

NT Series through bore Slip Rings

The through-hole conductive waterproof slip ring is a collective term for a series of conductive slip rings with holes in the center, primarily used for transmitting precision signals, weak currents, high currents, and high voltages;



Features

- It is primarily designed for gas and liquid pipelines to pass through or for rotating motor shafts
- Utilizing advanced precious metal cluster brush-type multi-point contact, reliable contact is ensured under extremely low friction.
- The diameter of the through-hole ranges from 25.4mm to 50mm
- Standardized products are available in stock
- Support signal and power hybrid transmission
- The number of circuits, current, and voltage can be customized based on the standard model

NT Series Models

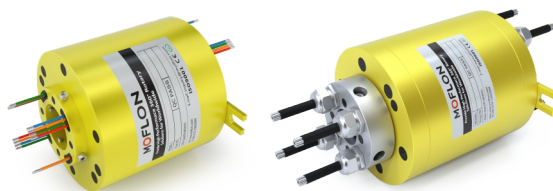
Model#	ID(mm)	OD(mm)	Circuits(Rings)
NT025-IP66	25.4	99	1~48
NT038-IP66	38.1	119	1~48
NT050-IP66	50	130	1~48
NT025-IP68	25.4	102	1~48
NT038-IP68	38.1	123	1~48
NT050-IP68	50	133	1~48

60% of MOFLON's sales are customized solutions, please contact customer service for special requirements.

NT025 Series

The standard series with a through-hole diameter of 25.4mm (applicable to $\leq 25.4\text{mm}$) Integrated precision conductive waterproof slip ring

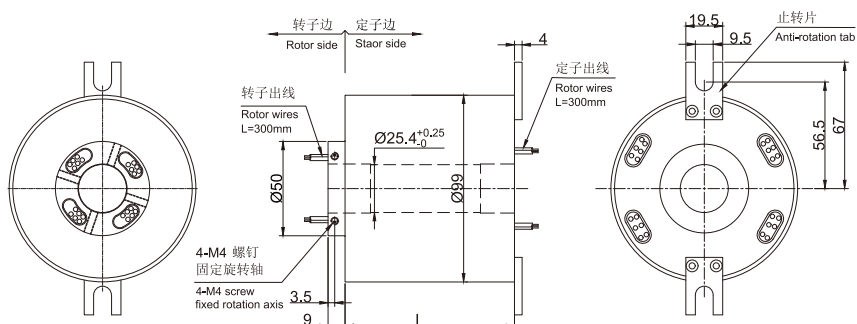
※ Note: If an inner hole of $<25.4\text{mm}$ is required, it can be achieved by adding an inner-lined shaft sleeve



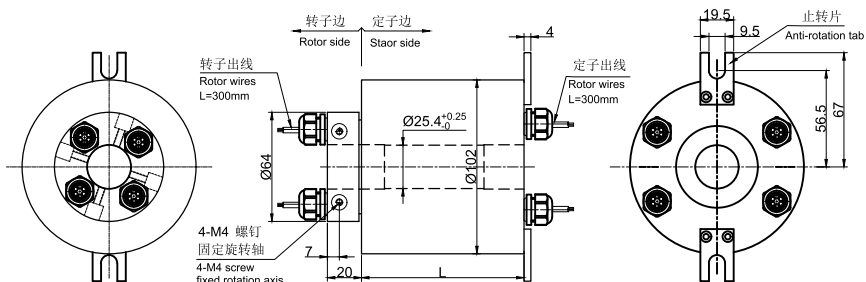
Part# Explanation

NT: Code for hollow waterproof electrical slip ring series	025: 025-ID25.4mm	P: power ring	NT 025-P 0610-S 06	06: 6 rings (0~5A/Ring)	S: Signal
				0610: 06-6rings; rated 0~10A/ring	

