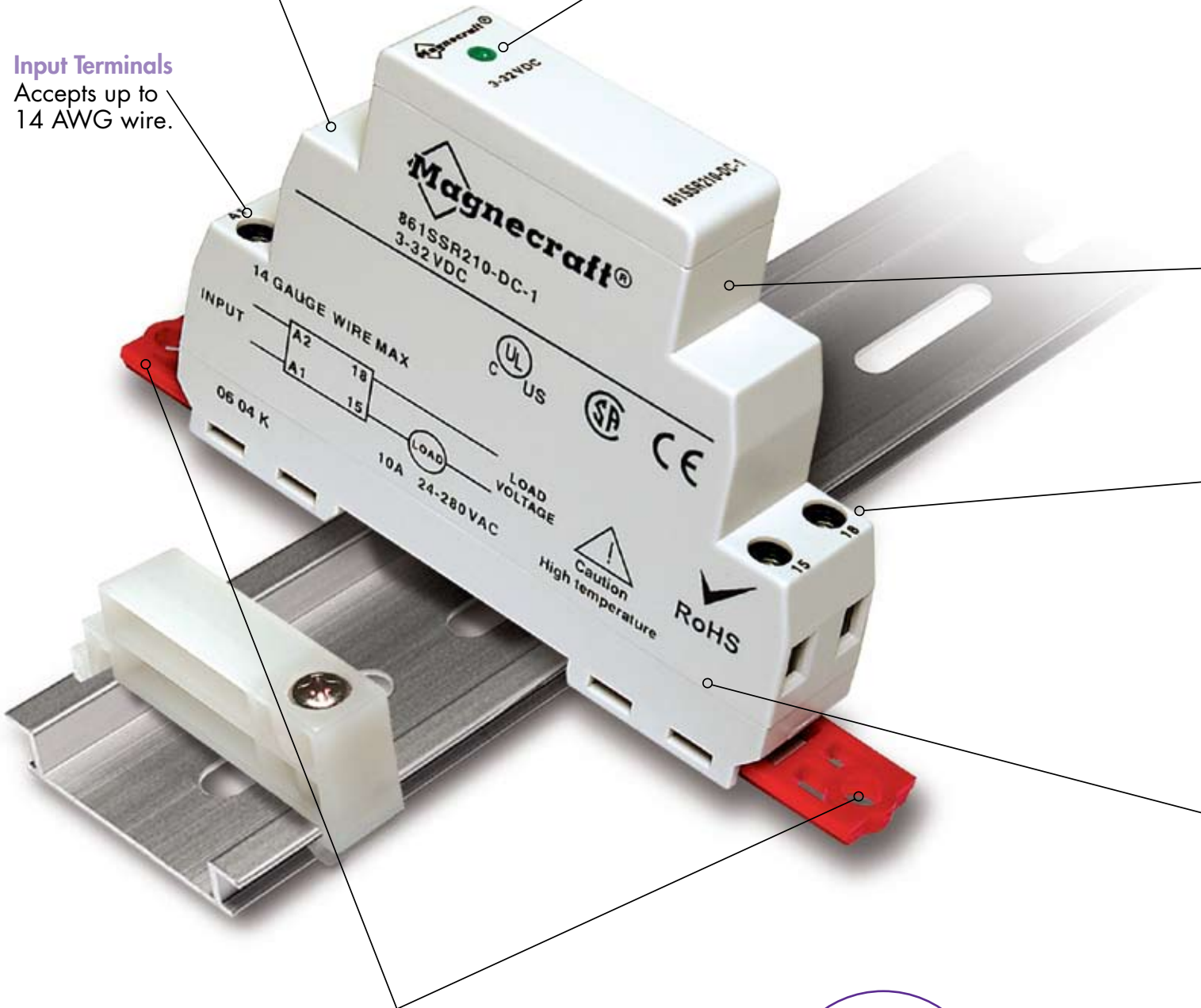


# Advantages of the 861 Solid State Relay

**Internal Snubber**  
Protects from Transients.

**Input Indication**  
Green LED.

**Input Terminals**  
Accepts up to  
14 AWG wire.



**Flexible Mounting**  
Mounts Directly On a DIN Rail or Extract  
the Bi-Stable Clips for Panel Mounting.



## The new DIN-Mountable **861 Solid State** relay with an internal heat sink is the first complete solid state relay with NO moving parts; in a modular package.

