

Rotary Joint || BN 835047



Radio frequency characteristics

Interface type / material / surface finish	SMA-f (50 Ω) / copper alloy / gold plated
Interface orientation	style I
Frequency range	DC to 18 GHz
Peak power capability	3 kW
Average power capability	200 W @ 1 GHz 40 W @ 15 GHz 30 W @ 18 GHz
VSWR, max.	1.3 @ DC to 10 GHz 1.4 @ 10 to 18 GHz
VSWR variation over rotation, max.	0.05
Insertion loss, max.	0.25 dB @ DC to 10 GHz 0.30 dB @ 10 to 18 GHz
Insertion loss variation over rotation, max.	0.05 dB
Phase variation over rotation, max.	1 deg.
DC carrying capability	0.5 A, 48 VDC @ full RF avg. power 2 A, 48 VDC @ RF avg. power 5 W 5 A*, 48 VDC @ RF avg. power 5 W

Conditions: **** applied for max. 1 x 10E6 revolutions or 50 h**

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Mechanical characteristics

Rotating speed, max. / nominal	200 / - rpm
Life, min.	5 x 10 ⁶ revolutions
Torque (room / min. temperature), max.	0.5 Ncm / - @ start-up 0.5 Ncm / - @ rotation
Interface loads, max.	±1 N in axial direction ±1 N in radial direction
Case material	copper alloy
Case surface finish	silver plated
IP protection level	IP54
Weight, approx.	0.028 kg
Marking	laser engraving

Environmental conditions

Operation	
Ambient temperature range	-55 to +85°C
Relative humidity, max.	95% (non-condensing)
Storage	
Ambient temperature range	-55 to +85°C
Relative humidity, max.	95% (non-condensing)

Applicable Documents

Drawing	835047-0E Issue M
Technical information	"Rotary Joints – Glossary", Technical Document TD-00021, Spinner GmbH