SOLID STATE RELAYS

VTG Series Three Phase Solid State Relays

Features

- Three-pole, single-throw, one normally open, suitable for three-phase loads
- Rated off-state voltage: 480Vrms; 530Vrms
- The switch type is zero-crossing conduction type and random conduction type
- Input control voltage: 3-32Vdc, AC 90-280Vac
- Good thermal performance and long life
- Rated on-state current: 3x25-150A
- Input/output insulation voltage: 2500Vrms
- LED input display

Ordering Options

VTG	40	D	A48	Z
VTG Series	**Load Current**	**Control Voltage**	**Output Voltage**	**Switching Type**
Three Phase Solid State Relay	25: 25Amps 40: 40Amps 60: 60Amps 80: 80Amps 100: 100Amps 120: 120Amps 150: 150Amps	D: 3-32VDC A: 90-280VAC	A48: 48-480VAC A53: 53-530VAC	Z: Zero Cross Turn-on R: Random Turn-on

Product Selection

Control Voltage	Output Voltage	Rated Operational Current						
		25Amps	40Amps	60Amps	80Amps	100Amps	120Amps	150Amps
3 to 32VDC	480VAC "Z"	VTG25DA48Z	VTG40DA48Z	VTG60DA48Z	VTG80DA48Z	VTG100DA48Z	VTG120DA48Z	VTG150DA48Z
3 to 32VDC	480VAC "R"	VTG25DA48R	VTG40DA48R	VTG60DA48R	VTG80DA48R	VTG100DA48R	VTG120DA48R	VTG150DA48R
90 to 280VAC	480VAC "Z"	VTG25AA48Z	VTG40AA48Z	VTG60AA48Z	VTG80AA48Z	VTG100AA48Z	VTG120AA48Z	VTG150AA48Z
90 to 280VAC	480VAC "R"	VTG25AA48R	VTG40AAT8R	VTG60AA48R	VTG80AA48R	VTG100AA48R	VTG120AA48R	VTG150AA48R
3 to 32VDC	530VAC "Z"	VTG25DA53Z	VTG40DA53Z	VTG60DA53Z	VTG80DA53Z	VTG100DA53Z	VTG120DA53Z	VTG150DA53Z
3 to 32VDC	530VAC "R"	VTG25DA53R	VTG40DA53R	VTG60DA53R	VTG80DA53R	VTG100DA53R	VTG120DA53R	VTG150DA53R
90 to 280VAC	530VAC "Z"	VTG25AA53Z	VTG40AA53Z	VTG60AA53Z	VTG80AA53Z	VTG100AA53Z	VTG120AA53Z	VTG150AA53Z
90 to 280VAC	530VAC "R"	VTG25AA53R	VTG40AA53R	VTG60AA53R	VTG80AA53R	VTG100AA53R	VTG120AA53R	VTG150AA53R

Input Specifications

Parameter-list	Specification Limits	
Input Parameter	D	A
Control Voltage Range	3 to 32VDC	90 to 280VAC
Input Current (Max.)	33/56mADC @=5V/12V	13mAAC @=220V
Must Turn-on Voltage	3VDC	90VAC
Must Turn-off Voltage	1VDC	10VAC
Reverse Voltage (Max.)	-6VDC	/