NT025 IP66



NT025 IP68



Part# List

NT025 Series Parts# List							
Part#	10A	Signal/5A	Length-L (mm)	Part#	10A	Signal/5A	Length-L (mm)
NT025-S06-IP66	0	6	89.8	NT025-S06-IP68	0	6	95.3
NT025-P0610-IP66	6	0	89.8	NT025-P0610-IP68	6	0	95.3
NT025-S12-IP66	0	12	110.2	NT025-S12-IP68	0	12	115.7
NT025-P0610-S06-IP66	6	6	110.2	NT025-P0610-S06-IP68	6	6	115.7
NT025-P1210-IP66	12	0	110.2	NT025-P1210-IP68	12	0	115.7
NT025-S18-IP66	0	18	130.6	NT025-S18-IP68	0	18	136.1
NT025-P0610-S12-IP66	6	12	130.6	NT025-P0610-S12-IP68	6	12	136.1
NT025-P01210-S06-IP66	12	6	130.6	NT025-P01210-S06-IP68	12	6	136.1
NT025-P1810-IP66	18	0	130.6	NT025-P1810-IP68	18	0	136.1
NT025-S24-IP66	0	24	151	NT025-S24-IP68	0	24	156.5
NT025-P0610-S18-IP66	6	18	151	NT025-P0610-S18-IP68	6	18	156.5
NT025-P1210-S12-IP66	12	12	151	NT025-P1210-S12-IP68	12	12	156.5
NT025-P1810-S06-IP66	18	6	151	NT025-P1810-S06-IP68	18	6	156.5
NT025-P2410-IP66	24	0	151	NT025-P2410-IP68	24	0	156.5
NT025-S30-IP66	0	30	171.4	NT025-S30-IP68	0	30	176.9
NT025-P0610-S24-IP66	6	24	171.4	NT025-P0610-S24-IP68	6	24	176.9
NT025-P1210-S18-IP66	12	18	171.4	NT025-P1210-S18-IP68	12	18	176.9
NT025-P1810-S12-IP66	18	12	171.4	NT025-P1810-S12-IP68	18	12	176.9
NT025-P2410-S06-IP66	24	6	171.4	NT025-P2410-S06-IP68	24	6	176.9
NT025-P3010-IP66	30	0	171.4	NT025-P3010-IP68	30	0	176.9
NT025-S36-IP66	0	36	195.2	NT025-S36-IP68	0	36	200.7
NT025-P0610-S30-IP66	6	30	195.2	NT025-P0610-S30-IP68	6	30	200.7
NT025-P1210-S24-IP66	12	24	195.2	NT025-P1210-S24-IP68	12	24	200.7
NT025-P1810-S18-IP66	18	18	195.2	NT025-P1810-S18-IP68	18	18	200.7
NT025-P2410-S12-IP66	24	12	195.2	NT025-P2410-S12-IP68	24	12	200.7
NT025-P3010-S06-IP66	30	6	195.2	NT025-P3010-S06-IP68	30	6	200.7
NT025-P3610-IP66	36	0	195.2	NT025-P3610-IP68	36	0	200.7
NT025-S42-IP66	0	42	215.6	NT025-S42-IP68	0	42	221.1
NT025-P0610-S36-IP66	6	36	215.6	NT025-P0610-S36-IP68	6	36	221.1
NT025-P1210-S30-IP66	12	30	215.6	NT025-P1210-S30-IP68	12	30	221.1
NT025-P1810-S24-IP66	18	24	215.6	NT025-P1810-S24-IP68	18	24	221.1
NT025-P2410-S18-IP66	24	18	215.6	NT025-P2410-S18-IP68	24	18	221.1
NT025-P3010-S12-IP66	30	12	215.6	NT025-P3010-S12-IP68	30	12	221.1
NT025-P3610-S06-IP66	36	6	215.6	NT025-P3610-S06-IP68	36	6	221.1
NT025-P4210-IP66	42	0	215.6	NT025-P4210-IP68	42	0	221.1
NT025-S48-IP66	0	48	236	NT025-S48-IP68	0	48	241.5
NT025-P0610-S42-IP66	6	42	236	NT025-P0610-S42-IP68	6	42	241.5
NT025-P1210-S36-IP66	12	36	236	NT025-P1210-S36-IP68	12	36	241.5
NT025-P1810-S30-IP66	18	30	236	NT025-P1810-S30-IP68	18	30	241.5
NT025-P2410-S24-IP66	24	24	236	NT025-P2410-S24-IP68	24	24	241.5
NT025-P3010-S18-IP66	30	18	236	NT025-P3010-S18-IP68	30	18	241.5
NT025-P3610-S12-IP66	36	12	236	NT025-P3610-S12-IP68	36	12	241.5
NT025-P4210-S06-IP66	42	6	236	NT025-P4210-S06-IP68	42	6	241.5
NT025-P4810-IP66	48	0	236	NT025-P4810-IP68	48	0	241.5

Note: 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,10A,5A (signal) can combine freely in any way.It can be customized based on standard slip ring,please contact customer service for more detmalls.

