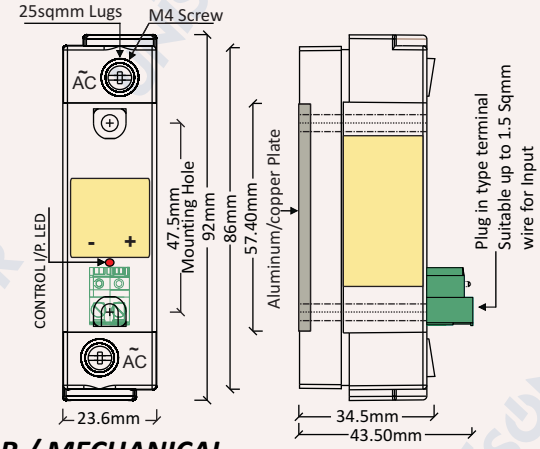
UNISON CONTROLS PVT. LTD.

SOLID STATE RELAY

ISO 9001:2015 & ISO 14001:2015 CERTIFIED by InterConformity GmbH

Approved By CE EN-60947-5-1 cULus E481640

MODEL 803



ZERO CROSS DETECTION
OUTPUT AC CONTROL
3Q TRIAC & BACK TO BACK SCR

- Product Temperature withstand 150°C.
- "23.6 MM SLIM Width" SSR Design for Better space optimization.
- With IP 20 protection cover.
- Zero Voltage Turn-On SSR.
- Rating from 16 Amp to 200 Amp @25°C 24-660 VAC.
- Short Circuit Protected SSR up to 115 Amp per phase current by help of suitable "B" curve MCB.
- No need to use semiconductor Fuse due to short circuit protected SSR.
- Fire Retardant Plastic as per UL94 VO GRADE.
- New improved SEMS Screw - Washers input & Output terminals.
- Improved Direct Bonded Copper (DBC) for higher Amp Relays.
- High resistance to aggressive chemicals and dust due to special Potting.
- Inbuilt transient voltage suppressor.

ADVANTAGES OF SSR OVER CONTACTOR / MECHANICAL

- Zero voltage turn-on
- High resistance to shock, vibration and abrasion
- High resistance to aggressive chemicals and dust
- No electromechanical or acoustical noise
- Logic compatibility
- Low coupling capacitance
- Long life cycle . Up to 10^{11} cycles
- Increased system temperature accuracy
- Improved system reliability because SSRs have no moving parts or contacts to degrade
- No contact arcing, low electromagnetic interference, high surge capability
- Solid state Relays offer a very fast response time with absolutely NO contact bounce
- SSRs are typically smaller than EMRs, conserving valuable real estate in printed-circuit board applications
- SSRs can be provided as surface-mount technology (SMT)parts, which means lower cost and easier SMT printed-circuit board manufacture
- Do not generate electrical noise

ORDERING FORMAT

UNISON	MODEL	X	X	X	XX	XXX	XX
UNI	803	Z	D	A	58	50	01

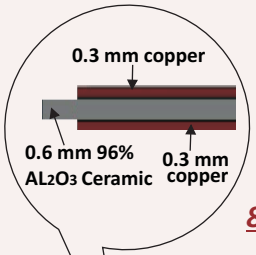
- Output Voltage: 48: 24-480 VAC; 58: 24-580 VAC; 66: 24-600 VAC
- D : DC Input
- Control Input: 01 : 4-32 VDC with snubber
- Z : Zero Cross Over
- A : AC Output
- Output Current Rating: 16,25,40 50,75,90,150,200

EXAMPLES

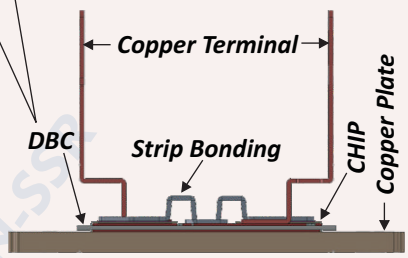
UNI 803 ZDA 48 25 01

UNI 803 ZDA 58 150 01

NOTE 1 : 48: 24-480 VAC available for 16Amp to 40Amp.
58: 24-580 VAC available for 50Amp to 200Amp.
66: 24-660 VAC available for 50Amp to 200Amp.



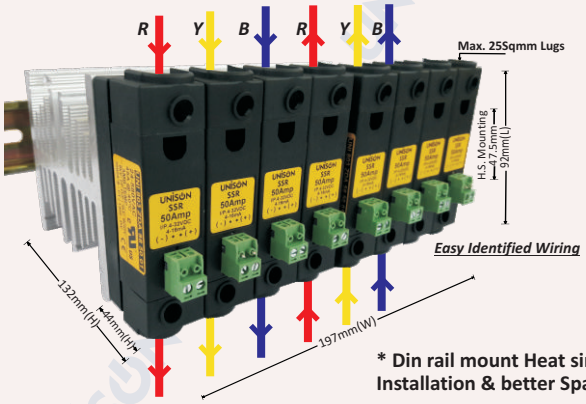
UNISON-SSR
803 DBC MODULE



UNISON MODULES USE NEW IMPROVED LEAD FREE SOLDER PASTE RATHER THAN SOLDER PREFORMS.

