

MHF Series High Frequency Rotary Joint

MHF series High Frequency Rotary Joint (Slip Ring) is specifically designed to transmit high-speed serial digital signals or analog signal , as well as radar antenna、communication in moving、input signal in moving, etc. It can support maximum transfer rate 40GHz. This series product can support single channel high frequency transmissions, also support high-frequency signal transmission and 24V control signal, communication signal, power supply and fluid media. Video signal adopt 75Ω characteristic impedance. High-frequency signal adopts 50Ω characteristic impedance RF coaxial connector. (other specified connectors are switchable, lead wires are optional, such as RG178、RG179 , RG316、RG174,etc) ;



Features

- Support 1,2,3,4 high-frequency channel/channels.
- Combine with 1~72wires Power/Signal.
- Perfect VSWR
- Suitable for large volume data transmission without delay
- High-rate transmission and high-definition video data
- Widely applied for satellite、radar、portable antenna、equipments of communication in moving,etc.

MHF Series Models

Model#	Channel	Max Frequency (GHz)	Power/signal (circuits)	OD (mm)
MHF100	1	DC-30GHz	0	18
MHF107	1	DC-3GHz	0~24	33
MHF108	1	DC-30GHz	1~48	56
MHF109	1	DC-30GHz	1~96	86
MHF200	2	4.5GHz ; 18GHz	0	31.8
MHF208	2	4.5GHz ; 18GHz	1~96	86
MHF300	3	2.5GHz	0	65
MHF400	4	2.5GHz	0	65

MHF100 Series

1 Channel Rf Rotary Joints

MHF100 is single channel high frequency rotary joint, which is specifically designed for high-speed serial digital signals or analog signal transmission. It can support maximum transfer rate 30GHz. MHF series can support single channel or high-frequency signal transmission by itself. Also MHF series can be customized to combine high-frequency signal with 24V control signal, communication signal, power supply and fluid media. Please refer to MHF108 series.

Typical application:

- Military radar antenna, multi shaft 3D simulator
- Antenna rotating platform with radio-frequency signal, support 1080P, 1080I, etc HD-SDI high definition rotary table
- Support 1080P, 1080I, etc HD-SDI all-in-one machine (high speed dome)

Part# Explanation

MHF100- SMA - 18G

MHF: High frequency slip ring

100: 1 channel high frequency

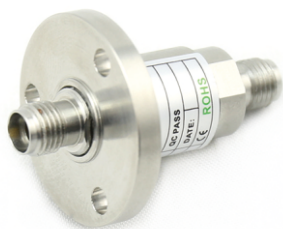
SMA: SMA connector; N: N connector;