### Solid State Circuitry

No Moving Parts Involved.

### Output Terminals

Isolation of the Inputs from the Outputs. Accepts up to 14 AWG wire.



### Integral Heat Sink

Factory Tested Thermal Management.

- Offers a “one stop solution” for your power management system.
- Available in most popular SSR configurations.
- First fully-integrated, modular-style solid state relay on the market.
- Engineering availability allows for customized relay solutions.



Optional Panel Adapter  
(16-788C1)

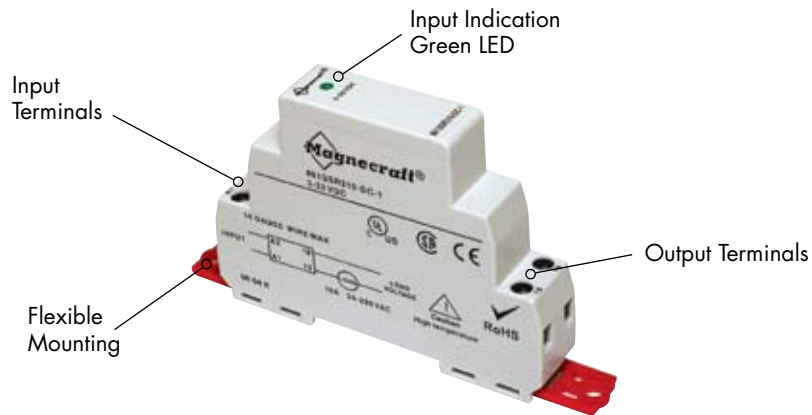
See Section 3 p.18

We at Magnecraft are excited at the breadth of products and solutions we are able to offer engineers and designers. And this is just the beginning. We will continue to develop high value products—with innovative features not offered anywhere else in the industry.

## 861 Solid State Relay/SPST-NO, 8-15 Amp Rating



**NEW**  
**NEW**  
**NEW**  
**NEW**  
**NEW**



### General Specifications (@ 25° C) (UL 508)

| Output Characteristics                                |                      | Units                  | 861SSR210-DC-1    |
|---|----------------------|------------------------|-------------------|
| Number and type of Contacts                           |                      |                        | SPST-NO           |
| Switching Device                                      |                      |                        | SCR (2)           |
| Current rating  |                      | A                      | 10                |
| Switching voltage                                     |                      | V                      | 24...280 AC       |
| Switching Type  |                      |                        | Zero Cross        |
| Maximum zero turn-on voltage (V <sub>pk</sub> )       |                      | V                      | 35                |
| Maximum Rate of Rise Off State Voltage (dv/dt)        |                      | V/us                   | 500               |
| Incandescent Lamp Ampere Rating (rms)                 |                      | A                      | 8                 |
| Motor Load Rating (rms)                               |                      | A                      | 4.5               |
| Min. Load current to maintain on                      |                      | mA                     | 50                |
| Non-Repetitive Surge Current (1 cycle)                |                      | A                      | 500               |
| Max. RMS overload current (1 second)                  |                      | A                      | 24                |
| Max. Off state leakage current (rms)                  |                      | mA                     | 10                |
| Typical On State Voltage Drop (rms)                   |                      | V                      | 1.25 AC           |
| Max. On State Voltage Drop (rms)                      |                      | V                      | 1.6 AC            |
| Maximum I <sup>2</sup> T for Fusing (A <sup>2</sup> ) |                      |                        | 1250              |
| Input Characteristics                                 |                      |                        |                   |
| Voltage Range   |                      | V                      | 3...32 DC         |
| Must Release Voltage                                  |                      | V                      | 1 DC              |
| Nominal Input Impedance                               |                      | Ω                      | Current Regulator |
| Typical Input Current @ 5VDC or 240VAC                |                      | mA                     | 16                |
| Reverse Polarity Protection                           |                      |                        | Yes               |
| Performance Characteristics                           |                      |                        |                   |
| Operating time (response time)                        | On                   | ms                     | 8.3               |
|   | Off                  | ms                     | 8.3               |
| Rated insulation voltage                              | Input to Output      | V                      | 2500 AC           |
| Dielectric strength                                   | Terminals to Chassis | V                      | 2500 AC           |
| Environment   |                      |                        |                   |
| Product certifications                                | Standard version     |                        | UL, CSA, CE       |
| Ambient air temperature around the device             | Storage              | °C                     | -40...+100        |
|   | Operation            | °C                     | -30...+80         |
| Degree of protection                                  |                      |                        | IP 20             |
| Miscellaneous Characteristics                         |                      |                        |                   |
| Thermal Resistance (Junction to Case)                 |                      | °C/W                   | 0.66              |
| Integral Heat sink                                    |                      | °C/W                   | 4.0               |
| Weight  |                      | g (oz)                 | 127 (4.1)         |
| LED   | Input                |                        | Green             |
| Terminal Wire Capacity                                |                      | AWG (mm <sup>2</sup> ) | 14 (2.1)          |
| Terminal Torque (maximum)                             |                      | in lb (Nm)             | 7.1 (0.8)         |

