

Standard panel mount package, 1-phase

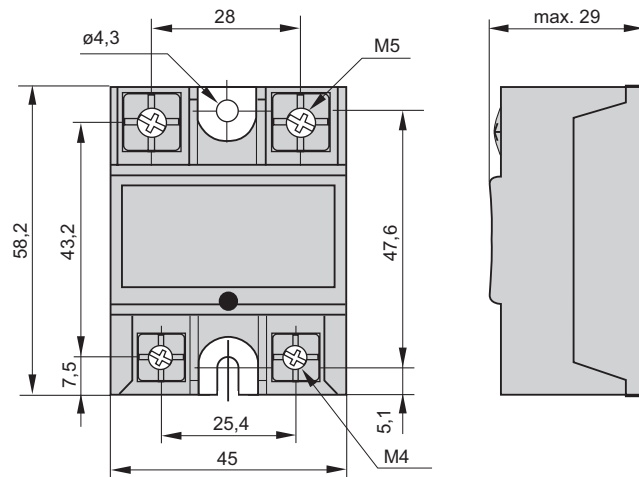
Solid-state relay HS, instantaneous switch



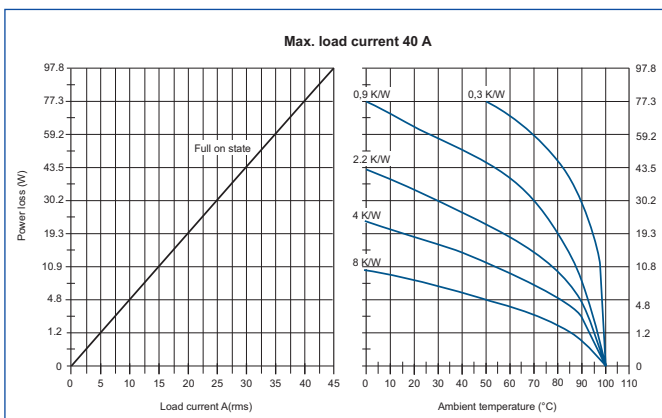
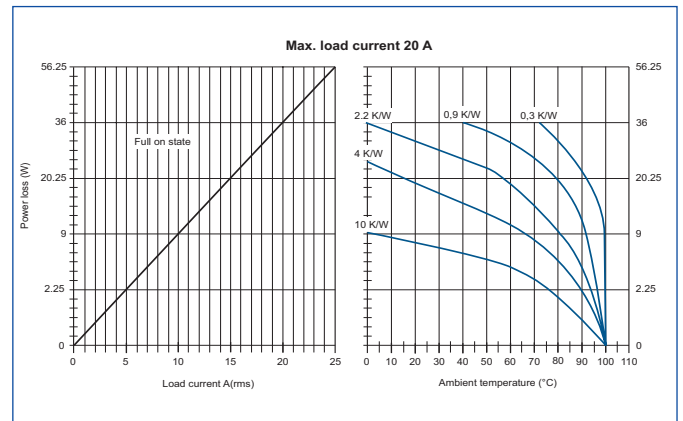
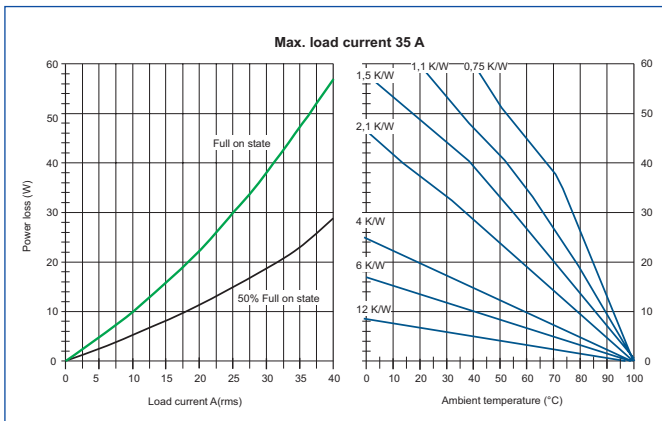
Construction S

- Control voltage range: 3,5 ... 32 VDC
- Load voltage range: 24 ... 510 VAC, 5 ... 110 VDC
- Load current range: 5 mA ... 40 A

Dimensions



Thermal diagrams (all relays already have heat conduction foil)



Heat sinks see on pages 32, 33 and 34

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Solid-state relay HS, instantaneous switch

Technical specifications	HS D5135M	HS D1120D	HS D1140D
Zero switching	–	–	–
Instantaneous switching-on	Yes	Yes	Yes
Control circuit	DC	DC	DC
Load circuit	AC	DC	DC
Load circuit			
Voltage range	24 ... 510 VAC	5 ... 110 VDC	5 ... 110 VDC
Operating frequency range	0,1 ... 400 Hz	–	–
Transient overvoltage	1200 V	200 V	200 V
Load current range	5 mA ... 35 A	5 mA ... 20 A	5 mA ... 40 A
Max. surge current (10 ms)	500 A	65 A	90 A
Max. off-state leakage current (rated voltage)	3 mA	3 mA	3 mA
Min. off-state dv/dt	500 V/ μ s	–	–
Max. on-state voltage drop	0,9 V	1,5 V	1,5 V
Max. turn-on time	0,05 ms	40 μ s	40 μ s
Max. turn-off time	10 ms	40 μ s	40 μ s
Max. I ² t for fusing (10 ms)	1250 A ² s		
Max. peak current not repetitive 0,1 ms		160 A	280 A
Thermal resistance to base	0,6 K/W	1,2 K/W	0,7 K/W
Control circuit			
Control voltage range	3,5 ... 32 VDC	3,5 ... 32 VDC	3,5 ... 32 VDC
Must release voltage	2 V	1 V	1 V
Max. reverse voltage	32 V	32 V	32 V
Typical input current at nominal voltage	13 mA	35 mA	35 mA
Generalities			
Insulation input/output	4000/4000 Vrms	2500/2500 Vrms	2500/2500 Vrms
Insulation resistance	1000 M Ω (@ 500 VDC)	1 G Ω	1 G Ω
Ambient operating temperature range	-55 ... +100 °C	-25 ... +90 °C	-25 ... +90 °C
Ambient storage temperature range	-55 ... +125 °C	-40 ... +100 °C	-40 ... +100 °C
Weight (typical)	85 g	85 g	85 g
Approvals	–	–	–
Screw torque requirements:			
M4 screws (Control circuit)	1,2 Nm	1,2 Nm	1,2 Nm
M5 screws (Load circuit)	2 Nm	2 Nm	2 Nm
Article number	42310205	42310180	42310181
(Order data see chapter 1)			