Specifications

Electrical Data		
Parameter	Value	
	Power	Signal
Rated Voltage	0~690VAC/VDC	0~440VAC/VDC
Insulation Resistance	≥1000MΩ/1000VDC	≥1000MΩ/500VDC
Dielectric Strength	1mm² Cable	0.2mm²Cable
Lead Length	Standard 300mm	
Lead Wires	1000VAC@50Hz,60s	
Electrical Noise	<0.01Ω	
Mechanical Data		
Parameter	Value	
Rotating Speed	100RPM	
Working Temperature	-30°C~80°C/-45°C~80°C(Military optional)	
Operating Humidity	0~85% RH/0~97% RH(Military optional)	
Housing Materia	Aluminum alloy / Aluminum alloy + Stainless steel	
Protection Grade	IP66/IP68	

Options for custom slip ring

Note: The following special requirements can be customized, with delivery times increasing by 3 to 15 days and costs increasing by 5% to 50%. Most of our basic components are standardized and modularized, and non-standard customization can also significantly reduce costs and delivery times.

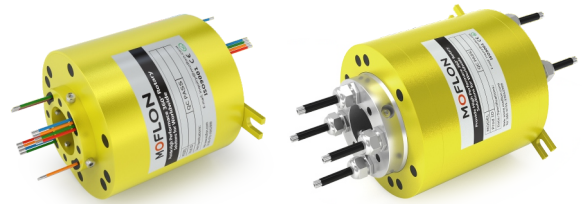
- ① The outlet mode and length of the rotor and stator can be customized.
- ② Due to structural constraints, customization can be made according to specified length, height, or outer diameter.
- ③ Optional aviation plugs, terminals, and heat-shrink tubing are available.
- ④ Hybrid slip rings for servo system signals, power lines, and encoder lines from Yaskawa, Panasonic, Siemens, etc.
- ⑤ It supports mixed high-speed data transmission (including various industrial buses such as Ethernet, USB, RS232, Rs485, Profibus, CanBUS, CANOPEN, DeviceNET, CC-LINK, ProfiNET, EtherCAT, etc.).
- ⑥ Mixing of temperature control signals and thermocouple signals.
- ⑦ Customized for shockproof, high-temperature, and other special environments.
- ⑧ It can be integrated with pneumatic, hydraulic rotary joints to form a hybrid pneumatic-electric-hydraulic slip ring.
- ⑨ Military grade.
- ⑩ Requirements for stainless steel casing.

Technical support email: technical@moflon.com

NT038 Series

The standard series with a through-hole diameter of 38.1mm (applicable to $\leq 38.1\text{mm}$) Integrated precision conductive waterproof slip ring

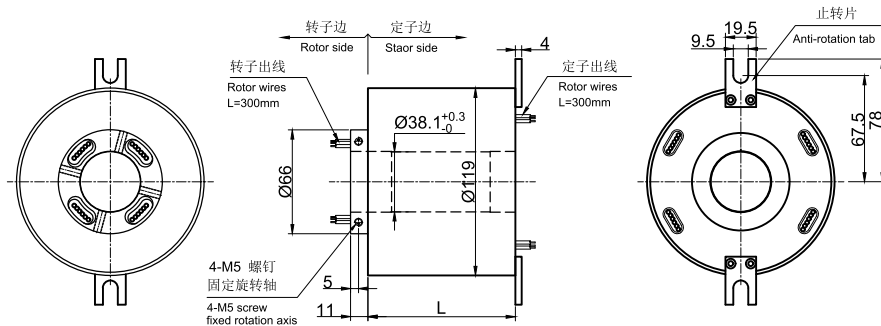
※ Note: If an inner hole of $< 38.1\text{mm}$ is required, it can be achieved by adding an inner-lined shaft sleeve