SECTION 4

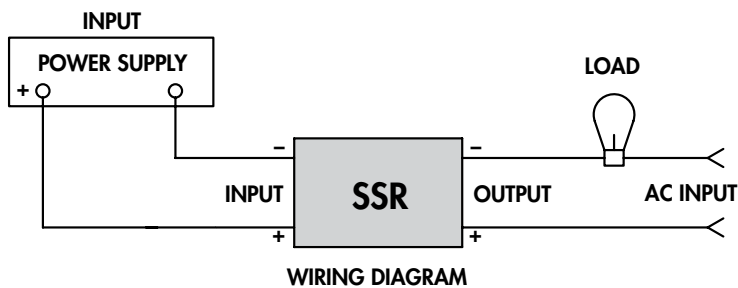
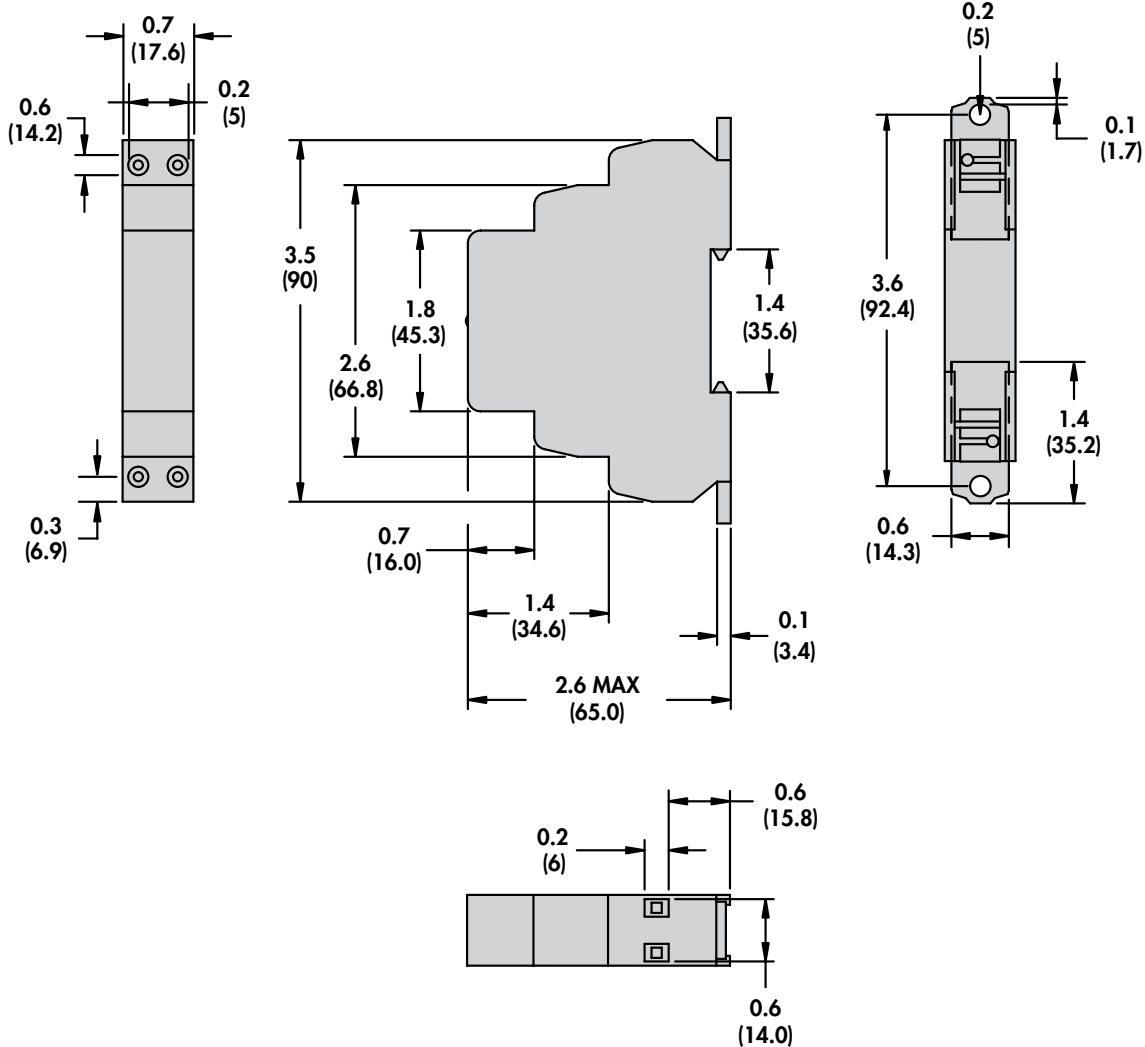
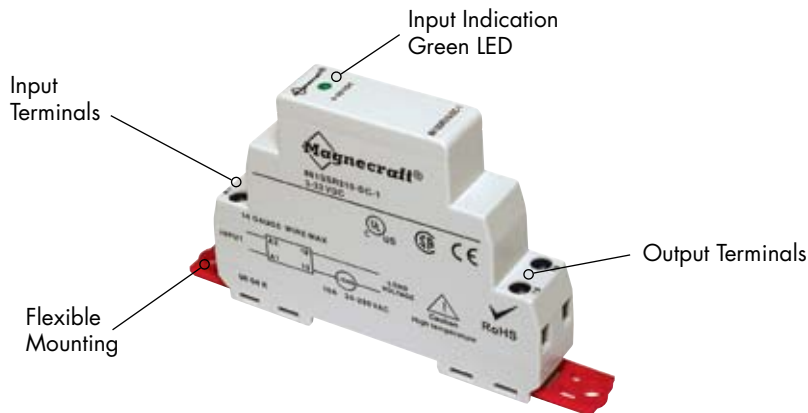