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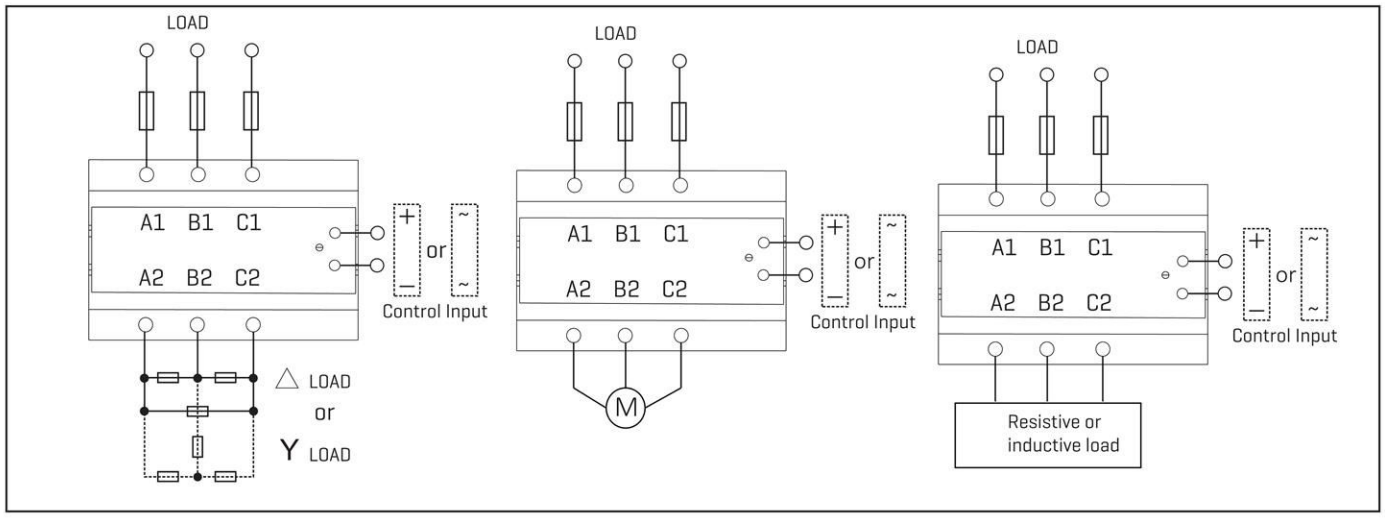
Output Specifications

Output Parameter	Units	Specification Limits						
Model No.: VTG	Amps	25	40	60	80	100	120	150
Load Current Range	Arms	3x25	3x 40	3x60	3x80	3x100	3x120	3x150
Surge Current 20mSec (Max.)	Arms	300	400	600	800	1000	1200	1500
Load Voltage Range (480V)	Vrms	48 to 480						
Transient Overvoltage (480V)	Vpk	≥1200						
Load Voltage Range (530V)	Vrms	53 to 530						
Transient Overvoltage (530V)	Vpk	≥1400						
Frequency Range	Hz	47 to 63						
Off State dv/dt (Min.)	V/µsec	500						
Off State Leakage Current (Max.)	mArms	≤8						
On State Voltage Drop (Max.)	Vrms	1.8						
Thermal Resistance, (Rthjc)	°C/W	0.75	0.55	0.46	0.38	0.34	0.23	0.23
Turn on Time (Max.) "Z"	Cycle	1/2						
Turn off Time (Max.) "D"	Cycle	1/2						
Turn on Time (Max.) "R"	mSec	1						
Turn off Time (Max.) "A"	mSec	10						

General Specifications (Ta=25°C)

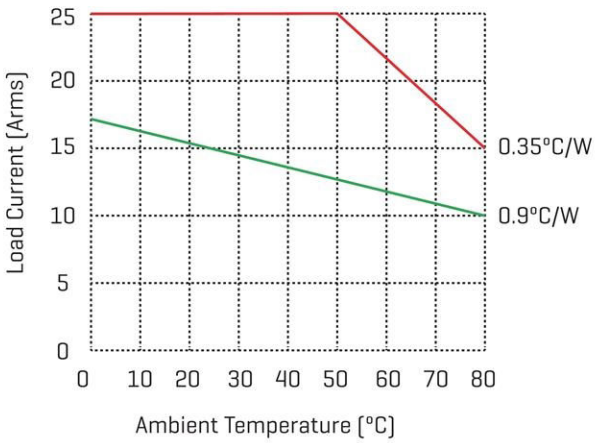
Description	25A	40A	60A	80A	100A	120A	150A
Dielectric Strength, Input to Output (50/60 Hz)	2500Vrms						
Dielectric Strength, Input/Output to Base (50/60 Hz)	2500Vrms						
Minimum Insulation Resistance (@ 500 VDC)	$10^9\Omega$						
Maximum Capacitance, Input/Output	0.8pF						
Ambient Operating Temperature Range	-30 to 80°C						
Ambient Storage Temperature Range	-30 to 100°C						
Humidity per IEC60068-2-78	95%						
LED Input Status Indicator	Red						
Baseplate Material	Pure copper						
Weight	500g						

