

Solid State Relays

Datasheet WG A5 6D

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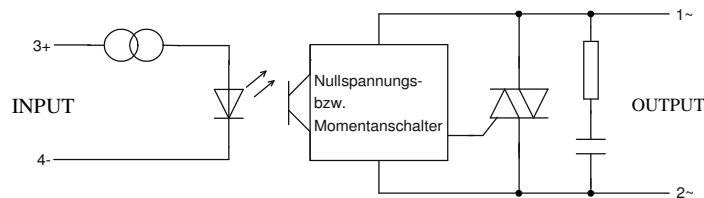
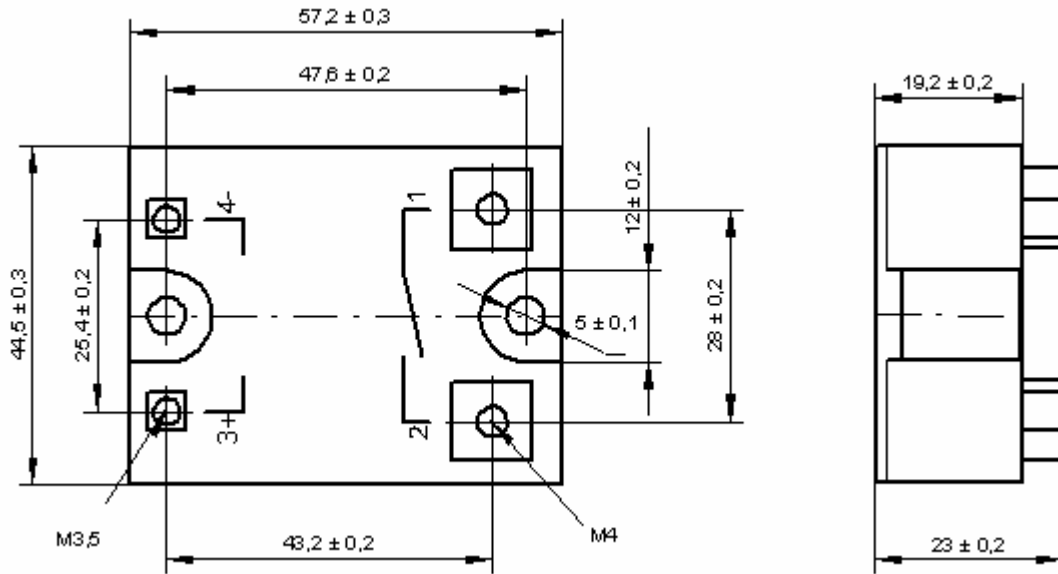
Features

Switching	Zero cross and random
Output	Triac with internal snubber
Input	DC with constant current control
Applications	resistive and inductive loads with $\cos\phi > 0,85$ (Z-Type) inductive load with $\cos\phi > 0,65$ (R-Type)

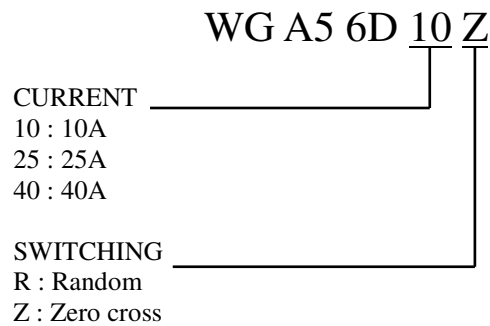
Technical data

WG A5 6D...	10 Z	10 R	25 Z	25 R	40 Z	40 R
Input circuit						
Control voltage range	3...32 VDC					
Control current max.	10 mA					
Turn-off voltage min.	1 VDC					
Input resistance	Constant current					
Output circuit						
Load voltage range	24...280 VAC					
Peak-off-state voltage	600 V _{drm}					
Off-state leakage current	6 mA eff.				12 mA eff.	
Load current range	0,1...10 A		0,1...25 A		0,2...40 A	
Surge current 1 half wave	110 A _{peak}		230 A _{peak}		400 A _{peak}	
I ² t for fusing	60 A ² s		260 A ² s		880 A ² s	
On-state voltage	1,85 V _{peak}					
Off-state (static) dv/dt	500 V/μs					
Snubber	47 Ω / 47 nF				47 Ω / 100 nF	
General data						
Turn-on time max.	11 ms	0,1 ms	11 ms	0,1 ms	11 ms	0,1 ms
Turn-off time max.	11 ms					
Line frequency range	47...63 Hz					
Isolation volt. between input/output	4.000 V					
Isolation volt. between input-output/base	2.500 V					
Isolation resistance	50 MΩ					
Operation temperature	-20...+80 °C					
Recommended varistor	SIOV-S20 K230					

