



B. J. WOLFE ENTERPRISES, INC.

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Solid State Relays

“G” & “PH” Series Relays

- Back-to-Back (Dual) SCR output for Severe Inductive Loads
- Superior False Turn-On Immunity and Positive Turn-Off at High dv/dt
- Current Ratings to 90A
- Output Voltage Ratings to 480VAC with 24VAC Minimum
- AC or DC
- 4KV Optical Isolation
- Zero AC or Random Turn-On Models
- UL Recognized, CSA Certified
- VDE Approval on Many Models



General Specifications¹

Parameters	All Devices
Operating Temperature	-20°C to +80°C
Storage Temperature	-40°C to +80°C
Input to Output Isolation Voltage ²	4000 Vrms
Input/Output to Ground Isolation Voltage	2500 Vrms
Capacitance Input to Output (maximum)	8 pF
Line Frequency Range	47 to 63 Hz

Input Specifications¹

Parameters	90-280VAC	3-32VDC	18-36VAC
Control Voltage	90-280VAC	3-32VDC	18-36VAC
Drop Out Voltage	10 Vrms	1.0VDC	2.0 Vrms
Maximum Input Current ³	10mA _{rms}	34mA _{DC}	7mA _{rms}
Nominal Input Resistance ⁴	40K Ohms	1K Ohms	8K Ohms
Turn-On Time	20mS	0.5 Cycle max ⁵	20mS
Turn-Off Time	30mS	0.5 Cycle max	30mS

Output Specifications¹

Parameters	Arms	10	25	45	50	75	90
Maximum On-State Current ⁶	Arms	10	25	45	50	75	90
Minimum On-State Current	mArms	100	100	100	100	100	100
Maximum I-Cycle Surge ⁷	A _{peak}	100	250	450	500	700	1000
Maximum I-Second Surge ⁸	A _{peak}	30	75	135	145	200	280
On-State Voltage Drop ⁹ (60Hz)	V _{peak}	1.6	1.6	1.6	1.6	1.6	1.6
jb	A ² sec	200	260	840	1040	2345	3375
	°C/W	1.8	1.8	0.65	0.60	0.25	0.25

Footnotes

1. Specifications apply to TA -30° to +80° unless otherwise noted.
2. At TA of 25°C for 1sec, max leakage 1mA.
3. At max input voltage.
4. Does not include IRED impedance (drop).
5. 100μS for random turn-on (suffix) R models.
6. With relay properly mounted on an adequate heatsink.
7. At TA of 25°C non-repetitive.
8. At TA of 25°C.
9. At TA of 25°C and max on-state current.

Finned Heat Sinks Available

“G” & “PH” Series¹

Max. Off-State Voltage	140	250	280	400	Output Current Rating	Control Voltage
Max. Off-State Voltage (V _{peak}) ²						
Max. Off-State Leakage (mA _{rms}) ³						
Static (Off-State) dv/dt (V/μS)						
Catalog Number	G120A10	G240A10	G280A10	G480A10	10A	90-280VAC
	G120A-25	G240A25	G280A25	G480A25	25A	90-280VAC
	G120A45	G240A45	G280A45	--	45A	90-280VAC
	--	--	--	G480A50	50A	90-280VAC
Specify suffix “R” for Random Turn-On Models	--	--	G280A75	G480A75	75A	90-280VAC
	--	--	G280A90	G480A90	90A	90-280VAC
Specify suffix “V” for VDE Approved Models	G120D10	G240D10	G280D10	G480D10	10A	3-32VDC
	G120D25	G240D25	G280D25	G480D25	25A	3-32VDC
	G120D45	G240D45	G280D45	--	25A	4-32VDC
	--	--	G280D50	G480D50	50A	3-32VDC
	--	--	G280D75	G480D75	75A	3-32VDC
	--	--	G280E90	G480E90	90A	3-32VAC
Footnotes:						
1. Specifications apply to TA -30° to +80° unless otherwise noted.	G120E10	G240E10	G280E10	G480E10	10A	18-36VAC
2. One minute max duration.	G120E25	G240E25	G280E25	G480E25	25A	18-36VAC
3. At TA of 25°C and max. line voltage.	G120E45	G240E45	G280E45	--	45A	18-36VAC
	--	--	--	G480E50	50A	18-36VAC
	--	--	G280E75	G480E75	75A	18-36VAC
	--	--	G280E90	G480E90	90A	18-36VAC

Outline Dimensions

