

Mechanical Relay

Offering the global standard in safety.

Meeting our customers' every need with numerous variations.



Smart Building



Factory Automation

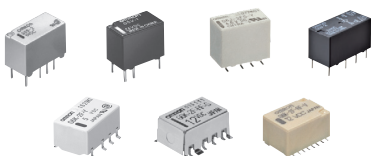


Energy

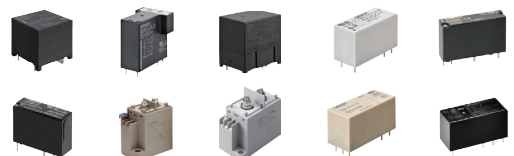
Mechanical Relay Selection Guide



Signal relay

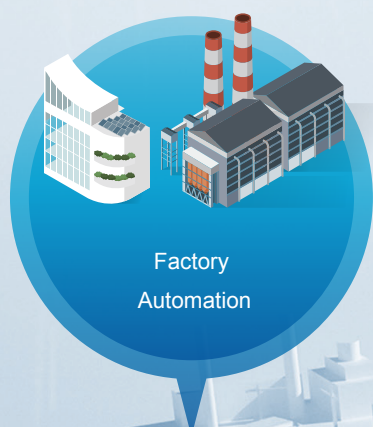


Power relay

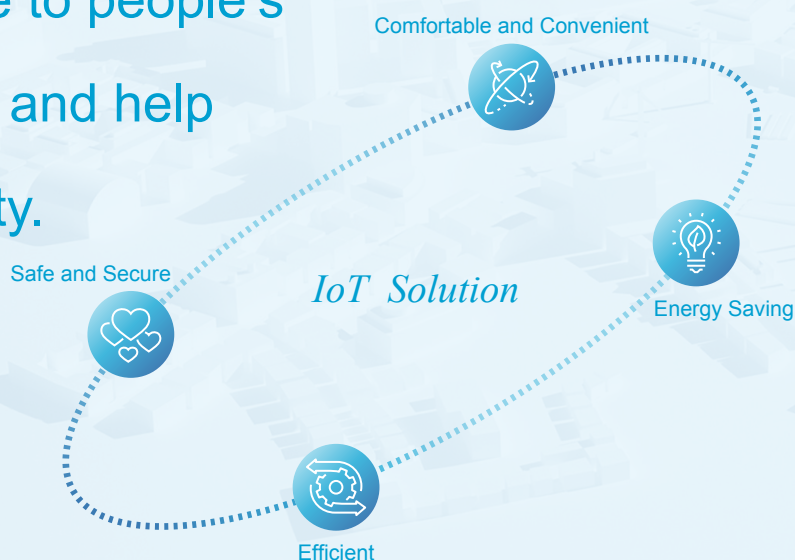


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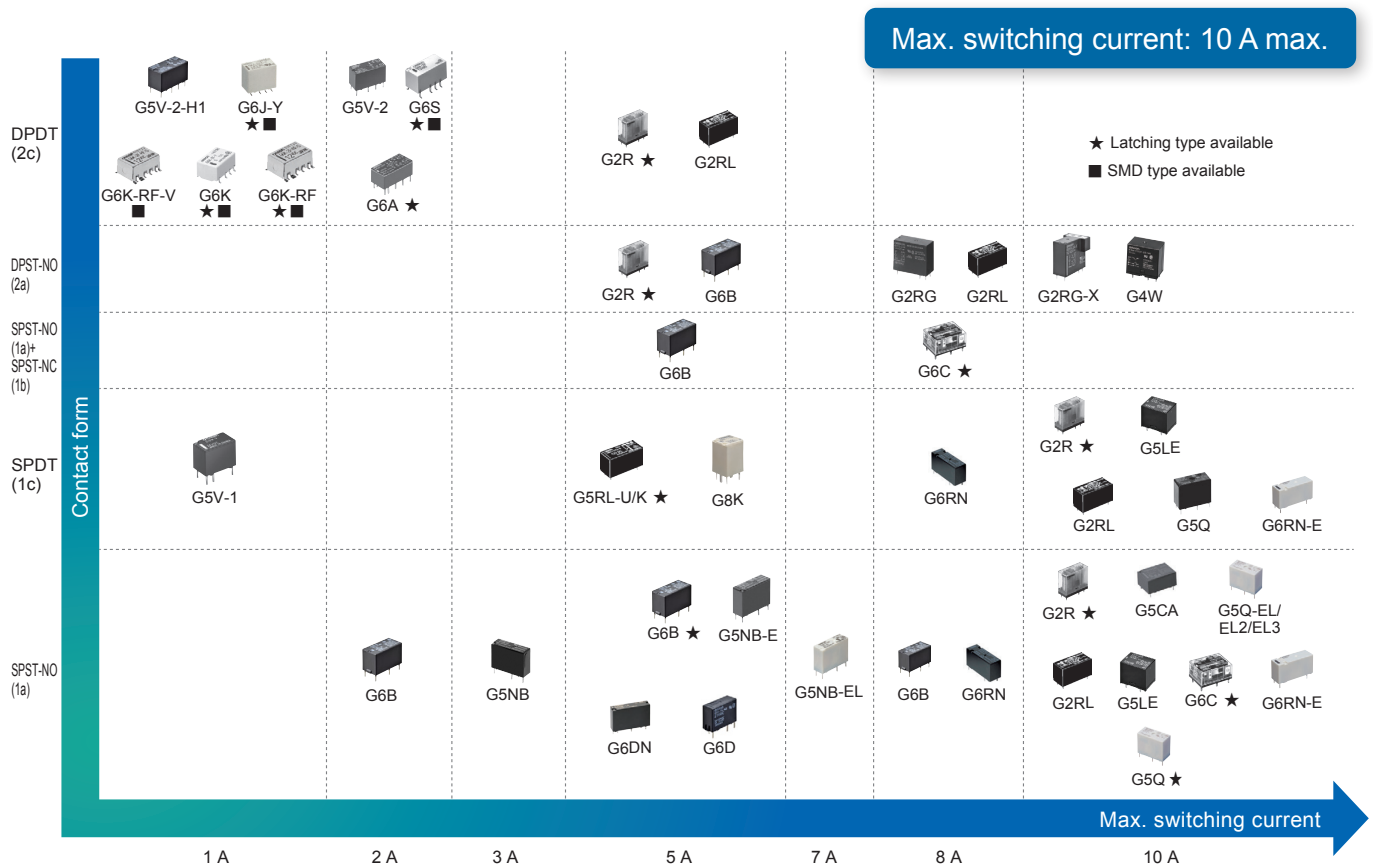
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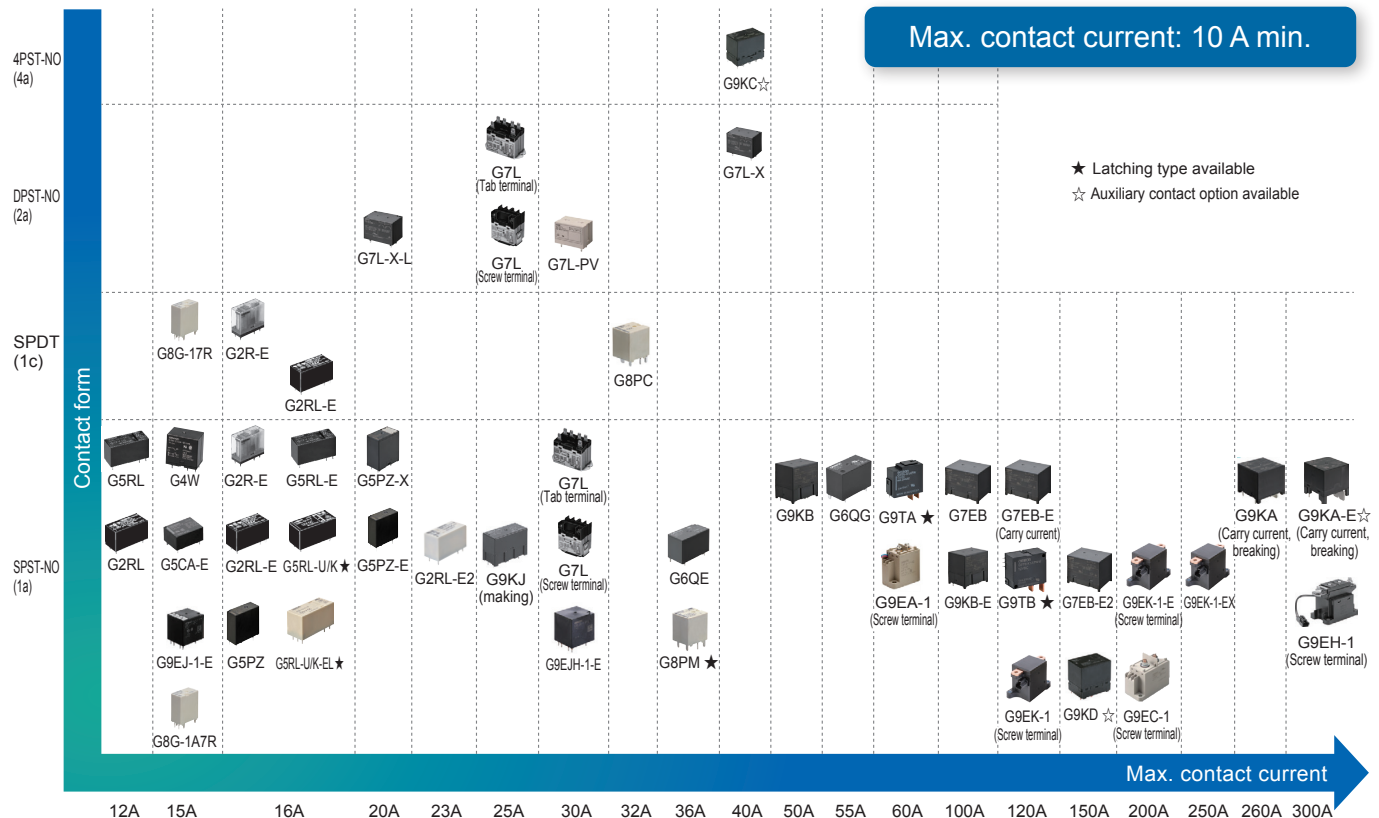
OMRON relays contribute to people's
lives in various scenarios and help
build a comfortable society.



Available in a wide range of contact forms and switching capacities to meet diverse customer needs.



Note.1 The max. switching current may differ depending on the DC rating and b contact variations. Refer to the datasheet for details.



Note.1 The Max. contact current may differ depending on the DC rating and b contact variations. Refer to the datasheet for details.

Selection Chart

Classification	Max. switching current	Recommended Products	
Signal relay	2 A max. AC/DC	Miniature 1-pole  G5V-1 Switching range: 1 mA - 1 A	Miniature 2-pole ★ G6J-Y  Switching range: 10 μ A - 1 A Suitable for high-density mounting G5V-2  Switching range: 10 μ A - 2 A
		1-pole G5NB Max. switching current: 5 A Explosion proof, PWM control Impulse withstand voltage: 10 kV  G5Q Max. switching current: 3 A, 10 A Glow wire, PWM control Miniature, 1c contact  ★ G5RL-U/K Max. switching current: 5 A, 16 A Impulse withstand voltage: 10 kV 	2-pole G8K2 Max. switching current: 5 A DC motor load 25 A switching, small mounting area  G2RL Max. switching current: 12 A, 16 A High sensitivity, explosion