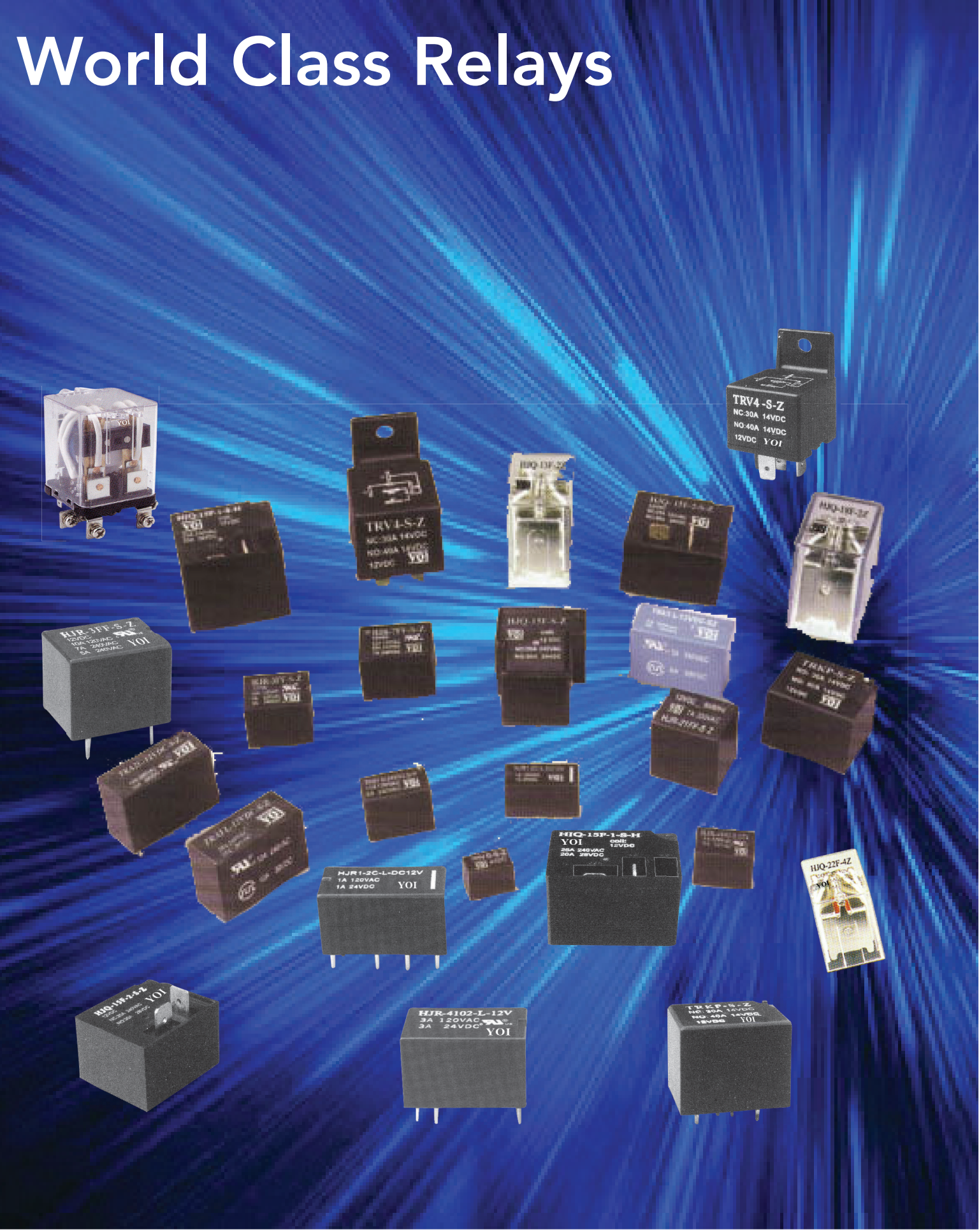
World Class Relays



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yoi

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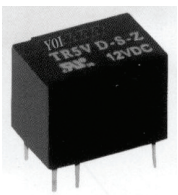
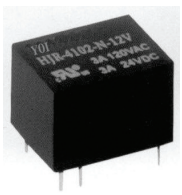
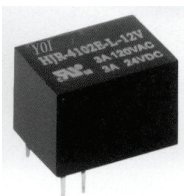
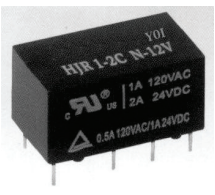
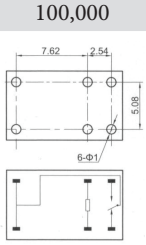
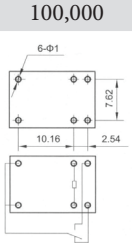
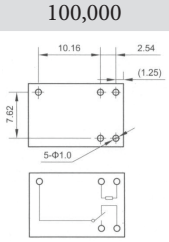
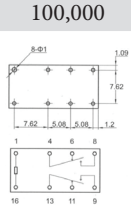
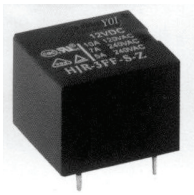
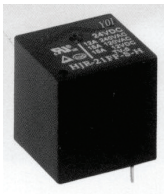
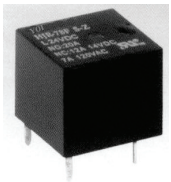
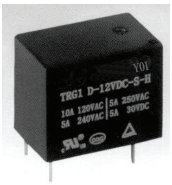
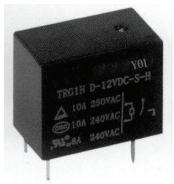
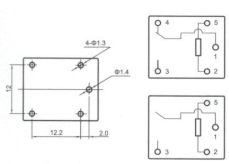
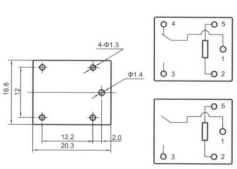
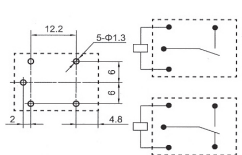
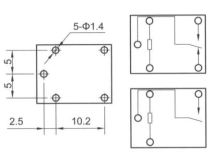
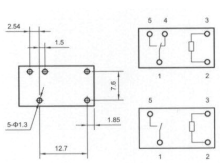
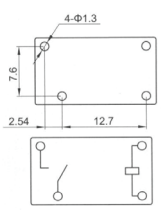
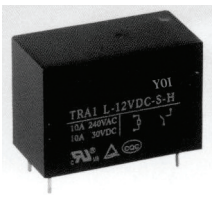
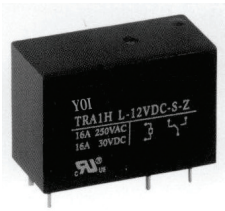
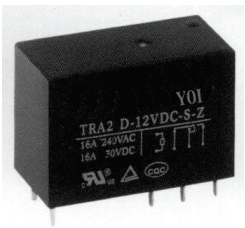
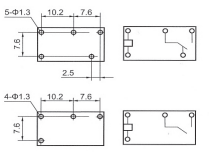
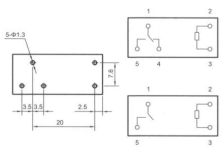
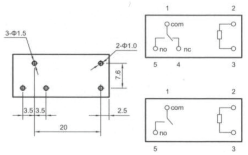
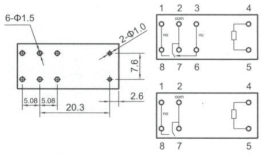
ITP-YOI Relays