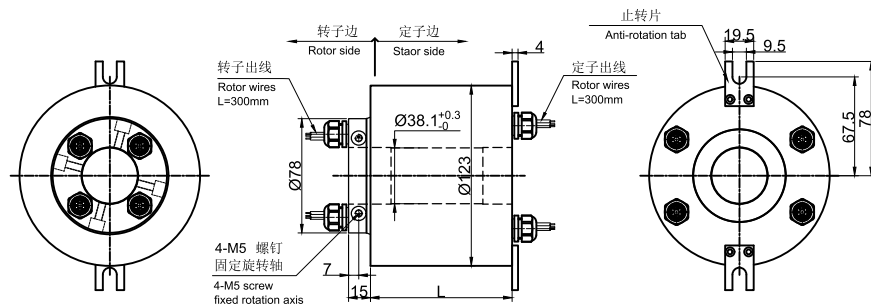
Part# Explanation

NT 038-P 0610-S 06			
NT: Code for hollow waterproof electrical slip ring series			06:6 rings(0~5A/Ring)
038: 038-ID38.1mm			S:Signal
P:power ring		0610:06-6rings;rated 0~10A/ring	

NT038 IP66



NT038 IP68



Part# List

NT038 Series Parts# List							
Part#	10A	Signal/5A	Length-L (mm)	Part#	10A	Signal/5A	Length-L (mm)
NT038-S06-IP66	0	6	93.6	NT038-S06-IP68	0	6	96.6
NT038-P0610-IP66	6	0	93.6	NT038-P0610-IP68	6	0	96.6
NT038-S12-IP66	0	12	116.4	NT038-S12-IP68	0	12	119.4
NT038-P0610-S06-IP66	6	6	116.4	NT038-P0610-S06-IP68	6	6	119.4
NT038-P1210-IP66	12	0	116.4	NT038-P1210-IP68	12	0	119.4
NT038-S18-IP66	0	18	139.2	NT038-S18-IP68	0	18	142.2
NT038-P0610-S12-IP66	6	12	139.2	NT038-P0610-S12-IP68	6	12	142.2
NT038-P01210-S06-IP66	12	6	139.2	NT038-P01210-S06-IP68	12	6	142.2
NT038-P1810-IP66	18	0	139.2	NT038-P1810-IP68	18	0	142.2
NT038-S24-IP66	0	24	162	NT038-S24-IP68	0	24	165
NT038-P0610-S18-IP66	6	18	162	NT038-P0610-S18-IP68	6	18	165
NT038-P1210-S12-IP66	12	12	162	NT038-P1210-S12-IP68	12	12	165
NT038-P1810-S06-IP66	18	6	162	NT038-P1810-S06-IP68	18	6	165
NT038-P2410-IP66	24	0	162	NT038-P2410-IP68	24	0	165
NT038-S30-IP66	0	30	184.8	NT038-S30-IP68	0	30	187.8
NT038-P0610-S24-IP66	6	24	184.8	NT038-P0610-S24-IP68	6	24	187.8
NT038-P1210-S18-IP66	12	18	184.8	NT038-P1210-S18-IP68	12	18	187.8
NT038-P1810-S12-IP66	18	12	184.8	NT038-P1810-S12-IP68	18	12	187.8
NT038-P2410-S06-IP66	24	6	184.8	NT038-P2410-S06-IP68	24	6	187.8
NT038-P3010-IP66	30	0	184.8	NT038-P3010-IP68	30	0	187.8
NT038-S36-IP66	0	36	211.4	NT038-S36-IP68	0	36	214.4
NT038-P0610-S30-IP66	6	30	211.4	NT038-P0610-S30-IP68	6	30	214.4
NT038-P1210-S24-IP66	12	24	211.4	NT038-P1210-S24-IP68	12	24	214.4
NT038-P1810-S18-IP66	18	18	211.4	NT038-P1810-S18-IP68	18	18	214.4
NT038-P2410-S12-IP66	24	12	211.4	NT038-P2410-S12-IP68	24	12	214.4
NT038-P3010-S06-IP66	30	6	211.4	NT038-P3010-S06-IP68	30	6	214.4
NT038-P3610-IP66	36	0	211.4	NT038-P3610-IP68	36	0	214.4
NT038-S42-IP66	0	42	234.2	NT038-S42-IP68	0	42	237.2
NT038-P0610-S36-IP66	6	36	234.2	NT038-P0610-S36-IP68	6	36	237.2
NT038-P1210-S30-IP66	12	30	234.2	NT038-P1210-S30-IP68	12	30	237.2
NT038-P1810-S24-IP66	18	24	234.2	NT038-P1810-S24-IP68	18	24	237.2
NT038-P2410-S18-IP66	24	18	234.2	NT038-P2410-S18-IP68	24	18	237.2
NT038-P3010-S12-IP66	30	12	234.2	NT038-P3010-S12-IP68	30	12	237.2
NT038-P3610-S06-IP66	36	6	234.2	NT038-P3610-S06-IP68	36	6	237.2
NT038-P4210-IP66	42	0	234.2	NT038-P4210-IP68	42	0	237.2
NT038-S48-IP66	0	48	257	NT038-S48-IP68	0	48	260
NT038-P0610-S42-IP66	6	42	257	NT038-P0610-S42-IP68	6	42	260
NT038-P1210-S36-IP66	12	36	257	NT038-P1210-S36-IP68	12	36	260
NT038-P1810-S30-IP66	18	30	257	NT038-P1810-S30-IP68	18	30	260
NT038-P2410-S24-IP66	24	24	257	NT038-P2410-S24-IP68	24	24	260
NT038-P3010-S18-IP66	30	18	257	NT038-P3010-S18-IP68	30	18	260
NT038-P3610-S12-IP66	36	12	257	NT038-P3610-S12-IP68	36	12	260
NT038-P4210-S06-IP66	42	6	257	NT038-P4210-S06-IP68	42	6	260
NT038-P4810-IP66	48	0	257	NT038-P4810-IP68	48	0	260

