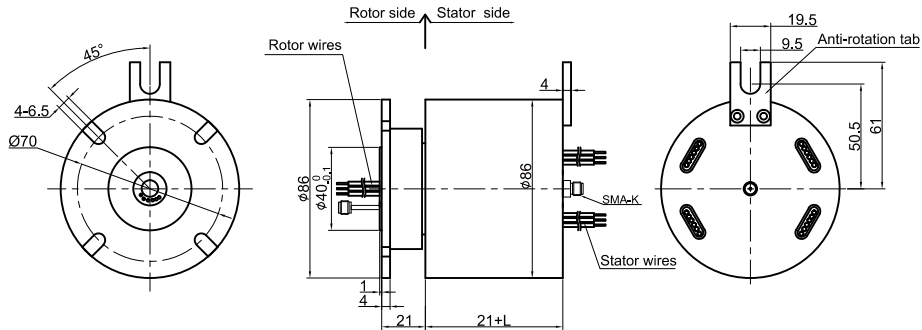


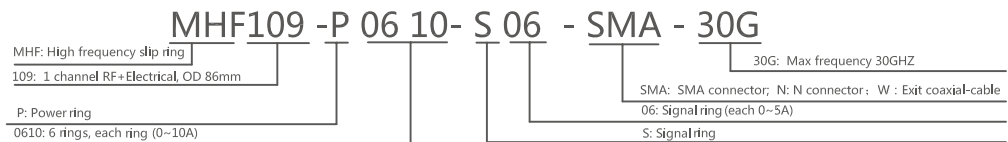
# MHF109 Series

## 1 Channel Rf Rotary Joints+electric Slip Ring

MHF109 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



### Part# List

MHF109 channel RF rotary joint part list											
Part#	RF Channel	Frquency	10A	Signal 5A	Length (mm)	Part#	RF Channel	Frquency	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	150.2
MHF109-P0310-S09	1	DC-30GHz	3	9	65.6	MHF109-P0610-S30	1	DC-30GHz	6	30	150.2
MHF109-P0610-S06	1	DC-30GHz	6	6	65.6	MHF109-P1210-S24	1	DC-30GHz	12	24	150.2
MHF109-P0810-S04	1	DC-30GHz	8	4	65.6	MHF109-P3610	1	DC-30GHz	36	0	150.2
MHF109-P1010-S02	1	DC-30GHz	10	2	65.6	MHF109-S42	1	DC-30GHz	0	42	170.6
MHF109-P1210	1	DC-30GHz	12	0	65.6	MHF109-P0610-S36	1	DC-30GHz	6	36	170.6
MHF109-S18	1	DC-30GHz	0	18	86	MHF109-P1210-S30	1	DC-30GHz	12	30	170.6
MHF109-P0210-S16	1	DC-30GHz	2	16	86	MHF109-S48	1	DC-30GHz	0	48	193.2
MHF109-P0410-S14	1	DC-30GHz	4	14	86	MHF109-P0610-S42	1	DC-30GHz	6	42	193.2
MHF109-P0610-S12	1	DC-30GHz	6	12	86	MHF109-P0910-S39	1	DC-30GHz	9	39	193.2
MHF109-P0810-S10	1	DC-30GHz	8	10	86	MHF109-P1210-S36	1	DC-30GHz	12	36	193.2
MHF109-P1010-S08	1	DC-30GHz	10	8	86	MHF109-P1810-S30	1	DC-30GHz	18	30	193.2
MHF109-P1210-S06	1	DC-30GHz	12	6	86	MHF109-P2410-S24	1	DC-30GHz	24	24	193.2
MHF109-P1410-S04	1	DC-30GHz	14	4	86	MHF109-S60	1	DC-30GHz	0	60	234
MHF109-P1610-S02	1	DC-30GHz	16	2	86	MHF109-P0610-S54	1	DC-30GHz	6	54	234
MHF109-S24	1	DC-30GHz	0	24	106.4	MHF109-P0910-S51	1	DC-30GHz	9	51	234
MHF109-P0410-S20	1	DC-30GHz	4	20	106.4	MHF109-P1210-S48	1	DC-30GHz	12	48	234
MHF109-P0610-S18	1	DC-30GHz	6	18	106.4	MHF109-S72	1	DC-30GHz	0	72	277.8

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	
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	0~440VAC/VDC
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC
Lead Wire	AWG16# Teflon	AWG22# Teflon
Lead Length	standard length 300 mm ( 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°C~80°C	
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](mailto:technical@moflon.com)