Direct Copper Bonded (DCB) or Direct Bonded Copper (DBC) improves the conduction of heat from semiconductor chip to external heat sink as well as reduces mechanical stress in connection to major load changes. Here two layers of 0.3 mm copper is bonded to ceramic at temperature above 1020 °C. Coefficient of thermal expansion of copper is higher than ceramic (96% AL203) so a joint layer is generated between them at high temperature which will not cause thermal stress or fatigue on power output semiconductors.

Two POLE SSR 2 Nos. of B-96 Heat sink connected by Al Plate



* Din rail mount Heat sink thus simplified Installation & better Space Optimization.

COMPATIBLE TO STANDARD MOUNTING HOLE SIZE 47.5 mm

901 MODEL

SLIM DESIGN 803 MODEL

Note : Specifications are subject to change without prior notice.

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SOLID STATE RELAY

General Specification

Max Barrier Layer Temperature (T_{max})	< 125 °C
Ambient Temperature Range (T_{amb})	0-85 °C
SSR Storage Temperature Range (T_{st})	-40°C to 80°C
Input Terminal Screw Torque Range	T = 0.5 N.m (Max.)
Output Terminal Screw Torque Range	T = 2.5 N.m (Max.)
Power Factor COS ϕ @ Maximum Load @ 480 VAC	> 0.55
Housing Material	UL-94 V0 Grade
Base Plate	Aluminium , Copper (Nickel Plated)
SSR Weight	≤ 80 grams
Control Input Electrical Wire Size (Max.)	Up to 2.1 sq mm(14 AWG)
Power Output Electrical Wire Size (Max.)	Up to 33.6 sq mm(2 AWG)
Test Standards:	ROHS,IP20
Pending Approvals:	VDE ,TUV ,CSA 22-2 IEC 60947-5-1:2016 IEC 62314:2006

Digital Oscilloscope

SCR Parameter Tester

V_{TM} Tester

H.V. Insulation Break Down Tester

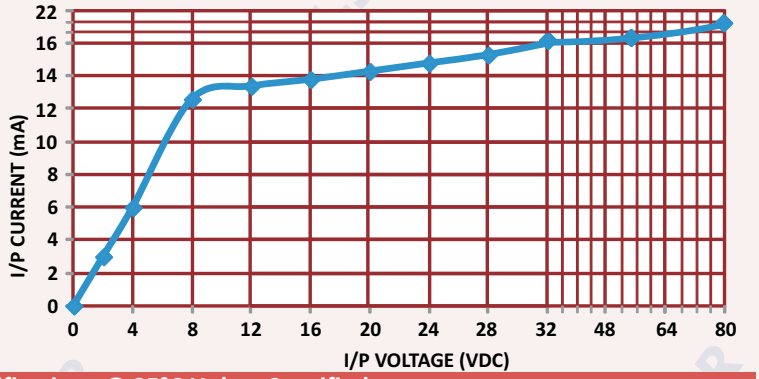
dv/dt Tester

I_{TSM} Tester

Input Technical Specifications

Parameters	Unit	ZDA Type Selection
Control Voltage Range	V	4-32 VDC
Input Frequency Range	Hz	-
Reverse Polarity Protection	-	YES
Control Supply Current Consumption	mA	4-16 mA
Input Impedance (Current Regulator Circuit Impedance)	Ω	1 kΩ - 2 kΩ
Minimum Turn ON Voltage	VDC	3.5 VDC
Turn OFF Voltage	VDC	< 3.25 VDC
Control Input Status Indication	-	RED LED Indication
Maximum Turn ON Time	mS	≤ 1/2 Cycle (10 mS)
Maximum Turn OFF Time	mS	≤ 1/2 Cycle (10 mS)