Classification	Telecom Relay			
Type	**TR5V**	**HJR4102**	**HJR4102E**	**HJR1-2C**
Appearance				
Outline L*W*H (mm)	12.4x7.4x10.0	15.8x10.8x11.8	15.8x10.8x11.8	20.5x10.0x11.8
Features	• Designed for thermostat modem, computer peripherals, video recording and security applications • Surge Strength 1500V FCC68 • Low coil power requirement for IC compatibility • Terminals arraged on grid pattern • Designed for compact, high density mounting	• Small size and low cost • DIP standard terminals • Surge Strength 1500V FCC68 • Sealed type available	• Small size and low cost • DIP standard terminals • Surge Strength 1500V FCC68 • Sealed type available	• DPDT configuration • High sensitivity • DIP standard terminals • Sealed version • Surge strength 1500V FCC68
Contact Rating				
Contact Form	1Z	1Z	1Z	2Z
Contact Material	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
Max. Operating Current	2A	5A	5A	2A
Minimum Load	1mA 5VDC	1mA 5VDC	1mA 5VDC	1mA 5VDC
Max. Operating Voltage	120VAC/60VDC	240VAC/60VDC	240VAC/60VDC	240VAC/60VDC
Max. Operating Power	240VA/48W	360VA/90W	360VA/90W	120VA/60W
Rated Load (Resistive Load)	1A/2A 120VAC 1A/2A 24VDC	3A 120VAC 3A 24VDC 1A 250VAC	3A 120VAC 3A 24VDC 1A 250VAC	1A 120AC 2A 24VDC
Contact Resistance(mΩ) (at 6VDC 1A)	100	100	100	100
Coil Ratings				
Rated Voltage	3-24VDC	3-48VDC	3-48VDC	3-48VDC
Nominal Operating Power	150/200/360mW	200/360/450mW	200/360/450mW	150/200/360/450mW
General Data				
Insulation Resistance(MΩ) (at 500 VDC)	1000	100	100	100
Dielectric Strength Between Contacts Between Coil and Contacts	400VAC 1000VAC	500VAC 1000VAC	500VAC 1000VAC	500VAC 1000VAC
Ambient Temperature (°C)	-30 to +85°C	-30 to +85°C	-30 to +85°C	-30 to +85°C
Operate/Release Time	4ms/3ms	5ms/5ms	5ms/5ms	8ms/4ms
Mechanical Life(Min)	10,000,000	10,000,000	10,000,000	10,000,000
Electrical Life(Min)	100,000	100,000	100,000	100,000
Layout (Bottom View)				
Terminal Type	PCB	PCB	PCB	PCB
Approved Standards	UL,cUL	UL,cUL,CQC,TÜV	UL,cUL,CQC,TÜV	UL,cUL,TÜV
Cross-Reference	OMRON:G5V-1 NAIS:HY FUJITSU:SY	OMRON:G2E FUJITSU:FB211SC/MZ OEG:OUA/OUAZ TYCO:A/B201/V23101 P&B:T81 OEN-42 Series	OMRON:G2E FUJITSU:FBR211SC/MZ OEG:OUA/OUAZ TYCO:A/B201/V23101 P&B:T81	OMRON:G5V-2 NAIS:DS2Y TYCO:V23102 OEG:OVR/ORZ OEN-46

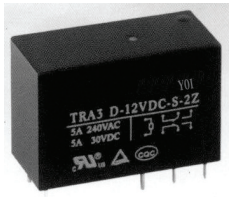
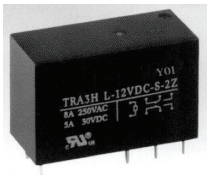
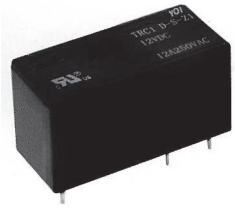
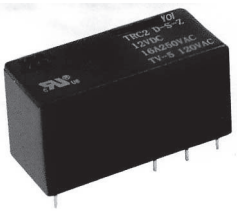
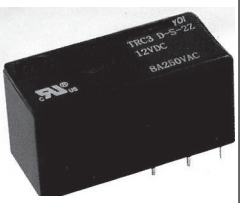
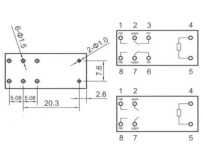
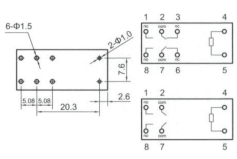
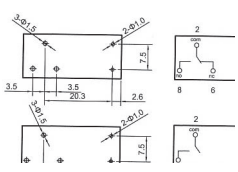
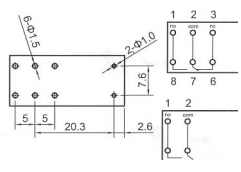
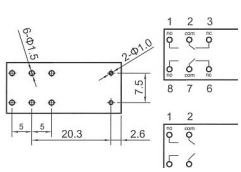
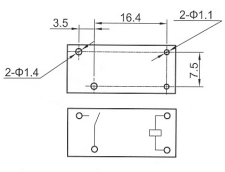
Power Relay

