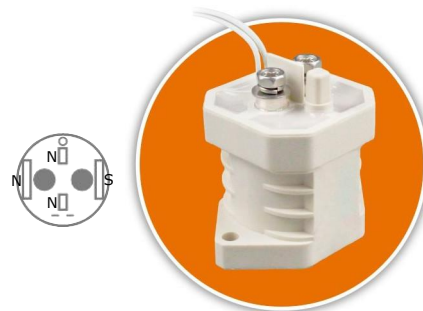


Product description [产品描述]■ **Features** [特性]

- ✓ Epoxy packaging, the contacts are protected by nitrogen, preventing oxidation, strong cooling arc capacity. [环氧封装, 触点由氮气保护, 防止氧化, 具有极强的冷却电弧能力]
- ✓ High-voltage, high-current control capable. [具有高电压、大电流控制能力]
- ✓ Compact & low operating sound. [紧凑和低操作声音]
- ✓ Safety and high contact reliability. [安全和高接触可靠性]
- ✓ Can be installed in any direction. [可任意方向安装]
- ✓ Not freezing and condensing at low temperature. [在低温下不冻结和冷凝]

■ **Certification** [认证]

- ✓ CE Certificate
- ✓ TUV Certificate

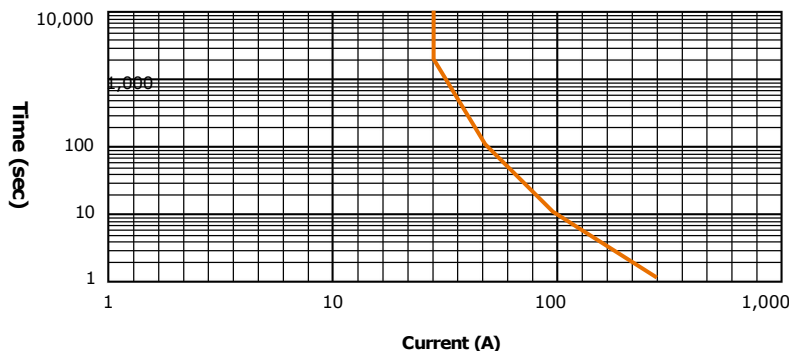
■ **Applications** [应用]

- ✓ Pre-charge [预充电]
- ✓ Energy storage equipment [储能系统]
- ✓ Power battery system [动力电池系统]
- ✓ High voltage inverter [高压变频器]

Performance data [性能数据]■ **Power contact** [主触点]

Parameter [参数]	Data [数据]
Contact arrangement [触点形式]	1 Form X (SPST-NO-DM)
Contact polar [触点极性]	Without polarity [无极性]
Power contact material [主触点材料]	Copper or silver alloy optional, see "Part numbering system" [铜或银合金可选, 详见“零件编码系统”]
Rated operating voltage [额定工作电压]	1,000V DC
Max. Continuous current (at 23℃) [最大连续电流]	50A

Short term withstand current [短时耐受电流] (at 85℃)



Notes [备注] :

1. The curve data is for buyers design reference, and the selection of DC contactor and short circuit matching fuse is subject to the actual verification [该曲线数据供用户设计参考, 直流接触器选型与短路匹配熔断器时以实际验证为准]
2. Conductor size see HT-SPEC-000 [DC Contactor User Manual] [导体尺寸请查看 SPEC-000 [直流接触器使用说明书]]
3. The set curve for the DC contactor power contacts has a safety temperature upper limit of 180℃; the functional temperature upper limit is 130℃. [该曲线设定的直流接触器主触点安全温度上限为 180℃; 功能温度上限为 130℃]

Electrical life [电气寿命]	Resistive load (R load) [阻性负载]	Break [分断]	1,000V DC	3 cycles (at 50A)
	L/R ≤ 0.1ms ON : OFF = 1s : 9s		750V DC	500 cycles (at 50A)
			450V DC	3,000 cycles (at 50A)
	Capacitive load (C load) [容性负载] (ON : OFF = 1s : 9s) <01	Make [接通]	48V DC	30,000 cycles (at 300A)
			24V DC	100,000 cycles (at 300A)
Max. cut-off current [最大切断电流]			100A	1 cycle (at 750V DC)
			300A	1 cycle (at 450V DC)
Mechanical life [机械寿命] (ON : OFF = 1s : 9s)			200,000cycles	
Initial contact resistance (at 1A) [初始接触电阻]			Max. [最大] : 30mΩ	Typical [典型] : 1mΩ
Operate Time (at 23℃) [动作时间]	Close [吸合]	30ms Max. <02		
	Bounce [弹跳]	7ms Max.		
	Release [释放]	12ms Max. <03		

