

AC TO AC SOLID STATE RELAY - MODEL 901

25AMP- MODEL 901 ZAA 48 25 28 AL5



Weight: 110gms SSR +
20gms Din Rail = 130gms

Model 901 - 25Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
PIV : 800Vpk, I²T : 340A²S for 9.6mS
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 6kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 10AMP @40 °C
Without Heat Sink + Din rail

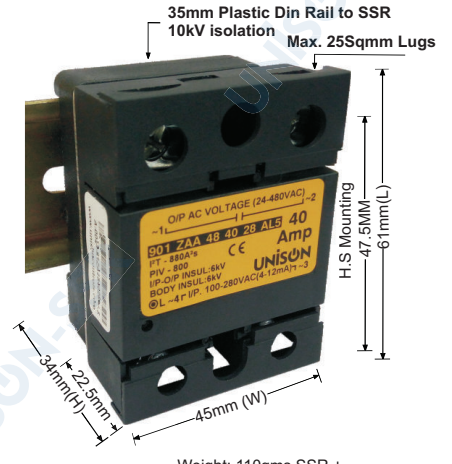
25AMP- MODEL 901 ZAA 48 25 28 AL5 WITH "G-68" H.S.



Weight: 110gms SSR +
95gms G-68 Heat sink

Model 901 - 25Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
PIV : 800Vpk, I²T : 340A²S for 9.6mS
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 6kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 16AMP @40 °C
With Heat Sink G-68+Din

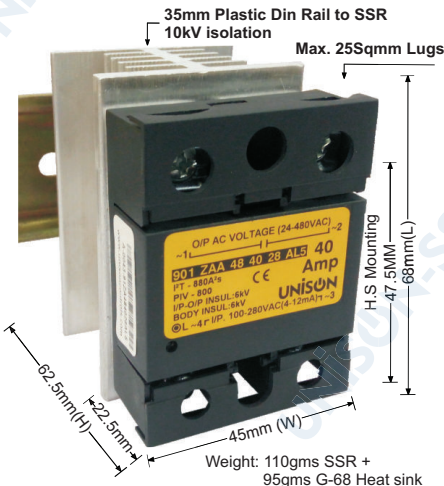
40AMP- MODEL 901 ZAA 48 40 28 AL5



Weight: 110gms SSR +
20gms Din Rail = 130gms

Model 901 - 40Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
PIV : 800Vpk, I²T : 880A²S for 9.6mS
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 6kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 12AMP @40 °C
Without Heat Sink

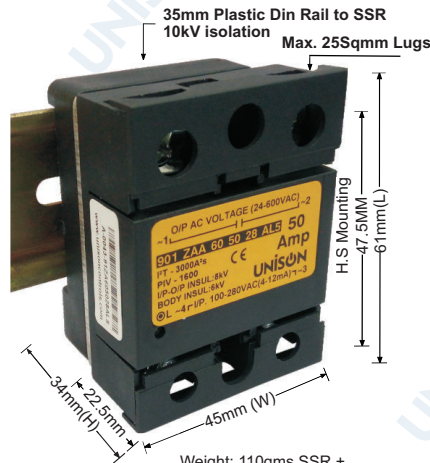
40AMP- MODEL 901 ZAA 48 40 28 AL5 WITH "G-68" H.S.



Weight: 110gms SSR +
95gms G-68 Heat sink

Model 901 - 40Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
PIV : 800Vpk, I²T : 880A²S for 9.6mS
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 6kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 18AMP @40 °C
With Heat Sink G-68+Din

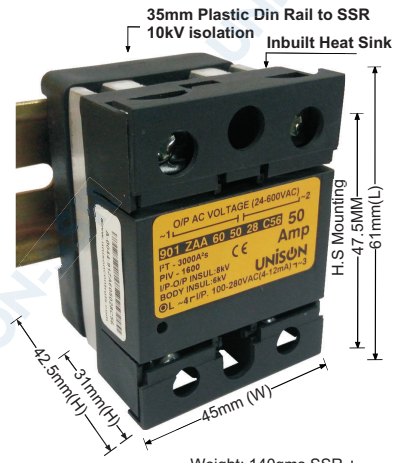
50AMP- MODEL 901 ZAA 60 50 28 AL5



Weight: 110gms SSR +
20gms Din Rail = 130gms

Model 901 - 50Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
Short Circuit Protection by "B" Curve DP MCB
15Amp Load Current/16Amp DP "B" Curve DP MCB
PIV : 1600Vpk, I²T : 3000A²S for 9.6mS
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 8kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 12AMP @40 °C
Without Heat Sink
Short Circuit Current Rating : 10KA for <3mS