HJR-3FF	HJR-21FF	HJR-21FD	HJR-78F	TRG1	TRG1H
					
19.2x15.5x15.5	20.3x16.8x20.3	21.0x16.0x20.6	15.7x12.3x14.0	18.2x10.2x15.5	18.2x10.2x15.5
• 10A switching capability • Small footprint • Sealed type available • Class B/F available	• 12A switching capability • SPST-NO configuration • Small footprint • Sealed version available • Class B/F available	• 20A switching capability • TV-8 120VAC • Surge voltage up to 6KV • Ambient temperature meets 105°C • Product in accordances to IEC60335-1 • RoHS compliant	• 20A switching capability • Small size auto relay	• 10A switching capability • SPST-NO & SPDT configuration • Standard PC layout • Sealed type available	• 10A switching capability • SPST-NO configuration • Standard PC layout • Sealed type available • Surge resistance of 5000V
1H, 1Z	1H, 1Z	1H/1Z	1H, 1Z	1H, 1Z	1H
Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
15A	15A	20A	25A	10A	10A
100mA 5VDC	10mA 5VDC	100mA 5VDC	10mA 5VDC	10mA 5VDC	10mA 5VDC
250VAC/30VDC	250VAC/30VDC	400VAC	250VAC/16VDC	277VAC/30VDC	277VAC/30VDC
2,770VA/240W	2,770VA/240W	4700VA	840VA/400W	1H-D:1200VA/150W 1H-L/1Z:600VA/90W	2500VA/300W
1H:10A 240VAC 12A 120VAC 1Z:7A 240VAC 10A 120VAC 1/8HP(FLA 3.8A) 125VAC 1/8HP(FLA 1.6A) 277VAC	1H:12A 240VAC 15A 120VAC TV-5 (5A@120VAC) 1Z:10A 240VAC 12A 120VAC/24VDC TV-5 (5A@120VAC)	1H:20A 125VAC 17A 277VAC 7A 400VAC 1Z:16A 250VAC NO:7A 400VAC	NC/NO:12/20A 14VDC 7A 120VAC	1H-D:10A 120VAC 5A 240VAC/30VDC 1H-L/1Z:3A 240VAC/30VDC	10A 250VAC 8A 240VAC (UL)
100	100	100	100	100	100
3-48VDC	3-48VDC	3-48VDC	6-24VDC	3-48VDC	3-24VDC
360/450mW)	360/450MmW	360mW	600/800mW	200/450mW	450mW
100	100	100	100	100	100
750VAC	750VAC	1000VAC	500VAC	H:1000VAC, Z:750VAC	1000VAC
1500VAC	1500VAC	2500VAC	500VAC	H:4000VAC, Z:2500VAC	4000VAC
-40 to +85°C(105°C)	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
10ms/5ms	10ms/5ms	10ms/5ms	10ms/5ms	10ms/4ms	10ms/4ms
10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
100,000	100,000	100,000	100,000	100,000	100,000
					
PCB	PCB	PCB	PCB	PCB	PCB
UL,cUL,TÜV,CQC,VDE	UL,cUL,TÜV,CQC		UL,cUL	UL,cUL,CQC,TÜV	UL,cUL,CQC,TÜV
OMRON:G5LC FUJITSU:FBR160 NAIS:JS ZETTLER:AZ943 P&B:T72 OEN61/65	OMRON:G5L OEG:SRUDH/SRUUH SONG CHUANZ:801H	SONGCHUAN:875B MAIS:JSM	OMRON:G8QN FUJITSU:FBR51	OEG:OJE/OJ SONG CHUAN:835 ZETTLER:AZ765/767	OEG:OJE/OJ SONGCHUAN:835NL

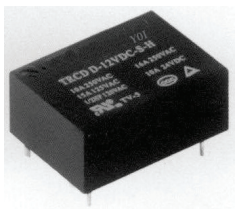
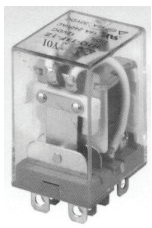
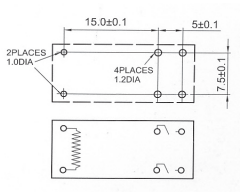
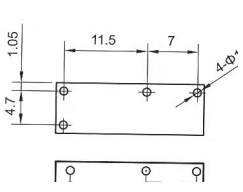
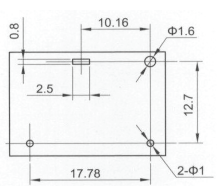
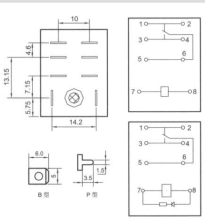
ITP-YOI Relays

Classification	Power Relay			
Type	**TRG2**	**TRA1**	**TRA1H**	**TRA2**
Appearance				
Outline L*W*H (mm)	20.5x10.2x15.0	29.4x13x20.6	29.4x13x20.6	29.4x13x20.6
Features	• 10A switching capability • Creepage distance: 8mm (both for 1 CO and NO) • Clearance distance:No type 4.5mm, Nc type 4mm • Subminiature standard PCB layout • RoHS compliant	• 10A switching capability • SPST-NO & SPDT configuration • Small footprint • Sealed type available • Transparent sealed available • Class B/F available	• 16A switching capability • SPST-NO&SPDT configuration • Small footprint • Sealed version available • Transparent sealed available • Class B/F available	• 16A switching capability • SPST-NO & SPDT configuration • 5kv dielectric between coil and contacts • Transparent sealed available • Class B/F available
Contact Rating				
Contact Form	1H,1Z	1H, 1Z	1H/1Z	1H, 1Z
Contact Material	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
Max. Operating Current	10A	12A	16A	20A
Minimum Load	10mA 5VDC	100mA 5VDC	100mA 5VDC	100mA 5VDC
Max. Operating Voltage	277VAC/30VDC	250VAC/30VDC	250VAC/30VDC	250VAC/30VDC
Max. Operating Power	1250VA/150W	2500VA/300W	4000VA/480W	4800VA/480W
Rated Load	1H:5A 250VAC 5A30VDC	10A 240VAC	16A 250VAC	NC/NO 12A/16A 240VAC
(Resistive Load)	10A 125VAC 1Z:3A 250VAC 3A 30VDC	10A 30VDC	16A 30VDC	16A 30VDC
Contact Resistance(mΩ) (at 6VDC 1A)	100	100	100	100
Coil Ratings				
Rated Voltage	3-48VDC	3-48VDC	3-48VDC	3-48VDC
Nominal Operating Power	250/540mW	240/540/720mW	540/720mW	240/540/720mW
General Data				
Insulation Resistance(MΩ) (at 500 VDC)	100	100	100	100
Dielectric Strength Between Contacts Between Coil and Contacts	900VAC 4000VAC	1000VAC 5000VAC	1000VAC 5000VAC	1000VAC 5000VAC
Ambient Temperature (°C)	-30 to +70°C	-40 to +85°C	-40 to +70°C	-40 to +85°C
Operate/Release Time	15ms/8ms	20ms/10ms	20ms/10ms	20ms/10ms
Mechanical Life(Min)	10,000,000	10,000,000	10,000,000	10,000,000
Electrical Life(Min)	100,000	100,000	100,000	100,000
Layout (Bottom View)				
Terminal Type	PCB	PCB	PCB	PCB
Approved Standards	UL,cUL,CQC, TüV	UL,cUL,CQC,TÜV	UL,cUL	UL,cUL,CQC,TÜV
Cross-Reference	OEG:SDT	SCHRACK:RT FUJITSU:FTR-F1/VSB ZETTLER:A742/763/764 FEME-M25 OEN-58 IA&IC	OEN-58 1AK	SCHRACK:RT FUJITSU:FTR-F1/VSB ZETTLER:AZ742/763/764 FEME-M25 OEN59 , 1A