ZDA TYPE



Output Technical Specifications @ 25°C Unless Specified

Parameters	Symbol	Unit	16 Amp	25 Amp	40 Amp	50 Amp	75 Amp	90 Amp	150 Amp	200 Amp
Operating Voltage Range	V_{AC}	V_{RMS}	24-480 VAC - 3Q TRIAC			24-580 VAC/ 24-660 VAC - Back to Back SCR				
Operating Frequency Range	f	Hz	47-63 Hz							
Peak Inverse Voltage	PIV	V_{PK}	800	800	800	1400	1400	1400	1400	1400
Max. Surge Voltage With Stand Capacity (<1 Second)	***V_{surge}***	***V_{RMS}***	***2700 V_{RMS} (3800 V_{PK})***							
Rated Operational Current AC51a @ 20°C (Resistive Load)	***I_T***	***Amp***	***16***	***25***	***40***	***50***	***75***	***90***	***150***	***200***
Maximum Load Short Circuit Protection Current @ 55°C	***I_{SC}***	***Amp***	***-***	***-***	***-***	***15***	***50***	***63***	***80***	***115***
"B" Curve D.P. MCB Rating for Short Circuit Protection	***-***	***Amp***	***-***	***-***	***-***	***16***	***50***	***63***	***80***	***125***
NON Repetitive Surge Peak ON-State Current @ Rated V_{RRM} applied for 1/2 Cycle t=10 mS/t=8.33 mS (50 Hz/60 Hz) Cycle	***I_{TSM} @ 50 Hz***	***A_P***	***120***	***260***	***420***	***800***	***1100***	***1200***	***1750***	***2250***
	I_{TSM} @ 60 Hz	A_P	126	273	441	840	1155	1260	1837	2360
Max. I^2t for Fusing @ t=10 mS (50Hz)	***I^2t***	***A^2s***	***72***	***340***	***880***	***3000***	***6000***	***7200***	***15000***	***25000***
Max. I^2t for Fusing @ t=8.33 mS (60Hz)	I^2t	A^2s	65	305	795	2750	5470	6510	13850	22880
Max. Peak ON-state voltage Drop at Full Control	V_{TM}	V_{RMS}	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2
Minimum Isolation Resistance between Input Terminals (+3,-4) to Output Terminals (~AC1,~AC2) @ 500 VDC	O	GΩ	50	50	50	50	50	50	50	50
Isolation Voltage Input Terminals (+3,-4) to Output Terminals (~AC1,~AC2) for 1 Minute (ZDA Type)	V_{ISO}	kV	6	6	6	8	8	8	8	8
Isolation Voltage Input & Output Terminal (+3,-4,~AC1,~AC2) to Body Isolation for 1 Minute	V_{ISO}	kV	4	4	4	4	4	4	4	4
Max. Rate of Rise OFF-State Voltage	dV/dt	V/µS	400	400	500	600	600	1000	1000	1000
Max. Rate of Rise OFF-State Current	di/dt	A/µS	50	22	50	100	125	150	300	300
Max. Peak Repetitive Forward OFF-State Voltage	V_{DRM}	V	800	800	800	1200	1200	1600	1600	1600
Max. Peak Repetitive Forward OFF-State current	I_{DRM}	mA	0.05	0.05	0.05	0.1	0.1	0.05	0.3	0.3
Max. Peak repetitive reverse off-state Voltage	V_{RRM}	V	800	800	800	1200	1200	1600	1600	1600
Max. Peak repetitive reverse off-state current	I_{RRM}	mA	0.05	0.05	0.05	0.1	0.1	0.05	0.3	0.3
Max. DC Gate Trigger Voltage	V_{GT}	V	1.2	1.2	1.5	1.5	1.3	1.5	1.3	1.3
Max. DC Gate Trigger Current	I_{GT}	mA	50	50	50	8.8	10	20	150	150
Turn OFF Time	t_q	µS	25	20	35	120	150	200	100	100
Maximum Latching Current	I_L	mA	80	100	100	160	180	200	400	500
Maximum Holding Current	I_H	mA	60	75	60	150	150	150	200	250
Thermal Resistance Rθ (Junction to case)	$R_{\theta(j-c)}$	°C/W	1.4	1	0.55	0.5	0.22	0.2	0.09	0.07
OFF State SSR Leakage Current @ Rated Voltage & Frequency (Snubber Leakage)	I_{leak}	mA	For 230 VAC < 1 mA			For 230 VAC < 1.5 mA				
			For 440 VAC < 2 mA			For 440 VAC < 3 mA				
SCCR Current Rating (less than 100 µS)	I_{SCCR}	kA	-	-	-	10 kA	10 kA	10 kA	10 kA	10 kA
Weight	W	gm	≤ 80	≤ 80	≤ 80	≤ 80	≤ 80	≤ 80	≤ 80	≤ 80

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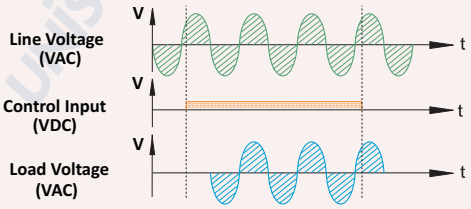
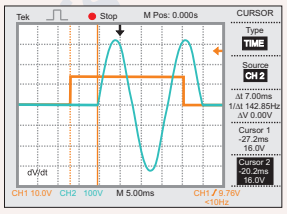
Zero Cross Switching SSR (ZDA)

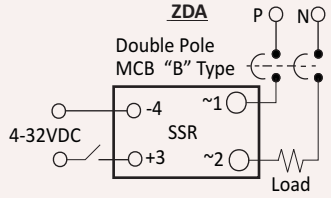


When control input is given to the SSR, irrespective of line voltage condition, output will be ON after zero crossing of sine wave. Zero cross switching SSRs are recommended when LOAD voltage gradually start to increase after zero crossing. It reduces chances of instant high voltage spike applied to the LOAD. Due to this characteristic, it reduces the surge current pass through LOAD during first conduction cycle. Load will be ON in less than 10mS duration for 50Hz line voltage & 8.33mS duration for 60Hz line voltage. These RELAYs are most suitable for industrial applications of heater loads, inductive loads, capacitor bank switching etc. When control input is removed, output of the SSR will be OFF after load current decreases to minimum holding current of the thyristor. This is due to the characteristic of thyristor. Above graph indicates functionality of zero switching SSR.

