
Standstill current	A	1.00	---
Power loss at nominal torque	W	95 / 247*	75 / 209*
Counter-voltage constant	V/100 rpm	17.78	4.99
Electrical time constant	ms	2.34	1.19
Inductance (phase-phase)	mH	42.9	12.8
Resistance (phase-phase, 25°C)	Ω	18.3	10.8
Number of pole pairs		6	6
Permissible winding temperature	°C	60	60
Intermediate circuit voltage	V	600	600

\* = with water cooling

**Swivelling range**

max. 120°


**B-axis**

**C-axis**
