



## ORDERING CODE 订购代码

HLS-CMA3- H - DC12V - C - NS

NS:NO SHOULDER  
NIL:WITH METAL SHOULDER  
PS:WITH PLASTIC SHOULDER  
CONTACT FORM  
A:1 FORM A B:1FORM B C:1 FORM C U:1 FORM U  
NOMINAL VOLTAGE  
DC6V, DC12V, DC24V  
COIL  
NIL... STANDARD (1.6W) H... HIGH POWER(1.9W)  
TYPE

## CONTACT DATA 触点参数:

|                            |          |                                             |
|----------------------------|----------|---------------------------------------------|
| Contact Form               | 触点形式     | 1A/1B/1C/1U                                 |
| Contact Material           | 触点材料     | Ag Alloy                                    |
| Contact Ratings            | 触点负载     | 1A:40A/14VDC 1B 1C:30A/14VDC 1U:2×20A/14VDC |
| Max Switching Voltage      | 最大转换电压   | 30VDC                                       |
| Max Switching Current      | 最大转换电流   | 40A                                         |
| Max Switching Power        | 最大转换功率   | 560W                                        |
| Initial Contact Resistance | 接触电阻（首次） | 100mΩ Max at6VDC 1A                         |
| Life Expectancy Electrical | 电气寿命     | 100,000 Operations (rated load)             |
| Life Expectancy Mechanical | 机械寿命     | 10,000,000 Operations (no load)             |

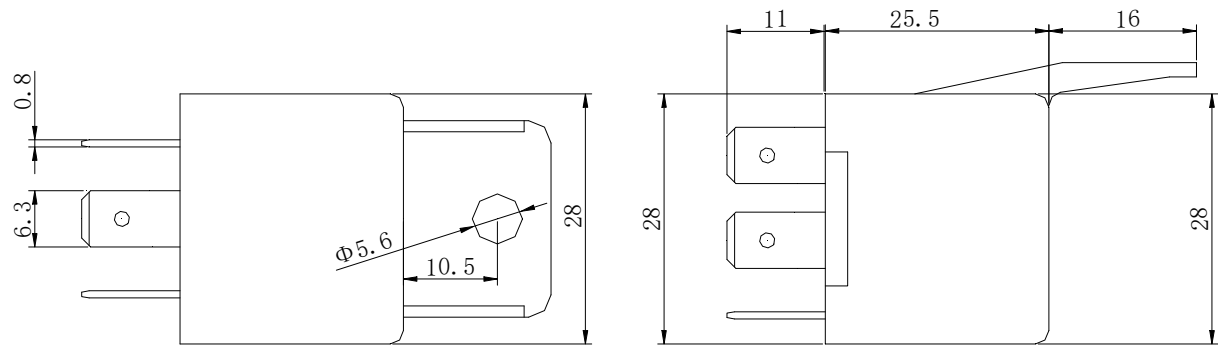
## GENERAL DATA 一般参数:

|                                               |          |                                |
|-----------------------------------------------|----------|--------------------------------|
| Insulation Resistance                         | 绝缘阻值     | 100MΩ min at500VDC             |
| Dielectric Strength Between Open Contacts     | 触点间耐压    | 500VAC 50-60HZ (1 minute)      |
| Dielectric Strength Between Contacts And Coil | 触点与线圈间耐压 | 750VAC 50-60HZ (1 minute)      |
| Operate Time                                  | 吸合时间     | 10ms max                       |
| Release Time                                  | 释放时间     | 10ms max                       |
| Ambient Temperature                           | 环境温度     | -40℃ to+85℃                    |
| Shock Resistance                              | 冲击       | 10G                            |
| Vibration Resistance                          | 振动       | 10-55Hz,1.5mm double amplitude |
| Ambient humidity                              | 湿度       | 40-85% RH                      |
| Weight                                        | 重量       | Approx 40g                     |
| Safety Standard                               | 安全标准     |                                |

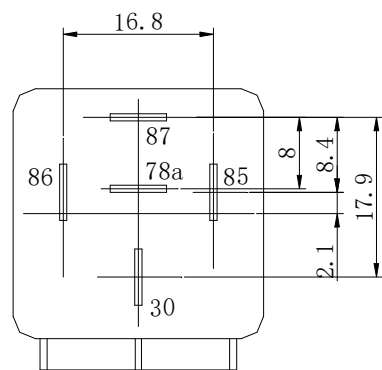
COIL DATA 线圈参数: (@20℃)

| Rated Voltage<br>额定电压<br>(VDC) | Coil Resistance $\Omega$ ( $\pm 10\%$ )<br>线圈阻值 |       | Max Operate Voltage<br>最大吸合电压<br>(VDC) | Min Release Voltage<br>最小释放电压<br>(VDC) | Max Applied Voltage<br>最大允许电压<br>(VDC) |
|--------------------------------|-------------------------------------------------|-------|----------------------------------------|----------------------------------------|----------------------------------------|
|                                | 1.6W                                            | 1.9W  |                                        |                                        |                                        |
| 6                              | 22.5                                            | 19    | 3.9                                    | 0.6                                    | 7.8                                    |
| 12                             | 90                                              | 75.8  | 7.8                                    | 1.2                                    | 15.6                                   |
| 24                             | 360                                             | 303.2 | 15.6                                   | 2.4                                    | 31.2                                   |

Outline Dimension 外形尺寸 (mm)

