Features

- Optical isolation between input and output circuits.
- Control signal and TTL logic interface.
- Transistor output, small on-state voltage drop, fast switching speed.
- LEDs indicate the working status.
- Epoxy resin encapsulation integrated, anti-corrosion and shock-proof, reliable work.
- The products are mainly used in industrial automation, isolated control of weak current and strong current and various high-power DC electrical equipment. Such as DC motors, solenoid valves, electromagnetic vibrators, batteries Charge and discharge switch, etc.

Ordering Options

VDR

VDR Series

DC Solid State Relays

40

Load Current

10: 10Amps
25: 25Amps
40: 40Amps
60: 60Amps
80: 80Amps
100: 100Amps
120: 120Amps

D

Control Voltage

D: 3-32VDC

D60

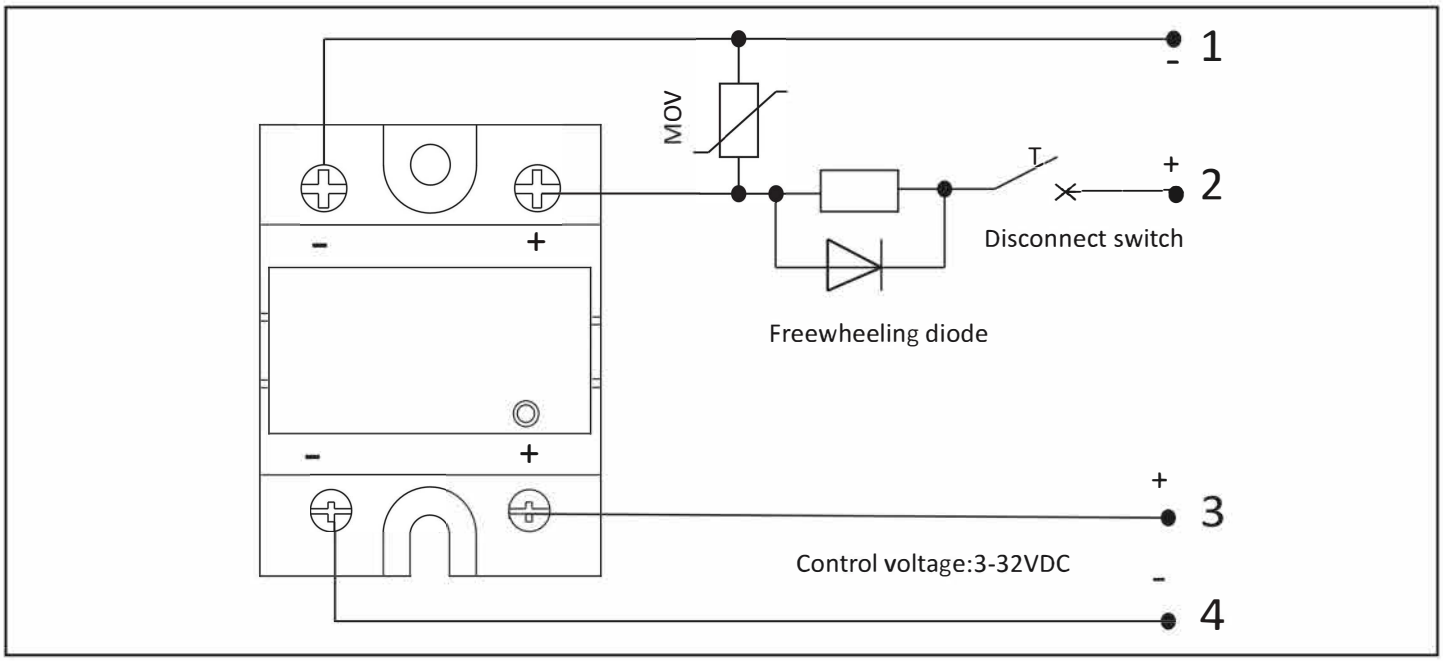
~~Output~~ Voltage

D12: 12-120VDC
D24: 12-240VDC
D40: 12-400VDC
D60: 12-600VDC
D90: 12-900VDC
D120:12-1200VDC

Product Selection