W50: Exit RG178 Wires/50Ω

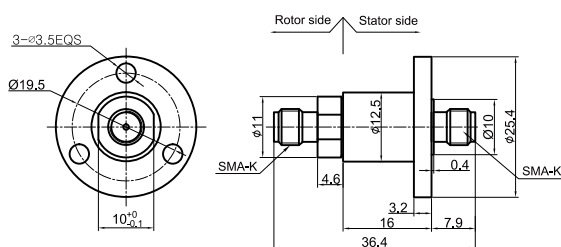
W75: Exit RG179 Wires/75Ω

18G: Max frequency 18GHZ

MHF100-SMA-30G Picture



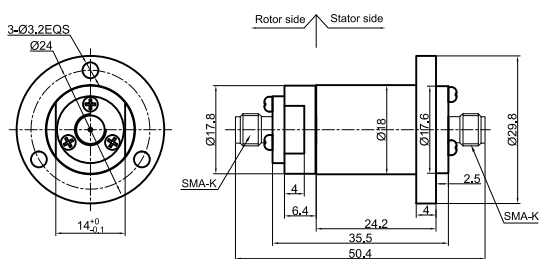
MHF100-SMA-30G Dimensions



MHF100-SMA-18G Picture



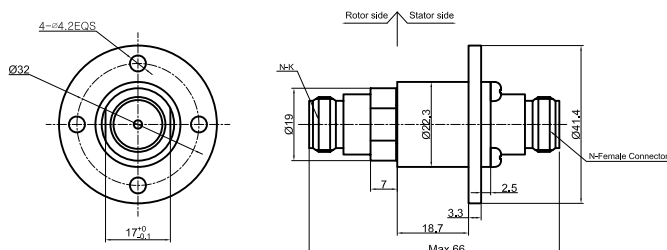
MHF100-SMA-18G Dimensions



MHF100-N-12G Picture



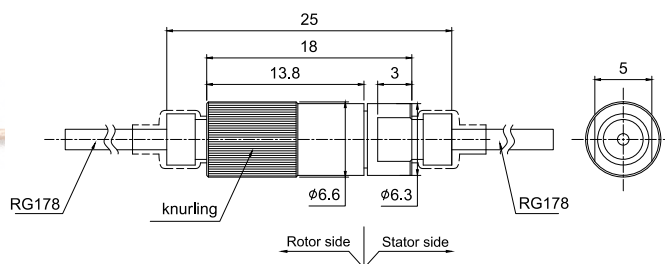
MHF100-N-12G Dimensions



MHF100-W50-3G/MHF100-W75-3G Picture



MHF100-W50-3G/MHF100-W75-3G Dimensions



Part# List

MHF100 - 1 channel RF rotary joint part list							
Part#	RF Channel	Frquency	Connector Type	Characteristic Impedance	Insertion Loss	VSWR	VSWR Ripple
MHF100-SMA-30G	1	DC-30GHz	SMA	50Ω	0.3db	≤1.3	≤0.05
MHF100-N-12G	1	DC-12GHz	N	50Ω	0.3db	≤1.3	≤0.05
MHF100-W50-3G	1	DC-3GHz	coaxial-cable RG178	50Ω	0.3db	≤1.3	≤0.05
MHF100-W75-3G	1	DC-3GHz	coaxial-cable RG179	75Ω	0.3db	≤1.3	≤0.05
MHF100-SMA-18G	1	DC-18GHz	SMA	50Ω	0.3db	≤1.3	≤0.05

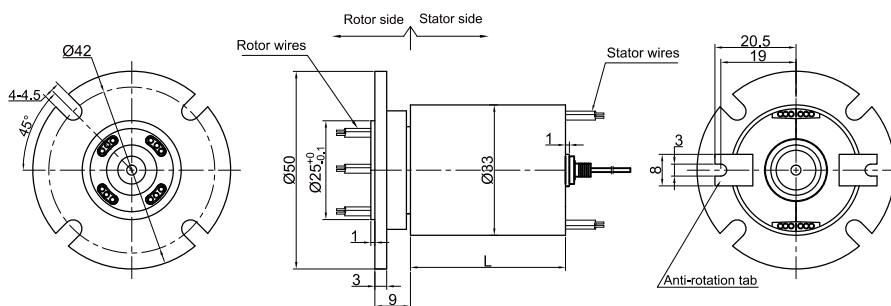
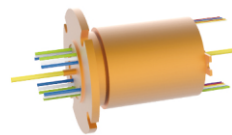
Specifications

Mechanical data	
Parameter	Value
Working Life	50 million revs
Rotating Speed	100RPM
Working Temperature	-30°C~80°C
Operating Humidity	0~85% RH
Contact Material	Gold-Gold
Housing Material	stainless steel
Torque	0.1N.m ; +0.03N.m/6 rings
Protection Grade	IP51

MHF107 Series

1 Channel Rf Rotary Joints+electric Slip Ring

MHF107 is 1 channel RF + electric combining high frequency rotary joint. High frequency + electric slip ring is specifically designed to support high-speed serial digital signals or analog signal transmission. It can support maximum rate 3GHz. This series product can support single channel high frequency transmissions, also high-frequency signal transmission combining with 24V control signal, communication signal, power supply and fluid media. Video signal adopt 50Ω characteristic impedance. High-frequency signal adopts 50Ω characteristic impedance RF coaxial connector. (other specified connectors are switchable, also Lead wire size are optional, such as RG178、RG316、RG174, etc.)



Part# Explanation

MHF107 -P 06 10- S 06 - W50 - 3G					
MHF: High frequency slip ring					3G: Max frequency 3GHz
107: 1 channel RF+Electrical, OD 33mm					W50: Exit coaxial-cable RG178 Wires/50Ω
P: Power ring					W75: Exit coaxial-cable RG179 Wires/75Ω
0610: 6 rings, each ring (0~10A)					06: Signal ring (each 0~5A)
					S: Signal ring

Part# List

MHF107 channel RF rotary joint part list					
Part#	RF Channel	Frequency	10A	Signal 5A	Length (mm)
MHF107-S06	1	DC-3GHz	0	6	25.4
MHF107-S12	1	DC-3GHz	0	12	39.2
MHF107-S18	1	DC-3GHz	0	18	53
MHF107-S24	1	DC-3GHz	0	24	66.8

Note: 1) N channels 10A rings parallel can be used as 1 channel N*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A
2) circuit number and current strength can be customized, please contact customer service for more details.

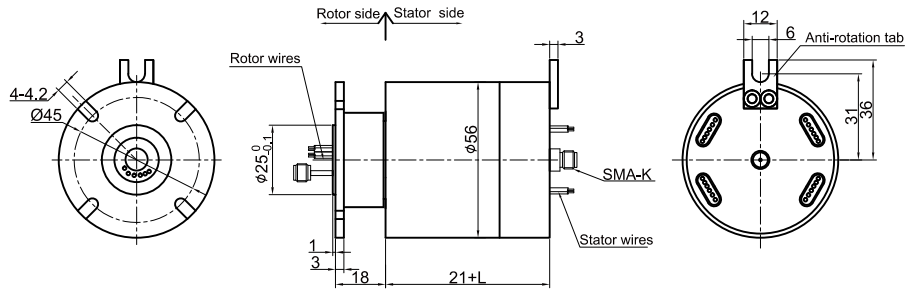
Specifications

(RF Rotary joints) Specifications		Mechanical Data	
Parameter	Value	Parameter	Value
Frequency	0~3GHz	Working Life	50 million revs
Rated Power	5W	Rotating Speed	150RPM
VSWR	<1.3	Working Temperature	-30°C~80°C
Insertion Loss	0.3db	Operating Humidity	0~85% RH
VSWR Ripple	<0.05	Contact Material	Gold-Gold
Insertion Loss Ripple	0.05db	Housing Material	aluminum alloy
Connector Types	Exit coaxial-cable directly	Torque	0.1N.m ; +0.03N.m/6 rings
Characteristic Impedance	50Ω or 75Ω	Protection Grade	IP51
Electrical Data			
Parameter	Value		
	Power	Signal	
Rated Voltage	0~400VAC/VDC	0~240VAC/VDC	
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC	
Lead Wire	AWG22#teflon	AWG22#teflon	
Lead Length	Standard length 300mm(adjustable)		
Insulating Strength	500VAC@50Hz,60s		
Electrical Noise	<0.01Ω		

