

SOLID STATE RELAYS

1-phase for AC loads and chassis mounting

SSR type	-	WG 480 D 10 Z	WG 480 D 10 R	WG 480 D 25 Z	WG 480 D 25 R	WG 480 D 40 Z	WG 480 D 40 R
Switching type	-	zero cross	random	zero cross	random	zero cross	random
Approvals	-	UL CSA VDE	UL CSA VDE	UL CSA VDE	UL CSA VDE	UL CSA VDE	UL CSA VDE
Circuit diagrams dimensions	-	page 41 + 42	page 41 + 42	page 41 + 42	page 41 +42	page 41 + 42	page 41+ 42
Output	-	thyristor	thyristor	thyristor	thyristor	thyristor	thyristor
Application fields	-	resistive loads	inductive loads	resistive loads	inductive loads	resistive loads	inductive loads
-	-	inductive loads	-	inductive loads	-	inductive loads	-
-	-	with $\cos > 0,85$	-	with $\cos > 0,85$	-	with $\cos > 0,85$	-
Input circuit							
Control voltage range	[V]	3 - 32 DC	3 - 32 DC	3 - 32 DC	3 - 32 DC	3 - 32 DC	3 - 32 DC
Control current max	[mA]	22	22	22	22	22	22
Turn-off voltage min.	[VDC]	1	1	1	1	1	1
Input resistance	[Ohm]	constant current	constant current	constant current	constant current	constant current	constant current
Output circuit							
Load voltage range	[V rms]	24 - 530 AC	48 - 530 AC	24 - 530 AC	48 - 530 AC	24 - 530 AC	48 - 530 AC
Peak-off-state voltage	[V _{drm}]	1.200 (1.000)	1.200 (1.000)	1.200 (1.000)	1 200 (1.000)	1.200 (1. 000)	1.200 (1.000)
Off-state leakage current	[mA _{eff}] max	10	10	10	10	10	10
Load current range	[A rms]	0, 1- 10	0,1 - 10	0,2 - 25	0,2 - 25	0,4 - 40	0,4 - 40
Surge curr. 1 half wave	[A peak]	110	110	230	230	500	500
I ² t for fusing	[A ² s]	60	60	260	260	1 250	1 250
On-state voltage	[V peak]	1,6	1,6	1,6	1,6	1,6	1,6
Off-state (static) dv/dt	[V/ μ s]	200	200	200	200	200	200
Snubber	[Ohm : nF]	47 ; 22	47 ; 22	47 ; 22	47 ; 22	47 ; 22	47 ; 22
General data	with or without overvoltage protection 1 effective above 1.000V available; SSR's with 1.600 V peak-off-state voltage also available.						
Turn-on time max	[ms]	11	0.1	11	0.1	11	0.1

Off-state leakage current	[mAeff] max	10	10	10	10	10	10
Load current range	[A rms]	0,4 - 50	0,4 - 50	0,4 - 75	0,4 - 75	0,4 - 90	0,4 - 90
Surge curr. 1 half wave	[A peak]	570	570	910	910	1 090	1 090
I ² t for fusing	[A ² s]	1.620	1.620	4.150	4.150	5.980	5.980
On-state voltage	[V peak]	1,6	1,6	1,6	1,6	1,6	1,6
Off-state (static) dv/dt	[V/μs]	200	200	200	200	200	200
Snubber	[Ohm; nF]	47; 22	47; 22	47; 22	47; 22	47; 22	47; 22
General data							
Turn-on time max	[ms]	11	0,1	11	0,1	11	0,1
Turn-off time max	[ms]	11	11	11	11	11	11
Line frequency range	[Hz]	47-63	47-63	47-63	47-63	47-63	47-63
Isolation volt between							
- input/output	[V rms]	4000	4000	4000	4000	4000	4000
- input-output/base	[V rms]	2.500	2.500	2.500	2.500	2.500	2.500
Isolation resistance	[MΩ]	50	50	50	50	50	50
Operating temperature	[°C]	-20...+80	-20...+80	-20...+80	-20...+80	-20...+80	-20...+80
Recommended varistor	Siemens	SIOV-S20 K420	SIOV-S20 K420	SIOV-S20 K420	SIOV-S20 K420	SIOV-S20 K420	SIOV-S20 K420

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1-phase for AC loads and chassis mounting

SSR type	-	WG 480 D 110 Z	WG 480 D 110 R	WG 480 D 125 Z	WG 480 D 125 R	-	-
Switching type	-	zero cross	random	zero cross	random	-	-
Approvals	-	UL CSA	UL CSA	UL CSA	UL CSA	-	-
Circuit diagrams dimensions	-	page 41 + 42	page 41 + 42	page 41 + 42	page 41 + 42	-	-
Output	-	thyristor	thyristor	thyristor	thyristor	-	-
Application fields	-	resistive loads	inductive loads	resistive loads	inductive loads	-	-
-	-	inductive loads		inductive loads		-	-

-	-	with cos > 0,85		with cos > 0,85		-	-
Input circuit							
Control voltage range	[V]	3 - 32 DC	3 - 32 DC	3 - 32 DC	3 - 32 DC	-	-
Control current max	[mA]	22	22	22	22	-	-
Turn off voltage mm	[VDC]	1	1	1	1	-	-
Input resistance	[Ohm]	constant current	constant current	constant current	constant current	-	-
Output circuit							
Load voltage range	[V rms]	24 - 530 AC	48 - 530 AC	24 - 530 AC	48 - 530 AC	-	-
Peak-off-state voltage	[V drn]	1.200	1.200	1.200	1.200	-	-
Off-state leakage current	[mAeff] max	10	10	10	10	-	-
Load current range	[A rms]	0,4-110	0,4-110	0,4-125	0,4-125	-	-
Surge curr. 1 half wave	[A peak]	1.350	1.350	1.590	1.590	-	-
I ² t for fusing	[A ² s]	9.100	9.100	12.650	12.650	-	-
On-state voltage	[V peak]	1.6	1.6	1.6	1.6	-	-
Off-state (static) dv/dt	[V/μs]	200	200	200	200	-	-
Snubber	[Ohm ; nF]	47 ; 22	47 ; 22	47 ; 22	47 ; 22	-	-
General data							
Turn-on time max	[ms]	11	0.1	11	0.1	-	-
Turn-off time max	[ms]	11	11	11	11	-	-
Line frequency range	[Hz]	47 - 63	47 - 63	47 - 63	47 - 63	-	-
Isolation volt between							
- input/output	[V rms]	4.000	4.000	4.000	4.000	-	-
- input-output/base	[V rms]	2.500	2.500	2.500	2.500	-	-
Isolation resistance	[MOhm]	50	50	50	50	-	-
Operating temperature	[°C]	-20...+80	-20...+80	-20...+80	-20...+80	-	-
Recommended varistor	Siemens	SIOVS20K420	SIOV S20 K420	SIOV S20 K420	SIOV S20 K420	-	-