proof, PWM control  G6DN Max. switching current: 5 A Explosion proof, High contact reliability, low power consumption  G5RL Max. switching current: 12 A, 16 A Low noise, inrush current resistance  G8K1 Max. switching current: 5 A DC motor load 25 A switching, small mounting area 
Power relay	30-300 A AC/DC	DC High Capacity G8G Max. switching current: 15 A Max. inrush current (Lamp load): 84 A DC motor load small mounting area, high capacity  ★ G8PM Max. switching current: 40 A Max. inrush current (Motor load): 150 A DC motor load miniature, high capacity 	AC High Capacity G7L-PV Max. switching current: 30 A, 2-pole for PV inverter, low power consumption  G8PC Max. switching current 32A, Three-phase 22kW for OBC, compact high capacity  G6QE Max. switching current: 36 A, 1-pole Low power consumption 
		DC High Voltage G9EJ-1-E Max. switching current: 15 A for inrush prevention circuit  G9EJH-1-E Max. switching current: 30A (inrush only), 800 VDC specialized for pre-charging applications  G9EK-1 Max. switching current: 120A, Breaking 500 A at 400 VDC max. Enables bi-directional switching 	G9EA-1 Max. switching current: 60 A, 100 A Gas injected, hermetically sealed structure, high contact reliability  G9EK-1-E Max. switching current: 200A, Breaking 1,000 A at 400 VDC max. Enables bi-directional switching  G9EK-1-EX Max. switching current: 250A, Breaking 1,000 A at 400 VDC max. Enables bi-directional switching  G9EC-1 Max. switching current: 200 A Gas injected, hermetically sealed structure, high contact reliability  G9EC-X1 Max. switching current: 200 A Supports contact voltage of 1,000 V  G9EH-1 Max. switching current: 300 A Gas injected, hermetically sealed structure, high contact reliability 
	10-300 A (200 VDC or above) DC High Voltage		