<01 Applicable only to DC contactors with power contact materials being silver alloys. [仅适用于主触点材料是银合金的直流接触器]

<02 Coil nominal voltage, includes contact bounce time. [线圈施加额定工作电压, 含触点弹跳时间]

<03 Coil nominal voltage, includes arcing, without diode. [线圈施加额定工作电压, 含电弧, 无续流二极管]

■ Coil (at 23℃) [线圈]

Parameter [参数]	Data [数据]		
Coil type [线圈形式]	Single coil, no TVS [单线圈, 无TVS] <04		
Rated voltage [额定工作电压]	12V DC	24V DC	48V DC
Pick-up (close) voltage Max. [吸合电压] <05	9V DC	18V DC	36V DC
Drop-out (open) voltage Min. [释放电压] <05	1.2V DC	2.4V DC	4.8V DC
Coil resistance (±10%) [线圈电阻] <05	45Ω	167Ω	630Ω
Holding current (Avg.) [保持电流 (平均值)]	267mA (at 12V DC)	144mA (at 24V DC)	76.2mA (at 48V DC)
Coil power Max. [线圈功率] <05	3.2W (at 12V DC)	3.5W (at 24V DC)	3.7W (at 48V DC)
Operating voltage range [工作电压范围]	10.2-13.2V DC	20.4-26.4V DC	40.8-52.8V DC

<04 The product is not equipped with a TVS (Transient Voltage Suppressor) coil surge absorption circuit; buyers need to configure it.
[该产品未配置有线圈浪涌吸收电路 (TVS), 用户需配置。]

<05 Because the DC contactor is operated by a coil that changes resistance with temperature: When the temperature is higher than 23℃, coil resistance, pick-up voltage and drop-out voltage will be higher than the nominal value, and the coil power will be lower than the nominal value. When the temperature is below 23℃, coil resistance, pick-up voltage and drop-out voltage will be lower than the nominal value, and the coil power will be higher than the nominal value. [因为直流接触器是通过一个随温度变化电阻的线圈来操作的。当温度高于 23℃ 时, 线圈电阻、吸合电压和释放电压会高于标称值, 而线圈功率会低于标称值。当温度低于 23℃ 时, 线圈电阻、吸合电压和释放电压会低于标称值, 而线圈功率会高于标称值。]

■ Insulation [绝缘]

Parameter [参数]	Data [数据]	
Insulation resistance (at 1000V DC) [绝缘电阻] <06	Initial [初始] : 100MΩ Min.	
	End of life [寿命终结] : 50MΩ Max.	
Dielectric withstanding voltage [介质耐压] (at sea level [海平面])	Between open contacts [主触点间]	AC 3,500 Vrms for 1min. <07
	Between contacts and coil [主触点与线圈间]	

<06 Measurement at same location as "Dielectric withstanding voltage" section. [测量位置与“介质耐压”部分相同]

<07 Leakage current [漏电流] : 10mA

■ Environmental [环境]

Parameter [参数]		Data [数据]
Shock (1/2 Sine, 11ms) [冲击]	Actuated (closed) [吸合]	20G
	Non-Actuated (open) [断开]	20G
Vibration, Sinusoidal (80-2000Hz Peak) [正弦振动]		20G
Environmental seal [环境密封]		IP67 & IP69K
Salt fog [盐雾]		MIL-STD-810
Operating ambient temp range [使用环境温度]		-40°C to +85°C
Storage ambient temp range [储存环境温度]		-70°C to +150°C
Ambient humidity [环境湿度]		5% ~ 95% RH
Altitude [海拔高度]		≤4000m

Dimensions [尺寸]

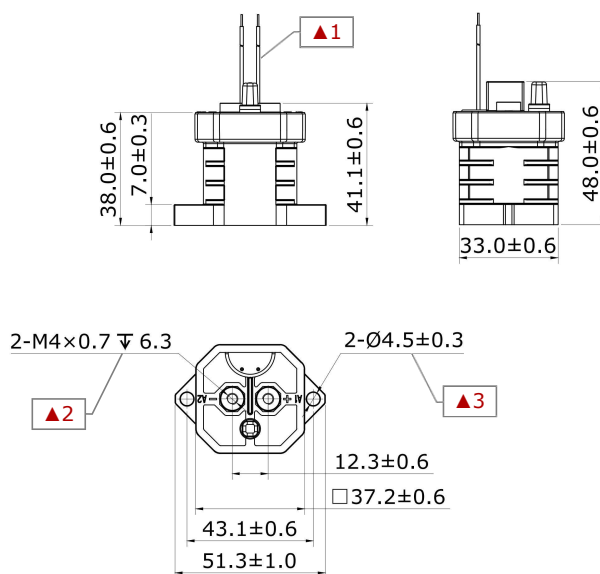
(Dimensions are in mm [尺寸单位为毫米])