MHF108 Series

1 Channel Rf Rotary Joints+electric Slip Ring

MHF108 is 1 channel RF + electric combining high frequency rotary joint. High frequency + electric slip ring is specifically designed to support high-speed serial digital signals or analog signal transmission. It can support maximum rate 30GHz. This series product can support single channel high frequency transmissions, also high-frequency signal transmission combining with 24V control signal, communication signal, power supply and fluid media. Video signal adopt 50Ω characteristic impedance. High-frequency signal adopts 50Ω characteristic impedance RF coaxial connector. (other specified connectors are switchable, also Lead wire size are optional, such as RG178、RG316、RG174, etc.)



Part# Explanation

MHF108 -P 06 10- S 06 - SMA - 30G					
MHF: High frequency slip ring					30G: Max frequency 30GHz
108: 1 channel RF+Electrical, OD 56mm					
P: Power ring					SMA: SMA connector; N: N connector; W: Exit coaxial-cable
0610: 6 rings, each ring (0~10A)					06: Signal ring (each 0~5A)
					S: Signal ring

Part# List

MHF108 channel RF rotary joint part list					
Part#	RF Channel	Frquency	10A	Signal 5A	Length (mm)
MHF108-S06	1	DC-30GHz	0	6	38
MHF108-P0610	1	DC-30GHz	6	0	38
MHF108-S12	1	DC-30GHz	0	12	54.8
MHF108-P1210	1	DC-30GHz	12	0	54.8
MHF108-P0610-S06	1	DC-30GHz	6	6	54.8
MHF108-P0410-S08	1	DC-30GHz	2	8	49.2
MHF108-P0210-S10	1	DC-30GHz	2	10	54.8
MHF108-S18	1	DC-30GHz	0	18	71.6
MHF108-P1810	1	DC-30GHz	18	0	71.6
MHF108-P0610-S12	1	DC-30GHz	6	12	71.6
MHF108-P1210-S06	1	DC-30GHz	12	6	71.6
MHF108-P0610-S18	1	DC-30GHz	6	18	88.4
MHF108-P1210-S12	1	DC-30GHz	12	12	88.4
MHF108-P1810-S06	1	DC-30GHz	18	6	88.4
MHF108-S24	1	DC-30GHz	0	24	88.4
MHF108-P2410	1	DC-30GHz	24	0	88.4
MHF108-S30	1	DC-30GHz	0	30	105.2
MHF108-S36	1	DC-30GHz	0	36	122
MHF108-S42	1	DC-30GHz	0	42	138.8

Note: 1) N channels 10A rings parallel can be used as 1 channel N*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A
2) circuit number and current strength can be customized, please contact customer service for more details.

Specifications

(RF Rotary joints) Specifications		
Parameter	Value	
Frequency	0~30GHz	
Rated Power	20W	
VSWR	<1.3	
Insertion Loss	0.3db	
VSWR Ripple	<0.05	
Insertion Loss Ripple	0.05db	
Connector Types	SMA	
Characteristic Impedance	50Ω	
Electrical Data		
Parameter	Value	
	Power	Signal
Rated Voltage	0~440VAC/VDC	0~240VAC/VDC
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC
Lead Wire	AWG16# Teflon	AWG22# Teflon
Lead Length	standard length 300mm (adjustable)	
Insulating Strength	500VAC@50Hz , 60s	
Electrical Noise	<0.01Ω	
Mechanical Data		
Parameter	Value	
Working Life	50 million revs	
Rotating Speed	150RPM	
Working Temperature	-30℃~80℃	
Operating Humidity	0~85% RH	
Contact Material	Gold-Gold	
Housing Material	aluminum alloy	
Torque	0.1N.m ; +0.03N.m/6 rings	
Protection Grade	IP51	

Options for custom slip ring

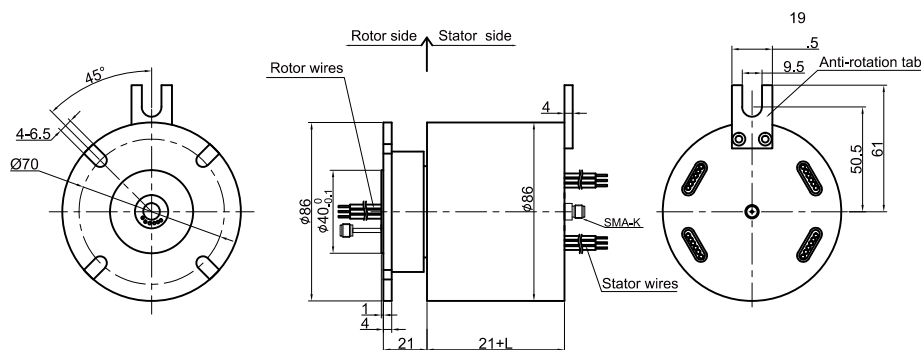
Note: Below special demands can be customized. According, the delivery date will be extended 3 to 15 days; also the cost will be increased 30% to 50%. Most of our basic parts are standard and modular, which can save the cost and lead time.

- ① Cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube are optional.
- ⑤ Hybrid slip ring for Yaskawa/Panasonic/Siemens servo control signal, power line and encoder line.
- ⑥ Support mixed high speed data transmission (including Ethernet, USB, RS232, RS485, Profibus, CanBUS, CANOPEN, DeviceNET, CC-LINK, ProfiNET, EtherCAT, etc.)
- ⑦ Can combine temperature control signal with thermocouple signal.
- ⑧ Special environment can be customized, such as quakeproof, high temperature, etc.
- ⑨ Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- ⑩ Frequency value and connector type can be customized.
- ⑪ High-frequency power can be customized.
- ⑫ Channel number can be customized on your request.
- ⑬ Maximum current can up to 5000 amperes.
- ⑭ Military grade.
- ⑮ Optional for underwater IP65, Ip68.
- ⑯ Optional for stainless steel housing

Technical support: technical@moflon.com

1 Channel Rf Rotary Joints+electric Slip Ring

MHF107 is 1 channel RF + electric combining high frequency rotary joint. High frequency + electric slip ring is specifically designed to support high-speed serial digital signals or analog signal transmission. It can support maximum rate 30GHz. This series product can support single channel high frequency transmissions, also high-frequency signal transmission combining with 24V control signal, communication signal, power supply and fluid media. Video signal adopt 50Ω characteristic impedance. High-frequency signal adopts 50Ω characteristic impedance RF coaxial connector. (other specified connectors are switchable, also Lead wire size are optional, such as RG178、RG316、RG174, etc.)



Part# Explanation

MHF109 -P 06 10- S 06 - SMA - 30G

MHF: High frequency slip ring

P: Power ring

30G: Max frequency 30GHZ
SMA: SMA connector; N: N connector; W : Exit coaxial-cable
06: Signal ring (each 0~5A)
S: Signal ring

Part# List

MHF109 channel RF rotary joint part list

MHF109 channel RF rotary joint part list											
Part#	RF Channel	Frequency	10A	Signal 5A	Length (mm)	Part#	RF Channel	Frequency	10A	Signal 5A	Length (mm)
MHF109-S02	1	DC-30GHz	0	2	31.6	MHF109-P1210-S12	1	DC-30GHz	12	12	106.4
MHF109-P0210	1	DC-30GHz	2	0	31.6	MHF109-P1810-S06	1	DC-30GHz	18	6	106.4
MHF109-S03	1	DC-30GHz	0	3	35	MHF109-P2410	1	DC-30GHz	24	0	106.4
MHF109-P0310	1	DC-30GHz	3	0	35	MHF109-S30	1	DC-30GHz	0	30	126.8
MHF109-S06	1	DC-30GHz	0	6	45.2	MHF109-P0610-S24	1	DC-30GHz	6	24	126.8
MHF109-P0210-S04	1	DC-30GHz	2	4	45.2	MHF109-P1210-S18	1	DC-30GHz	12	18	126.8
MHF109-P0410-S02	1	DC-30GHz	4	2	45.2	MHF109-P1810-S12	1	DC-30GHz	18	12	126.8
MHF109-P0610	1	DC-30GHz	6	0	45.2	MHF109-P2410-S06	1	DC-30GHz	24	6	126.8
MHF109-S12	1	DC-30GHz	0	12	65.6	MHF109-P3010	1	DC-30GHz	30	0	126.8
MHF109-P0210-S10	1	DC-30GHz	2	10	65.6	MHF109-S36	1	DC-30GHz	0	36	147.2
MHF109-P0310-S09	1	DC-30GHz	3	9	65.6	MHF109-P0610-S30	1	DC-30GHz	6	30	147.2
MHF109-P0610-S06	1	DC-30GHz	6	6	65.6	MHF109-P1210-S24	1	DC-30GHz	12	24	147.2
MHF109-P0810-S04	1	DC-30GHz	8	4	65.6	MHF109-P3610	1	DC-30GHz	36	0	147.2
MHF109-P1010-S02	1	DC-30GHz	10	2	65.6	MHF109-S42	1	DC-30GHz	0	42	167.6
MHF109-P1210	1	DC-30GHz	12	0	65.6	MHF109-P0610-S36	1	DC-30GHz	6	36	167.6
MHF109-S18	1	DC-30GHz	0	18	86	MHF109-P1210-S30	1	DC-30GHz	12	30	167.6
MHF109-P0210-S16	1	DC-30GHz	2	16	86	MHF109-S48	1	DC-30GHz	0	48	188
MHF109-P0410-S14	1	DC-30GHz	4	14	86	MHF109-P0610-S42	1	DC-30GHz	6	42	188
MHF109-P0610-S12	1	DC-30GHz	6	12	86	MHF109-P0910-S39	1	DC-30GHz	9	39	188
MHF109-P0810-S10	1	DC-30GHz	8	10	86	MHF109-P1210-S36	1	DC-30GHz	12	36	188
MHF109-P1010-S08	1	DC-30GHz	10	8	86	MHF109-P1810-S30	1	DC-30GHz	18	30	188
MHF109-P1210-S06	1	DC-30GHz	12	6	86	MHF109-P2410-S24	1	DC-30GHz	24	24	188
MHF109-P1410-S04	1	DC-30GHz	14	4	86	MHF109-S60	1	DC-30GHz	0	60	238.8
MHF109-P1610-S02	1	DC-30GHz	16	2	86	MHF109-P0610-S54	1	DC-30GHz	6	54	238.8
MHF109-S24	1	DC-30GHz	0	24	106.4	MHF109-P0910-S51	1	DC-30GHz	9	51	238.8
MHF109-P0410-S20	1	DC-30GHz	4	20	106.4	MHF109-P1210-S48	1	DC-30GHz	12	48	238.8
MHF109-P0610-S18	1	DC-30GHz	6	18	106.4	MHF109-S72	1	DC-30GHz	0	72	289.6