★ Latching type available
 Light blue frame: 2-pole type
 Green frame: 4-pole type

and Features

★ G6K



Switching range: 10 μ A - 1 A
 Low power consumption
 of just 100 mW

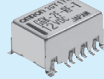
★ G6S



Switching range: 10 μ A - 2 A
 Global standard

High frequency 2-pole

★ G6K-RF(-S,-T)



High frequency (1 GHz / 3 GHz band)
 RF/LVDS signal switching

G6K-RF-V

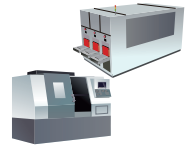


High frequency (8 GHz band)
 RF/LVDS signal switching

Main Applications



Building
Automation



Factory
Automation



ATE
Inspection
Device



G2RL

Max. switching current: 5 A
 Explosion proof,
 PWM control



G5PZ

Max. switching current: 16 A, 20 A
 Low power consumption, impulse
 withstand voltage: 10 kV
 Sealed type, explosion-proof

For specific loads 1-pole



G5Q-EL/★-HR

Max. switching current 10A,
 inrush resistance (TV3/TV8)
 long service life,
 Ignition resistance, latching



★ G5RL-U/K-EL

Max. switching current: 16 A
 Inrush resistance,
 illumination load
 Ignition resistance



G5NB-EL

Max. switching current
 AC: 7 A, DC: 5 A
 Explosion proof, Ignition
 resistance, long service life



G2RL-E2

Max. switching current: 23 A
 High capacity, Ignition
 resistance
 Long service life,
 impulse withstand
 voltage: 10 kV



Household
Appliance



Building
Automation



G6QG

Max. switching
 current 55A,
 1-pole,
 low power
 consumption



G7EB/G7EB-E/ G7EB-E2

Max contact
 current: 100A/120A
 (Carry)/150A,
 Low contact
 resistance,
 DC switching
 available



G9TA

Max. switching
 current: 60 A,
 1-Pole
 Compact high
 capacity
 Latching relay
 Low power
 consumption



G9TB

Max. switching
 current: 120 A,
 1-Pole
 Compact high
 capacity
 Latching relay
 Low power
 consumption



G9KA

Max. switching
 current: 260 A,
 1-pole
 Low-contact
 resistance,
 low heat
 generation



G9KA-E

Max. switching
 current: 300 A,
 1-pole
 Low-contact
 resistance,
 low heat
 generation

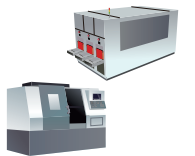


G9KC

Max. switching
 current 40A
 (Main contact),
 4-pole,
 Low contact
 resistance,
 low heat generation,
 480VAC (Main contact)



Environment
and Energy



Factory
Automation

G7L-X

Max. switching current: 40 A
 Load switching at 1,000 VDC
 Bi-directional switching at 600 VDC
 Low-contact resistance type available,
 low power consumption



G2RG-X

Max. switching current: 10 A
 500 VDC 10 A switching,
 impulse withstand voltage,
 High impulse withstand voltage

G5PZ-X

Max. switching current: 20 A
 Enables bi-directional switching
 at 200 VDC, 20 A and 400 VDC,
 20 A (2-contact series connection)



G9KB/G9KB-E

Max. switching current: 50 A/100 A
 600 VDC, 50 A/800 VDC, 100 A *
 * 100 A switching up to a maximum of 600 VDC

G9KJ

Max. switching current: 25 A (making)
 Optimal for pre-charging and high sensitivity
 1,500 VDC, making 25 A, carrying 5 A,
 breaking 0 A

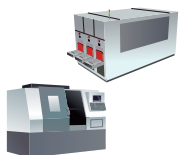


G9KD

Max. breaking current: 150 A
 Low-contact resistance 1,500 VDC, 150 A *
 * 150 A breaking up to a maximum of 1,000 VDC

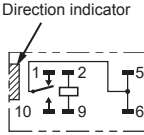
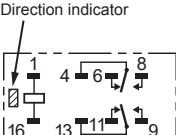
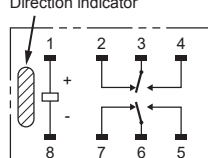
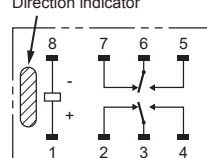


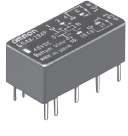
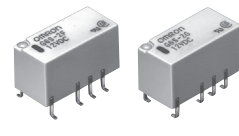
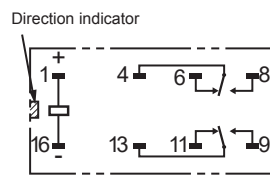
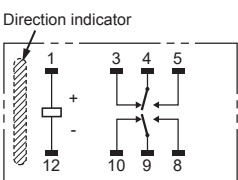
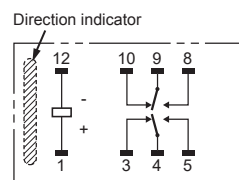
Environment
and Energy

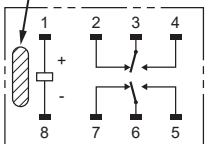
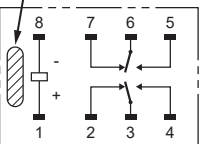


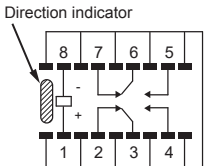
Factory
Automation

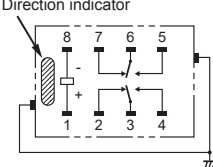
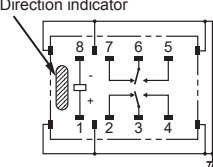
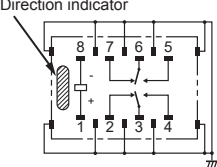
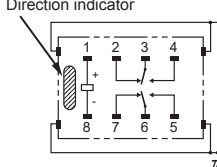
Signal Relay (2A max.) Main Specifications List

