

Rotary Joint || BN 835077



**Radio frequency characteristics**

Interface type / material / surface finish	2.4-f (50 Ω) / copper alloy / gold plated
Interface orientation	style I
Frequency range	DC to 50 GHz
Peak power capability	1 kW
Average power capability	50 W @ 1 GHz / 15 W @ 10 GHz 5 W @ 26.5 GHz / 3 W @ 50 GHz
VSWR, max.	1.3 @ DC to 10 GHz 1.4 @ 10 to 26.5 GHz 1.7 @ 26.5 to 50 GHz
VSWR variation over rotation, max.	0.05 @ DC to 26.5 GHz 0.2 @ 26.5 to 50 GHz
Insertion loss, max.	0.3 dB @ DC to 10 GHz 0.5 dB @ 10 to 26.5 GHz 0.9 dB @ 26.5 to 50 GHz
Insertion loss variation over rotation, max.	0.1 dB @ DC to 26.5 GHz 0.15 dB @ 26.5 to 50 GHz
Phase variation over rotation, max.	1 deg. @ DC to 26.5 GHz 2 deg. @ 26.5 to 50 GHz
DC carrying capability	-

Conditions: Operating altitude if not pressurized, max. 2.000 m

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**Mechanical characteristics**

Rotating speed, max. / nominal	200 / - rpm
Life, min.	5 x 10 <sup>6</sup> revolutions
Torque (room / min. temperature), max.	0.5 Ncm / - @ start-up 0.5 Ncm / - @ rotation
Interface loads, max.	±0.5 N in axial direction ±0.5 N in radial direction
Case material	copper alloy
Case surface finish	partially silver plated
IP protection level	IP54
Weight, approx.	0.028 kg
Marking	laser engraving

**Environmental conditions**

<b>Operation</b>	
Ambient temperature range	-40 to +71°C
Relative humidity, max.	95% (non-condensing)
<b>Storage</b>	
Ambient temperature range	-55 to +85°C
Relative humidity, max.	95% (non-condensing)

**Applicable Documents**

Drawing	835077-0E Issue -
Technical information	"Rotary Joints – Glossary", Technical Document TD-00021, Spinner GmbH