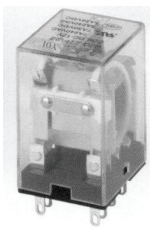
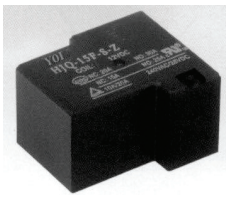
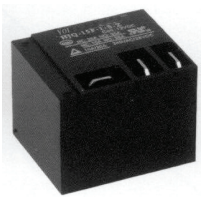
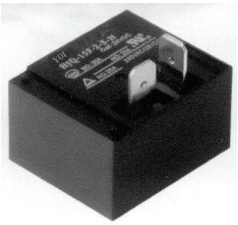
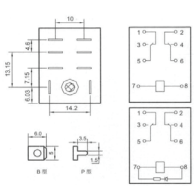
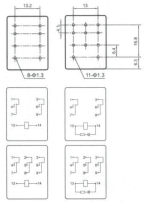
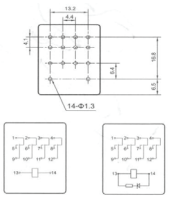
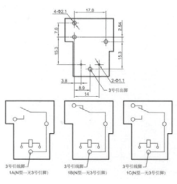
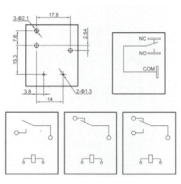
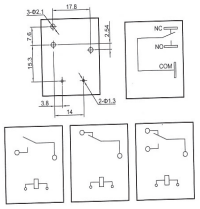
Power Relay

TRA3	TRA3H	TRC1	TRC2	TRC3	TRA4
					
29.4x13x20.6	29.4x13x20.6	29x12.7x15.7	29x12.7x15.7	29x12.7x15.7	24.5x10.5x25.0
• Creepage distance 8.0mm Min • Au-clad contact available • Transparent sealed available • Class B/F available	• Creepage distance: 8.0mm Min • Au-clad contact available • Transparent sealed available • Class B/F available	• Creepage distance: 10mm • Au-clad contact available • Transparent sealed available • Class B/F available	• Creepage distance: 10mm • Au-clad contact available • Transparent sealed available • Class B/F available	• Creepage distance: 10mm • Au-clad contact available • Transparent sealed available • Class B/F available	• 1 form a contact arrangement • Immersion cleanable, sealed version available • Applications include appliance HAVC, CTV, monitor, emergency lighting
2H, 2Z	2H/2Z	1H/1Z	1H/1Z	2H/2Z	1H
Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
8A	8A	12A	16A	8A	10A
100mA 5VDC	100mA 5VDC	100mA 5VDC	100mA 5VDC	100mA 5VDC	100mA 5VDC
250VAC/30VDC	250VAC/30VDC	440VAC/125VDC	440VAC/125VDC	440VAC/125VDC	250VAC/110VDC
1250VA/240W	2000VA/240W	3000VA	4000VA	2000VA	2500VA/300W
5A 240VAC 5A 30VDC	8A 250VAC 5A 30VDC	12A 250VAC	16A 250VAC TV-5A@ 125VAC	8A 250VAC	5A@120VAC (TV-5) 10A 250VAC 10A 30VDC
100	100	100	100	100	100
3-48VDC	3-48VDC	5-60VDC/24-230VAC	5-60VDC/24-230VAC	5-60VDC/24-230VAC	5-110VDC, 6-240VAC
240/540/720mW	540/720mW	400mW/0.75VA	400mW/0.75VA/Bistable	400mW/0.75VA	900mW/1.2VA
100	100	100	100	100	100
1000VAC	1000VAC	1000VAC	1000VAC	1000VAC	1000VAC
5000VAC	5000VAC	5000VAC	5000VAC	5000VAC	1500VAC
-40 to +85°C	-40 to +70°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +70°C
20ms/10ms	20ms/10ms	15ms/8ms	15ms/8ms	15ms/8ms	25ms/25ms
10,000,000	10,000,000	10,000,000	10,000,000		10,000,000
100,000	100,000	100,000	100,000		100,000
					
PCB	PCB	PCB	PCB	PCB	PCB & Quick Connects
UL,cUL,CQC,TÜV	UL,cUL	UL,cUL	UL,cUL	UL,cUL	UL,cUL,CQC
SCHRACK:RT FUJITSU:FTR-F1/VSB ZETTLER:AZ742/763/764 FEME-M25 OEN58 2 C/O	NO OEN EQUIVALENT	SONGCHUAN:881/888 TYCO:RT114	SONGCHUAN:881/888 TYCO:RT424	SONGCHUAN:881/888 TYCO:RT314	OMRON:MY2/3 NAIS:HC OEG:SRE SCHRACK:ZT

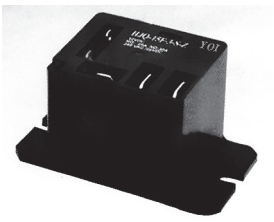
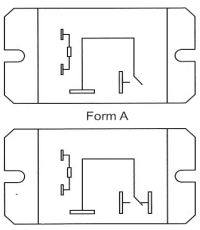
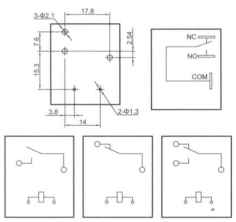
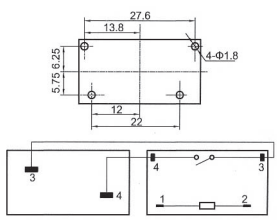
ITP-YOI Relays

Classification	Power Relay			
Type	**TRA5**	**TRGB**	**TRCD**	**HJQ-13F-1C**
Appearance				
Outline L*W*H (mm)	24.4x12.9x24.8	20.5x7.2x15.6	23x16.1x10.2	28x21.5x35
Features	• 2 form A contact arrangements • Immersion cleanable, sealed version available • Meet 4,000V dielectric voltage between coil and contacts • Meet 5,000V surge voltage between coil and contacts(1.2/50ms)	• Max. switching current 5A • Surge strength 7KV	• Low profile(10mm), 15Amp switching capacity. • 1 Form A contact arrangement. • Sensitive 200mW coil (250mW on 48VDC coil). • Immersion cleanable, sealed version available.	• 16A transfer contacts • Different dust-proof cover, different layout
Contact Rating				
Contact Form	2H	1H	1H	1Z
Contact Material	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
Max. Operating Current	5A	5A	16A	20A
Minimum Load	100mA 5VDC	10mA 5VDC	100mA 5VDC	100mA 5VDC
Max. Operating Voltage	250VAC/30VDC	277VAC/30VDC	250VAC/125VDC	250VAC/30VDC
Max. Operating Power	1250VA/150W	831VA/90W	4000VA/480W	4000VA/480W
Rated Load (Resistive Load)	3A@ 120VAC(TV-3) 5A 250VAC 5A 30VDC	5A 250VAC 5A 28VDC	16A 250VAC 10A250VAC/24VDC 1/2HP 125VAC 1HP277VAC TV-5A@125VAC	16A 240VAC 16A 30VDC
Contact Resistance(mΩ) (at 6VDC 1A)	100	100	100	100
Coil Ratings				
Rated Voltage	3-48VDC	5-24VDC	3-48VDC	5-110VDC, 6-240VAC
Nominal Operating Power	250/540mW	200mW	200/360/450mW	900mW/1.2VA
General Data				
Insulation Resistance(MΩ) (at 500 VDC)	100	1000	100	100
Dielectric Strength Between Contacts Between Coil and Contacts	1000VAC 4000VAC	750VAC 4000VAC	750VAC 2500VAC	1000VAC 1500VAC
Ambient Temperature (°C)	-40 to +70°C	-40 to +70°C	-40 to +85°C	-40 to +70°C
Operate/Release Time	20ms/10ms	10ms/10ms	15ms/8ms	25ms/25ms
Mechanical Life(Min)	10,000,000	10,000,000	10,000,000	10,000,000
Electrical Life(Min)	100,000	100,000	100,000	100,000
Layout (Bottom View)				
Terminal Type	PCB			PCB & Quick Connects
Approved Standards	UL,cUL, CQC, TüV	UL,cUL,CQC,TÜV	UL,cUL,CQC,TÜV	UL,cUL,CQC,TÜV
Cross-Reference	OEG:OSA/PCI	OMRON-G5NB/G5T NAIS:LD FUJITSU:FTR-F3	OEG:PCD	OMRON-LY1 NAIS:HL OEG:SRET SCHRACK:TM/K10