Model	G5V-1	G5V-2		G6J-Y	
Outline dimensions		G5V-2	G5V-2-H1	G6J-2P-Y	G6J-2F(S,L)-Y
		Standard type	High sensitivity type	PCB terminal	Surface mounting terminal
					
Shape (max. value mm) Length (L) × Width (W) × Height (H)	12.5 × 7.5 × 10	20.5 × 10.1 × 11.5		10.9 × 6 × 9.3	10.9 × 6 × 10
Features	General purpose 1-pole signal relay	General purpose 2-pole signal relay		Subminiature, ultra-thin surface-mounting 2-pole signal relay	
Contact	Contact form	SPDT(1c)		DPDT(2c)	
	Contact type	Single crossbar		Bifurcated crossbar	
	Rated load	Resistive load	100,000 operations min. at 125 VAC, 0.5 A 100,000 operations min. at 24 VDC, 1 A	100,000 operations min. at 125 VAC, 0.5 A 100,000 operations min. at 30 VDC, 2 A	100,000 operations min. at 125 VAC, 0.3 A 100,000 operations min. at 30 VDC, 1 A
		Inductive load COSφ=0.4 L/R=7 ms	—	—	—
	Max. switching current	1 A		1 A	
Coil	Failure rate P level (reference value)	DC5V 1 mA		DC10 mV 10 μA	
	Rated voltage	3 to 24 VDC		3 to 24 VDC	
	Power consumption	Approx. 150 mW		Approx. 140 to 230 mW	
Mechanical durability	5,000,000 operations min.		15,000,000 operations min.		50,000,000 operations min.
Terminal arrangement/ Internal connections	G5V-1		G5V-2		G6J-2P-Y
					
	(BOTTOM VIEW)		(BOTTOM VIEW)		(BOTTOM VIEW) (Check carefully the coil polarity of the Relay)
					
					(TOP VIEW) (Check carefully the coil polarity of the Relay)

Model	G6A	G6S	
Outline dimensions		G6S-2	G6S-2(F,G)
		PCB terminal	Surface mounting terminal
			
Shape (max. value mm) Length (L) × Width (W) × Height (H)	20.2 × 10.1 × 8.4	15 × 7.5 × 9.4	15 × 7.5 × 9.4
Features	General purpose 2-pole signal relay	Miniature, general purpose, high insulation, high capacity surface-mounting 2-pole signal relay	
Contact	Contact form	DPDT(2c)	
	Contact type	Bifurcated crossbar	
	Rated load	Resistive load	100,000 operations min. at 125 VAC, 0.5 A 100,000 operations min. at 30 VDC, 2 A
		Inductive load COSφ=0.4 L/R=7ms	—
	Max. switching current	2 A (resistive load)	
Coil	Failure rate P level (reference value)	DC10 mV 10 μA	
	Rated voltage	3 to 48 VDC	
	Power consumption	Approx. 200 mW to 400 mW	
Mechanical durability	100,000,000 operations min.		100,000,000 operations min.
Terminal arrangement/ Internal connections	G6A-274P		G6S-2
			
	(BOTTOM VIEW) (Check carefully the coil polarity of the Relay)		(BOTTOM VIEW) (Check carefully the coil polarity of the Relay)
			
			(TOP VIEW) (Check carefully the coil polarity of the Relay)

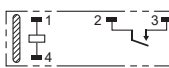
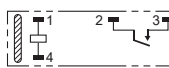
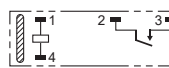
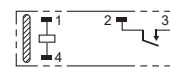
Model		G6K	
		G6K-2P G6K-2P-Y	G6K-2(F,G) G6K-2(F,G)-Y
		PCB terminal	Surface mounting terminal
Outline dimensions	Shape (max. value mm) Length (L) × Width (W) × Height (H)	 10.2 × 6.7 × 5.3	 Outside-L terminal: 10.2 × 6.7 × 5.4 Inside-L terminal: 10.2 × 6.7 × 5.6
Features		Subminiature, low power consumption, low profile surface-mounting 2-pole signal relay	
Contact	Contact form	DPDT(2c)	
	Contact type	Bifurcated crossbar	
	Rated load	100,000 operations min. at 125 VAC, 0.3 A 100,000 operations min. at 30 VDC, 1 A	
		—	
	Max. switching current	1 A	
Coil	Failure rate P level (reference value)	DC10 mV 10 µA	
	Rated voltage	3 to 24 VDC	
	Power consumption	Approx. 100 mW	
Mechanical durability		50,000,000 operations min.	
Terminal arrangement/ Internal connections		G6K-2P(-Y)  (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)	G6K-2(F,G)(-Y)  (TOP VIEW) (Check carefully the coil polarity of the Relay)

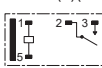
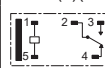
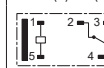
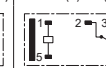
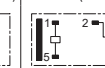
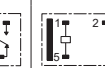
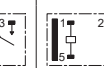
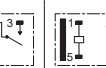
Model		G6K-2F-RF-V
Outline dimensions		 11.9 × 8.1 × 7.4
Features		High-speed differential transmission signal changeover 8 GHz range miniature high-frequency relay
Characteristic impedance		50 Ω (differential impedance 100 Ω)
High frequency characteristics	Isolation (same polarity)	15 dB min. at 8 GHz
	Isolation (different polarity)	15 dB min. at 8 GHz
	Insertion loss	Single ended characteristics: 4 dB max. at 8 GHz Differential transmission: 3 dB max. at 8 GHz
	V.SWR	3.57 max. at 8 GHz
Contact	Contact form	DPDT(2c)
	Contact type	Bifurcated crossbar
Coil	Rated load	100,000 operations min. at 125 VAC, 0.3 A 100,000 operations min. at 30 VDC, 1 A 1,000,000 operations min. at 10 VDC, 10 mA 100,000 operations min. at 8 GHz, 1 W* *Values for a V.SWR of 1.2 max. at the load
	Maximum switching power (high frequency)	1 W
Coil	Rated voltage	3 to 12 VDC
	Power consumption	Approx. 100 mW
Terminal arrangement/ Internal connections		G6K-2F-RF-V  (TOP VIEW) (Check carefully the coil polarity of the Relay)