ZERO CROSSOVER Waveform

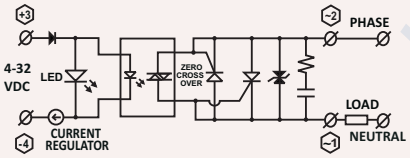


CONNECTION DIAGRAM

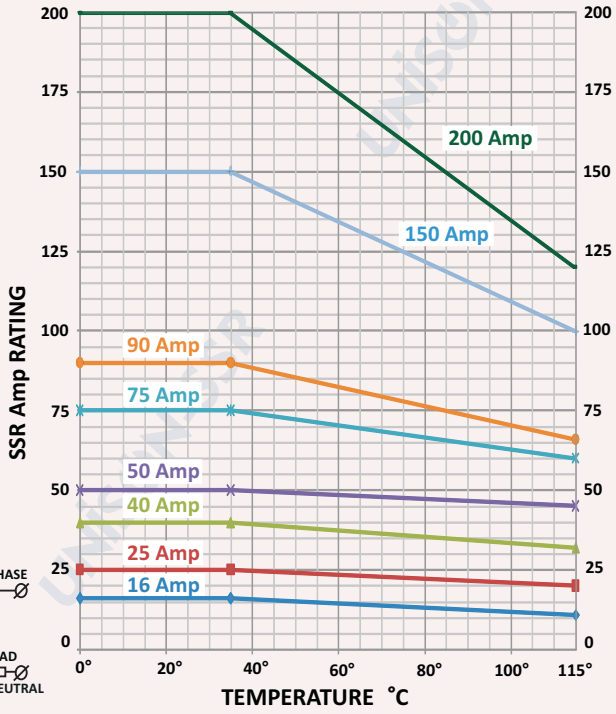


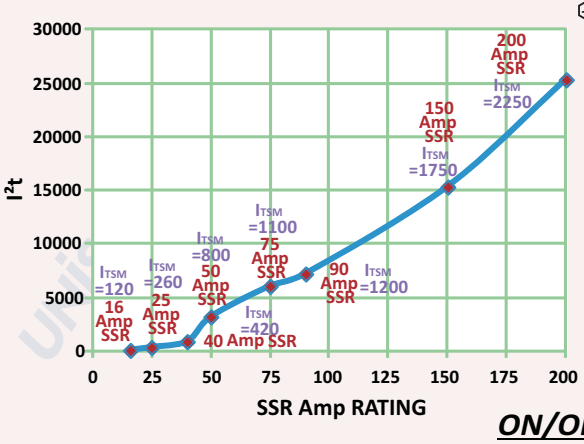
BLOCK DIAGRAM

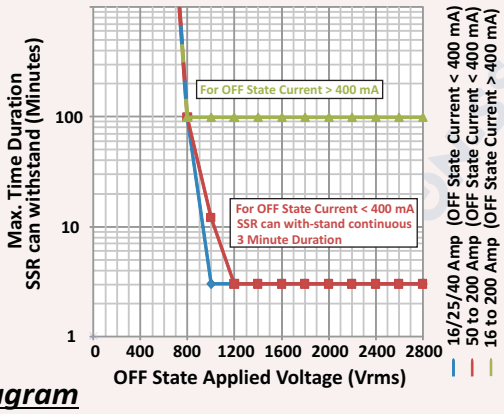
ZDA- ZERO CROSS OVER DC TO AC



THERMAL DERATING CURVE WITH HEAT SINK

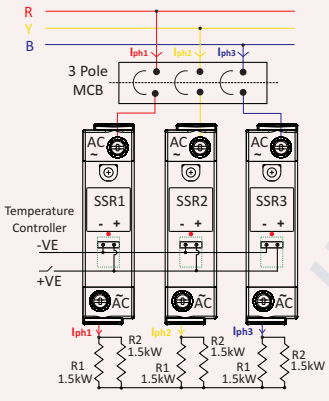






ON/OFF TYPE SSR Connection Diagram

Circuit diagram 803 model - ON/OFF type Star Connection without neutral



9kW 3PHASE STAR WITH OUT NEUTRAL

$W=\sqrt{3} \times V_L \times I_{ph} \cos\emptyset$

$9000W=1.73x440V_{rms} \times I_{ph} \times 0.99$

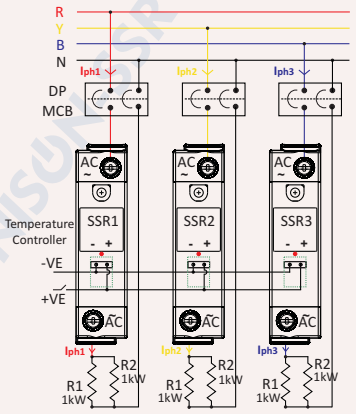
$I_{ph1} = \frac{9000}{1.73X440X0.99} = 11.94Amp/$ Phase Current