● Coil leads [线圈引线]

- ▲1 White = coil lead (AWG22), without polarity [白色=线圈导线 (AWG22), 无极性]
(Lead length 400±10mm (without quick-connect terminal) [导线长度为 400±10mm (不带连接器)])

● Mounting [安装]

- ▲2 M4 x 0.7 Power terminals (Internal thread) [M4×0.7主触点端子 (内螺纹)]
Torque 1.8 to 2.5Nm (typical 2Nm) [扭矩1.8至2.5Nm (典型2Nm)]
Hardware supplied [附带的硬件]:
2 X M4 Washer (stainless) [2个M4平垫圈 (不锈钢)]
2 X M4 Spring washer (stainless) [2个M4弹簧垫圈 (不锈钢)]
2 X M4 x 6.3 Bolt (stainless) [2个M4×6.3螺栓 (不锈钢)]
- ▲3 Base [底座]
Torque 1.8 to 2.5Nm (Typical 2Nm) [扭矩1.8至2.5Nm (典型2Nm)]
Mounting hardware (not supplied) [安装硬件 (不提供)]:
2 X M4 Bolt [2个M4螺栓]
2 X M4 Washer [2个M4平垫圈]
2 X M4 Spring washer [2个M4弹簧垫圈]



● Packaging [包装]

70 units per shipping box [70个箱]
400mm x 385mm x 115mm shipping box [包装箱尺寸: 长×宽×高]

● Weight [重量]

120g per product (typical) [120克/个 (典型)]
9.5kg per shipping box (typical) [9.5千克/箱 (典型)]

Part numbering system [零件编码系统]

	EVQ	50	E	12	D	A	1	72000
Series [系列] : "EVQ" = EVQ series [EVQ 系列]								
Rated current [额定电流] : "50" = 50A								
Contact form [触点形式] : "E" = Power contact (1 Form X) without polarity, without auxiliary contact [主触点 (一组常开) 无极性, 无辅助触点]								
Coil voltage [线圈电压] : "12" = 12V DC "24" = 24V DC "48" = 48V DC								
Coil and auxiliary contact output type [线圈与辅助触点引出方式] : "D" = Lead type without quick-connect terminal [导线式, 不带连接器] "E" = Lead type with quick-connect terminal [导线式, 带连接器] (Customizable, see HT-SPEC-000 [DC Contactor User Manual] [可定制, 详见 HT-SPEC-000 【直流接触器使用说明书】])								
Mounting method [安装方式] : "A" = Base upright mounting, power contacts internal thread (M5×0.8) [底座为立式安装, 主触点为内螺纹 (M4×0.7)]								
Design series number [壳架号] : "1" = 1#								
Special client code [特殊客户代码] : • When buyers have special requirements, buyer special requirements are determined by HOTSON after review, whether they are numbers or letters (they do not affect the construction and performance). [当用户存在特殊要求时使用, 用户特殊要求由HOTSON 评审后确定数字或字母 (它们不影响构造和性能)] <08								

<08

- ✓ First numbers or letters [第一位数字或字母] : "7" = Buyer industry [用户行业]
- ✓ Second numbers or letters [第二位数字或字母] :
 "2" = Power contact material is copper [主触点材料是铜]
 "3" = Power contact material is silver alloy [主触点材料是银合金]
- ✓ Third, fourth, and fifth digits or letters [第三位、第四位和第五位数字或字母] :
 Buyer-customized coil and auxiliary switch lead length, insulated sleeve and quick-connect terminal. If the standard lead length and without quick-connect terminal, it is represented by 000. It can also be used to represent other special requirements of buyers [用户特殊订制的线圈与辅助开关导线长度、绝缘套管和连接器。如是标准线长且不带连接器, 用 000 表示。也可以用于表示用户其它的特殊要求]

Please refer to the HT-SPEC-000 "DC Contactor User Manual" for more information, which is an inseparable part of this document. [请查看 HT-SPEC-000 【直流接触器使用说明书】 获取更多内容, 该文件是本文件不可分割的一部分]