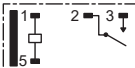
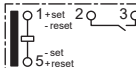
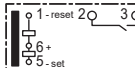
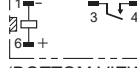
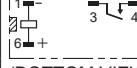
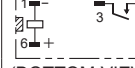
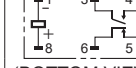
Model		G6K-RF			
		G6K(U)-2F-RF	G6K(U)-2F-RF-S	G6K(U)-2F-RF-T	G6K-2P-RF
		Surface mounting terminal	Surface mounting terminal	Surface mounting terminal	PCB terminal
Outline dimensions	Shape (max. value mm) Length (L) × Width (W) × Height (H)	 10.6 × 7.2 × 5.7	 11 × 7.2 × 5.7	 11 × 7.2 × 5.7	 13.6 × 7.2 × 5.5
Features		1 GHz range subminiature high-frequency relay	1 GHz range subminiature high-frequency relay (space-saving model)	3 GHz range subminiature high-frequency relay	1 GHz range subminiature high-frequency relay
Characteristic impedance		50 Ω			
High frequency characteristics	Isolation (same polarity)	20 dB min. at 1 GHz		20 dB min. at 1 GHz 18 dB min. at 3GHz	20 dB min. at 1 GHz
	Isolation (different polarity)	30 dB min. at 1 GHz		30 dB min. at 1 GHz 25 dB min. at 3GHz	30 dB min. at 1 GHz
	Insertion loss	0.2 dB max. at 1 GHz		0.2 dB max. at 1 GHz 0.6 dB max. at 3 GHz	0.2 dB max. at 1 GHz
	V.SWR	1.2 max. at 1 GHz		1.2 max. at 1 GHz 1.4 max. at 3 GHz	1.2 max. at 1 GHz
Contact	Contact form	DPDT(2c)			
	Contact type	Bifurcated crossbar			
	Rated load	100,000 operations min. at 125 VAC, 0.3 A 100,000 operations min. at 30 VDC, 1 A 100,000 operations min. at 1 GHz, 1 W* *Values for a V.SWR of 1.2 max. at the load			
Maximum switching power (high frequency)		1 W			
Coil	Rated voltage	3 to 24 VDC			
	Power consumption	Approx. 100 mW			
Terminal arrangement/ Internal connections		G6K-2F-RF  (TOP VIEW) (Check carefully the coil polarity of the Relay)	G6K-2F-RF-S  (TOP VIEW) (Check carefully the coil polarity of the Relay)	G6K-2F-RF-T  (TOP VIEW) (Check carefully the coil polarity of the Relay)	G6K-2P-RF  (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)

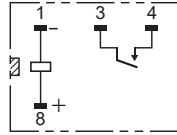
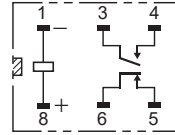
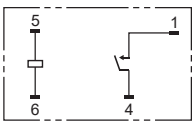
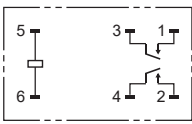
*Please check the data sheet for details.

Power Relay (3 to 25 A; AC/DC) Main Specifications List

Model			G5NB			
Outline dimensions			G5NB-1A(4)(-HA,-CF)	G5NB-1A(4)-E(-HA)	G5NB-1A(-HA,-CF)-PW	G5NB-1A(4)-EL-HA(-CF)
			Standard type	High capacity type	Holding voltage, PWM control compatible type	High capacity, high durability type
			 20.5 × 7.2 × 15.3	 20.5 × 7.2 × 15.3	 20.5 × 7.2 × 15.3	 20.5 × 7.2 × 15.3
Features			1-pole 3 A switching relay with 10 kV impulse withstand voltage and satisfying EN61010 reinforced insulation requirements	1-pole 5 A switching relay with 10 kV impulse withstand voltage and satisfying EN61010 reinforced insulation requirements	1-pole 3 A switching relay with 10 kV impulse withstand voltage and EN61010 compliance; holding voltage/ PWM control compatible	Miniature power relay capable of 1-pole 7 A switching, Conforms to the international safety standards for ignition resistance.
Contact	Contact form		SPST-NO (1a)			
	Contact type		Single			
	Rated load	Resistive load	200,000 operations min. at 125 VAC, 3 A 200,000 operations min. at 30 VDC, 3 A	100,000 operations at 250 VAC, 5 A 200,000 operations at 30 VDC, 3 A	200,000 operations min. at 125 VAC, 3 A 200,000 operations min. at 30 VDC, 3 A	200,000 operations min. at 250 VAC, 5 A 50,000 operations min. at 250 VAC, 7 A 100,000 operations min. at 30 VDC, 5 A (standard type, holding voltage type)
		Inductive load	—			
	Max. switching current		3 A	5 A	3 A	AC:7 A, DC:5 A
	Failure rate P level (reference value)		5 VDC 10 mA			
Coil	Rated voltage		5 to 24 VDC			
	Power consumption		Approx. 200 mW		Approx. 200 mW Approx. 32 mW (when applying holding voltage)	Approx. 200 mW
Mechanical durability			5,000,000 operations min.			
Terminal arrangement/ Internal connections			G5NB-1A(-HA,-CF)  (BOTTOM VIEW)	G5NB-1A(4)-E(-HA)  (BOTTOM VIEW)	G5NB-1A(-HA,-CF)-PW  (BOTTOM VIEW)	G5NB-1A(4)-EL-HA(-CF)  (BOTTOM VIEW)

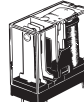
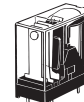
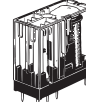
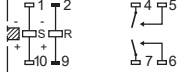
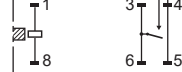
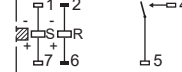
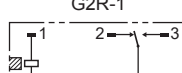
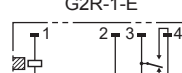
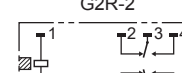
Model		G5Q									
		G5Q-1(A)(4)(-HA)		G5Q-1(A)(4)-EU(-HA)		G5Q-1(A)(-HA)-PW		G5Q-1A-EL-HA-VH	G5Q-1A4-EL2-HA	G5Q-1A4-EL3-HA	
Outline dimensions		Standard type		High capacity		Holding voltage, PWM control compatible type		High capacity, long service life type	High capacity, inrush resistance type	High capacity, motor load switching type	
											
