SDP40 Series

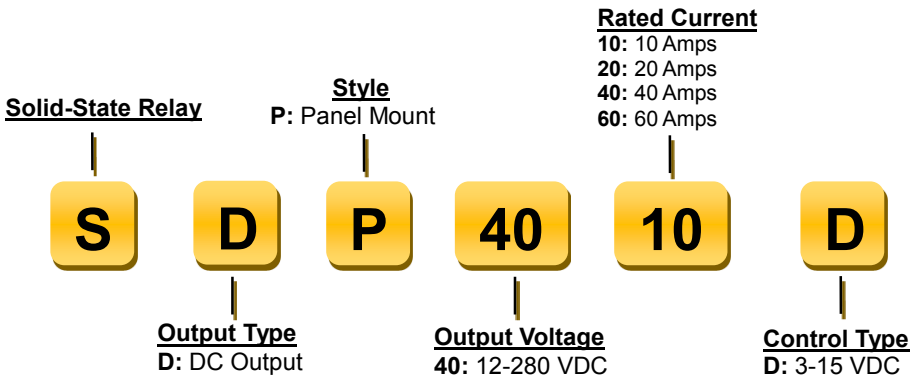
Panel Mount

- Ratings from 10A to 60A @ 12-280 VDC
- 600 Volts transient overvoltage
- Removable IP 20 touch-safe cover
- Easy-to-use thermal pad
- Strengthened current design for heavy industrial loads
- Input LED status indicator
- CE approved, RoHS/EMC compliant.

PRODUCT SELECTION

Control Voltage	10A	20A	40A	60A
3-15 VDC	SDP4010D	SDP4020D	SDP4040D	SDP4060D

MODEL NAME DEFINITIONS



OUTPUT SPECIFICATIONS (1)

Description	10A	20A	40A	60A
Operating Voltage [VDC]	12-280	12-280	12-280	12-280
Transient Overvoltage [Vpk]	600	600	600	600
Maximum Off-State Leakage Current @ Rated Voltage [μA]	20	20	20	20
Maximum Load Current(2) [ADC]	10	20	40	60
Minimum Load Current [mA]	50	50	50	50
Maximum Surge Current In 5ms[Apk]	40	80	160	240
Maximum On-State Voltage Drop @ Rated Current [VDC]	2.5	2.5	2.5	2.5
Thermal Resistance Junction to Case (Rjc) [°C/W]	0.4	0.36	0.23	0.15
Maximum On-State Resistance Per Switch (RDS-ON) [Ohms]	0.015	0.012	0.008	0.006
Weight (typical) [Gram]	132	132	132	132

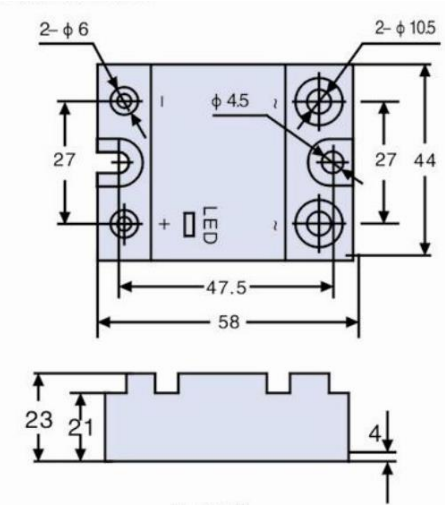
INPUT SPECIFICATIONS (1)

Description	SDP40xxD
Control Voltage Range	3-15 VDC
Maximum Reverse Voltage	-15
Minimum Turn-On Voltage	3.0 VDC
Minimum Turn-Off Voltage	1.0 VDC
Minimum Input Current [mA]	7
Maximum Input Current [mA]	12
Nominal Input Impedance [Ohms]	200
Maximum Turn-On Time [msec]	3
Maximum Turn-Off Time [msec]	3

GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	2000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10^9 Ohm
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125 °C
Housing Material	UL E211125: 94 V-0
Terminal Material	Gilded
Baseplate Material	Aluminum (Except for 90A)
Humidity	85% non-condensing
LED Input Status Indicator	Red

MECHANICAL SPECIFICATIONS



Unit of Length： Millimeters

RECOMMENDED MODEL & HEATSINK

Choosing compatible current is critical in selecting a right model of solid state relay. Our engineers recommend SSR models according to actual applications and internal components of relay. For example, when solid state relay is used for electric heating, because of the cold resistance effect (the resistance value is 60% of heating wire value when it is in cold state), the SSR's current should be 1.67 times bigger than actual working current in order to prevent the over-current of solid state relay. The recommendations for the other types of application are provided in the similar reasons. Heatsink in the table are compatible (size and thermal parameters) with the corresponding SSRs.

Application to Electric Heating

Actual Load Current		**0.15A-5A**	**0.15A-8A**	**0.15A-15A**	**0.15A-20A**
Recommended Model		SDP4010D	SDP4020D	SDP4040D	SDP4060D
Recommended Heatsink	Panel	G60	G60	G80	G100
	Din Rail	CH60	CH60	CH80	CH100

Application to DC Motors

Actual Load Current		**0.1A-0.75A**	**0.1A-1.4A**	**0.15A-2.5A**	**0.15A-3A**
Recommended Model		SDP4010D	SDP4020D	SDP4040D	SDP4060D
Recommended Heatsink	Panel	X50	X50	X50	X50
	Din Rail	CX50	CX50	CX50	CX50

Application to Solenoid Valves

Actual Load Current		**0.1A-1.5A**	**0.1A-2.8A**	**0.15A-5A**	**0.15A-6A**
Recommended Model		SDP4010D	SDP4020D	SDP4040D	SDP4060D
Recommended Heatsink	Panel	X50	X50	G60	G60
	Din Rail	CX50	CX50	CH60	CH60

GENERAL NOTES

(1) All parameters at 25°C and per section unless otherwise specified.
(2) Heat sinking required, for derating curves see next page.

AGENCY APPROVALS

Designed in accordance with the requirements of IEC 62314