

MN19-300



触点参数 Contact Parameter

主触点类型 Main Contact Type	1A (SPST-NO.)
触点材料 Contact Material	Cu
载流能力 Current Loading	150A: 持续 (导线规格50mm ²)
额定负载电压 Rated Load Voltage	1000VDC/1500VDC
接触电阻 Contact Resistance	≤0.3mΩ (DC 150A)
最大切换电压 Max. Load Voltage	1500VDC
最大分断电流 Max. Breaking Current	1000A (1500VDC, 1次以上)
最大切换功率 Max. Switching Power	225kW
短时通电电流 Short Time Power on Current	200A 10min, 300A 60s, 1200A 1s (短路电流: 1次 8000A 5ms)
机械寿命 Mechanical Endurance	2×10 ⁵ Ops
电气寿命 (阻性负载) Electrical Endurance (Resistive load)	100000次 150A @ 20V (接通电寿命) 15000次 (1500VDC, 20A) 500次 (1500VDC, 80A) 100次 (1500VDC, 150A) 1000次 (1000VDC, 150A) 1次 (1500VDC, 1000A)
辅助触点最大电流 Max. Current of Auxiliary Contacts	2A 30VDC
辅助触点最小电流 Min. Current of Auxiliary Contacts	100mA 8VDC
辅助触点接触电阻 Auxiliary Contact Resistance	≤0.3Ω

特性 Characteristics

- 陶瓷钎焊密封技术, 无电弧泄露风险, 确保不起火、不爆裂。
Ceramic brazing sealing, no arc leakage risk, ensures no fire or explosion.
- 灌封惰性气体, 有效防止触点氧化烧损, 接触电阻低且稳定, 防护等级达IP67。
Encapsulate inert gas, effectively prevent contact oxidation and burning, low contact resistance, IP67.
- 300A 85℃长时间载流能力。
300A 85℃ continuous load durability.
- 满足异常工况应对要求, 能够分断10倍过电流。
Meet the requirements of abnormal conditions, can break off 10 times overcurrent.
- 绝缘电阻达1000MΩ (1000VDC), 符合IEC60664-1要求。
Upto 1000MΩ (1000VDC) of Resistance, meet IEC60664-1 specs.
- 线圈驱动有极性, 负载无极性要求。
The coil drive has polarity, but the load has no polarity requirement.

性能参数 Performance Parameter

绝缘电阻 Insulating Resistance		Min. 1000MΩ (1000VDC)
介质耐压 Dielectric Strength	触点与线圈 between contact and coil	4000VAC 1min 1mA
	断开触点间 bwtween open contacts	4000VAC 1min 1mA
	主触点与辅助触点间 Between main and auxiliary contacts	4000VAC 1min 1mA
动作时间(额定电压下) Action Time (under Max. Load Voltage)		≤50ms
释放时间(额定电压下) Release Time (under Max. Load Voltage)		≤30ms
冲击 Impact	稳定性 steady-state	激励状态: 196m/s ² ; 非激励状态: 98m/s ² charged coil: 196m/s ² ; uncharged coil: 98m/s ²
	强度 Strength	490m/s ²
振动 Vibration		10Hz ~ 55Hz
使用、运输、存储 use, transportation, storage	环境温度 Ambient Temperature	- 40°C ~ + 85°C
	环境湿度 Ambient Humidity	5% ~ 85% R.H.
重量 Weight		282g
外形尺寸 Overall Dimension		79.5×49.7×72.6mm

种类 Type

负载电压 Load Voltage	线圈电压 Coil Voltage	主触点形式 Main Contact	线圈引出形式 Coil Terminals	负载引出形式 Load Terminals	型号 Label
1000VDC	9 ~ 36VDC	一组常开 One form normally Open	引出线 Wiring	内螺纹 Internal thread	MN19-150

型号标准 Nomenclature

示例: e.g. MN19 - 300 P G - 12 - F C 1 Y H XXX
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

① MN19 产品系列, 方形陶瓷密封。
 MN19 Product Series, Square Ceramic.

② 额定电流 150 : 150A ; 200: 200A; 250: 250A; 300 : 300A ;
 Rated Current 150 : 150A ; 200: 200A; 250: 250A; 300 : 300A ;

③ 应用场合 P: 新能源汽车领域 & 储能; 无: 充电桩行业
 Applications P: New Energy Vehicles & Energy Storage; None: Charging Pile Industry;

④ 负载电压 无: 1000VDC; G: 1500VDC;
 Load Voltage: None, 1000VDC; G, 1500VDC;

⑤ 线圈电压 12: 12VDC; 24: 24VDC; 无: 9~36V;
 Coil Voltage 12: 12VDC; 24: 24VDC; None: 9~36V;

⑥ 触点形式 无: 一组常开; F: 一组常开, 带辅助触点;
 Contact Form None: One Form Normally Open; F: One Form Normally Open With Auxiliary Contacts;

⑦ 线圈引出方式 无: 引出线; C: 连接器; Q: QC端子; B: 引出线+连接器;
 Coil Wire Outlet None: Wire; C: Connector; Q: QC Terminal; B: Wire+Connector;

⑧ 负载引出形式 无: 内螺纹; 1: 外螺纹; 2: QC端子; 3: 内螺纹+引出片;
 Load Terminal None: Internal Thread; 1: External Thread; 2: QC Terminal; 3: Internal Thread+Busbar;

⑨ 安装方式 无: 立式安装; Y: 卧式安装
 Installation Method None: Vertical Installation; Y: Horizontal Installation;

⑩ 负载极性 无: 无极性; H: 有极性
 Load Polarity None: Nonpolarity; H: Having Polarity;

⑪ 特殊编号 客户特殊要求编码(无技术协议不标);
 Customer-specific Coding (no coding required Without Technical Agreement).