$I_{ph2} = \frac{9000}{1.73X440X0.99} = 11.94Amp/$ Phase Current

$I_{ph3} = \frac{9000}{1.73X440X0.99} = 11.94Amp/$ Phase Current

$I_{ph1} = I_{ph2} = I_{ph3} = 11.94Amp$

Circuit diagram 803 model - ON/OFF type Star Connection with neutral



6kW 3PHASE STAR WITH NEUTRAL

R_L = 6kW Heater Load in three Phase with neutral so,

Watt $= \frac{6000}{3} = 2000W$ in each

$W = V_L \times I_{ph} \cos\emptyset$

$2000 = 230 \times I_{ph} \times 1$

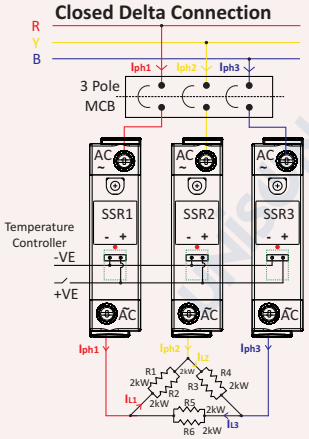
$I_{ph} = \frac{2000}{230} = 8.69Amp$

$I_{ph1} = 8.69Amp/$ Phase Current

$I_{ph2} = 8.69Amp/$ Phase Current

$I_{ph3} = 8.69Amp/$ Phase Current

Circuit diagram 803 model - ON/OFF type Closed Delta Connection



12kW 3Phase Closed Delta

$W=\sqrt{3} \times V_L \times I_{ph} \cos\emptyset$

$12000W=1.73x440V_{rms} \times I_{ph} \times 0.99$

$I_{ph1} = \frac{12000}{1.73X440X0.99} = 15.92Amp/$ Phase Current

$I_{ph2} = \frac{12000}{1.73X440X0.99} = 15.92Amp/$ Phase Current

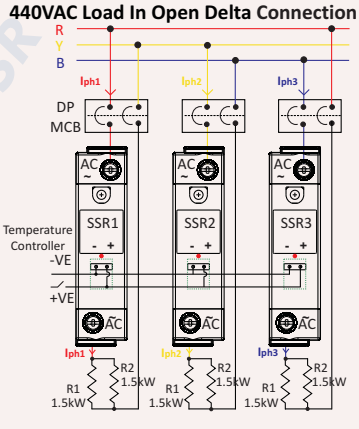
$I_{ph3} = \frac{12000}{1.73X440X0.99} = 15.92Amp/$ Phase Current

$I_L = I_{L1} = I_{L2} = I_{L3}$

$I_L = \frac{15.92}{1.73}$

$I_L = 9.20Amp$

Circuit diagram 803 model - ON/OFF type 440VAC Load In Open Delta Connection



9kW 3PHASE Open Delta

R_L = 9kW Heater Load in three Phase system so,

Watt $= \frac{9000}{3} = 3000W$ in each

$W = V_L \times I_{ph}$

$I_{ph} = \frac{3000}{440} = 6.81Amp$

$I_{ph1} = 6.81Amp/$ Phase Current

$I_{ph2} = 6.81Amp/$ Phase Current

$I_{ph3} = 6.81Amp/$ Phase Current

Note : Specifications are subject to change without prior notice.

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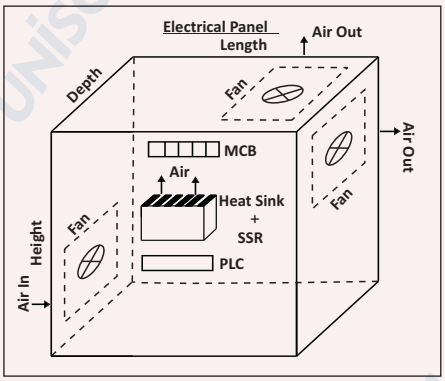
AIRFLOW FOR EFFICIENT HEAT TRANSFER



- Heat Sink Fins should be in Vertical Position So that Hot Air Flow from Bottom to Top - Self Cooling.
- For thermal analysis of system horizontal convection & vertical both are important.
  Our heat sinks are designed in such manner that horizontal & vertical convection both occurs properly.
- Keep 20mm Gap at Top and Bottom of Heat Sink.
- Apply Heat Sink Compound between SSR and Heat Sink.
- The Screw should Tight Properly so 1800 Square mm of Total Exposed Aluminum is Sufficient To Dissipated One Watt of Heat Generated.
- **Advantages of using DBC Technology :**
  Copper has higher thermal conductivity So more heat dissipation of junction to case & case to sink.
  Due to this thermal resistance $R_{\theta JC}$ is very less.
  Reduction in thermal resistance increases thermal efficiency of whole system.

THERMAL CALCULATION	
$\Delta T=T_j - T_A$	$= P(R_{\theta JC}+R_{\theta CS}+R_{\theta SA})$
T_j	= Junction Temperature (°C) 125 °C
T_A	= Ambient Temperature(°C)
P_d	= Power Dissipation (Watts) Voltage Drop X Load Current
$R_{\theta JC}$	= Thermal Resistance Junction to Case°C/W
$R_{\theta CS}$	= Thermal Resistance of Heat Sink Compound (0.2°C/W Type)
$R_{\theta SA}$	= Thermal Resistance of External Heat Sink (°C/W) it depend upon Length, Width, Expose Aluminum (0.5 to 5)

NOTE : If SSR Current Capacity is high and it is mounted on lower capacity heat sink than maximum load current will also decrease as heat dissipation area decreases.
Example: 1) 50Amp SSR used for 30Amp Load Current than "B-24" Type of Heat Sink. **2)** 90Amp SSR used for 36Amp Load Current than "B-48" Type of Heat Sink.