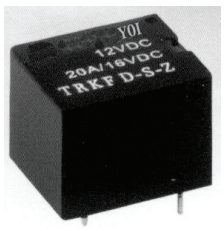
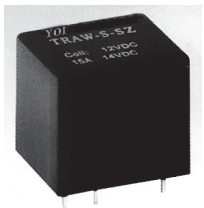
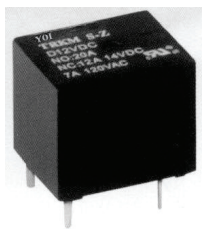
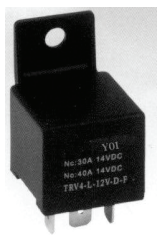
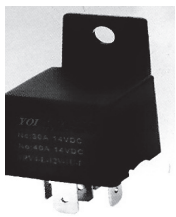
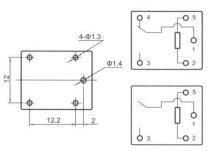
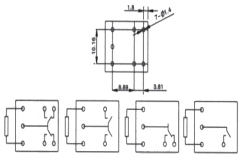
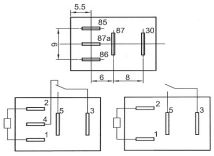
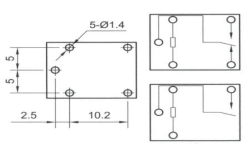
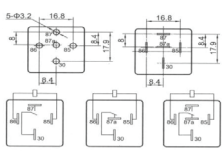
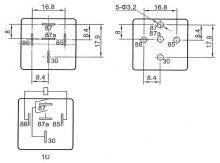
Power Relay

HJQ-13F-2C	HJQ-22F (18F)	HJQ-22F-4	HJQ-15F	HJQ-15F-1	HJQ-15F-2
					
28x21.5x35	28x21.5x35	28x21.5x35	32x27.4x19.3	32x27.4x27.8	32x27.4x19.3
• 10A transfer contacts • Different dust-proof cover, different layout	• 1.2 to 3 pole configuration	• 4 pole configurations • Au-clad contact available	• High power&low cost • 30A switching capability • Less than 1W coil power • Open type available • Class B/F available	• QC&PC terminals • High dielectric strength 3,000VAC • Optional flanged case for panel mounting • Class B/F available	• QC&PC terminals • High dielectric strength 3,000VAC • Optional flanged case for panel mounting • Class B/F available
2Z	2Z, 3Z	4Z	1H,1D,1Z	1H,1D,1Z	1H,1D,1Z
Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
10A	7A	5A	30A	30A	30A
100mA 5VDC	100mA 5VDC	100mA 5VDC	500mA 5VDC	500mA 5VDC	500mA 5VDC
250VAC/30VDC	240VAC/30VDC	240VAC/28VDC	250VAC/30VDC	250VAC/30VDC	250VAC/30VDC
2500VA/300W	1680VA/210W	1200VA/140W	7200VA/560W	7200VA/560W	6000VA/560W
10A 240VAC 10A 30VDC 15A 125VAC	7A 240VAC 7A 30VDC 5A 240VAC	5A 240VAC 5A 28VDC	1H:25A(30A)240VAC/20A 28VDC 1D:15A 240VAC/10A 28VDC 1Z:20A/10A 240VAC/28VDC	1H:25A(30A)240VAC/20A 28VDC 1D:15A 240VAC/10A 28VDC 1Z:20A/10A 240VAC/28VDC	1H:25A(30A)240VAC/20A 28VDC 1D:15A 240VAC/10A 28VDC 1Z:20A/10A 240VAC/28VDC
100	100	100	100	100	100
5-110VDC, 6-240VAC	5-110VDC, 6-240VAC	5-110VDC, 6-240VAC	5-110VDC	5-110VDC	5-48VDC
900mW/1.2VA	900mW/1.2VA	900mW/1.2VA	930mW	930mW	930mW
100	100	100	100	100	100
1000VAC	1000VAC	1000VAC	1500VAC	1500VAC	1500VAC
1500VAC	1500VAC	1500VAC	1500VAC	1500VAC	1500VAC
-40 to +70°C	-40 to +70°C	-40 to +70°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
25ms/25ms	25ms/25ms	25ms/25ms	15ms/10ms	15ms/10ms	15ms/10ms
10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
100,000	100,000	100,000	100,000	100,000	100,000
					
PCB & Quick Connects	PCB & Quick Connects	PCB & Quick Connects	PCB	PCB & Quick Connects	PCB & Quick Connects
UL,cUL,CQC,TÜV	UL,cUL,CQC	UL,cUL,CQC	UL,cUL,TÜV,CQC	UL,cUL,TÜV,CQC	UL,cUL,TÜV,CQC
OMRON-LY2 NAIS:HL OEG:SRET SCHRACK:TM/K10 OEN-38 SERIES	OMRON:MY2/3 NAIS:HC OEG:SRE SCHRACK:ZT	OMRON:MY4 NAIS:HC OEG:SRE SCHRACK:ZT OEN-37	OMRON:G8P NAIS:JT OEG:ORU P&B:T90/T9A OEN-62	OMRON:G7G/G8P NAIS:JT OEG:ORU P&B:T90/T9A OEN-63	OMRON:G7G/G8P NAIS:JT OEG:ORU P&B:T90/T9A OEN-63

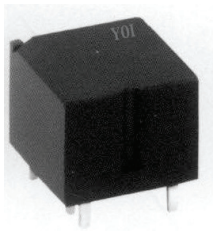
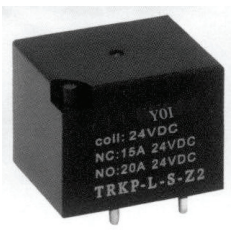
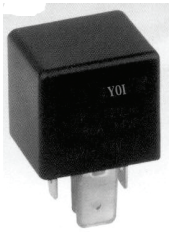
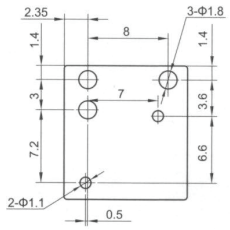
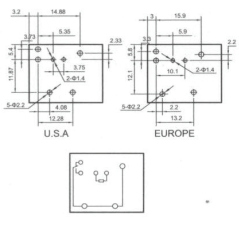
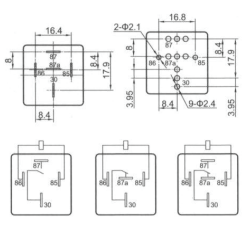
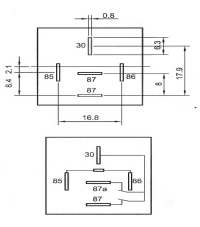
ITP-YOI Relays