额定值 Rated Values

操作线圈 Driving Coil

额定电压(V) Nominal Voltage	线圈电流(A) Coil Current	线圈电阻(Ω) Coil Resistance	动作电压 (V) Operation Voltage	释放电 (V) Release Voltage	最大允许电压(V) Maximum Allowed Voltage	线圈功率(W) Coil Power
12VDC	0.5	24	$\leq 9\text{VDC}$	1.2 ~ 5	额定电压的130%, (85°C, 1h内) 130% of Rated voltage (85°C, < 1h)	6
24VDC	0.25	96	$\leq 18\text{VDC}$	2.4 ~ 7.2		6
9 ~ 36VDC	启动电流 ≤ 3.8 保持电流 ≤ 0.25 Starting current: ≤ 3.8 Holding current: ≤ 0.25	3.1	$\leq 9\text{VDC}$ (启动时间 $\leq 150\text{ms}$) $\leq 9\text{VDC}$ (Start time $\leq 150\text{ms}$)	$\geq 5\text{VDC}$		启动: 46 保持: 3 Start up: 46 Hold: 3

注Note:

1: 线圈电流和线圈电阻为线圈温度在23°C下的值, 并有 $\pm 10\%$ 的公差。

Coil current and coil resistance are values at coil temperature of 23°C and have a tolerance of $\pm 10\%$.

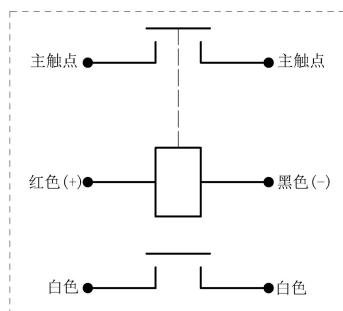
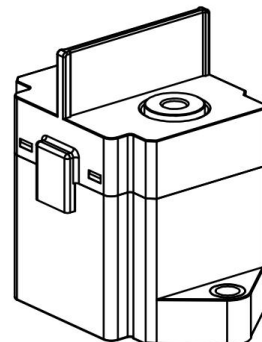
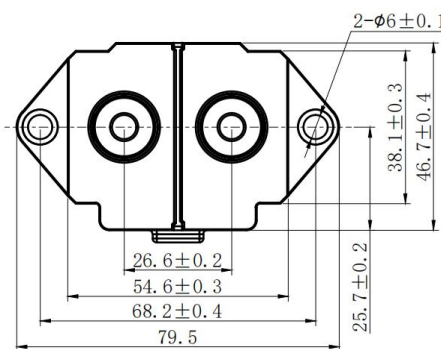
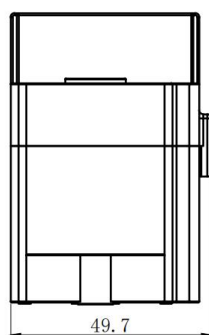
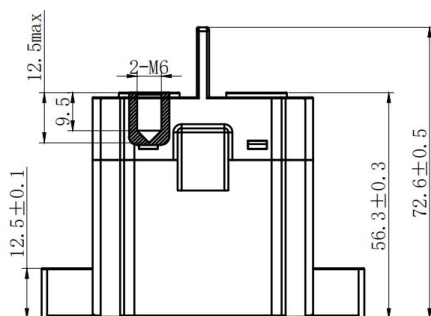
2: 动作电压和释放电压为线圈温度在23°C下的值。

The operating voltage and release voltage are the values at the coil temperature of 23°C.

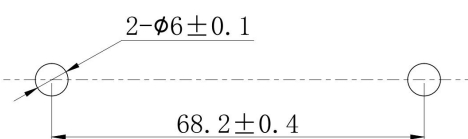
3: 最大允许电压为线圈允许施加的电压的最大值。

The maximum allowed voltage is the maximum value of the voltage allowed to be applied to the coil.

外形图、接线图、安装孔尺寸 Formfactor,Wiring Dia.,Fixture Size



接线图
Wiring Diagram



安装尺寸
Installation dimensions

未注尺寸公差:

当 $\leq 10\text{mm}$ 时, 公差为 $\pm 0.3\text{mm}$;
当在 $(10 \sim 50)\text{mm}$ 之间时, 公差为 $\pm 0.5\text{mm}$;
当 $\geq 50\text{mm}$, 公差为 $\pm 0.8\text{mm}$ 。

unmarked tolerance:

$\pm 0.3\text{mm}$, for size $\leq 10\text{mm}$;
 $\pm 0.5\text{mm}$, for $10\text{mm} < \text{size} < 50\text{mm}$;
 $\pm 0.8\text{mm}$, for size $\geq 50\text{mm}$