| 861SSR210-AC-1             | 861SSRA208-DC-1   | 861SSRA208-AC-1            | 861SSR115-DD      | 861SSR208-DD      |
|----------------------------|-------------------|----------------------------|-------------------|-------------------|
| SPST-NO                    | SPST-NO           | SPST-NO                    | SPST-NO           | SPST-NO           |
| SCR (2)                    | Alternistor Triac | Alternistor Triac          | MOSFET            | MOSFET            |
| 10                         | 8                 | 8                          | 15                | 8                 |
| 24....280 AC               | 24....280 AC      | 24....280 AC               | 3....50 DC        | 3....150 DC       |
| Zero Cross                 | Zero Cross        | Zero Cross                 | DC Switching      | DC Switching      |
| 35                         | 35                | 35                         | N/A               | N/A               |
| 500                        | 475               | 350                        | N/A               | N/A               |
| 8                          | 5                 | 5                          | N/A               | N/A               |
| 4.5                        | 3                 | 3                          | N/A               | N/A               |
| 50                         | 150               | 150                        | 20                | 20                |
| 500                        | 200               | 200                        | 50                | 35                |
| 24                         | 24                | 24                         | 24                | 17                |
| 10                         | 10                | 10                         | 10                | 10                |
| 1.25 AC                    | 1.25 AC           | 1.25 AC                    | 1.25 DC           | 1.25 DC           |
| 1.6 AC                     | 1.6 AC            | 1.6 AC                     | 1.6 DC            | 1.6 DC            |
| 1250                       | 250               | 250                        | N/A               | N/A               |
| 90....280 AC, 80....140 DC | 3....32 DC        | 90....280 AC, 80....140 DC | 3.5....32 DC      | 3.5....32 DC      |
| 10 AC                      | 1 DC              | 10 AC                      | 1 DC              | 1 DC              |
| 16....25K                  | Current Regulator | 16....25K                  | Current Regulator | Current Regulator |
| 12                         | 12                | 12                         | 12                | 12                |
| N/A                        | Yes               | N/A                        | Yes               | Yes               |
| 40                         | 8.3               | 40                         | 5                 | 5                 |
| 80                         | 8.3               | 80                         | 5                 | 5                 |
| 2500 AC                    | 2500 AC           | 2500 AC                    | 2500 AC           | 2500 AC           |
| 2500 AC                    | 2500 AC           | 2500 AC                    | 2500 AC           | 2500 AC           |
| UL, CSA, CE                | UL, CSA, CE       | UL, CSA, CE                | UL, CSA, CE       | UL, CSA, CE       |
| -40...+100                 | -40...+100        | -40...+100                 | -40...+100        | -40...+100        |
| -30...+80                  | -30...+80         | -30...+80                  | -30...+80         | -30...+80         |
| IP 20                      | IP 20             | IP 20                      | IP 20             | IP 20             |
| 0.66                       | 2.0               | 2.0                        | 1.4               | 0.5               |
| 4.0                        | 4.0               | 4.0                        | 4.0               | 4.0               |
| 127 (4.1)                  | 127 (4.1)         | 127 (4.1)                  | 127 (4.1)         | 127 (4.1)         |
| Green                      | Green             | Green                      | Green             | Green             |
| 14 (2.1)                   | 14 (2.1)          | 14 (2.1)                   | 14 (2.1)          | 14 (2.1)          |
| 7.1 (0.8)                  | 7.1 (0.8)         | 7.1 (0.8)                  | 7.1 (0.8)         | 7.1 (0.8)         |