Control voltage	Rated Voltage	Rated operational current						
		10 Amp	25Amp	40Amp	60 Amp	80Amp	100Amp	120Amp
3 to 32 Vdc	120VDC	VDR10DD12	VDR25DD12	VDR40DD12	VDR60DD12	VDR80DD12	VDR100DD12	VDR120DD12
3 to 32 Vdc	240VDC	VDR10DD24	VDR25DD24	VDR40DD24	VDR60DD24	VDR80DD24	VDR100DD24	VDR120DD24
3 to 32 Vdc	400VDC	VDR10DD40	VDR25DD40	VDR40DD40	VDR60DD40	VDR80DD40	VDR100DD40	VDR120DD40
3 to 32 Vdc	600VDC	VDR10DD60	VDR25DD60	VDR40DD60	VDR60DD60	VDR80DD60	VDR100DD60	VDR120DD60
3 to 32 Vdc	900VDC	VDR10DD90	VDR25DD90	VDR40DD90	VDR60DD90	VDR80DD90	VDR100DD90	VDR120DD90
3 to 32 Vdc	1200VDC	VDR10DD120	VDR25DD120	VDR40DD120	VDR60DD120	VDR80DD120	VDR100DD120	VDR120DD120

Connection Diagram



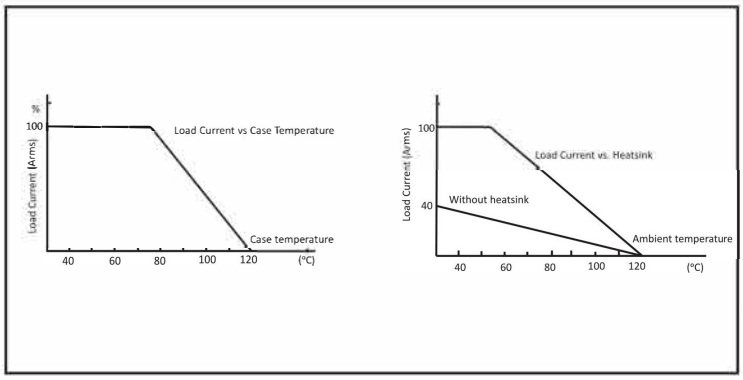
Input Specifications

Parameter-list	Specification Limits
Input Parameter	D
Control Voltage Range	3 to 32Vdc
Input Current(Max.)	4-30mA
Must Turn On Voltage	3Vdc
Must Turn Off Voltage	1Vdc
Reverse Voltage (Max.)	32Vdc

