

Documents corresponding to the product: EN 60947-5-1; EN 61810


## Industrial Solid State Relays (SSR)

YEAR WARRANTY

Industrial SSR are intended for mounting in power and control cabinets as an output switch devices with reliable ON/ OFF performance. The SSR are based on the CMOS technology. The non-contact electronic switch is optically separated from the input signal by a photoelectric coupler. This allows use of switch currents of up to 50A despite of the devices small overall size. Another important feature of the relay is that output load can be regulated depending on the input signal value. The relay is mainly used to transmit control signals to actuating mechanisms since it can work at comparatively high currents making it possible to directly control actuators. SSR have transparent plastic covers to additionally improve their safety level. The SSR use is connected with considerable heat emissions, so measures must be taken to dispense the excessive thermal energy in the atmosphere. This is achieved through application of specially deigned radiators. The correct definition of radiator parameters is of critical importance. It is made by calculating the heat generation capacity with the formula: Heat generation $=$ active load current $\times 3.0 \mathrm{~W} / \mathrm{A}$. The heat removal surface is estimated with the help of the following graphic:

## Technical Specifications:

- Load/output voltage: $30 / 400 \mathrm{~V} 50 \mathrm{~Hz}$ or the solid state voltage regulators
- Rated output current: from 10A to 60A
- Insulating voltage: $1000 \mathrm{M} \Omega / \mathrm{min}(500 \mathrm{~V})$
- Impulse voltage stability: $2000 \mathrm{~V}, 50 \mathrm{~Hz}$
- Dielectric Strength: < 2500VAC / 1 min
- Leakage current: <2mA
- Turn-on time: <10ms
- Operating temperature: $-5^{\circ} \mathrm{C}+65^{\circ} \mathrm{C}$
- Relative Humidity: 35-85\%RH


Load current (A)

| Type | Relay Type | Control Volt age (V) | Output Volt age (V) | Number phases | Output Cur rent (A) | Packing/Box (pcs) | Catalogue number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ZG3NC-2-10B | SSR | $3-32 \mathrm{VDC}$ | 230VAC | 1 | 10 | 10/100 | 57710 |
| ZG3NC-2-20B | SSR | $3-32 \mathrm{VDC}$ | 230VAC | 1 | 20 | 10/100 | 57720 |
| ZG3NC-2-25B | SSR | $3-32 \mathrm{VDC}$ | 230VAC | 1 | 25 | 10/100 | 57725 |
| ZG3NC-2-40B | SSR | $3-32 \mathrm{VDC}$ | 230VAC | 1 | 40 | 10/100 | 57740 |
| ZG3NC-2-60B | SSR | $3-32 \mathrm{VDC}$ | 230VAC | 1 | 60 | 10/100 | 57760 |
| ZG3NC-3-10B | SSR | $3-32 \mathrm{VDC}$ | 400VAC | 2 | 10 | 10/100 | 57713 |
| ZG3NC-3-20B | SSR | $3-32 \mathrm{VDC}$ | 400VAC | 2 | 20 | 10/100 | 57723 |
| ZG3NC-3-25B | SSR | $3-32 \mathrm{VDC}$ | 400VAC | 2 | 25 | 10/100 | 57735 |
| ZG3NC-3-40B | SSR | $3-32 \mathrm{VDC}$ | 400VAC | 2 | 40 | 10/100 | 57743 |
| ZG3NC-3-60B | SSR | $3-32 \mathrm{VDC}$ | 400VAC | 2 | 60 | 10/100 | 57763 |


| Type Relay Type | Control <br> Voltage (V) | Output Volt age (V) | phases | $\operatorname{rent}(A)$ | acking/Box (pcs) | Catalogue number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ZG1NC-2-10D SS voltage regulator | 1-10VDC | 0-230VAC | 1 | 10 | 10/100 | 57810 |
| ZG1NC-2-20D SS voltage regulator | 1-10VDC | 0-230VAC | 1 | 20 | 10/100 | 57820 |
| ZG1NC-2-25D SS voltage regulator | 1-10VDC | 0-230VAC | 1 | 25 | 10 / 100 | 57825 |
| ZG1NC-2-40D SS voltage regulator | 1-10VDC | 0-230VAC | 1 | 40 | 10 / 100 | 57840 |
| ZG1NC-3-10D SS voltage regulator | 1-10VDC | 0-400VAC | 2 | 10 | 10/100 | 57813 |
| ZG1NC-3-20D SS voltage regulator | 1-10VDC | 0-400VAC | 2 | 20 | 10 / 100 | 57823 |
| ZG1NC-3-25D SS voltage regulator | 1-10VDC | 0-400VAC | 2 | 25 | 10/100 | 57835 |
| ZG1NC-3-40D SS voltage regulator | 1-10VDC | 0-400VAC | 2 | 40 | 10/100 | 57843 |


| Type | Relay Type | Control Voltage (V) | Output Volt age (V) | Number o phases | Output Cur rent (A) | Packing/Box (pcs) | Catalogue number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ZG33-3-10B | SSR | $3-32 \mathrm{VDC}$ | 400VAC | 3 | 10 | $1 / 30$ | 57831 |
| ZG33-3-20B | SSR | $3-32 \mathrm{VDC}$ | 400VAC | 3 | 20 | $1 / 30$ | 57832 |
| ZG33-3-25B | SSR | $3-32 \mathrm{VDC}$ | 400VAC | 3 | 25 | $1 / 30$ | 57833 |
| ZG 33-3-40B | SSR | $3-32 \mathrm{VDC}$ | 400VAC | 3 | 40 | $1 / 30$ | 57834 |

Note: The relay output must be supplied with a varistor to ensure its over-voltage protection, whenever RRS is used to control inductive loads.

| Type of Radiator | Overall Dimensions <br> (L/W/H) | Approximate Load (A) | Packing/Box (pcs) | Catalogue <br> number |
| :---: | :---: | :---: | :---: | :---: |
| QW-A 50 | $60 \times 50 \times 50$ | 15 | $1 / 50$ | $\mathbf{5 7 9 0 6}$ |
| QW-B 72 | $72 \times 100 \times 50$ | 20 | $1 / 50$ | $\mathbf{5 7 9 0 7}$ |
| QW-B 100 | $100 \times 100 \times 50$ | 25 | $1 / 50$ | $\mathbf{5 7 9 0 8}$ |
| QW-C 115 | $115 \times 100 \times 50$ | 40 | $1 / 50$ | $\mathbf{5 7 9 0 9}$ |
| QW-E 50 | $150 \times 88 \times 35$ | 75 | $1 / 40$ | $\mathbf{5 7 9 1 0}$ |

