

VSM Series Single Phase Solid State Relays [Module Type]



Features

- High power and high current.
- High performance/low cost circuit design.
- Logic compatible current regulated input.
- 4000 Vrms optical isolation.
- Both "Zero Voltage" & phase controllable "Random Switching" versions.
- High voltage [1200 Vpk] versions for 480 Vrms service.
- LED-indication for control input.
- Control voltage range: 3 to 32 Vdc or 90 to 280Vac
- Industry standard "SCR Modules" package.

Ordering Options

VSM

VSM Series

Single Phase
Solid State Relay

200

Load Current

200: 200Amps
250: 250Amps
300: 300Amps
350: 350Amps
400: 400Amps

D

Control Voltage

D: 3-32VDC
A: 90-280VAC

A48

Output Voltage

A28: 24-280VAC
A48: 48-480VAC
A66: 48-660VAC

R

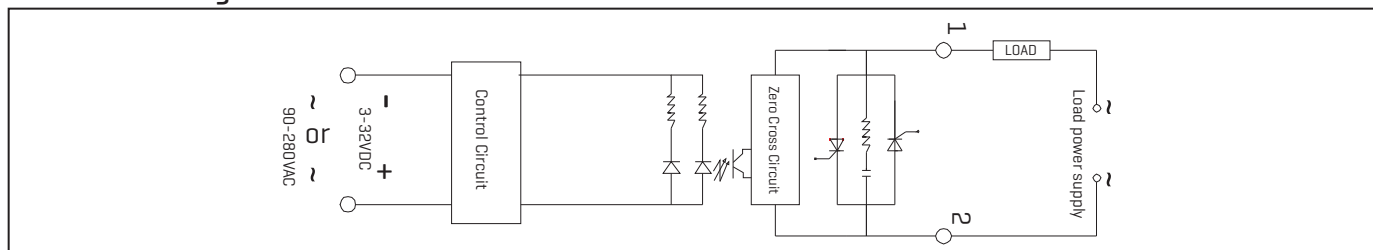
Switching Type

Z: Zero Cross Turn-on
R: Random Turn-on

Product Selection

Control Voltage	Output Voltage	Rated Operational Current				
		200Amps	250Amps	300Amps	350Amps	400Amps
3 to 32VDC	280VAC "Z"	VSM200DA28Z	VSM250DA28Z	VSM300DA28Z	VSM350DA28Z	VSM400DA28Z
3 to 32VDC	280VAC "R"	VSM200DA28R	VSM250DA28R	VSM300DA28R	VSM350DA28R	VSM400DA28R
90 to 280VAC	280VAC "Z"	VSM200AA28Z	VSM250AA28Z	VSM300AA28Z	VSM350AA28Z	VSM400AA28Z
90 to 280VAC	280VAC "R"	VSM200AA28R	VSM250AA28R	VSM300AA28R	VSM350AA28R	VSM400AA28R
3 to 32VDC	480VAC "Z"	VSM200DA48Z	VSM250DA48Z	VSM300DA48Z	VSM350DA48Z	VSM400DA48Z
3 to 32VDC	480VAC "R"	VSM200DA48R	VSM250DA48R	VSM300DA48R	VSM350DA48R	VSM400DA48R
90 to 280VAC	480VAC "Z"	VSM200AA48Z	VSM250AA48Z	VSM300AA48Z	VSM350AA48Z	VSM400AA48Z
90 to 280VAC	480VAC "R"	VSM200AA48R	VSM250AA48R	VSM300AA48R	VSM350AA48R	VSM400AA48R

Connection Diagram



Input Specifications

Parameter-list	Specification Limits	
Input Parameter	D	A
Control Voltage Range	3 to 32VDC	90 to 280VAC
Input Current [Max.]	13/16mADC @=5V/12V	29mAAC@=220V
Must Turn-on Voltage	3VDC	90VAC
Must Turn-off Voltage	1VDC	10VAC
Reverse Voltage [Max.]	-6VDC	/

Output Specifications

Output Parameter	Units	Specification Limits				
Model No.: VSM	Amps	200	250	300	350	400
Load Current Range	Arms	0.1 to 200	0.1 to 250	0.1 to 300	0.1 to 350	0.1 to 400
Surge Current 20mSec [Max.]	Arms	2500	3400	4500	5000	6000
Load Voltage Range [280V]	Vrms	24 to 280				
Transient Overvoltage [280V]	Vpk	≥800				
Load Voltage Range [480V]	Vrms	48 to 480				
Transient Overvoltage [480V]	Vpk	≥1200				
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	0.22	0.15	0.14	0.13	0.12
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	200	250	300	350	400
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 Ω				
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	280g				

Dimensions