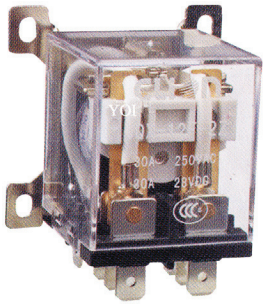
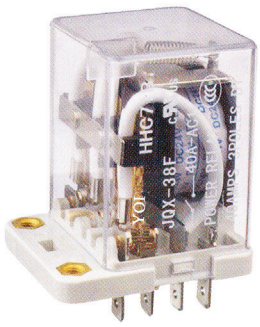
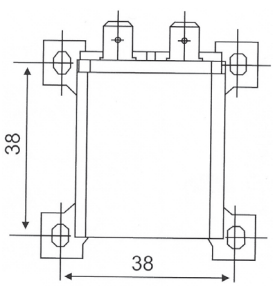
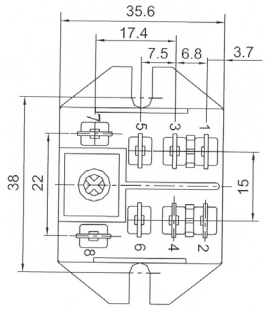
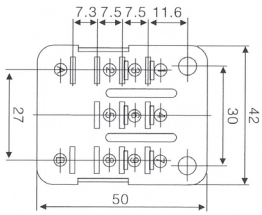
Classification	Power Relay		
Type	**HJQ-15F-3**	**NT-90**	**TRAF**
Appearance			
Outline L*W*H (mm)	32.4x27.8x28	32.4x2.5x20	30.5x16.0x23.5
Features	• QC&PC terminals • High dielectric strength 3,000VAC • Optional flanged case for panel mounting	Small size, light weight. Low coil power consumption, heavy contact load, strong anti shock and anti vibration, high reliability, long life. Suitable for automobile, machine, electronic equipment, A.C., Inverters and Stabilizers.	• Ideal for motor switching in appliances and HVAC • 20A switching capability • Designed for high inrush compressor loads • Semi-sealed construction • Sealed version available
Contact Rating			
Contact Form	1H,1D,1Z	1A 1Z	1H
Contact Material	Silver Alloy	AgCdO, AgSnO	Silver Alloy
Max. Operating Current	30A	40A	20A
Minimum Load	500mA 5VDC		100mA 5VDC
Max. Operating Voltage	250VAC/30VDC	250VAC/30VDC	250VAC
Max. Operating Power	6000VA/560W	200VA/1100W	5000VA
Rated Load (Resistive Load)	1H:25A(30A)240VAC/20A 28VDC 1D:15A 240VAC/10A 28VDC 1Z:20A/10A 240VAC/28VDC	NO-40A/NC-30A, 250VAC/30VDC	20A 250VAC
Contact Resistance(mΩ) (at 6VDC 1A)	100	<30	100
Coil Ratings			
Rated Voltage	5-48VDC	3-110VDC	5-48VDC
Nominal Operating Power	930mW	0.9W	900mW
General Data			
Insulation Resistance(MΩ) (at 500 VDC)	100	1000	100
Dielectric Strength Between Contacts Between Coil and Contacts	1500VAC 1500VAC	50Hz 1500V 50Hz 2500V	1500VAC 4500VAC
Ambient Temperature (°C)	-40 to +70°C	-55 to +100	-25 to +55°C
Operate/Release Time	15ms/10ms	15ms / 10ms	20ms/10ms
Mechanical Life(Min)	10,000,000	10,000,000	10,000,000
Electrical Life(Min)	100,000	100,000	100,000
Layout (Bottom View)			
Terminal Type	PCB & Quick Connects	PCB	PCB & Quick Connects
Approved Standards	UL, cUL		UL,cUL,TÜV,CQC
Cross-Reference	OMRON:G7G/G8P NAIS:JT OEG:ORU P&B:T90/T9A		OMRON:G4A GOOD SKY:GQF ZETTLER:AZ760

Automotive Relay

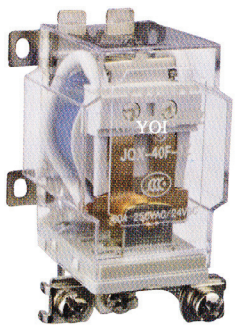
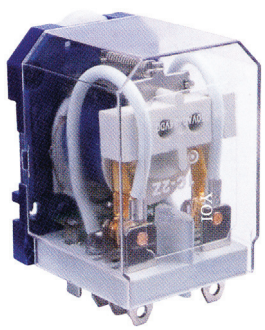
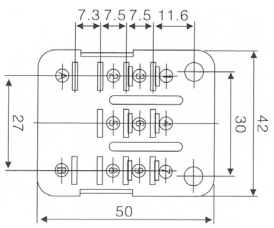
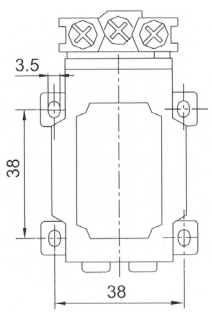
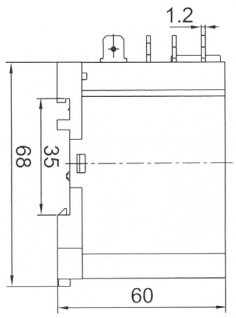
TRKF	TRAW	TRFM	TRKM	TRV4	TRV4-1U
					
19.2x15.5x15.5	18x15.5x20	23x15.5x26	15.7x12.3x14.0	28x28x25 28x31.8x41	28x28x25 28x31.8x41
• 15A switching capability • Small footprint • Sealed type available	• Max. switching current 20A • 10A continuous rating 85°C • Different contact form available • Open or sealed cover available	• Max. switching current 25A • Different terminals available	• 20A switching capability • Small size auto relay	• 40A continuous rating 85°C • 1A&1C arrangements • Plug-in or PC board terminals • Optional mounting bracket	• 40A continuous rating 85°C • 1A&1C arrangements • Plug-in or PC board terminals • Optional mounting bracket
1H,1Z	1H,1Z,SH,SZ	1H,1Z	1H,1D,1Z	1H, 1Z, 1D	1U
Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
20A	20A	25A	25A	40A	40A
16VDC	75VDC	24VDC	16VDC	30VDC	30VDC
280W	200W	350W	840VA/280W	560W	560W
1Z:15A 14VDC 1H:20A 14VDC	1H,1Z:10A14VDC SH,SZ:15A14VDC	1H:25A 14VDC 1Z:20A 14VDC	NO:20A 14VDC NC:12A 14VDC 1Z:7A 120VAC	NO:40A 14VDC NC:30A 14VDC	2*20A /14VDC
100	100	50	100	100	100
9-24VDC	6-24VDC	6-24VDC	6-24VDC	3-24 VDC	3-24VDC
640/800mW	1100mW	1600mW	600/800mW	1600/1900mW	1600/1900mW
100	100	100	100	100	100
500VAC 1500VAC	550VAC 500VAC	500VAC 1000VAC	500VAC 500VAC	500VAC 750VAC	500VAC 750VAC
-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
15ms/10ms	5ms/3ms	10ms/10ms	10ms/5ms	10ms/10ms	10ms/10ms
10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
100,000	100,000	100,000	100,000	100,000	100,000
					