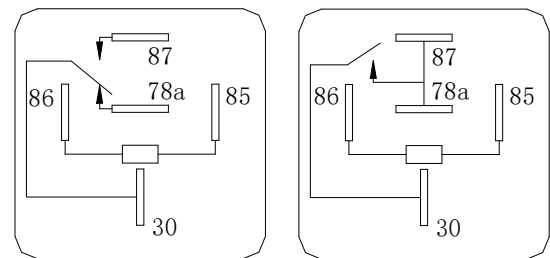


PC Board layout 安装图



(Bottom View 底视)

Wiring Diagram 接线图



(1U)

(Bottom View 底视)

声明：本产品规格书仅供客户使用时参考，若有更改，恕不另行通知。

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## Таблица возможной замены реле

### силовые реле

| HONGFA          | TIANBO     | SONGLE      | HELISUN         | OMRON     |
|-----------------|------------|-------------|-----------------|-----------|
| HF3FF           | HJR-3FF    | SRD(T73)    | HLS8-T73        | G5L       |
| HF10FF-2        |            |             | <b>HLS-MK2P</b> | MK2       |
| HF10FF-3Z       |            |             | HLS-MK3P        | MK3       |
| HF13F           |            |             | <b>HLS-13F</b>  |           |
| HF18FF          | HJQ-22     |             | HLS-4453(18F)-4 | MY4       |
| HF21FF          | HJR-21FF   | SRU(22F)    | HLS8-22F        | G5L-E     |
| HF32F           | TRG1       | SRSB        | HLS-32F         | 835/835NL |
| HF32FA/32FA-T   | TRG1       | SRSB        | HLS-32F         | 835/835NL |
| HF32FA-G        | TRG1       | SRSB        | HLS-32F         | 835/835NL |
| HF33F           | TRG2       | SRSC        | HLS-33F         | G5SB      |
| HF62F           | TRA2F      | SMIH(14FHA) | <b>HLS-14FK</b> | G5J       |
| HF46F/HF46F-G   | TRGB       |             |                 | 202/202H  |
| HF49FD          |            |             |                 | G5J       |
| HF102F          | TRAF       |             | HLS-102F        | G4A       |
| HF115F          | TRC2       | SMIH(14FH)  | HLS-14F2        | G2RL      |
| HF115FP         | TRC3       | SMIH(14FH)  | HLS-14F3        |           |
| HF140FF         | TRA3       |             | HLS-14F         | G2R/G2RG  |
| HF13F           | HJQ-13F-2C | SMB(13F)    | HLS-13F-2       | LY2       |
| HF2100          | HJQ-15F-1  | SLC(T91)    | HLS-T91(16F)-1  | G7G       |
| HF105F - 4      | HJQ-15F-3  | SLCH(T92)   |                 |           |
| HF105F-1        | HJQ-15F    | SLA(T90)    | HLS-T90(15F)    | G8P       |
| HF2160          | HJQ-15F-2  | SLI(T93)    | HLS-T91(16F)-2  | G7G/G8G   |
| HF165FD         | HJQ-15F    | SLA         | HLS-T90(15F)    | G8P       |
| JQC-21FF        | HJR-21FF   | SRD(T73)    | HLS8-22F        |           |
| HF7FF           | HJR-7FF    | SRG(4123)   | HLS8-T73        |           |
| HF141FF         | TRA1       |             | HLS-14F1        | G2R       |
| HF14FW          | TRA2       | SMIH(14FH)  | <b>HLS-14F2</b> | G2R       |
| HF14FF          | TRA1       |             | HLS-14F         | G2R       |
| HF36F           | TRA4       |             |                 |           |
| HF42F           | TRA5       |             |                 | G5PA-2    |
| HF8             | TRDH       | SRI(T72)    | HLS-T72         |           |
| HF102F          |            |             | HLS-102F        | G4A       |
| HLS-4453(18F)-2 |            | SMBH(4453)  | HLS-4453(18F)-2 | MY2       |
| HF18FF-3Z       |            |             | HLS-4453(18F)-3 | MY3       |

### сигнальные реле

| HONGFA  | TIANBO   | SONGLE | HELISUN      | OMRON |
|---------|----------|--------|--------------|-------|
| HFD2    | HJR1     | SRC    | HLS-4078     | G5V-2 |
| HFD4    |          |        |              |       |
| HFD27   | HJR1-2   | SRC    | HLS-4078     | G5V-2 |
| HFD41   | HJR4102  | SRS    |              |       |
| HF41F   |          |        | HLS6-4100H-1 | G2E   |
| HM4101F | HJR4102E |        |              |       |
| HFD23   |          |        | HLS6-23F     | G5V-1 |

### автомобильные реле

| HONGFA     | TIANBO | SONGLE    | HELISUN       | OMRON |
|------------|--------|-----------|---------------|-------|
| HFKM, HFKS | TRAW   | SLE(4117) | HLS-4117      |       |
| HVF6       | TRFM   |           |               | G8HN  |
|            |        |           |               |       |
| HFKP       | TRKP   | SLB       | HLS-4120      | G8PE  |
|            | TRS    |           |               |       |
|            | TRV3   |           |               |       |
| HV4        | TRV4   | SLD       | HLS-CMA3      | G8JN  |
|            | TRV5   |           |               |       |
| HV7        | TRV6   | SLDH      | HLS-CMA3-1    | G8JR  |
| HFKW       | HJR78F | SRA(T74)  | HLS-T78       | G8QN  |
|            |        |           | HLS-4121/4122 |       |
| HV6        |        | SLM       | HLS-CMA6      | G8H   |