		20.3 × 10.3 × 15.8						20.3 × 10.3 × 15.8	20.3 × 10.3 × 15.8	20.3 × 10.3 × 15.8	
Shape (max. value mm) Length (L) × Width (W) × Height (H)		Miniature power relay with 1-pole 10 A switching capacity Complies with the international safety standards for ignition resistance				Miniature power relay with 1-pole 10 A switching capacity Holding voltage/PWM control compatible		100,000 operations at 10 A (250 VAC) with high capacity switching and long service life, complying with the international safety standards for ignition resistance	40 A inrush current switching available thanks to inrush current resistance, complying with the international safety standards for ignition resistance	Motor load switching at 30 A inrush current and 3 A break current, complying with the international safety standards for ignition resistance	
Features		Miniature power relay with 1-pole 10 A switching capacity Complies with the international safety standards for ignition resistance				Miniature power relay with 1-pole 10 A switching capacity Holding voltage/PWM control compatible		100,000 operations at 10 A (250 VAC) with high capacity switching and long service life, complying with the international safety standards for ignition resistance	40 A inrush current switching available thanks to inrush current resistance, complying with the international safety standards for ignition resistance	Motor load switching at 30 A inrush current and 3 A break current, complying with the international safety standards for ignition resistance	
Contact form		SPST-NO (1a)	SPDT(1c)	SPST-NO (1a)	SPDT(1c)	SPST-NO(1a)	SPDT(1c)	SPST-NO (1a)			
Contact type		Single									
Contact	Rated load	Resistive load		(N.O.) 50,000 operations min. at 125 VAC, 10 A resistive load 200,000 operations min. at 125 VAC, 3 A resistive load 100,000 operations min. at 250 VAC, 3 A resistive load 50,000 operations min. at 250 VAC, 5 A resistive load 100,000 operations min. at 30 VDC, 5 A resistive load (N.C.) 200,000 operations min. at 125 VAC, 3 A resistive load 100,000 operations min. at 250 VAC, 3 A resistive load 100,000 operations min. at 30 VDC, 3 A resistive load		(N.O.) 50,000 operations min. at 125 VAC, 10 A resistive load 200,000 operations min. at 125 VAC, 3 A resistive load 100,000 operations min. at 250 VAC, 3 A resistive load 50,000 operations min. at 250 VAC, 5 A resistive load 25,000 operations min. at 250 VAC, 10 A resistive load 100,000 operations min. at 30 VDC, 5 A resistive load (N.C.) 200,000 operations min. at 125 VAC, 3 A resistive load 100,000 operations min. at 250 VAC, 3 A resistive load 100,000 operations min. at 30 VDC, 3 A resistive load		AC250 V 10 A 100,000 operations min.		—	—
		Inductive load, capacitive load		—		—		Capacitive load: 250 VAC, inrush current: 40 A / 100 μs break current: 1 A, 100,000 operations min.		Motor load: 250 VAC, inrush current: 30 A / 0.5s, break current: 3 A, cosφ=0.5, 300,000 operations min.	
	Max. switching current		AC : 10 A(N.O.)/3 A(N.C.) DC : 5 A(N.O.)/3 A(N.C.)						10 A		
	Failure rate P level (reference value)		5 VDC 10 mA								
Rated voltage		5 to 24 VDC									
Coil	Power consumption	Approx. 200 mW	Approx. 400 mW	Approx. 200 mW	Approx. 400 mW	Approx. 200 mW Approx. 32 mW (when applying holding voltage)	Approx. 400 mW Approx. 36 mW (when applying holding voltage)	Approx. 400 mW			
		10,000,000 operations min.									
Mechanical durability		10,000,000 operations min.									
Terminal arrangement/ Internal connections		G5Q-1A(4)(-HA)	G5Q-1(4)(-HA)	G5Q-1(4)-EU(-HA)	G5Q-1A(4)-EU(-HA)	G5Q-1A(-HA)-PW	G5Q-1(-HA)-PW	G5Q-1A-EL-HA-VH	G5Q-1A4-EL2-HA	G5Q-1A4-EL3-HA	
		 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	

Model		G5Q			G6B			
		G5Q-1A-HR-HA-VH	G5QU-1A-HR-HA-VH	G5QK-1A-HR-HA-VH	G6B(U,K)-1114P	G6B-117(4,7)P	G6B-1184P	G6B-2(0,1,2)14P
		High inrush current resistance, Single-side stable type	High inrush current resistance, Single-side stable type	High inrush current resistance, Single-side stable type	1-pole standard type	1-pole high capacity type	1-pole high reliability type	2-pole standard type
Outline dimensions								
Shape (max. value mm) Length (L) × Width (W) × Height (H)		20.3 × 10.3 × 15.8			20 × 10 × 10	20.2 × 10 × 12.5 (G6B-1174P) 20.2 × 10 × 15 (G6B-1177P)	20 × 10 × 10	20 × 11 × 11
Features		TV-8 rating (117 A inrush current), E-ballast rating (UL 508) , Conforms to the international safety standards for ignition resistance.			Miniature 1a contact 5 A power relay	Miniature 1a contact 8 A power relay	High reliability by single crossbar contact	Miniature 1a1b, 2a, 2b contact 5 A power relay
Contact	Contact form	SPST-NO (1a)			SPST-NO (1a)		SPST-NO (1a)	
	Contact type	Single			Single		Single crossbar	
	Rated load	10,000 operations min. at 277 VAC, 10 A 50,000 operations min. at 277 VAC, 8 A			100,000 operations min. at 250 VAC, 5 A 100,000 operations min. at 30 VDC, 5 A		100,000 operations min. at 250 VAC, 2 A 100,000 operations min. at 30 VDC, 2 A	
		—			100,000 operations min. at 250 VAC, 2 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 2 A (L/R=7 ms)		100,000 operations at 250 VAC, 0.5 A (COSØ=0.4) 100,000 operations at 30 VDC, 0.5 A (L/R=7 ms)	
	Max. switching current	10A			5A	8A	2A	5A
	Failure rate P level (reference value)	DC5V 10mA			5 VDC 10 mA		1 VDC 1 mA	5 VDC 10 mA
Coil	Rated voltage	3 to 24 VDC			5 to 24 VDC			
	Power consumption	Approx. 450 mW	Approx. 400 mW	Approx. 800 mW	Approx. 200 to 280 mW		Approx. 200 mW	Approx. 300 mW
Mechanical durability		1,000,000 operations min			50,000,000 operations min.			
Terminal arrangement/ Internal connections		 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)	 (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)	 (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)	 (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)