Note: 1) N channels 10A rings parallel can be used as 1 channel N*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A
2) circuit number and current strength can be customized, please contact customer service for more details.

Specifications

(RF Rotary joints) Specifications		
Parameter	Value	
Frequency	0~30GHz	
VSWR	<1.3	
Insertion Loss	0.3db	
VSWR Ripple	<0.05	
Insertion Loss Ripple	0.05db	
Connector Types	SMA	
Characteristic Impedance	50Ω	
Electrical Data		
Parameter	Value	
	Power	Signal
Rated Voltage	0~690VAC/VDC	0~440VAC/VDC
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC
Lead Wire	AWG16# Teflon	AWG22# Teflon
Lead Length	standard length 300mm (adjustable)	
Insulating Strength	500VAC@50Hz , 60s	
Electrical Noise	<0.01Ω	
Mechanical Data		
Parameter	Value	
Working Life	50 million revs	
Rotating Speed	150RPM	
Working Temperature	-30℃~80℃	
Operating Humidity	0~85% RH	
Contact Material	Gold-Gold	
Housing Material	aluminum alloy	
Torque	0.1N.m ; +0.03N.m/6 rings	
Protection Grade	IP51	

Options for custom slip ring

Note: Below special demands can be customized. According, the delivery date will be extended 3 to 15 days; also the cost will be increased 30% to 50%. Most of our basic parts are standard and modular, which can save the cost and lead time.

- ① Cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube are optional.
- ⑤ Hybrid slip ring for Yaskawa/Panasonic/Siemens servo control signal, power line and encoder line.
- ⑥ Support mixed high speed data transmission (including Ethernet, USB, RS232, RS485, Profibus, CanBUS, CANOPEN, DeviceNET, CC-LINK, ProfiNET, EtherCAT, etc.)
- ⑦ Can combine temperature control signal with thermocouple signal.
- ⑧ Special environment can be customized, such as quakeproof, high temperature, etc.
- ⑨ Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- ⑩ Frequency value and connector type can be customized.
- ⑪ High-frequency power can be customized.
- ⑫ Channel number can be customized on your request.
- ⑬ Maximum current can up to 5000 amperes.
- ⑭ Military grade.
- ⑮ Optional for underwater IP65, Ip68.
- ⑯ Optional for stainless steel housing

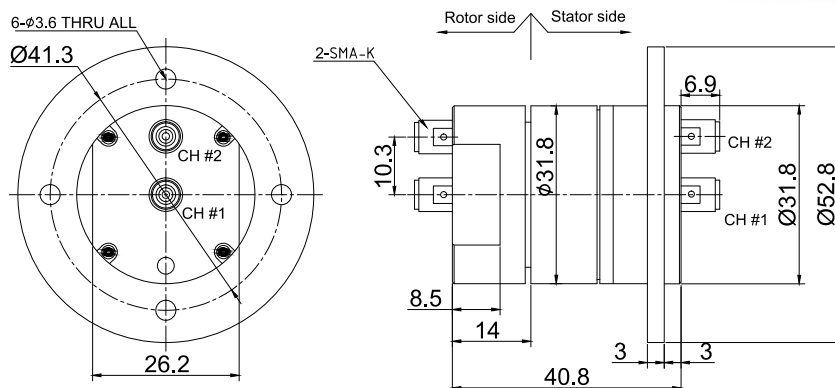
Technical support: technical@moflon.com

MHF200 Series

2 Channels Rf Rotary Joints

MHF200 is 2 channels high frequency rotary joint; the maximum frequency of every channel is 4.5GHz or 18G. High frequency slip ring is specifically designed to support high-speed serial digital signals or analog signal transmission.

options: it can combine with electric power, 24V control signal, communication signal, power supply, media of fluid, water, air, gas etc.