Connection Diagram

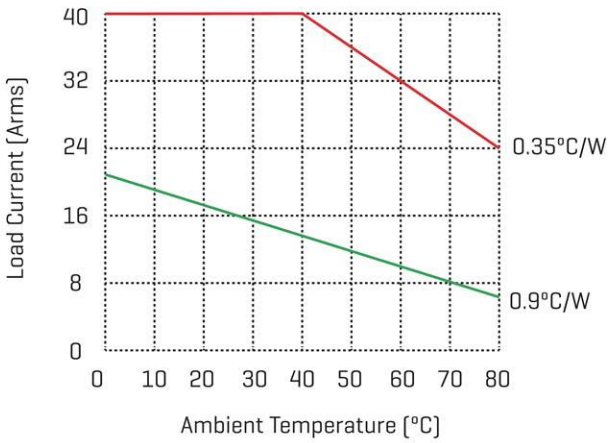


Thermal Derating Curve

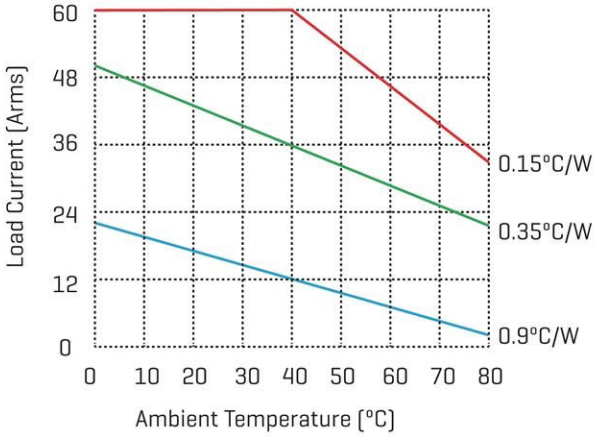
25A



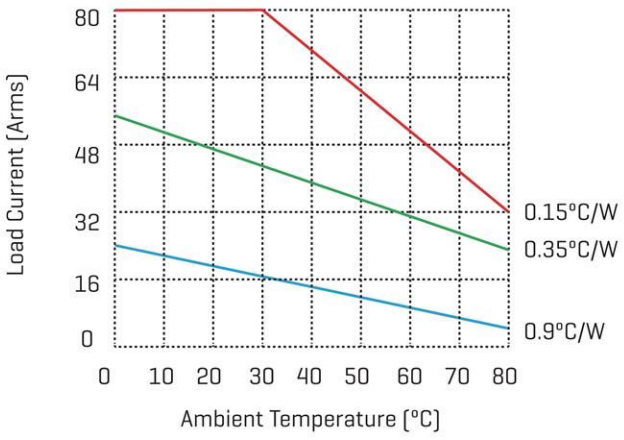
40A



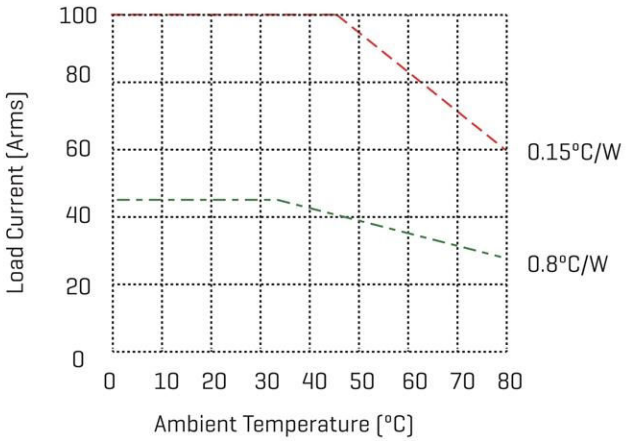
60A



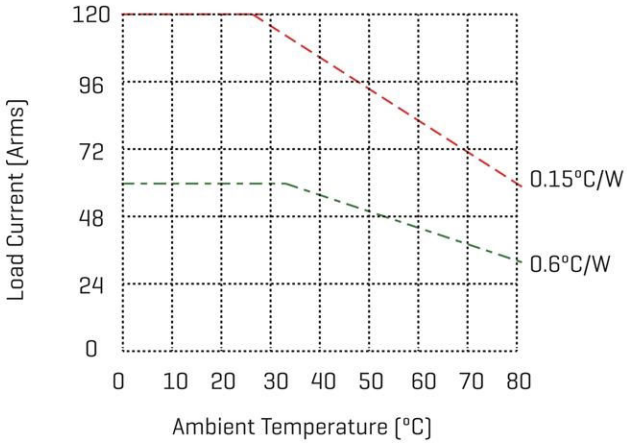
80A



100A



120A



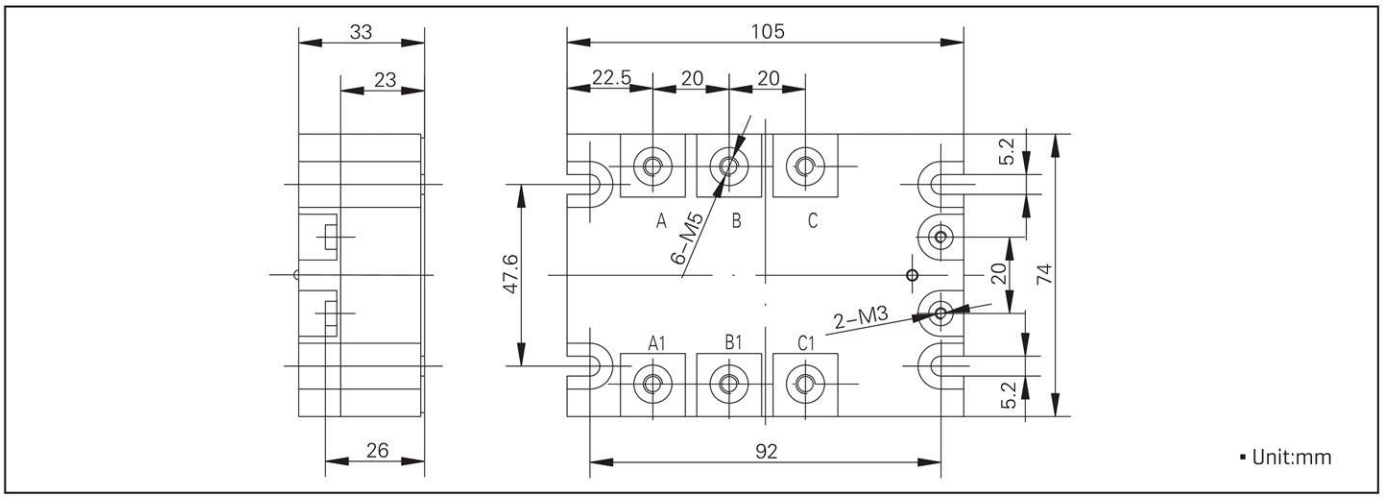
Important Notice

1. If the connection of the load will produce high surge current, please pay attention to the solid state relay is able to withstand surge current value.

2. If the connection of the load will produce high peak reverse voltage, please pay attention to the solid state relay is able to withstand the peak voltage.

3. When choosing SSR, please pay special attention to the working current of the load and working temperature, when the environment temperature is higher, the user should take load discount into account according to the thermal curve

Dimensions


33
23
26
105
22.5
20
20
A
B
C
6-M5
47.6
5.2
20
74
2-M3
A1
B1
C1
5.2
92
▪ Unit:mm