

The following page(s) are extracted from multi-page Goodsky product catalogues or CDRoms and any page number shown is relevant to the original document. The PDF sheets here may have been combined to provide technical information about the specific product(s) you have selected.

Please note that the number of variants of Goodsky relay part numbers means that it is not possible to maintain stock of every one. If you are researching to replace just one relay on a component, say as a spare part for domestic equipment, you may need to contact the manufacturer of that equipment. Stock of Goodsky relays is maintained in the UK for those exact parts where there is a continuous demand within the UK.

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Important Note

The information shown in these documents is for guidance only. No liability is accepted for any errors or omissions. The designer or user is solely responsible for the safe and proper application of the parts, assemblies or equipment described.

EMF SERIES

For General Control & Home Appliance

Application : Control Board for Heating /
Temp Control on Air Conditioner /
Heater / Microwave Oven / Power Supply;
etc.

Features : ◆ Quick Connecting Tab
◆ High Current 18A

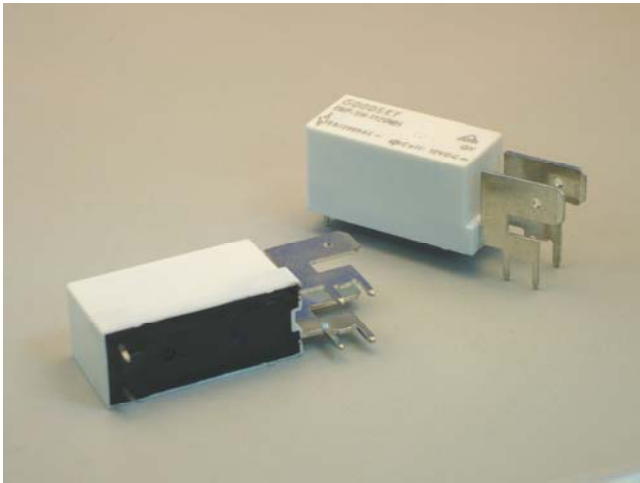
Safety Standard : VDE, C-UL
(Certification in Progress)

RoHS Compliant

GOODSKY

EMF 性能比較表 (Performance Comparison List)