Part# Explanation

MHF200- SMA - 4.5G

MHF: High frequency slip ring

200: 2 channels RF

SMA: SMA connector; N: N connector; W : Exit coaxial-cable

4.5G: Max frequency 4.5GHz

Part# List

MHF200 - 2 Channels RF Rotary Joint Part List			
Part#	RF Channel	Frquency	Connector type
MHF200-SMA-4.5G	2	4.5GHz/Channel	SMA
MHF200-SMA-18G	2	18GHz/Channel	SMA
MHF200-N-4.5G	2	4.5GHz/Channel	N

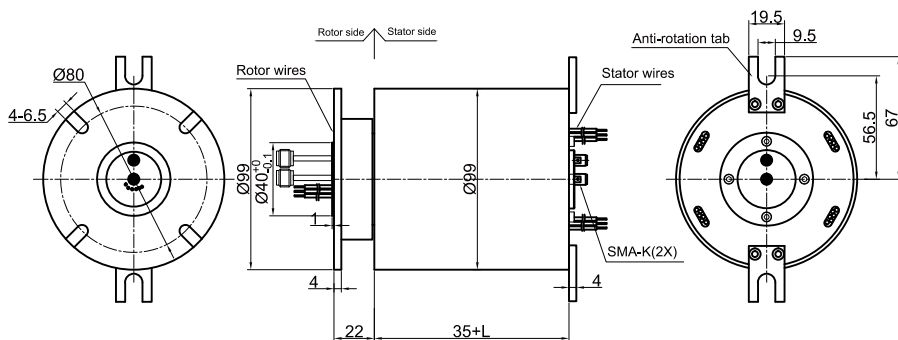
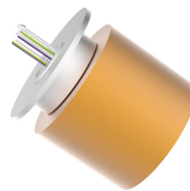
Specifications

Mechanical data		(RF Rotary joints) Specifications	
Parameter	Value	Parameter	Value
Working Life	50 million revs	Frquency	0~18GHz
Rotating Speed	Max 100RPM	VSWR	<1.3
Working Temperature	-30°C~80°C	Insertion Loss	0.3db
Operating Humidity	0~85% RH	VSWR Ripple	<0.05
Contact Material	Gold-Gold	Insertion Loss Ripple	0.05db
Housing Material	stainless steel	Connector type	SMA
Torque	0.1N.m ; +0.03N.m/6 rings	Characteristic Impedance	50Ω
Protection Grade	IP51		

MHF208 Series

2 Channels Rf Rotary Joints+Electric Slip Ring

MHF208 is 2 channels RF + electric combining high frequency rotary joint. High frequency + electric slip ring is specifically designed to support high-speed serial digital signals or analog signal transmission. It can support maximum rate 40GHz. This series product can support 2 channels high frequency transmission, also high-frequency signal transmission combining with 24V control signal, communication signal, power supply and fluid media. High-frequency signal adopts 50Ω characteristic impedance RF coaxial connector. (other specified connectors are switchable, also Lead wire size are optional, such as RG178、RG316、RG174, etc.)



Part# Explanation

MHF208 - P 06 10 - S 06 - SMA - 4.5G					
MHF:	High frequency slip ring				4.5G: 4.5GHz/each channel
208:	2 channels RF+Electrical				SMA: SMA connector; N: N connector; W : Exit coaxial-cable
P:	Power ring				06: Signal ring (each 0-5A)
0610:	6 rings, each ring (0-10A)				S: Signal ring