PCB	PCB	Quick Connects	PCB	PCB & Quick Connects	PCB & Quick Connects
			UL,cUL		
OMRON:G5LC FUJITSU:FBR161-H NAIS:JS ZETTLER:AZ943 P&B:T7N	OEG:OARW P&B:VKM TYCO:V23072/-C1 ZETTLER:AZ975/976	TYCO:VFM	OMRON:R-501 FUJITSU:FBR51	P&B:VF4 NAIS:CB OEG:VF4 ZETTLER:AZ972/973 OEN-531	P&B:VF4 NAIS:CB OEG:VF4 ZETTLER:AZ972/973

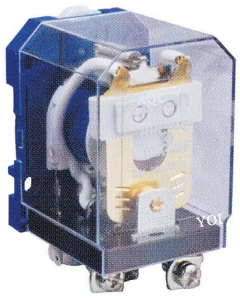
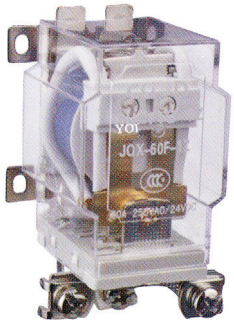
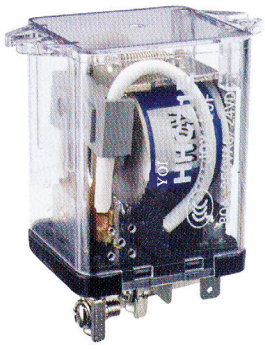
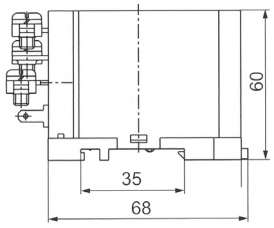
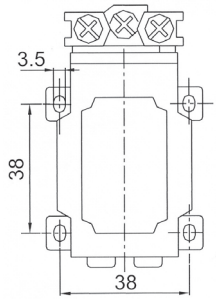
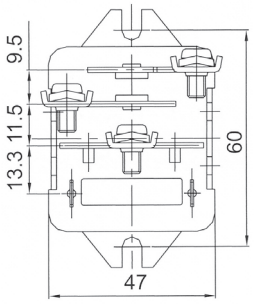
ITP-YOI Relays

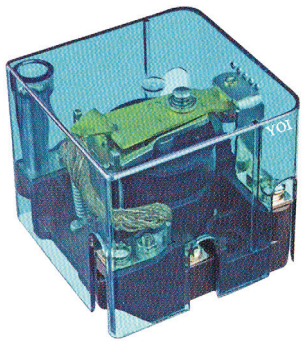
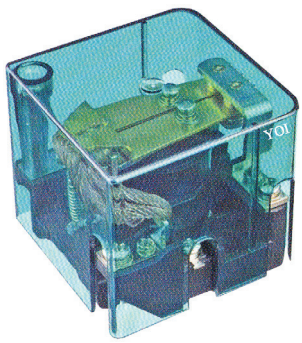
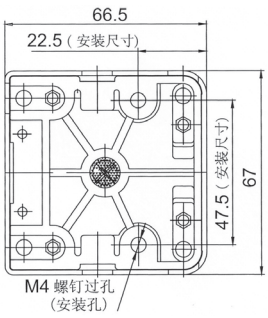
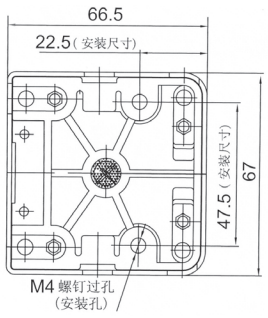
Classification	Automotive Relay			
Type	**TRS**	**TRKP**	**TRV6**	**TRV6-1U**
Appearance				
Outline L*W*H (mm)	13.2x12.3x9.8	26.2x21.0x21.0	28.6x28.6x26.5 28.6x28.6x42.5	28.6x28.6x26.5 28.6x28.6x42.5
Features	•30A 16VDC switching rating • 40A inrush at 16VDC • Smallest power relay • 1 Form A and 1 Form C arrangements in single and dual relay packages • For Automotive Applications	• 40A continuous rating 85°C • PC board terminals • Inrush current 100A • Open & sealed version available	• 80A continuous rating 85°C • 1A, 1B&1C arrangements • Plug-in or PC board terminals • Optional mounting bracket	• 80A continuous rating 85°C • 1U arrangements • Plug-in or PC board terminals • Optional mounting bracket
Contact Rating				
Contact Form	1H,1Z	1H, 1Z	1H,1D,1Z	1U
Contact Material	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
Max. Operating Current	40A	40A	50A 80A	40A
Minimum Load	0.5A 12VDC		0.5A 12VDC	0.5A 12VDC
Max. Operating Voltage		60VDC	75VDC	75VDC
Max. Operating Power	420W	560W	980W	700W
Rated Load (Resistive Load)	Res: NC/NO 20A/30A 14VDC	NO:40A 14VDC NC:30A 14VDC	NO:50A 14VDC NO:80A 14VDC NC:40A 14VDC NC:60A 14VDC	2*25A /14VDC
Contact Resistance(mΩ) (at 6VDC 1A)	100	100	100	100
Coil Ratings				
Rated Voltage	12VDC	3-24 VDC	6-24VDC	6-24VDC
Nominal Operating Power	570/800mW	1200/1600/1900mW	1800mW	1800mW
General Data				
Insulation Resistance(MΩ) (at 500 VDC)	100	100	100	100
Dielectric Strength Between Contacts Between Coil and Contacts	500VAC 500VAC	500VAC 500VAC	500VAC 500VAC	500VAC 500VAC
Ambient Temperature (°C)	-40 to +105°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
Operate/Release Time	4ms/2ms	5ms/4ms	7ms/5ms	7ms/5ms
Mechanical Life(Min)	10,000,000	10,000,000	10,000,000	10,000,000
Electrical Life(Min)	100,000@20A/14VDC on NO	100,000	100,000	100,000
Layout (Bottom View)				
Terminal Type	PCB	PCB	PCB & Quick Connects	PCB & Quick Connects
Approved Standards				
Cross-Reference	TYCO:V23086 SONGCHUAN:102	P&B:VKP TYCO:V23076 ZETTLER:AZ970/971	ZETTLER:AZ979/980	ZETTLER:AZ979/980