50AMP- MODEL 901 ZAA 60 50 28 C56



Weight: 140gms SSR +
57 gms C56 Heat sink + Din Rail

Model 901 - 50Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
Short Circuit Protection by "B" Curve DP MCB
15Amp Load Current/16Amp DP "B" Curve DP MCB
PIV : 1600Vpk, I²T : 3000A²S for 9.6mS
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 8kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 16AMP @40 °C
With Inbuilt Heat Sink C-56+Din
Short Circuit Current Rating : 10KA for <3mS

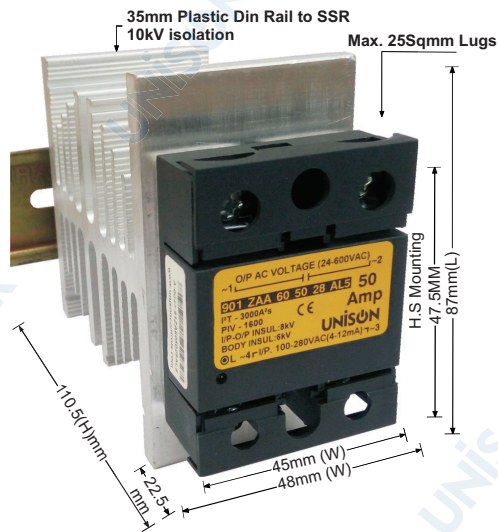
AC TO AC SOLID STATE RELAY - MODEL 901

50AMP- MODEL 901 ZAA 60 50 28 AL5 WITH "G-68" H.S.



Model 901 - 50Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
Short Circuit Protection by "B" Curve DP MCB
15Amp Load Current/16Amp DP "B" Curve DP MCB
PIV : 1600Vpk, I^{FT} : 3000A^S for 9.6ms
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 8kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 26AMP @40 °C
With Heat Sink G-68+Din
Short Circuit Current Rating : 10KA for <3mS

50AMP- MODEL 901 ZAA 60 50 28 AL5 WITH "B-48" H.S.



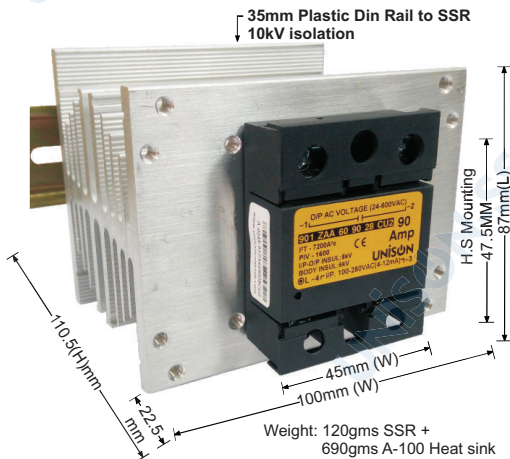
Model 901 - 50Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
Short Circuit Protection by "B" Curve DP MCB
15Amp Load Current/16Amp DP "B" Curve DP MCB
PIV : 1600Vpk, I^{FT} : 3000A^S for 9.6ms
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 8kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 32AMP @40 °C
With Heat Sink B-48+Din
Short Circuit Current Rating : 10KA for <3mS

90AMP- MODEL 901 ZAA 60 90 28 CU2 WITH "B-48" H.S.

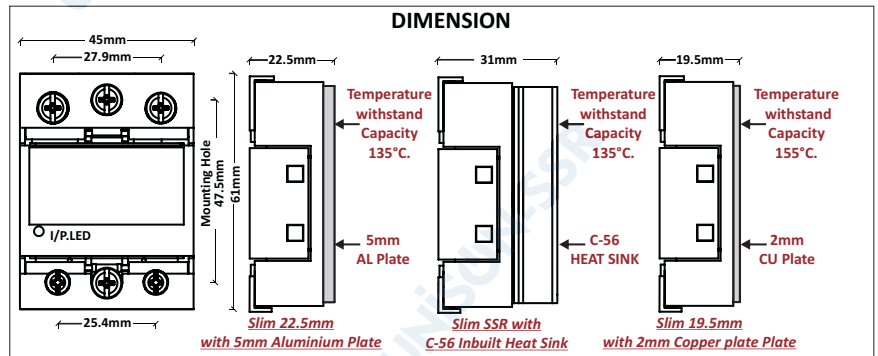


Model 901 - 90Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
Short Circuit Protection by "B" Curve DP MCB
63Amp Load Current/63Amp DP "B" Curve DP MCB
PIV : 1600Vpk, I^{FT} : 7200A^S for 9.6ms
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 8kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 36Amp @40 °C
With Heat Sink B-48+Din
Short Circuit Current Rating : 10KA for <3mS

90AMP- MODEL 901 ZAA 60 90 28 CU2 WITH "A-100" H.S.