Note: 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,10A,5A (signal) can combine freely in any way.It can be customized based on standard slip ring,please contact customer service for more detmalls.

Specifications

Electrical Data		
Parameter	Value	
	Power	Signal
Rated Voltage	0~690VAC/VDC	0~440VAC/VDC
Insulation Resistance	≥1000MΩ/1000VDC	≥1000MΩ/500VDC
Dielectric Strength	1mm² Cable	0.2mm²Cable
Lead Length	Standard 300mm	
Lead Wires	1000VAC@50Hz,60s	
Electrical Noise	< 0.01Ω	
Mechanical Data		
Parameter	Value	
Rotating Speed	100RPM	
Working Temperature	-30°C~80°C/-45°C~80°C(Military optional)	
Operating Humidity	0~85% RH/0~97% RH(Military optional)	
Housing Materia	Aluminum alloy / Aluminum alloy + Stainless steel	
Protection Grade	IP66/IP68	

Options for custom slip ring

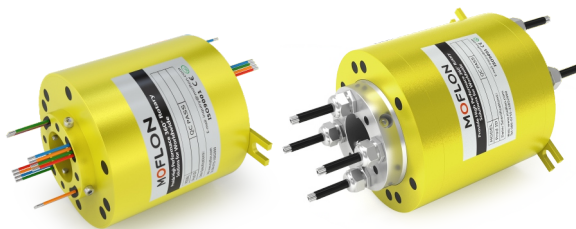
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- ② Due to structural constraints, customization can be made according to specified length, height, or outer diameter.
- ③ Optional aviation plugs, terminals, and heat-shrink tubing are available.
- ④ Hybrid slip rings for servo system signals, power lines, and encoder lines from Yaskawa, Panasonic, Siemens, etc.
- ⑤ It supports mixed high-speed data transmission (including various industrial buses such as Ethernet, USB, RS232, Rs485, Profibus, CanBUS, CANOPEN, DeviceNET, CC-LINK, ProfiNET, EtherCAT, etc.).
- ⑥ Mixing of temperature control signals and thermocouple signals.
- ⑦ Customized for shockproof, high-temperature, and other special environments.
- ⑧ It can be integrated with pneumatic, hydraulic rotary joints to form a hybrid pneumatic-electric-hydraulic slip ring.
- ⑨ Military grade.
- ⑩ Requirements for stainless steel casing.