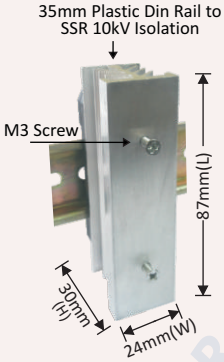
HEAT SINK SELECTION GUIDE (Resistive LOAD)

803 MODEL / HEATSINK	HEATSINK RATING	16 AMP SSR	25 AMP SSR	40 AMP SSR	50 AMP SSR	75 AMP SSR	90 AMP SSR	150 AMP SSR	200 AMP SSR
V-87	**22**	**11**	18	20	22	-	-	-	-
B-24	**30**	-	**20**	**30**	30	-	-	-	-
B-48	**36**	-	-	-	32	34	36	-	-
		-	-	16 A x 2 = 32 A	16 A x 2 = 32 A	17 A x 2 = 34 A	18 A x 2 = 36 A	-	-
B-72	**60**	-	-	-	40	50	60	-	-
		-	-	-	16 A x 3 = 48 A	18 A x 3 = 54 A	20 A x 3 = 60 A	-	-
B-72 WITH FAN	**65**	-	-	-	**45**	55	65	-	-
		-	-	-	17 A x 3 = 51 A	20 A x 3 = 60 A	22 A x 3 = 66 A	-	-
B-96	**80**	-	-	-	-	58	70	80	-
		-	-	-	16 A x 4 = 64 A	18 A x 4 = 72 A	20 A x 4 = 80 A	-	-
B-96 WITH FAN	**85**	-	-	-	-	**60**	**80**	85	-
		-	-	-	-	20 A x 4 = 80 A	21 A x 4 = 84 A	-	-
A-190	**Upto 115 A for 1 SSR**	-	-	-	-	-	-	100*	115*
	Upto 132 A for 3 SSR	-	-	-	-	-	36 A x 3 = 108 A	40 A x 3 = 120 A	44 A x 3 = 132 A
A-190 WITH FAN	**Upto 115 A for 1 SSR**	-	-	-	-	-	-	**100***	**115***
	Upto 156 A for 3 SSR	-	-	-	-	-	40 A x 3 = 120 A	45 A x 3 = 135 A	52 A x 3 = 156 A
A-285	**Upto 210 A for 3 SSR**	-	-	-	-	-	-	65 A x 3 = 195 A	70 A x 3 = 210 A
A-285 WITH FAN	**Upto 240 A for 3 SSR**			-	-	-	-	75 A x 3 = 225 A	80 A x 3 = 240 A

*** As per UL 508 2 AWG (33.6 Sq. mm) wire can draw 115 Amp at 40°C.**

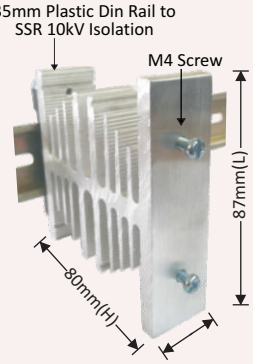
TYPE OF HEATSINKS / CURRENT RATING / RθSA / SURFACE AREA / MECHANICAL DIMENSIONS / WEIGHT

HEAT SINK TYPE "V-87" + DIN RAIL



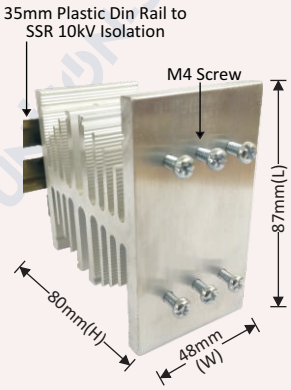
TYPE "V-87"
Model 803-1 Nos.
Current upto
22Amp @40°C
with Din Rail 22.5mm,
Thermal Resistance
$R_{\theta SA}$ = 2.45°C/W
$R_{\theta SA}$ = 275.6 K/W
ΔT= 75°C
Surface Area:
248mm²X87mm
=21576 mm³
24mm(W) X 87mm(L)
X 30mm(H) + SSR
Weight : @ 60gms

HEAT SINK TYPE "B-24" + DIN RAIL



TYPE "B-24"
Model 803-1 Nos.
Current upto
30Amp @40°C
with Din Rail 22.5mm,
Thermal Resistance
$R_{\theta SA}$ = 1.8°C/W
$R_{\theta SA}$ = 274.95 K/W
ΔT= 75°C
Surface Area:
2630mm²X24mm
=63120 mm³
24mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 170gms

HEAT SINK TYPE "B-48" + DIN RAIL



TYPE "B-48"
Model 803-Upto 2 Nos.
Model 901-1 Nos.
Current upto
36Amp @40°C
with Din Rail 42mm
Thermal Resistance
$R_{\theta SA}$ = 1.17°C/W
$R_{\theta SA}$ = 274.32 K/W
ΔT= 75°C
Surface Area:
2630mm²X48mm
=126240 mm³
48mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 310gms

Note : Specifications are subject to change without prior notice.

