interpower

ZRA Series 10, 30 and 45 amp DC Controlled SSR for up to 280V Line Switching Applications

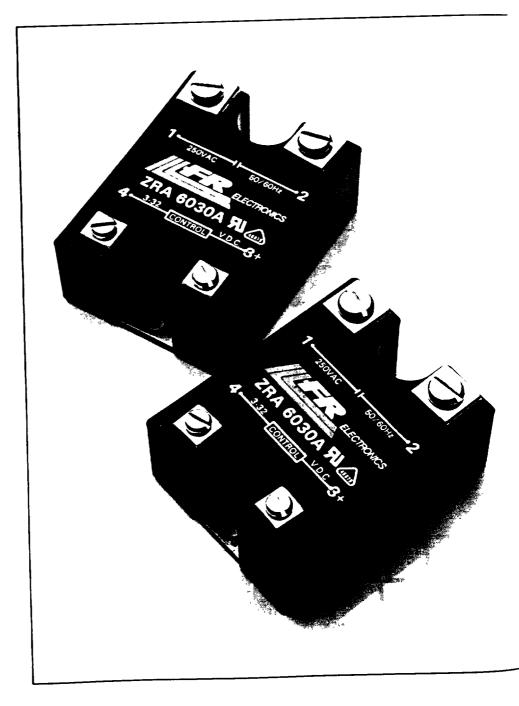
- Excellent Thermal Characteristics and Performance
- Zero Turn-on giving minimal EMI and RFI
- Compatible with Standard Logic Families
- 600 or 800 VDRM
- UL VDE and other major approvals
- Military and Civil Aviation Approvals

The ZRA series of optically coupled general purpose Solid State Relays have been further improved increasing reliability and facilitating the use of advanced production methods. Recognised materials are used throughout and a minimum 2mm wall thickness has been introduced. The new series is electrically and physically compatible with earlier versions (except for a 1mm increase in overall height due to increased insulation thicknesses).

The back to back SCR assembly is solder bonded throughout giving excellent thermal and electrical characteristics. Input to output circuit isolation is 4KV rms.

The 10 amp version has a triac power switch and the 30 and 45 amp versions use an FRE inverse parallel back to back SCR assembly.

The series has a unique tough and highly reliable construction which includes internal copper buss links to carry the load current direct from the power terminals to the power semiconductors. The series meets all currently known requirements of the International standards institutions



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ZRA Series

MAXIMUM RATINGS Ta = 25°c (Unless otherwise stated)	ZRA 6010A ZRA 8010A	ZRA 6030A ZRA 6045A ZRA 8030A ZRA 8045A
Input Voltage Reverse Input Voltage Line Voltage (Nominal) Repetitive Peak Off State Voltage VDRM (6000 series) Repetitive Peak Off State Voltage VDRM (8000 series) On State Current *XX10 XX30 XX45	32V 32V 250V RMS 600V 800V 10A	32V 32V 250V RMS 600V 800V - 30A 45A
Non Repetitive On State Current ITSM Th/s=50°C, 10mS ITSM Th/s=65°C, 10mS Fusing current I t 10mS 0.5 cycle Th/s=50°C I t 10mS 0.5 cycle Th/s=65°C Off state dV/dt (typ) Commutating dV/dt Operating Temperature Range Ta* Isolation Input to Output 1 Sec Isolation Input or Output to Case 1 Sec	115A 66A S 200V/µs Snubbed for 0 5PF -40°C to + 100°C 4000V RMS 2500V RMS	- 250A 375A - 310A's 700 A's 200V/µs Snubbed for 0 5PF -40 to + 100°C 4000V RMS 4000V RMS

CHARACTERISTICS Ta = 25°C f = 50Hz Unless otherwise stated

PARAMETER	CONDITION	MIN	MAX	MIN	MAX
Input Circuit					
Must Operate Voltage Must Release Voltage Input Resistor	(See Fig 2 & 3)		3V 1V		3V 1V
Output Cicuit					
Line Voltage V RMS Off State Current mA RMS On state voltage Vt	V line = 280V RMS 10 A RMS Tj=25° C 30 A RMS Tj=25° C	28V	280V 6 5mA 1 6V pk	28V	280V 6 5mA 1 5V pk
Minimum Load Current (recommended) A RMS	45 A RMS T _J =25° C See 'HINTS' for lower currents	0 1A		0 5A	16V pk
Frequency Range Hz Turn on time t on Turn off time t off	Sanome	47Hz	63Hz 0 5 cycle 0 5 cycle	47Hz	63Hz 0 5 cycle 0 5 cycle
General			4.2001144		
Thermai Resistance°C/W	XX10 XX30 XX45		4 3°C/W		11°C/W 09°C/W

^{*} For further electrical information and outline drawing please see pages 16 and 17