# 861 Solid State Relay/SPST-NO, 8-15 Amp Rating *continued*



**NEW  
NEW  
NEW  
NEW  
NEW**



SECTION 4



Optional Panel Adapter  
(16-788C1)  
See Section 3 p.18

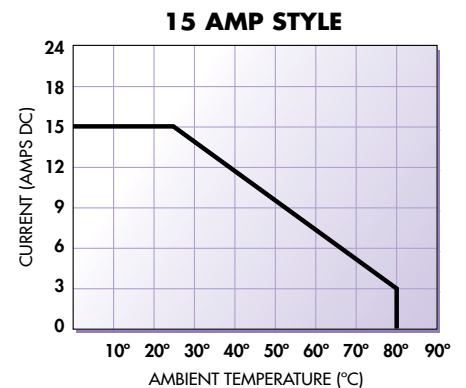
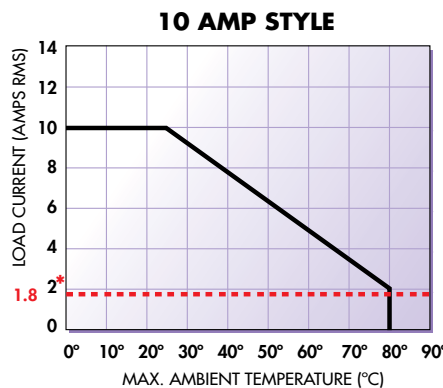
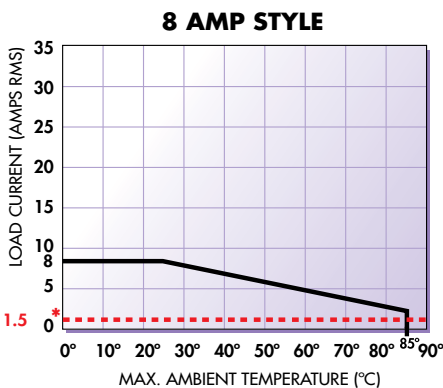
**Standard Part Numbers**

**BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED**

| AC Operated            | Input Voltage Range | Output Voltage Range | Contact Configuration | Switching Type | Rated Current Load (Amps) |
|------------------------|---------------------|----------------------|-----------------------|----------------|---------------------------|
| <b>861SSRA208-AC-1</b> | 90...280 VAC        | 24...280 VAC         | SPST-NO               | Zero Cross     | 8                         |
| <b>861SSR210-AC-1</b>  | 90...280 VAC        | 24...280 VAC         | SPST-NO               | Zero Cross     | 10                        |
| 861SSRA408-AC-1        | 90...280 VAC        | 48...480 VAC         | SPST-NO               | Zero Cross     | 8                         |
| <b>861SSR410-AC-1</b>  | 90...280 VAC        | 48...480 VAC         | SPST-NO               | Zero Cross     | 10                        |
| <b>861SSR610-AC-1</b>  | 90...280 VAC        | 48...600 VAC         | SPST-NO               | Zero Cross     | 10                        |
| <b>861SSRA208-AC-2</b> | 90...280 VAC        | 24...280 VAC         | SPST-NO               | Random         | 8                         |
| <b>861SSR210-AC-2</b>  | 90...280 VAC        | 24...280 VAC         | SPST-NO               | Random         | 10                        |
| 861SSRA408-AC-2        | 90...280 VAC        | 48...480 VAC         | SPST-NO               | Random         | 8                         |
| <b>861SSR410-AC-2</b>  | 90...280 VAC        | 48...480 VAC         | SPST-NO               | Random         | 10                        |
| <b>861SSR610-AC-2</b>  | 90...280 VAC        | 48...600 VAC         | SPST-NO               | Random         | 10                        |
| <b>DC Operated</b>     |                     |                      |                       |                |                           |
| <b>861SSRA208-DC-1</b> | 3...32 VDC          | 24...280 VAC         | SPST-NO               | Zero Cross     | 8                         |
| <b>861SSR210-DC-1</b>  | 3...32 VDC          | 24...280 VAC         | SPST-NO               | Zero Cross     | 10                        |
| 861SSRA408-DC-1        | 3...32 VDC          | 48...480 VAC         | SPST-NO               | Zero Cross     | 8                         |
| <b>861SSR410-DC-1</b>  | 3...32 VDC          | 48...480 VAC         | SPST-NO               | Zero Cross     | 10                        |
| <b>861SSR610-DC-1</b>  | 3...32 VDC          | 48...600 VAC         | SPST-NO               | Zero Cross     | 10                        |
| <b>861SSRA208-DC-2</b> | 3...32 VDC          | 24...280 VAC         | SPST-NO               | Random         | 8                         |
| <b>861SSR210-DC-2</b>  | 3...32 VDC          | 24...280 VAC         | SPST-NO               | Random         | 10                        |
| <b>861SSRA208-DC-4</b> | 3...32 VDC          | 24...280 VAC         | SPST-NC               | Random         | 8                         |
| <b>861SSR210-DC-4</b>  | 3...32 VDC          | 24...280 VAC         | SPST-NC               | Random         | 10                        |
| 861SSRA408-DC-2        | 3...32 VDC          | 48...480 VAC         | SPST-NO               | Random         | 8                         |
| <b>861SSR410-DC-2</b>  | 3...32 VDC          | 48...480 VAC         | SPST-NO               | Random         | 10                        |
| 861SSR610-DC-2         | 3...32 VDC          | 48...600 VAC         | SPST-NO               | Random         | 10                        |
| <b>861SSR115-DD</b>    | 3.5...32 VDC        | 3...50 VDC           | SPST-NO               | DC Switch      | 15                        |
| <b>861SSR208-DD†</b>   | 3.5...32 VDC        | 3...150 VDC          | SPST-NO               | DC Switch      | 8                         |

**Part Number Builder**

| Series | Output Type              | Output Voltage             | Output Current | Input Voltage     | Contact Config. & Switching Type |
|--------|--------------------------|----------------------------|----------------|-------------------|----------------------------------|
| 861    | SSR = SCR                | 1 = 3...50 VDC             | 08 = 8 AMPS    | AC = 90...280 VAC | 1 = SPST-NO, Zero Cross          |
|        | SSRA = ALTERNISTOR TRIAC | 2 = 24...280 VAC           | 10 = 10 AMPS   | DC = 3...32 VDC   | 2 = SPST-NO, Random              |
|        |                          | 2 = 3...150 VDC (DD Only)† | 15 = 15 AMPS   | DD = 3.5...32 VDC | 4 = SPST-NC, Random              |
|        |                          | 4 = 48...480 VAC           |                |                   |                                  |
|        |                          | 6 = 48...600 VAC           |                |                   |                                  |



\* Indicates current cut-off.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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