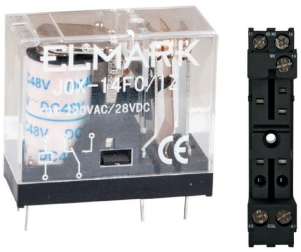
Documents corresponding to the product: EN 60947-5-1; EN 61810

Industrial Relays and Bases

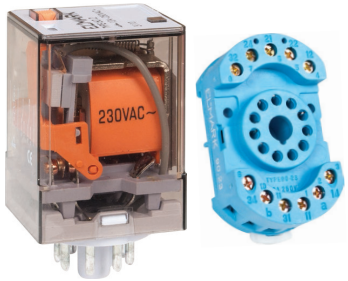
Devices intended for construction of automation and signalling boards. They are mainly used for command transfer towards the executive mechanisms. Currents of comparatively heavy values enabling the direct control of industrial executive mechanisms are commuted in comparatively small sizes. The contact surfaces are made from silver-coated electrolytic copper. The entire contact system is closed within a lid of colourless fire-proof plastic with a test-button installed to it. The base provides a safe electric connection of the conductors of the electric installation and the relays and is used to install the relay to the DIN busbar.

Technical Characteristics:
- Supply voltage: from 12 to 230V AC, 50 Hz and from 12 to 110V DC
- Acceptable deviation of the supply voltage: 85 -110% Un
- Rated current of the sockets: 10A AC
- Electrical endurance: 1 000 000 cycles
- Isolation resistance: 500 mΩ /min (500V)
- Impulse tension resistance: 2000V, 50Hz
- Dielectric strength: 1000V AC/1 min
- Turn-out time: 25ms
- Working temperature: -5 - + 65°C
- Humidity: 35 - 85% RH

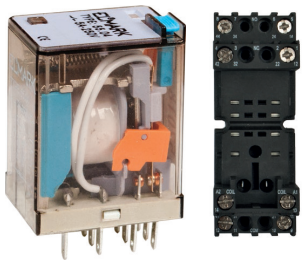
Method of installation:
- on a DIN rail by means of a socket



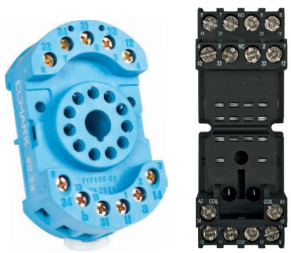
Relay type	Voltage of the coil (V)	Socket type	Resistance of the coil (Ω)	Number of contacts	Packing/Box (pcs)	Catalogue number
ELM - 14FC	12 VDC	ELM-RT624-B	260	NO+NC	100 / 1000	**57141**
ELM - 14FC	24 VDC	ELM-RT624-B	1080	NO+NC	100 / 1000	**57142**
ELM - 14FC	48 VDC	ELM-RT624-B	4260	NO+NC	100 / 1000	**57143**



Relay type	Voltage of the coil (V)	Socket type	Resistance of the coil (Ω)	Number of contacts	Packing/Box (pcs)	Catalogue number
ELM - 60.2	12 VDC	ELM - 90.22	96	2NO+2NC	20 / 300	**57601**
ELM - 60.2	24 VDC	ELM - 90.22	384	2NO+2NC	20 / 300	**57602**
ELM - 60.2	48 VDC	ELM - 90.22	1540	2NO+2NC	20 / 300	**57603**
ELM - 60.2	230 VAC	ELM - 90.22	7400	2NO+2NC	20 / 300	**57605**
ELM-60.2	24VAC	ELM-90.22		2NO+2NC	20 / 300	**57606**
ELM - 60.13	12 VDC	ELM - 90.23	96	3NO+3NC	20 / 300	**57611**
ELM - 60.13	24 VDC	ELM - 90.23	384	3NO+3NC	20 / 300	**57612**
ELM - 60.13	48 VDC	ELM - 90.23	1540	3NO+3NC	20 / 300	**57613**
ELM - 60.13	110 VAC	ELM - 90.23	1700	3NO+3NC	20 / 300	**57614**
ELM - 60.13	230 VAC	ELM - 90.23	7400	3NO+3NC	20 / 300	**57615**
ELM-60.13	24VAC	ELM90.23		3NO-3NC	20/300	**57616**