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NT050

※ Note: If an inner hole of <50mm is required, it can be achieved by adding an inner-lined shaft sleeve



NT Series Through Bore Slip Rings

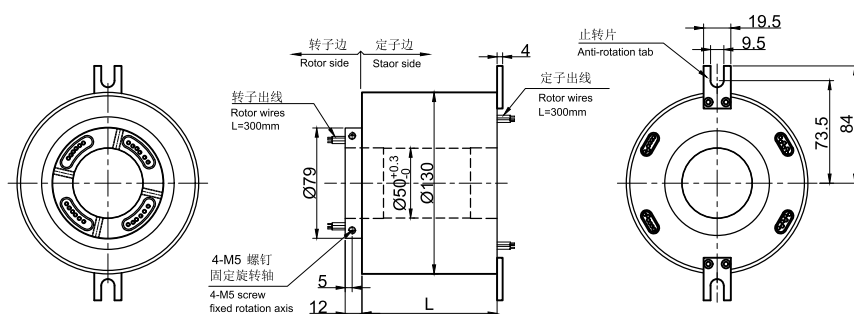
NT 050-P 0610-S 06

06:6 rings(0~5A/Ring)

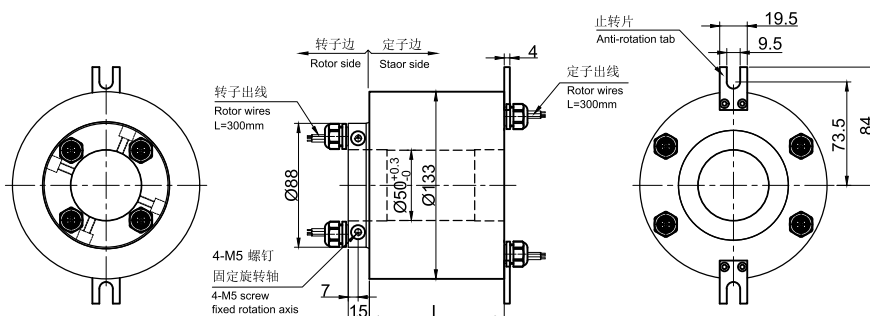
S:Signal

0610:06-6rings;rated 0~10A/ring

NT050 IP66



NT050 IP68



选型表

NT050 Series Parts# List							
Part#	10A	Signal/5A	Length-L (mm)	Part#	10A	Signal/5A	Length-L (mm)
NT050-S06-IP66	0	6	96.8	NT050-S06-IP68	0	6	95.8
NT050-P0610-IP66	6	0	96.8	NT050-P0610-IP68	6	0	95.8
NT050-S12-IP66	0	12	118.4	NT050-S12-IP68	0	12	117.4
NT050-P0610-S06-IP66	6	6	118.4	NT050-P0610-S06-IP68	6	6	117.4
NT050-P1210-IP66	12	0	118.4	NT050-P1210-IP68	12	0	117.4
NT050-S18-IP66	0	18	140	NT050-S18-IP68	0	18	139
NT050-P0610-S12-IP66	6	12	140	NT050-P0610-S12-IP68	6	12	139
NT050-P01210-S06-IP66	12	6	140	NT050-P01210-S06-IP68	12	6	139
NT050-P1810-IP66	18	0	140	NT050-P1810-IP68	18	0	139
NT050-S24-IP66	0	24	161.6	NT050-S24-IP68	0	24	160.6
NT050-P0610-S18-IP66	6	18	161.6	NT050-P0610-S18-IP68	6	18	160.6
NT050-P1210-S12-IP66	12	12	161.6	NT050-P1210-S12-IP68	12	12	160.6
NT050-P1810-S06-IP66	18	6	161.6	NT050-P1810-S06-IP68	18	6	160.6
NT050-P2410-IP66	24	0	161.6	NT050-P2410-IP68	24	0	160.6
NT050-S30-IP66	0	30	183.2	NT050-S30-IP68	0	30	182.2
NT050-P0610-S24-IP66	6	24	183.2	NT050-P0610-S24-IP68	6	24	182.2
NT050-P1210-S18-IP66	12	18	183.2	NT050-P1210-S18-IP68	12	18	182.2
NT050-P1810-S12-IP66	18	12	183.2	NT050-P1810-S12-IP68	18	12	182.2
NT050-P2410-S06-IP66	24	6	183.2	NT050-P2410-S06-IP68	24	6	182.2
NT050-P3010-IP66	30	0	183.2	NT050-P3010-IP68	30	0	182.2
NT050-S36-IP66	0	36	208.8	NT050-S36-IP68	0	36	207.8
NT050-P0610-S30-IP66	6	30	208.8	NT050-P0610-S30-IP68	6	30	207.8
NT050-P1210-S24-IP66	12	24	208.8	NT050-P1210-S24-IP68	12	24	207.8
NT050-P1810-S18-IP66	18	18	208.8	NT050-P1810-S18-IP68	18	18	207.8
NT050-P2410-S12-IP66	24	12	208.8	NT050-P2410-S12-IP68	24	12	207.8
NT050-P3010-S06-IP66	30	6	208.8	NT050-P3010-S06-IP68	30	6	207.8
NT050-P3610-IP66	36	0	208.8	NT050-P3610-IP68	36	0	207.8
NT050-S42-IP66	0	42	230.4	NT050-S42-IP68	0	42	229.4
NT050-P0610-S36-IP66	6	36	230.4	NT050-P0610-S36-IP68	6	36	229.4
NT050-P1210-S30-IP66	12	30	230.4	NT050-P1210-S30-IP68	12	30	229.4
NT050-P1810-S24-IP66	18	24	230.4	NT050-P1810-S24-IP68	18	24	229.4
NT050-P2410-S18-IP66	24	18	230.4	NT050-P2410-S18-IP68	24	18	229.4
NT050-P3010-S12-IP66	30	12	230.4	NT050-P3010-S12-IP68	30	12	229.4
NT050-P3610-S06-IP66	36	6	230.4	NT050-P3610-S06-IP68	36	6	229.4
NT050-P4210-IP66	42	0	230.4	NT050-P4210-IP68	42	0	229.4
NT050-S48-IP66	0	48	252	NT050-S48-IP68	0	48	251
NT050-P0610-S42-IP66	6	42	252	NT050-P0610-S42-IP68	6	42	251
NT050-P1210-S36-IP66	12	36	252	NT050-P1210-S36-IP68	12	36	251
NT050-P1810-S30-IP66	18	30	252	NT050-P1810-S30-IP68	18	30	251
NT050-P2410-S24-IP66	24	24	252	NT050-P2410-S24-IP68	24	24	251
NT050-P3010-S18-IP66	30	18	252	NT050-P3010-S18-IP68	30	18	251
NT050-P3610-S12-IP66	36	12	252	NT050-P3610-S12-IP68	36	12	251
NT050-P4210-S06-IP66	42	6	252	NT050-P4210-S06-IP68	42	6	251
NT050-P4810-IP66	48	0	252	NT050-P4810-IP68	48	0	251