Part# List

MHF208 - 2 Channels RF Rotary Joint Part List											
Part#	RF Channel	Frequency	10A	Signal or 5A	Length (mm)	Part#	RF Channel	Frequency	10A	Signal or 5A	Length (mm)
MHF208-S02	2	4.5GHz/Channel	0	2	31.6	MHF208-P1210-S12	2	4.5GHz/Channel	12	12	106.4
MHF208-P0210	2	4.5GHz/Channel	2	0	31.6	MHF208-P1810-S06	2	4.5GHz/Channel	18	6	106.4
MHF208-S03	2	4.5GHz/Channel	0	3	35	MHF208-P2410	2	4.5GHz/Channel	24	0	106.4
MHF208-P0310	2	4.5GHz/Channel	3	0	35	MHF208-S30	2	4.5GHz/Channel	0	30	126.8
MHF208-S06	2	4.5GHz/Channel	0	6	45.2	MHF208-P0610-S24	2	4.5GHz/Channel	6	24	126.8
MHF208-P0210-S04	2	4.5GHz/Channel	2	4	45.2	MHF208-P1210-S18	2	4.5GHz/Channel	12	18	126.8
MHF208-P0410-S02	2	4.5GHz/Channel	4	2	45.2	MHF208-P1810-S12	2	4.5GHz/Channel	18	12	126.8
MHF208-P0610	2	4.5GHz/Channel	6	0	45.2	MHF208-P2410-S06	2	4.5GHz/Channel	24	6	126.8
MHF208-S12	2	4.5GHz/Channel	0	12	65.6	MHF208-P3010	2	4.5GHz/Channel	30	0	126.8
MHF208-P0210-S10	2	4.5GHz/Channel	2	10	65.6	MHF208-S36	2	4.5GHz/Channel	0	36	147.2
MHF208-P0310-S09	2	4.5GHz/Channel	3	9	65.6	MHF208-P0610-S30	2	4.5GHz/Channel	6	30	147.2
MHF208-P0610-S06	2	4.5GHz/Channel	6	6	65.6	MHF208-P1210-S24	2	4.5GHz/Channel	12	24	147.2
MHF208-P0810-S04	2	4.5GHz/Channel	8	4	65.6	MHF208-P3610	2	4.5GHz/Channel	36	0	147.2
MHF208-P1010-S02	2	4.5GHz/Channel	10	2	65.6	MHF208-S42	2	4.5GHz/Channel	0	42	167.6
MHF208-P1210	2	4.5GHz/Channel	12	0	65.6	MHF208-P0610-S36	2	4.5GHz/Channel	6	36	167.6
MHF208-S18	2	4.5GHz/Channel	0	18	86	MHF208-P1210-S30	2	4.5GHz/Channel	12	30	167.6
MHF208-P0210-S16	2	4.5GHz/Channel	2	16	86	MHF208-S48	2	4.5GHz/Channel	0	48	188
MHF208-P0410-S14	2	4.5GHz/Channel	4	14	86	MHF208-P0610-S42	2	4.5GHz/Channel	6	42	188
MHF208-P0610-S12	2	4.5GHz/Channel	6	12	86	MHF208-P0910-S39	2	4.5GHz/Channel	9	39	188
MHF208-P0810-S10	2	4.5GHz/Channel	8	10	86	MHF208-P1210-S36	2	4.5GHz/Channel	12	36	188
MHF208-P1010-S08	2	4.5GHz/Channel	10	8	86	MHF208-P1810-S30	2	4.5GHz/Channel	18	30	188
MHF208-P1210-S06	2	4.5GHz/Channel	12	6	86	MHF208-P2410-S24	2	4.5GHz/Channel	24	24	188
MHF208-P1410-S04	2	4.5GHz/Channel	14	4	86	MHF208-S60	2	4.5GHz/Channel	0	60	238.8
MHF208-P1610-S02	2	4.5GHz/Channel	16	2	86	MHF208-P0610-S54	2	4.5GHz/Channel	6	54	238.8
MHF208-S24	2	4.5GHz/Channel	0	24	106.4	MHF208-P0910-S51	2	4.5GHz/Channel	9	51	238.8
MHF208-P0410-S20	2	4.5GHz/Channel	4	20	106.4	MHF208-P1210-S48	2	4.5GHz/Channel	12	48	238.8
MHF208-P0610-S18	2	4.5GHz/Channel	6	18	106.4	MHF208-S72	2	4.5GHz/Channel	0	72	289.6

Note: 1) N channels 10A rings parallel can be used as 1 channel N*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A
2) circuit number and current strength can be customized, please contact customer service for more details.

Specifications

(RF Rotary joints) Specifications		
Parameter	1st Channel	2nd Channel
Frequency	0~18GHz	0~18GHz
VSWR	<1.3	<1.3
Insertion Loss	0.3db	0.3db
VSWR Ripple	<0.05	<0.05
Insertion Loss Ripple	0.05db	0.05db
Connector Types	SMA	SMA
Characteristic Impedance	50Ω	50Ω
Electrical Data		
Parameter	Value	
	Power	Signal
Rated Voltage	0~440VAC/VDC	0~240VAC/VDC
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC
Lead Wire	AWG16# Teflon	AWG22# Teflon
Lead Length	standard length 300mm (adjustable)	
Insulating Strength	500VAC@50Hz , 60s	
Electrical Noise	<0.01Ω	
Mechanical Data		
Parameter	Value	
Working Life	50 million revs	
Rotating Speed	150RPM	
Working Temperature	-30℃~80℃	
Operating Humidity	0~85% RH	
Contact Material	Gold-Gold	
Housing Material	aluminum alloy	
Torque	0.1N.m ; +0.03N.m/6 rings	
Protection Grade	IP51	

Options for custom slip ring

Note: Below special demands can be customized. According, the delivery date will be extended 3 to 15 days; also the cost will be increased 30% to 50%. Most of our basic parts are standard and modular, which can save the cost and lead time.

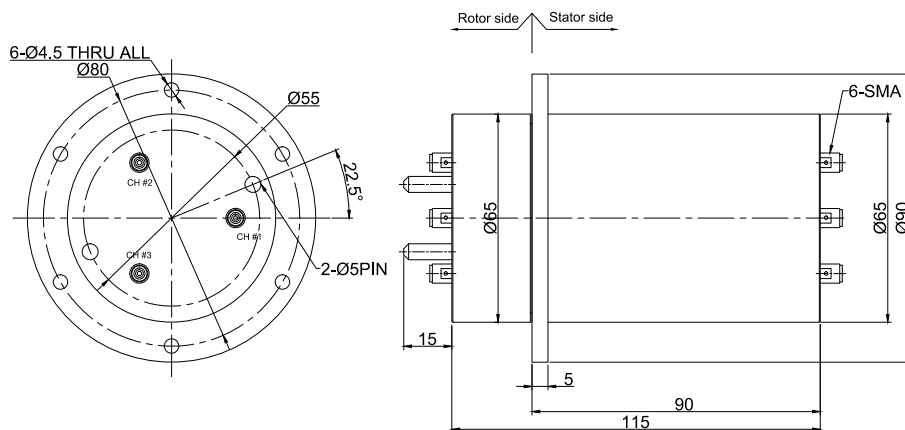
- ① Cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube are optional.
- ⑤ Hybrid slip ring for Yaskawa/Panasonic/Siemens servo control signal, power line and encoder line.
- ⑥ Support mixed high speed data transmission (including Ethernet, USB, RS232, RS485, Profibus, CanBUS, CANOPEN, DeviceNET, CC-LINK, ProfiNET, EtherCAT, etc.)
- ⑦ Can combine temperature control signal with thermocouple signal.
- ⑧ Special environment can be customized, such as quakeproof, high temperature, etc.
- ⑨ Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- ⑩ Frequency value and connector type can be customized.
- ⑪ High-frequency power can be customized.
- ⑫ Channel number can be customized on your request.
- ⑬ Maximum current can up to 5000 amperes.
- ⑭ Military grade.
- ⑮ Optional for underwater IP65, Ip68.
- ⑯ Optional for stainless steel housing