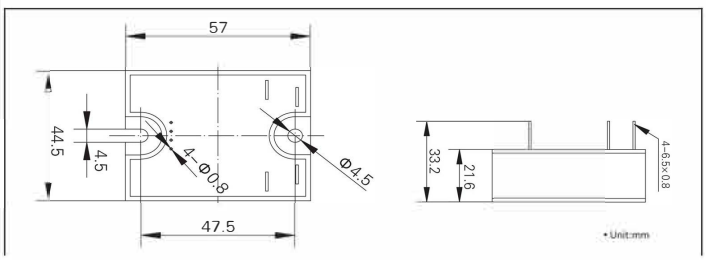
Output Specifications

Output Parameter	Units	Specification Limits						
Model No.:VDR	Amp	10	25	40	60	80	100	120
Load Current Range	Arms	0.05 to 10	0.05 to 25	0.05 to 40	0.05 to 60	0.05 to 80	0.05 to 100	0.05 to 120
Surge Current 10mSec(Max.)	Arms	≥200%						
Load Voltage Range	Vrms	120VDC~1200VDC						
On-state voltage drop	Vrms	≤0.5~4.6						
Off State voltage	Vrms	≥120V , ≥240V, ≥400V,≥600V,≥900V,≥1200V						
Overvoltage protection		Transient protection voltage are: 80V, 180V, 470V, 1000V						
Switching Characteristics		MOS or IGBT-solid-state non-contact switching characteristics						
Isolation voltage	Vrms	≥1800~2500						
Insulation voltage	Vrms	≥2000~2500						
Insulation resistance		≥ 100 MΩ						
Ambient Temperature Range	Operating or Storage -25°C to +75°C							
Heat dissipation conditions	More than 20A, equipped with heatsink only; more than 80A, equipped with heat sink and fan for strong cooling							
Safety factor of load current	2.5-3 times for resistive load, 3-6 times for inductive load							
Led Display	Yes							

Temperature curve



Dimensions



Selection Guide:
A margin should be left when selecting the voltage and current of the product. For resistive load: the current is selected according to 2.5~4 times the load current, and the voltage is selected according to 2~2.5 times the load power. Inductive load: current is selected according to 3-7 times load current, voltage is selected according to 2.5-3 times load voltage.

According to the relationship between load current and ambient temperature, when the ambient temperature is high or heat dissipation conditions are not good, the current capacity of the solid state relay should be increased accordingly.

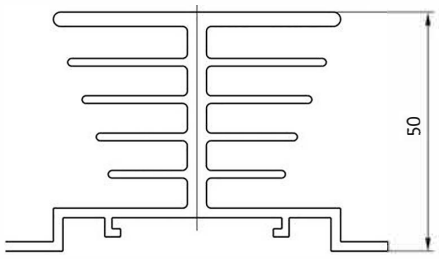
In order to prevent the product from short-circuiting during use, it is necessary to connect a fast circuit breaker or a fast fuse in series with the product in the load circuit.

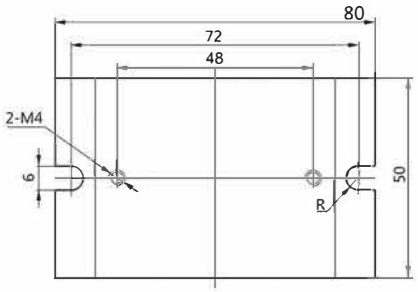
For inductive loads, a freewheeling diode must be connected to both ends of the load, and a varistor must be connected to the output end (the varistor (MOV) is selected according to 1~1.5 times of the power supply voltage) to prevent the high voltage generated during switching from damaging the solid-state switch.

When the product is installed, it is required that the contact surface between the heatsink and the product must be flat and clean, and a layer of thermally conductive silicone grease is applied to its surface, and then finally the screws set with flat washers andSpring washersare tightened symmetrically to fix.

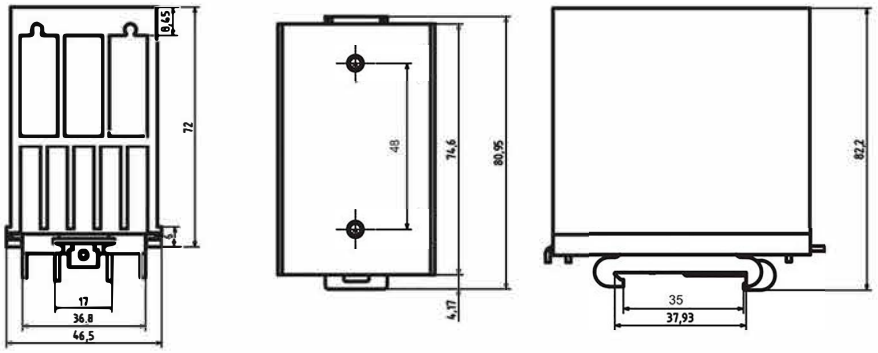
Solid State Relay Heatsink

VSR-1 (For VDR10A-40A)





VSR-2 (For VDR10A-80A)



VSR-3 (For VDR10A-120A)