| 品牌 Supplier | | GOODSKY | | Schrack | Finder | SONG CHUAN | HONGFA | Relpol | |
|-------------------------|-------------------------------------|--|-------------------------|--|--------------------|--|--|-------------------------|--|
| 型號 Item | | EMF (New Standard) | EMF (Current Standard) | RF | 45 Series | 881WP | JQX-115F-Q | RM85 faston | |
| Coil Type | | DC | DC | DCV | DCV | DCV | DCV | DCV | |
| 接觸部 Contact Specs | 開關型式 Contact Configuration | 1a, 1b | 1a, 1b | 1a, 1b | 1a, 1b | 1a | 1a, 1b | 1a | |
| | 接觸材質 Contact Material | AgSnO2 | AgSnO2 | AgNi 10% | AgCdO | AgNi/AgNi+Au | AgNi/AgSnO2 | AgSnO2 | |
| | 接觸規格 Contact Rating | 25A/250VAC (105℃) 20A/250VAC (105℃) 20A/24VDC (105℃) | 16A/250VAC 16A/30VDC | 16A/250VAC (105℃) 11A/250VAC(105℃) 6A/400VAC(105℃) 10A/400VAC(105℃) | 16A/250VAC (125℃) | 12A/250VAC (VDE125℃) 17A/250VAC (VDE105℃) 12A/277VAC(CUL) 17A/277VAC(CUL) | 12A/250VAC (VDE125℃) 18A/250VAC (VRE105℃) 20A/250VACCUL) | 20A/250VAC 20A/24VDC | |
| | 最大流通電流 Max. Allowable Current | 25A | 20A | 25/16A | 30/16A | 17A | 20A | 20A/30A | |
| | 最大承受電壓 Max. Allowable Voltage | 250VAC/30VDC | 250VAC/30VDC | 440/240VAC | 400/250VAC | 277VAC | 440VAC/125VDC | 250VAC/400VAC | |
| 線圈部 Coil Specs | 額定電壓 Nominal Voltage | 3,5,6,9,12,18,24,48,60 | 3,5,6,9,12,18,24,48,60 | 5, 6, 9, 12, 24, 48, 60 | 6, 12, 24, 48, 60 | 5, 6, 9, 12, 18, 24, 36, 48, 60 | 5, 6, 12, 24, 38, 60 | 5,6,9,10,12,18,24,48 | |
| | 動作電壓 Pull-In Voltage % | 70%or75% | 80% | 70% | 70% | 70% | 70% | 75% | |
| | 開放電壓 Drop-Out Voltage % | 5% | 5% | 10% | 10% | 10% | 10% | | |
| | 額定消耗功率 Power Consumption | 0.4W | 0.4W | 0.4W | 0.36W | 0.4W | 0.4W | 0.25W | |
| | 最大承受電壓 Maximum Allowable Voltage | 130% | 130% | 254% | 120% | 110% | - | 300% | |
| 性能 Performance | 接觸阻抗 Contact Resistance | 100mΩ | 100mΩ | - | - | 100mΩ | 100mΩ | 100mΩ | |
| | 動作時間 Operate Time | 12mS | 12mS | 10mS | 10mS | 20mS | 15mS | 8mS | |
| | 開放時間 Release Time | 8mS | 8mS | 10mS | 2mS | 10mS | 8mS | 3mS | |
| | 最大開閉頻率 Max. On/Off Switching | 機械 Mechanical | 300 / Min | 300 / Min | 1200/min | - | 7,200/h | - | 7200/hr |
| | | 電氣 Electrical | 6 / Min | 6 / Min | 6/min | - | 360/h | - | 600/hr |
| | 耐電壓(AC) Dielectric Strength | I/O | 5,000V | 5,000V | 4,000V | 6,000V | 5,000V | 5,000V | 5,000V |
| | | O/O | 1,000V | 1,000V | 1,500V | 1,000V | 1,000V | 1,000V | 1,000V |
| | 振動 Vibration | 耐久 Endurance | 10~55Hz 1.5mm | 10~55Hz 1.5mm | 55~500Hz | - | 10~55Hz 1.5mm | 100m/S2 | |
| | | 誤動作 Error Operation | 100m/S ² | 10~55Hz 1.5mm | - | - | 10~55Hz 1.5mm | 1,000m/S2 | |
| | 壽命 Life Expectancy | 機械 Mechanical | 1x10 ⁷ | 1x10 ⁷ | 10x10 ⁶ | 30x10 ⁶ | 30x10 ⁶ | 1x10 ⁷ | 3x10 ⁷ |
| | | 電氣 Electrical | 1x10 ⁵ | 1x10 ⁵ | - | 100x10 ³ | 10x10 ⁴ | 1x10 ⁵ | 20000 20A,250VAC,85℃ 150000 10A,250VAC,105℃ |
| | 使用環境溫度 Temperature Range | -40~+105℃ | -40~+105℃ | -40~+105℃ | -40~+125℃ | -40~+105℃ | -40~+125℃ | -40~+125℃ | -40~+105℃ |
| | 使用環境濕度 Humidity Range | 45%~85% | 45%~85% | - | - | - | 35%~85% | | |
| 重量 Weight | 14g | 14g | 20g | - | 13g | 13.5g | 16g | | |
| 安全規格 Safety Standard | VDE | NIL | VDE, CUL | COST, CUL, VDE | UL, CUL, CSA, VDE | VDE, UL | VDE, CUL | | |
| 寸法 Dimension | 外型尺寸 Dimension | 40.5x12.6x15.7 | 40.5x12.6x15.7 | 40.5x12.7x16 | 40.7x12.5x28.5 | 40.85x12.7x15.7 | 40.65x12.5x15.7 | 40.5x12.7x28.5 | |
| 端腳外型 Terminal Type | 直Pin(DIP) | V | V | V | V | V | V | V | |
| | 90°Pin(SMD) | | | | | | | | |



Main Feature

1. EMF Series Relays are designed for switching capacity by 18A to comply with industrial control system use.
2. Compatible fixed terminal to match corresponding power relay.
3. Simple magnetic circuit to meet low cost demand.
4. Standard type contact form SPST is available for customer's preference.
5. Operating ambient temperature range from -40°C to 105°C.



Contact Rating

| Load Type | EMF (DM) | EMF (DB) |
|----------------------------|------------|------------|
| Rated Load (Resistive) | 18A 250VAC | 16A 250VAC |
| | 18A 30VDC | 16A 30VDC |
| Rated Carrying Current | 18A | 16A |
| Max. Allowable Voltage | AC 250V | AC 250V |
| | DC 30V | DC 30V |
| Max. Allowable Current | 20A | 20A |
| Max. Allowable Power Force | 4000VA | 4000VA |
| | 480W | 480W |
| Contact Material | Ag Alloy | Ag Alloy |
| Contact Form | SPST | SPST |

Application

Air Conditioning, Electric Heating, Microwave Ovens, Power Supplies...etc.