Model		G6C		G4W	
				G4W-1	G4W-2
				1-pole	2-pole
Outline dimensions					
Shape (max. value mm) Length (L) × Width (W) × Height (H)		20 × 15 × 10		30.5 × 19.5 × 30.5	
Features		Miniature power relay with 1-pole 10 A switching capacity		For 10 kV impulse voltage, 4 kV withstand voltage power switching	
Contact	Contact form	SPST-NO (1a)	SPST-NO (1a)+SPST-NC (1b)	SPST-NO (1a)	DPST-NO (2a)
	Contact type	Single		Single	
	Rated load	100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 30 VDC, 10 A	100,000 operations min. at 250 VAC, 8 A 100,000 operations min. at 30 VDC, 8 A	100,000 operations min. at 250 VAC, 15 A 100,000 operations min. at 24 VDC, 15 A	100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 24 VDC, 10 A
		100,000 operations min. at 250 VAC, 5 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 5 A (L/R=7 ms)	100,000 operations min. at 250 VAC, 3.5 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 3.5 A (L/R=7 ms)	100,000 operations min. at 250 VAC, 10 A (COSØ=0.4) 100,000 operations min. at 24 VDC, 7.5 A (L/R=7 ms)	100,000 operations min. at 250 VAC, 7.5 A (COSØ=0.4) 100,000 operations min. at 24 VDC, 5 A (L/R=7 ms)
	Max. switching current	10 A	8 A	15 A	10 A
	Failure rate P level (reference value)	5 VDC 10 mA		5 VDC 100 mA	
Coil	Rated voltage	3 to 24 VDC		12 to 100 VDC	
	Power consumption	Approx. 200 to 280 mW		Approx. 800 mW	
Mechanical durability		50,000,000 operations min.		5,000,000 operations min.	
Terminal arrangement/ Internal connections		 (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)	 (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)	 (BOTTOM VIEW)	 (BOTTOM VIEW)

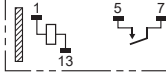
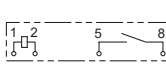
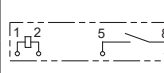
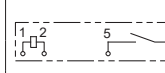
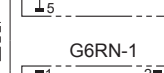
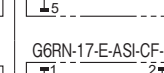
*Single-winding and double-winding latching types are also available.

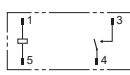
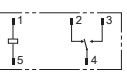
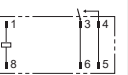
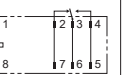
Power Relay (3 to 25 A; AC/DC) Main Specifications List

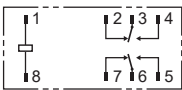
Model			G2R					
			G2RK-2(A)	G2R-1(A)	G2R-1(A)-E	G2RK-1(A)	G2R-2(A)	
			2-pole (double-winding latching type)	1-pole	1-pole (high capacity type)	1-pole (double-winding latching type)	2-pole	
Outline dimensions								
Shape (max. value mm) Length (L) × Width (W) × Height (H)			29 × 13 × 25.5	29 × 13 × 25.5	29 × 13 × 25.5	29 × 13 × 25.5	29 × 13 × 25.5	
Features			3 A double-winding latching type	1-pole 10 A general purpose type	16 A high capacity type	5 A double-winding latching type	2-pole 5 A general purpose type	
Contact	Contact form		DPST-NO (2a), DPDT(2c)		SPST-NO (1a), SPDT(1c)		SPST-NO (1a), SPDT(1c)	
	Contact type		Single		Single		Single	
	Rated load	Resistive load	100,000 operations min. at 250 VAC, 3 A 100,000 operations min. at 30 VDC, 3 A	100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 30 VDC, 10 A	100,000 operations min. at 250 VAC, 16 A 100,000 operations min. at 30 VDC, 16 A	100,000 operations min. at 250 VAC, 5 A 100,000 operations min. at 30 VDC, 5 A	100,000 operations min. at 250 VAC, 5 A 100,000 operations min. at 30 VDC, 5 A	
		Inductive load	100,000 operations min. at 250 VAC, 1.5 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 2 A (L/R=7 ms)	100,000 operations min. at 250 VAC, 7.5 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 5 A (L/R=7 ms)	100,000 operations min. at 250 VAC, 8 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 8 A (L/R=7 ms)	100,000 operations min. at 250 VAC, 3.5 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 2.5 A (L/R=7 ms)	100,000 operations min. at 250 VAC, 2 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 3 A (L/R=7 ms)	
	Max. switching current		3 A	10 A	16 A	5 A	5 A	
Failure rate P level (reference value)			DC5V 10 mA	DC5V 100 mA	DC5V 100 mA	DC5V 100 mA	DC5V 10 mA	
Coil	Rated voltage		5 to 24 VDC	5 to 100 VDC, 100 to 200 VAC	5 to 100 VDC, 100 to 200 VAC	5 to 24 VDC	5 to 100 VDC, 100 to 200 VAC	
	Power consumption		Approx. 850 mW (set coil) Approx. 600 mW (reset coil)	DC: Approx. 530 mW, AC: Approx. 900 mVA	DC: Approx. 530 mW, AC: Approx. 900 mVA	Approx. 850 mW (set coil) Approx. 600 mW (reset coil)	DC: Approx. 530 mW, AC: Approx. 900 mVA	
Mechanical durability			10,000,000 operations min.	DC coil specification: 20,000,000 operations min. AC coil specification: 10,000,000 operations min.			10,000,000 operations min.	
Terminal arrangement/ Internal connections			G2RK-2A		G2R-1A	G2R-1A-E	G2RK-1A	G2R-2A
								
			G2RK-2		G2R-1	G2R-1-E	G2RK-1	G2R-2
								
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	

* 1-pole plastic sealed types are also available.

*2-pole plastic sealed types are also available.