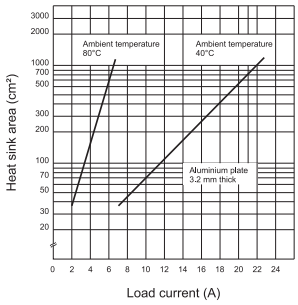
Relay type	Voltage of the coil (V)	Socket type	Resistance of the coil (Ω)	Number of contacts	Packing/Box (pcs)	Catalogue number
ELM - 55.02	12 VDC	ELM - RT702-B	42	2NO+2NC	50 / 500	**57521**
ELM - 55.02	24 VDC	ELM - RT702-B	168	2NO+2NC	50 / 500	**57522**
ELM - 55.02	48 VDC	ELM - RT702-B	675	2NO+2NC	50 / 500	**57523**
ELM - 55.02	230 VAC	ELM - RT702-B	14000	2NO+2NC	50 / 500	**57525**
ELM55.02	24VAC	ELM - RT702-B		2NO+2NC	50/500	**57526**
ELM - 55.04	12 VDC	ELM-RT704-B	42	4NO+4NC	50 / 500	**57541**
ELM - 55.04	24 VDC	ELM-RT704-B	168	4NO+4NC	50 / 500	**57542**
ELM - 55.04	48 VDC	ELM-RT704-B	675	4NO+4NC	50 / 500	**57543**
ELM - 55.04	110 VAC	ELM-RT704-B	3500	4NO+4NC	50 / 500	**57544**
ELM - 55.04	230 VAC	ELM-RT704-B	14000	4NO+4NC	50 / 500	**57545**
ELM-55.04	24VAC	ELM-RT704-B		4NO+4NC	50/500	**57546**



Socket type	Dimensions (mm)	Number of terminals (pcs.)	Packing/Box (pcs)	Catalogue number
ELM - RT624-B	76 x 15	5	20 / 600	**57901**
ELM - RT702-B	76 x 27	11	10 / 240	**57902**
ELM - RT704-B	76 x 27	14	10 / 240	**57912**
ELM - 90.22	68 x 38	8	10 / 400	**57904**
ELM - 90.23	68 x 38	11	10 / 400	**57905**

Industrial Solid State Relays (SSR)

Industrial SSR are intended for mounting in power and control cabinets as an output switch devices with reliable ON/OFF performance. The SSR are based on the CMOS technology. The non-contact electronic switch is optically separated from the input signal by a photoelectric coupler. This allows use of switch currents of up to 50A despite of the devices small overall size. Another important feature of the relay is that output load can be regulated depending on the input signal value. The relay is mainly used to transmit control signals to actuating mechanisms since it can work at comparatively high currents making it possible to directly control actuators. SSR have transparent plastic covers to additionally improve their safety level. The SSR use is connected with considerable heat emissions, so measures must be taken to dispense the excessive thermal energy in the atmosphere. This is achieved through application of specially deigned radiators. The correct definition of radiator parameters is of critical importance. It is made by calculating the heat generation capacity with the formula: Heat generation = active load current x 3.0 W/A. The heat removal surface is estimated with the help of the following graphic:



Documents corresponding to the product: EN 60947-5-1; EN 61810

Technical Specifications:

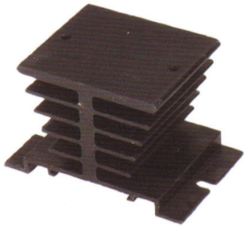
- Load/output voltage: 30/400V 50 Hz or the solid state voltage regulators
- Rated output current: from 10A to 60A
- Insulating voltage: 1000 MΩ /min (500V)
- Impulse voltage stability: 2000V, 50Hz
- Dielectric Strength: < 2500VAC / 1 min
- Leakage current: <2mA
- Turn-on time: <10ms
- Operating temperature: -5°C + 65°C
- Relative Humidity: 35 - 85%RH