Model 901 - 90Amp
Zero Cross Over SSR
Input : 100-280 VAC / 4-12 mA
Input LED Indication : **Green**
Output : 24-480VAC
Output Frequency : 47-63 Hz
Short Circuit Protection by "B" Curve DP MCB
63Amp Load Current/63Amp DP "B" Curve DP MCB
PIV : 1600Vpk, I^{FT} : 7200A^S for 9.6ms
Body isolation : 6kV for 1min
I/P. to O/P. isolation : 8kV for 1min
Inbuilt surge voltage protection of 2700Vrms
Load Current : 65Amp @40 °C
With Heat Sink A-100+Din
Short Circuit Current Rating : 10KA for <3mS

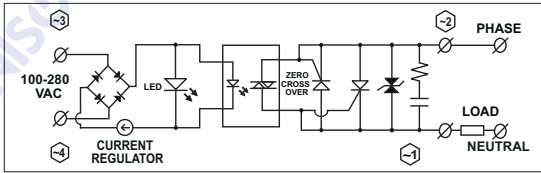


Approved By
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RoHS
COMPLIANT

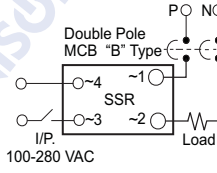
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BLOCK DIAGRAM ZAA- ZERO CROSS OVER AC TO AC



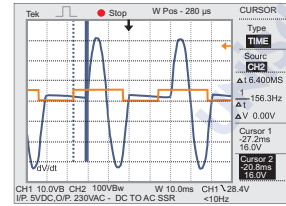
- ⇒ INBUILT Snubber for protect the Harmonic & Power Factor.
- ⇒ INBUILT TVS protect Surge Voltage.

CONNECTION DIAGRAM ZAA



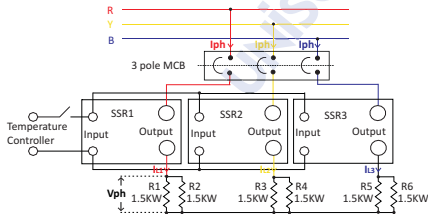
SSR Connection Diagram
Resistive Load
External MCB, Protects SSR During the **Short Circuit** and Over Load for AC-53a current duty.

Zero Crossover Waveform - Output



ON/OFF TYPE SSR Connection Diagram

Circuit diagram 901 model - ON/OFF type Star Connection without neutral



9KW 3PHASE STAR WITH OUT NEUTRAL

$$W = \sqrt{3} \times V_L \times I_L \times \cos\phi$$

$$9000W = 1.73 \times 415V_{rms} \times I_L \times 0.99$$

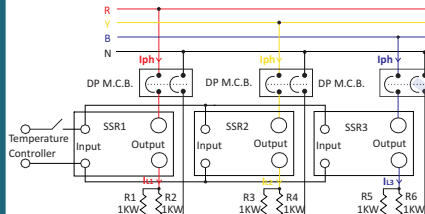
$$I_{L1} = \frac{9000}{1.73 \times 415 \times 0.99} = 12.66 \text{ Amp Per Phase Current}$$

$$I_{L2} = \frac{9000}{1.73 \times 415 \times 0.99} = 12.66 \text{ Amp Per Phase Current}$$

$$I_{L3} = \frac{9000}{1.73 \times 415 \times 0.99} = 12.66 \text{ Amp Per Phase Current}$$

$$I_{ph} = I_{L1} = I_{L2} = I_{L3} = 12.66 \text{ Amp}$$

Circuit diagram 901 model - ON/OFF type Star Connection with neutral



6KW 3PHASE STAR WITH NEUTRAL

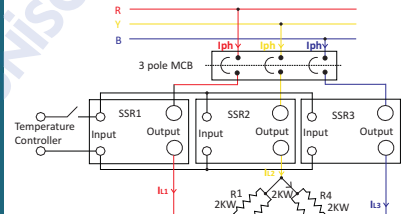
$$\text{Current} = \frac{2000}{230} = 8.69 \text{ Amp}$$

$$I_{L1} = 8.69 \text{ Amp (R) Phase Current}$$

$$I_{L2} = 8.69 \text{ Amp (Y) Phase Current}$$

$$I_{L3} = 8.69 \text{ Amp (B) Phase Current}$$

Circuit diagram 901 model - ON/OFF type Closed Delta Connection



12KW 3Phase Closed Delta

$$W = \sqrt{3} \times V_L \times I_L \times \cos\phi$$

$$12000W = 1.73 \times 415V_{rms} \times I_L \times 0.99$$

$$I_{L1} = \frac{12000}{1.73 \times 415 \times 0.99} = 16.88 \text{ Amp Per Phase Current}$$

$$I_{L2} = \frac{12000}{1.73 \times 415} = 16.88 \text{ Amp Per Phase Current}$$

$$I_{L3} = \frac{12000}{1.73 \times 415 \times 0.99} = 16.88 \text{ Amp Per Phase Current}$$

$$I_{ph} = \frac{16.88}{1.73} = 9.75 \text{ Amp}$$