Dimensions in mm

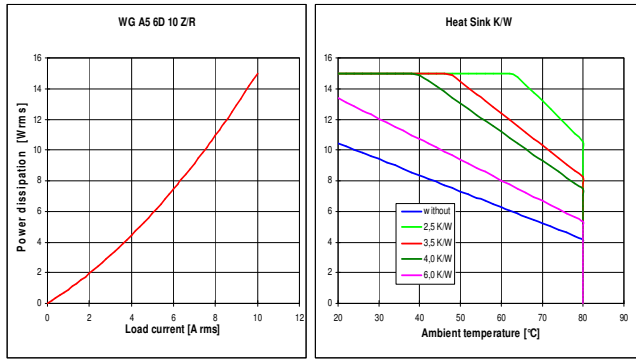


Ordering Information



Options: Suffix – **P**, 100% potted

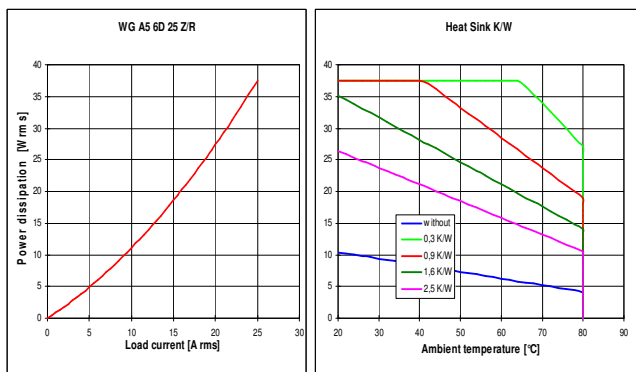
Derating diagrams



Number of SSR per Heatsink/ Load current per SSR

Heat sink	1 SSR	2 SSR	3 SSR
WG K1/100	10 A	8 A	
WG K2/100	10 A	10 A	
WG K3/160	10 A	10 A	10 A
WG K4/160L	10 A	10 A	10 A
WG K5/80	10 A		

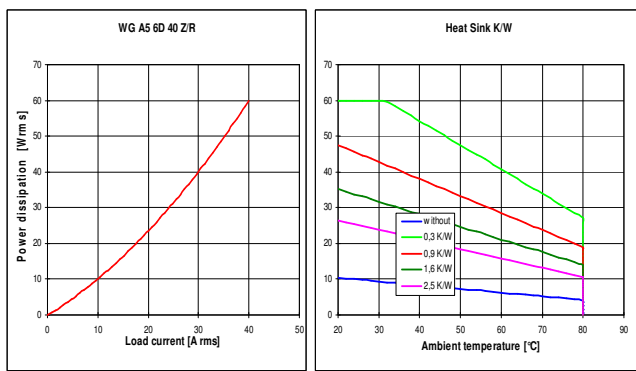
Values for 40 °C enclosure-temperature and mounted with conducting paste between the SSR and the heat sink



Number of SSR per Heatsink/ Load current per SSR

Heat sink	1 SSR	2 SSR	3 SSR
WG K1/100	14 A	10 A	
WG K2/100	17 A	14 A	
WG K3/160	25 A	21 A	18 A
WG K4/160L	25 A	25 A	25 A
WG K5/80	24 A		

Values for 40 °C enclosure-temperature and mounted with conducting paste between the SSR and the heat sink



Number of SSR per Heatsink/ Load current per SSR

Heat sink	1 SSR	2 SSR	3 SSR
WG K1/100	16 A	11 A	
WG K2/100	20 A	15 A	
WG K3/160	31 A	24 A	20 A
WG K4/160L	40 A	36 A	32 A
WG K5/80	27 A		

Values for 40 °C enclosure-temperature and mounted with conducting paste between the SSR and the heat sink