Type	Relay Type	Control Voltage (V)	Output Voltage (V)	Number of phases	Output Current (A)	Packing/Box (pcs)	Catalogue number
ZG3NC - 2 - 10B	SSR	3-32VDC	230VAC	1	10	10 / 100	**57710**
ZG3NC - 2 - 20B	SSR	3-32VDC	230VAC	1	20	10 / 100	**57720**
ZG3NC - 2 - 25B	SSR	3-32VDC	230VAC	1	25	10 / 100	**57725**
ZG3NC - 2 - 40B	SSR	3-32VDC	230VAC	1	40	10 / 100	**57740**
ZG3NC - 2 - 60B	SSR	3-32VDC	230VAC	1	60	10 / 100	**57760**
ZG3NC - 3 -10B	SSR	3-32VDC	400VAC	2	10	10 / 100	**57713**
ZG3NC - 3 - 20B	SSR	3-32VDC	400VAC	2	20	10 / 100	**57723**
ZG3NC - 3 - 25B	SSR	3-32VDC	400VAC	2	25	10 / 100	**57735**
ZG3NC - 3 - 40B	SSR	3-32VDC	400VAC	2	40	10 / 100	**57743**
ZG3NC - 3 - 60B	SSR	3-32VDC	400VAC	2	60	10 / 100	**57763**

Type	Relay Type	Control Voltage (V)	Output Voltage (V)	Number of phases	Output Current (A)	Packing/Box (pcs)	Catalogue number
ZG1NC - 2 - 10D	SS voltage regulator	1-10VDC	0-230VAC	1	10	10 / 100	**57810**
ZG1NC - 2 - 20D	SS voltage regulator	1-10VDC	0-230VAC	1	20	10 / 100	**57820**
ZG1NC - 2 - 25D	SS voltage regulator	1-10VDC	0-230VAC	1	25	10 / 100	**57825**
ZG1NC - 2 - 40D	SS voltage regulator	1-10VDC	0-230VAC	1	40	10 / 100	**57840**
ZG1NC - 3 -10D	SS voltage regulator	1-10VDC	0-400VAC	2	10	10 / 100	**57813**
ZG1NC - 3 - 20D	SS voltage regulator	1-10VDC	0-400VAC	2	20	10 / 100	**57823**
ZG1NC - 3 - 25D	SS voltage regulator	1-10VDC	0-400VAC	2	25	10 / 100	**57835**
ZG1NC - 3 - 40D	SS voltage regulator	1-10VDC	0-400VAC	2	40	10 / 100	**57843**

Type	Relay Type	Control Voltage (V)	Output Voltage (V)	Number of phases	Output Current (A)	Packing/Box (pcs)	Catalogue number
ZG33 - 3 - 10B	SSR	3-32VDC	400VAC	3	10	1 / 30	**57831**
ZG33 - 3 - 20B	SSR	3-32VDC	400VAC	3	20	1 / 30	**57832**
ZG33 - 3 - 25B	SSR	3-32VDC	400VAC	3	25	1 / 30	**57833**
ZG 33 - 3 - 40B	SSR	3-32VDC	400VAC	3	40	1 / 30	**57834**

Note: The relay output must be supplied with a varistor to ensure its over-voltage protection, whenever RRS is used to control inductive loads.



Type of Radiator	Overall Dimensions (L/W/H)	Approximate Load (A)	Packing/Box (pcs)	Catalogue number
QW-A 50	60 x 50 x 50	15	1 / 50	**57906**
QW-B 72	72x100x50	20	1 / 50	**57907**
QW-B 100	100x100x50	25	1 / 50	**57908**
QW-C 115	115x100x50	40	1 / 50	**57909**
QW-E 50	150x88x35	75	1 / 40	**57910**