Classification		High Current Relay		
Model		**JQX–12F**	**JQX–30F**	**JQX–38F**
Appearance				
Dimension(mm)		48 x 45.8 x 38.5	43 x 35.5 x 48	55.5 x 30 x 37.5
Contact	Contact form	1Z, 1H, 1D, 2Z, 2H, 2D	1Z, 1H, 1D, 2Z, 2H, 2D	2Z, 2H, 2D, 3Z, 3H, 3D
	Rated load	30A	30A	40A, 50A
	Max switching voltage	240VAC/28VDC	240VAC/28VDC	240VAC/28VDC
	Contact resistance	≤100m Ω	≤100m Ω	≤100m Ω
	Material	Silver Alloy	Silver Alloy	Silver Alloy
	Electrical life	$\geq 10^5$	$\geq 10^5$	$\geq 10^5$
	Mechanical life	$\geq 10^7$	$\geq 10^7$	$\geq 10^7$
Nominal voltage	(DC)	DC6V ~ 220V	DC6V ~ 220V	DC6V ~ 220V
	(AC)	AC6V ~ 380V	AC6V ~ 380V	AC6V ~ 380V
Coil power		DC:2.0W, AC:4VA	DC:2.0W, AC:4VA	DC:2.5W, AC:6VA
Operate time		≤25ms	≤25ms	≤25ms
Release time		≤15ms	≤15ms	≤15ms
Dielectric strength	Between contacts	1000VAC/1min (1mA)	1000VAC/1min (1mA)	1500VAC/1min (1mA)
	Between contacts and coil	2000VAC/1min(1mA)	2000VAC/1min(1mA)	2500VAC/1min(1mA)
Insulation resistance		≥100M Ω (500VDC)	≥100M Ω (500VDC)	≥200M Ω (500VDC)
Ambient temperature		–25 ~ +55°C	–25 ~ +55°C	–25 ~ +55°C
Install model				
Mounting holes(mm)				

ITP-YOI Relays

Classification		High Current Relay		
Model		**JQX–38F**	**JQX–40F–1Z**	**JQX–40F–2Z**
Appearance				
Dimension(mm)		55.5 x 30 x 37.5	60 x 46 x 46	68 x 47 x 60
Contact	Contact form	2Z, 2H, 2D, 3Z, 3H, 3D	1Z, 1H, 1D	2Z, 2H, 2D
	Rated load	40A, 50A	50A	40A
	Max switching voltage	240VAC/28VDC	240VAC/28VDC	240VAC/28VDC
	Contact resistance	≤100m Ω	≤100m Ω	≤100m Ω
	Material	Silver Alloy	Silver Alloy	Silver Alloy
	Electrical life	$\geq 10^5$	$\geq 10^5$	$\geq 10^5$
	Mechanical life	$\geq 10^7$	$\geq 10^7$	$\geq 10^7$
Nominal voltage	(DC)	DC6V ~ 220V	DC6V ~ 220V	DC6V ~ 220V
	(AC)	AC6V ~ 380V	AC6V ~ 380V	AC6V ~ 380V
Coil power		DC:2.5W, AC:6VA	DC:2.0W, AC:8.6VA	DC:2.0W, AC:8.6VA
Operate time		≤25ms	≤25ms	≤25ms
Release time		≤15ms	≤15ms	≤15ms
Dielectric strength	Between contacts	1500VAC/1min (1mA)	1500VAC/1min (1mA)	1500VAC/1min (1mA)
	Between contacts and coil	2500VAC/1min(1mA)	2500VAC/1min(1mA)	2500VAC/1min(1mA)
Insulation resistance		≥200M Ω (500VDC)	≥200M Ω (500VDC)	≥200M Ω (500VDC)
Ambient temperature		–25 ~ +55°C	–25 ~ +55°C	–25 ~ +55°C
Install model				
Mounting holes(mm)				

Classification		High Current Relay		
Model		**JQX–58F**	**JQX–60F**	**JQX–59F–1Z**
Appearance				
Dimension(mm)		68 x 47 x 60	60.2 x 45 x 46	66.5 x 47 x 72
Contact	Contact form	1Z, 1H, 1D	1Z, 1H, 1D	1Z, 1H, 1D
	Rated load	60A	60A	80A
	Max switching voltage	240VAC/28VDC	240VAC/30VDC	240VAC/30VDC
	Contact resistance	≤100m Ω	≤100m Ω	≤100m Ω
	Material	Silver Alloy	Silver Alloy	Silver Alloy
	Electrical life	$\geq 10^5$	$\geq 10^5$	$\geq 10^5$
	Mechanical life	$\geq 10^7$	$\geq 10^7$	$\geq 10^7$
Nominal voltage	(DC)	DC6V ~ 220V	DC6V ~ 220V	DC6V ~ 220V
	(AC)	AC6V ~ 380V	AC6V ~ 380V	AC6V ~ 380V
Coil power		DC:2.0W, AC:8.6VA	DC:2.0W, AC:8.6VA	DC:3.6W, AC:10.5VA
Operate time		≤25ms	≤25ms	≤25ms
Release time		≤15ms	≤15ms	≤15ms
Dielectric strength	Between contacts	1500VAC/1min (1mA)	1500VAC/1min (1mA)	1500VAC/1min (1mA)
	Between contacts and coil	2500VAC/1min(1mA)	2500VAC/1min(1mA)	2500VAC/1min(1mA)
Insulation resistance		≥200M Ω (500VDC)	≥200M Ω (500VDC)	≥200M Ω (500VDC)
Ambient temperature		–25 ~ +55°C	–25 ~ +55°C	–25 ~ +55°C
Install model				
Mounting holes(mm)				

Classification			High Current Relay	
Model			JQX–62F–1Z	JQX–62FS
Appearance				
Dimension(mm)			67 x 67 x 60.5	67 x 67 x 60.5
Contact	Contact form		1Z, 1H, 1D	1Z, 1H, 1D
	Rated load		100A	120A
	Max switching voltage		240VAC/28VDC	240VAC/28VDC
	Contact resistance		≤100m Ω	≤100m Ω
	Material		Silver Alloy	Silver Alloy
	Electrical life		$\geq 10^5$	$\geq 10^5$
	Mechanical life		$\geq 10^7$	$\geq 10^7$
Nominal voltage		(DC)	DC6V ~ 220V	DC6V ~ 220V
		(AC)	AC6V ~ 380V	AC6V ~ 380V
Coil power			DC:2.0W, AC:10VA	DC:2.0W, AC:10VA
Operate time			≤25ms	≤25ms
Release time			≤25ms	≤25ms
Dielectric strength	Between contacts		1500VAC/1min (1mA)	1500VAC/1min (1mA)
	Between contacts and coil		2500VAC/1min(1mA)	2500VAC/1min(1mA)
Insulation resistance			≥200M Ω (500VDC)	≥200M Ω (500VDC)
Ambient temperature			–25 ~ +55°C	–25 ~ +55°C
Install model				
Mounting holes(mm)				

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