Note: 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.10A,5A (signal) can combine freely in any way.It can be customized based on standard slip ring,please contact customer service for more detmails.

Specifications

Electrical Data		
Parameter	Value	
	Power	Signal
Rated Voltage	0~690VAC/VDC	0~440VAC/VDC
Insulation Resistance	≥1000MΩ/1000VDC	≥1000MΩ/500VDC
Dielectric Strength	1mm² Cable	0.2mm²Cable
Lead Length	Standard 300mm	
Lead Wires	1000VAC@50Hz,60s	
Electrical Noise	<0.01Ω	
Mechanical Data		
Parameter	Value	
Rotating Speed	100RPM	
Working Temperature	-30°C~80°C/-45°C~80°C(Military optional)	
Operating Humidity	0~85% RH/0~97% RH(Military optional)	
Housing Materia	Aluminum alloy / Aluminum alloy + Stainless steel	
Protection Grade	IP66/IP68	

Options for custom slip ring

Note: The following special requirements can be customized, with delivery times increasing by 3 to 15 days and costs increasing by 5% to 50%. Most of our basic components are standardized and modularized, and non-standard customization can also significantly reduce costs and delivery times.

- ① The outlet mode and length of the rotor and stator can be customized.
- ② Due to structural constraints, customization can be made according to specified length, height, or outer diameter.
- ③ Optional aviation plugs, terminals, and heat-shrink tubing are available.
- ④ Hybrid slip rings for servo system signals, power lines, and encoder lines from Yaskawa, Panasonic, Siemens, etc.
- ⑤ It supports mixed high-speed data transmission (including various industrial buses such as Ethernet, USB, RS232, Rs485, Profibus, CanBUS, CANOPEN, DeviceNET, CC-LINK, ProfinET, EtherCAT, etc.).
- ⑥ Mixing of temperature control signals and thermocouple signals.
- ⑦ Customized for shockproof, high-temperature, and other special environments.
- ⑧ It can be integrated with pneumatic, hydraulic rotary joints to form a hybrid pneumatic-electric-hydraulic slip ring.
- ⑨ Military grade.
- ⑩ Requirements for stainless steel casing.

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