Performance (at Initial Value)

- Contact Resistance 100mΩ Max. @1A,6VDC
- Operate Time 12 mSec. Max.
- Release Time 8 mSec. Max.
- Dielectric Strength:
Between Coil & Contact 5,000VAC at 50/60 Hz for one minute.
Between Contacts 1,000VAC at 50/60 Hz for one minute.
- Insulation Resistance 100MΩ Min. at 500VDC.
- Max. On/Off Switching:
Electrical..... 6 Cycles per Minute.
Mechanical..... 120 Cycles per Minute.

- Temperature Range -40~105°C.
- Humidity Range 45~85% RH.
- Coil Temperature Rise 35°C Max.
- Vibration:
Endurance..... 10 to 55 Hz dual amplitude width 1.5 mm
Error Operation 10 to 55 Hz dual amplitude width 1.5mm.
- Shock:
Endurance 1,000 m/S² .
Error Operation..... 100 m/S² .
- Life Expectancy:
Electrical.....10⁵ Operations at Rated Resistive Load.
Mechanical.....3x10⁷ Operations at No Load condition.
- Weight About 14.5 g.

Safety Standard & Its File Number

- VDE.....40009648

Coil Specification (at 20 °C)

| Coil Sensitivity | Nominal Voltage(VDC) | Nominal Current (mA) | Coil Resistance ($\Omega \pm 10\%$) | Power Consumption (W) | Pull-In Voltage (VDC) | Drop-Out Voltage (VDC) | Maximum Allowable Voltage (VDC) |
|------------------|----------------------|----------------------|---------------------------------------|-----------------------|-----------------------|------------------------------|---------------------------------|
| EMF | 3 | 133 | 22.5 | Abt. 0.4 | 70% Maximum | DM: 10% DB: 5% Minimum | 130% |
| | 5 | 79 | 63 | | | | |
| | 6 | 67 | 90 | | | | |
| | 9 | 44 | 203 | | | | |
| | 12 | 33 | 360 | | | | |
| | 15 | 26 | 562 | | | | |
| | 18 | 22 | 810 | | | | |
| | 24 | 17 | 1,440 | | | | |
| | 48 | 8 | 5,760 | | | | |
| | 60 | 7 | 9,000 | | | | |

Ordering Information

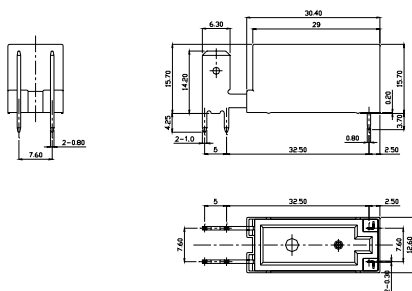
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|------------|------------|----------|-----------|----------|----------|----------|-------------------------|---|
| EMF | -SH | 1 | 03 | D | M | H | | |
| | | | | | | | Terminal Type: | H : Horizontal Bring Terminal V : Vertical Bring Terminal |
| | | | | | | | Contact Form: | M : One Form A B : One Form B |
| | | | | | | | Coil Type: | D : Standard DC Coil |
| | | | | | | | Coil Voltage: | 03 : 3V, 05 : 5V, 06 : 6V, 09 : 9V, 12 : 12V, 15 : 15V, 18 : 18V, 24 : 24V, 48 : 48V, 60 : 60V |
| | | | | | | | Number of Pole: | 1 : One Pole |
| | | | | | | | Type of Sealing: | SS : RT II Flux Proofed Relays SH : RT III Wash Tight Relays |
| | | | | | | | Type: | EMF |

Classification

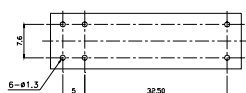
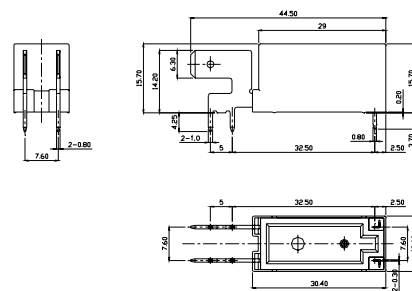
| Model | EMF | |
|--------------------|------------------|---------------|
| Coil Sensitivity | Standard DC Coil | |
| Contact Form | 1A | 1B |
| Flux Proofed Relay | EMF-SS-1□□DM□ | EMF-SS-1□□DB□ |
| Wash Tight Relay | EMF-SH-1□□DM□ | EMF-SH-1□□DB□ |

Dimension ($\leq 5\text{mm} \pm 0.2\text{mm}$, $> 5\text{mm} \pm 0.3\text{mm}$, the tolerance of PCB thru hole: $+0.1\text{mm}$)

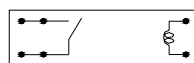
EMF-SS/SH-V



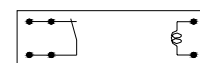
EMF-SS/SH-H



BOTTOM VIEW



(1A)



(1B)

BOTTOM VIEW