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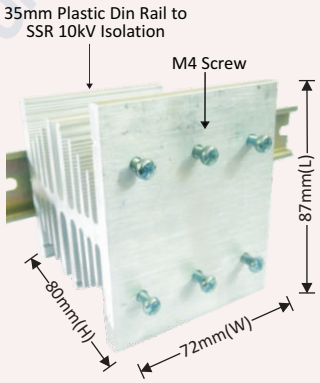
UNISON CONTROLS PVT. LTD.

SOLID STATE RELAY

TYPE OF HEATSINKS / CURRENT RATING / RθSA / SURFACE AREA / MECHANICAL DIMENSIONS / WEIGHT

HEAT SINK TYPE “B-72” + DIN RAIL

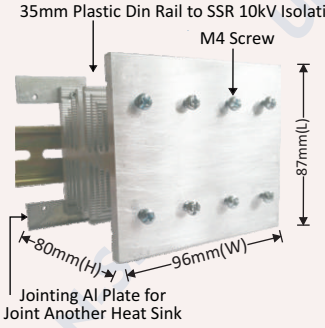


TYPE "B-72"
Model 803-Upto 3 Nos.
Model 901-1 Nos.
Current upto
60Amp @40°C
with Din Rail 42mm
Thermal Resistance
RθSA = 0.85°C/W
RθSA = 274 K/W
ΔT= 75°C
Surface Area:
2630mm²X72mm
=189360 mm³
72mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 500gms

HEAT SINK TYPE “B-72” WITH FAN + DIN RAIL

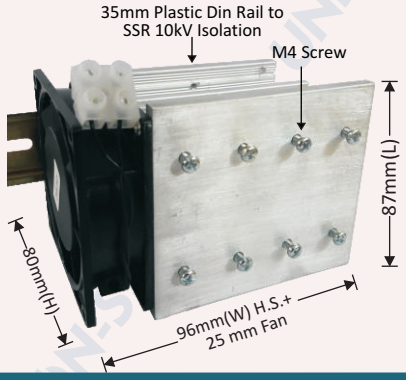
TYPE "B-72" WITH FAN
Model 803-Upto 3 Nos.
Current upto
65Amp @40°C
with Din Rail 42mm
Thermal Resistance
RθSA = 0.8°C/W
RθSA = 273.95 K/W
ΔT= 75°C
Surface Area:
2630mm²X72mm
=189360 mm³
72mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 730gms

HEAT SINK TYPE “B-96” + DIN RAIL



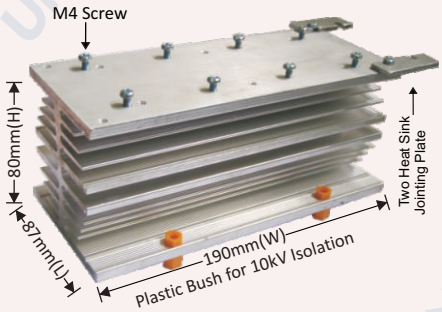
TYPE "B-96"
Model 803-Upto 4 Nos.
Current upto
80Amp @40°C
with Din Rail 42mm
Thermal Resistance
RθSA = 0.68°C/W
RθSA = 273.83 K/W
ΔT= 75°C
Surface Area:
2630mm²X96mm
=252480 mm³
96mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 660gms

HEAT SINK TYPE “B-96” WITH FAN + DIN RAIL



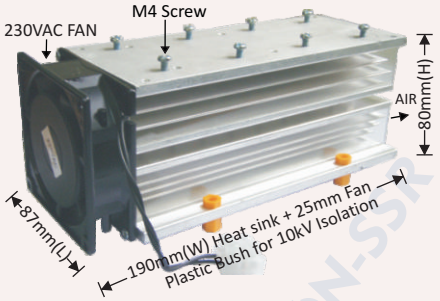
TYPE "B-96" WITH FAN
Model 803-Upto 4 Nos.
Current upto
85Amp @40°C
with Din Rail 42mm
Thermal Resistance
RθSA = 0.55°C/W
RθSA = 273.7 K/W
ΔT= 75°C
Surface Area:
2630mm²X96mm
=252480 mm³
96mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 890gms

HEAT SINK TYPE “A-190” WITH OUT FAN



TYPE "A-190" WITH OUT FAN
Model 901-Upto 4 Nos.
Model 905-Upto 1 Nos.
Model 803-Upto 4 Nos.
Current upto 132Amp @40°C
with Din Rail 42mm
Thermal Resistance
RθSA = 0.33°C/W
RθSA = 273.48 K/W
ΔT= 75°C
Surface Area:
2630mm²X190mm
=499700 mm³
190mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 1300gms