Technical support: technical@moflon.com

MHF300 Series

3 Channels RF Rotary Joints

MHF300 is 3 channels high frequency rotary joint, which is specifically designed for high-speed serial digital signals or analog signal transmission. It can support maximum transfer rate 2.5GHz. MHF series can support single channel or high-frequency signal transmission by itself. Also MHF series can be customized to combine high-frequency signal with 24V control signal, communication signal, power supply and fluid media.



Part# Explanation

MHF300- SMA - 2.5G

MHF: High frequency slip ring

300: 3 channels RF

SMA: SMA connector

2.5G: Max frequency 2.5GHZ

Part# List

MHF300- 3 Channels RF Rotary Joint Part List			
Part#	RF Channel	Frquency	Connector type
MHF300-SMA-4.5G	3	2.5GHz/Channel	SMA

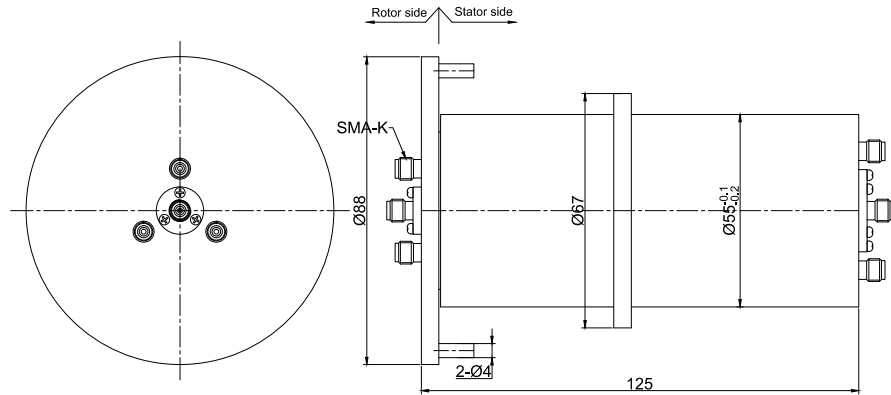
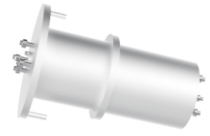
Specifications

Mechanical data		(RF Rotary joints) Specifications			
Parameter	Value	Parameter	1st Channel	2nd Channel	3rd Channel
Working Life	50 million revs	Insertion Loss	<0.5	<0.5	<0.5
Rotating Speed	100RPM	Insertion Loss Ripple	<0.05	<0.05	<0.05
Working Temperature	-30°C~80°C	VSWR	<1.3	<1.3	<1.3
Operating Humidity	0~85% RH	VSWR Ripple	<0.05	<0.05	<0.05
Contact Material	Gold-Gold	Average Power	50W	15W	15W
Housing Material	stainless steel				
Torque	0.1N.m ; +0.03N.m/6 rings				
Protection Grade	IP51				

MHF400 Series

4 Channels RF Rotary Joints

MHF400 is 4 channels high frequency rotary joint, which is specifically designed for high-speed serial digital signals or analog signal transmission. It can support maximum transfer rate 2.5GHz. MHF series can support single channel or high-frequency signal transmission by itself. Also MHF series can be customized to combine high-frequency signal with 24V control signal, communication signal, power supply and fluid media.



Part# Explanation

MHF400- SMA - 2.5G

MHF: High frequency slip ring

400: 4 channels RF

SMA: SMA connector;

2.5G: Max frequency 2.5GHZ

Part# List

MHF400 - 4 channels RF rotary joint part list			
Part#	RF Channel	Frequency	Connector type
MHF400-SMA-2.5G	4	2.5GHz/Channel	SMA

Specifications

(RF Rotary joints) Specifications				
Parameter	1st Channel	2nd Channel	3rd Channel	4th Channel
Insertion Loss	<0.5	<0.5	<0.5	<0.5
Insertion Loss Ripple	<0.05	<0.05	<0.05	<0.05
VSWR	<1.3	<1.3	<1.3	<1.3
VSWR Ripple	<0.05	<0.05	<0.05	<0.05
Average Power	50W	15W	15W	15W
Mechanical Data				
Parameter	Value			
Working Life	50 million revs			
Rotating Speed	100RPM			
Working Temperature	-30°C~80°C			
Operating Humidity	0~85% RH			
Contact Material	Gold-Gold			
Housing Material	stainless steel			
Torque	0.1N.m ; +0.03N.m/6 rings			
Protection Grade	IP51			