MS-3DA/MS-3AA Series

Three Phase DC to AC, AC to AC solid state relay

Features:

- DC to AC, AC to AC three phase solid state relay
- 5-32Vdc input for DC to AC, 90~280Vac input for AC to AC
- load amps,10~200 amps
- Load 24~680Vac
- LED process indication
- Panel mount
- Zero-crossing trigger
- All models with the same physical size
- Fast response and no noise
    - Black housing
    - Terminal type
    - Compact size
    - Built-in RC Snubber circuit for all amps
    - 10,25,40 use TRIAC, 60 and above use back to back SCR
    - Using top quality TRIAC and back to back SCR
    - Units completely sealed with resin to have maximum isolation

Ordering Information

MS—1—2—3—4

1: Type of solid state relay

3	Three phase solid state relay

2:Input configuration

DA	DC input, range 5-32Vdc
AA	AC input, range 90~280Vac

3:Load voltage

48	24~680Vac 50/60HZ

4:Load amps

10	10 amps
25	25 amps
40	40 amps
60	60 amps
80	80 amps
100	100 amps
120	120 amps
150	150 amps
200	200 amps

eg: MS-3DA4825,   for DC to AC 25 amps 680Vac relay
    MS-3AA48150, for AC to AC 150 amps 680Vac relay

Guidelines on the selection and usage of a solid state relay

1)Current rating, as a general rule consider using the relay at no more than 50% of its rated current for resistive load such as a heater, considering using the relay at no more than 10% of its rated current for inductive load, such as a motor, in this application, the relay only can be used to control the start and stop of the motor, not reverse of the motor.
2)Heatsinks must always be installed together with the SSR regardless of the load amps, natural convection cooling might be sufficient in some cases depends on the site situation, force air cooling must be taken into consideration under harsh conditions(contact our sales team for more info)
3)Fast fuse must be installed in the system to protect overload on the SSR
4)Silicon rubber pad or silicon compound must be applied to the bottom of the SSR to help the heat radiation
5)Our SSR is 680Vac load type,this is suitable for multiple line voltage system including 110V/220V/380V to maximum 680Vac
6)This is a normally open SSR, with no control input, the relay output is non-conducting, some specific types of SSR have a normally closed output, this needs to be specified before order
7)Our relay can only be used for resistive load or inductive load, capacitive load is not suitable

Application

High-low temperature chamber, heaters, plastic machinery, incubation machine, Oiling machine, HVAC, Elevator control Lighting, Fountain controller

Technical Specifications

Electrical Technical Features(For DC to AC type)

OUTPUT SPECIFICATIONS	
Operating Voltage [VAC]	24-680Vac
Maximum Transient Overvoltage [Vpk]	1200
Maximum Off-State Leakage Current @Rated Voltage [mA]	Less 10m Ams
Maximum Surge Current [Adc] (10ms)	7*rated current
Maximum On-State Voltage Drop @ Rated Current [Vdc]	1.5
Maximum Off-State dv/dt [V/uSec]	1000
INPUT SPECIFICATIONS	
Control Voltage Range	5-32VDC
Minimum Turn-on Voltage	5.2 VDC
Minimum Turn-off Voltage	1VDC
Leakage Current	15mA
Maximum Turn-on Time [msec]	Less 8.3m Sec
Maximum Turn-off Time [msec]	Less 1/2AC cycle
GENERAL SPECIFICATIONS	
Dielectric Strength , Input-Output Base (50/60Hz)	3500
Dielectric Strength , Input-Output (50/60Hz)	3500
Minimum Insulation Resistance	10^9 ohm
Ambient Operating Temerature Range	-20^0C~$+80^0$C
Ambient Storage Temperature Range	-40^0C~$+100^0$C
Switch ing Type	Zero-Crossing
Weight (g) +/- 50g	380g

Electrical Technical Features(For AC to AC type)

OUTPUT SPECIFICATIONS	
Operating Voltage [VAC]	24-680Vac
Maximum Transient Overvoltage [Vpk]	1200
Maximum Off-State Leakage Current @Rated Voltage [mA]	Less 10m Ams
Maximum Surge Current [Adc] (10ms)	7*rated current
Maximum On-State Voltage Drop @ Rated Current [Vdc]	1.5
Maximum Off-State dv/dt [V/uSec]	1000
INPUT SPECIFICATIONS	
Control Voltage Range	90~280Vac
Minimum Turn-on Voltage	80Vac
Minimum Turn-off Voltage	10Vac
Leakage Current	15mA
Maximum Turn-on Time [msec]	Less 8.3m Sec
Maximum Turn-off Time [msec]	Less 1/2AC cycle
GENERAL SPECIFICATIONS	
Dielectric Strength , Input-Output Base (50/60Hz)	3500
Dielectric Strength , Input-Output (50/60Hz)	3500
Minimum Insulation Resistance	10^9 ohm
Ambient Operating Temerature Range	-20^0C~$+80^0$C
Ambient Storage Temperature Range	-40^0C~$+100^0$C
Switch ing Type	Zero-Crossing
Weight (g) +/- 50g	380g