HEAT SINK TYPE “A-190” WITH 230VAC FAN

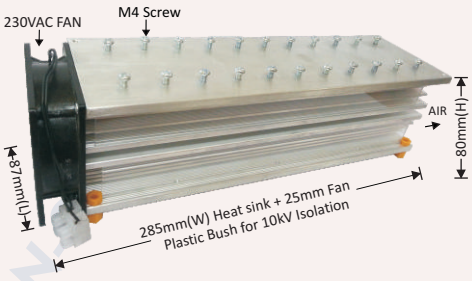


TYPE "A-190" WITH 230VAC FAN
Model 901-Upto 4 Nos.
Model 905-Upto 1 Nos.
Model 803-Upto 4 Nos.
Current upto 156Amp @40°C
with Din Rail 42mm
Thermal Resistance
RθSA = 0.22°C/W
RθSA = 273.37 K/W
ΔT= 75°C
Surface Area:
2630mm²X190mm
=499700 mm³
190mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 1530gms

HEAT SINK TYPE “A-285” WITH OUT FAN

TYPE "A-285" WITH OUT FAN
Model 901-Upto 6 Nos.
Model 905-Upto 2 Nos.
Model 803-Upto 11 Nos.
Current upto 210Amp @40°C
with Din Rail 42mm
Thermal Resistance
RθSA = 0.09°C/W
RθSA = 273.24 K/W
ΔT= 75°C
Surface Area:
2630mm²X285mm
=749550 mm³
285mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 1950gms

HEAT SINK TYPE “A-285” WITH 230VAC FAN



TYPE "A-285" WITH 230VAC FAN
Model 901-Upto 6 Nos.
Model 905-Upto 2 Nos.
Model 803-Upto 11 Nos.
Current upto 240Amp @40°C
with Din Rail 42mm
Thermal Resistance
RθSA = 0.04°C/W
RθSA = 273.19 K/W
ΔT= 75°C
Surface Area:
2630mm²X285mm
=749550 mm³
285mm(W) X 87mm(L)
X 80mm(H) + SSR
Weight : @ 2175gms

Note : Specifications are subject to change without prior notice.

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APPLICATIONS

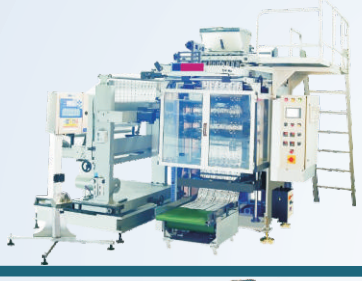
UNISON CONTROLS PVT. LTD - SOLID STATE RELAY

PLASTIC PROCESSING INDUSTRY

- **Plastic Extrusion**
- Injection Moulding
- Blow Moulding
- Plastic Dryers
- Hot Runner Systems

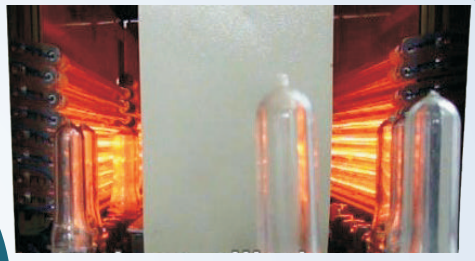
PACKAGING INDUSTRY

- Liquid form filled sealing
- Bagger bagging
- Carry bag making
- Shrink Tunnels
- Solid Shrink & Wrap Machinery
- Aseptic Packaging
- Wrapping Machines
- **Liquid Pick fill and seal Machines**



RUBBER MOULDING

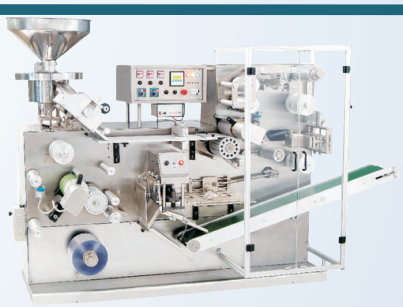
- Sheet Plant
- Rubber Moulding
- Compression Moulding
- **Pet Bottle Moulding**



AUTOMOBILE, ELECTRONICS & INDUSTRIAL HEATING

- **Industrial Furnace & Ovens**
- Stencil Printer
- Electronic reflow oven
- Scientific equipment
- Laboratory equipment
- Testing equipment
- Medical equipment
- Wire annealing
- Assay / Hole Marking
- Electrical Boiler
- Monogram Making
- Duct heater of AHU Panel

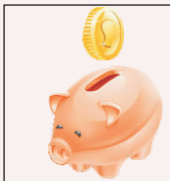
TEXTILE AND PRINTING MACHINERY



- **Blister Packing Machinery**
- Infrared dryers / curing machine
- Heat Transfer Process
- Texturing Machine
- Hot Foil Stamping Machine
- Coating Machinery
- Laminating Machinery
- Heat screen printing

FOOD-BEVERAGE & HOTEL APPLICATION

- Tube Filling Machine
- Air conditioner / Air dryer
- Food Service equipment
- Ambient heating & ventilation
- Dispensing Machinery (Fuel)
- Pizza Ovens
- Lighting control in Hotel & traffic signals
- Electrical grills and Ovens
- **Vending machine**



Cost Efficient

Space Optimization

Timely Delivery

User Friendly

Responsible Execution Accountable Teamwork

GREAT

Minimizing Energy Cost

Long Term Reliability

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