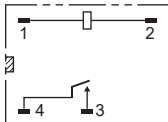
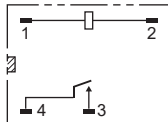
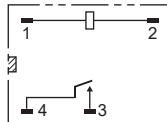
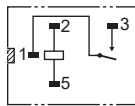
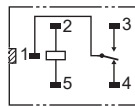
Model			G6D	G6DN			G6RN	
				G6DN-1A	G6DN-1A-L	G6DN-1A-CF	G6RN-1(A)	G6RN-1(A)/7-E-ASI-CF-HA
				Standard type	High durability type	High temperature type	Standard type	High-capacity type
Outline dimensions								
Shape (max. value mm) Length (L) × Width (W) × Height (H)			17.5 × 6.5 × 12.5	20 × 5.08 × 12.5	20 × 5.08 × 12.5	20 × 5.08 × 12.5	28.5 × 10 × 15	28.5 × 10 × 15
Features			Miniature power relay with 1-pole 5 A switching capacity	Miniature slim power relay with 1-pole 5 A switching capacity	Miniature slim power relay with 1-pole 5 A switching capacity Long-life type that achieves electrical endurance of 100,000 operations	Miniature slim power relay with 1-pole 5 A switching capacity Type compatible with high ambient operating temperature of 105°C	Miniature Power Relay for 1-pole 8 A switching with 10kV impulse withstand voltage	Miniature Power Relay for 1-pole 10A switching with 10kV impulse withstand voltage Complies with the international safety standards for ignition resistance
Contact	Contact form		SPST-NO (1a)	SPST-NO (1a)			SPST-NO (1a), SPDT(1c)	
	Contact type		Single	Bifurcated crossbar			Single	
	Rated load	Resistive load	70,000 operations min. at 250 VAC, 5 A 70,000 operations min. at 30 VDC, 5 A	80,000 operations min. at 250 VDCAC, 5 A 80,000 operations min. at 30 VDC, 5 A	100,000 operations min. at 250 VDCAC, 5 A 100,000 operations min. at 30 VDC, 5 A	10,000 operations min. at 250 VDCAC, 5 A 100,000 operations min. at 250 VDCAC, 3 A 10,000 operations min. at 30 VDC, 5 A 100,000 operations min. at 30 VDC, 3 A	50,000 operations min. (8 A at 250 VAC, resistive load) 50,000 operations min. (5 A at 30 VDC, resistive load)	100,000 operations min. (10 A at 250 VAC, resistive load) (N.O.) 100,000 operations min. (8 A at 250 VAC, resistive load) (N.C.) 50,000 operations min. (5 A at 30 VDC, resistive load)
		Inductive load	—	100,000 operations min. at 250 VAC, 2 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 2 A (L/R=7 ms)	200,000 operations min. at 250 VAC, 2 A (COSØ=0.4) 200,000 operations min. at 30 VDC, 2 A (L/R=7 ms)	100,000 operations min. at 250 VAC, 1 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 2 A (L/R=7 ms)	—	—
	Max. switching current		5A	5A			8A	10A
	Failure rate P level (reference value)		5 VDC 10 mA G6D-1A-ASI-AP 5 VDC 1 mA	0.1 VDC 0.1 mA			DC5V 10mA	
Coil	Rated voltage		5 to 24 VDC	4.5 to 24 VDC	5 to 24 VDC	4.5 to 24 VDC	5 to 24 VDC	
	Power consumption		Approx. 200 mW	Approx. 110 mW	Approx. 180 mW	Approx. 110 mW	Approx. 220 mW	
Mechanical durability			20,000,000 operations min.	20,000,000 operations min.			10,000,000 operations min.	
Terminal arrangement/ Internal connections			 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)

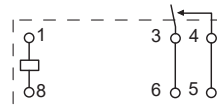
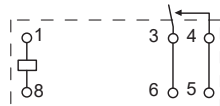
Model		G2RG	G2RL					
Outline dimensions		 Shape (max. value mm) Length (L) × Width (W) × Height (H) 29 × 13.5 × 26.5	G2RL-1(A)(-HA)		G2RL-1(A)-E(-CV)(-HA)		G2RL-1(A)-E-ASI	
			1-pole (standard type)		1-pole (high capacity type)		1-pole (TV-3 rating) (high capacity type)	
			 29 × 12.7 × 15.7					
Features		Miniature power relay capable of 110 VDC, 5 A high-voltage DC switching (2-pole series wiring with 1a contact, 1.5 mm contact gap)	1-pole 12 A general prpose type		16 A high capacity type		TV-3 compatible type	
Contact	Contact form	DPST-NO (2a)	SPST-NO (1a)	SPDT(1c)	SPST-NO (1a)	SPDT(1c)	SPST-NO (1a)	SPDT(1c)
	Contact type		Single					
	Rated load	Resistive load	250 VAC 12 A 50,000 operations min. 24 VDC 12 A 30,000 operations min.		250 VAC 16 A 50,000 operations min. 24 VDC 16 A 30,000 operations min.	250 VAC 16 A 30,000 operations min. 24 VDC 16 A 30,000 operations min.	250 VAC 16 A 50,000 operations min. 24 VDC 16 A 30,000 operations min.	250 VAC 16 A 30,000 operations min. 24 VDC 16 A 30,000 operations min.
		Inductive load	—					
	Max. switching current		8A		12 A		16 A	
	Failure rate P level (reference value)		DC5V 10mA		24 VDC 40 mA			
Coil	Rated voltage	12 VDC, 24 VDC						
	Power consumption	Approx. 800 mW						
Mechanical durability		1,000,000 operations min.		20,000,000 operations min.				
Terminal arrangement/ Internal connections		G2RG-2A4	G2RL-1A	G2RL-1	G2RL-1A-E	G2RL-1-E	G2RL-1A-E-ASI	
		 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	

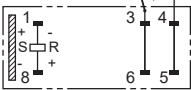
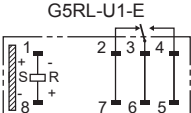
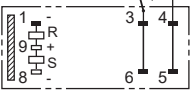
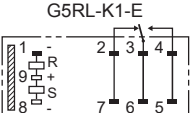
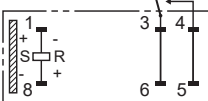
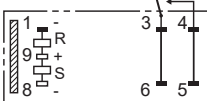
Model			G2RL			G2RL-1A-E2-CV-HA
Outline dimensions			G2RL-1(A)-H	G2RL-2		High capacity type & high-temperature compatible type
			1-pole (high sensitivity type)	2-pole		 29 × 12.7 × 16.7
			 29 × 12.7 × 15.7			
Shape (max. value mm) Length (L) × Width (W) × Height (H)						
Features			1-pole 10 A high sensitivity type	2-pole 8 A general purpose type		Miniature, low profile, high capacity, 10 kV impulse withstand voltage, Complies with the international safety standards for ignition resistance
Contact	Contact form		SPST-NO (1a), SPDT(1c)	DPST-NO (2a)	DPDT(2c)	SPST-NO (1a)
	Contact type		Single			Single
	Rated load	Resistive load	250 VAC 10A 50,000 operations	250 VAC 8 A 30,000 operations min. 30 VDC 8 A 30,000 operations min.		250 VAC 23 A 100,000 operations min.
		Inductive load	—			—
	Max. switching current		10A	8 A		23 A
	Failure rate P level (reference value)		24 VDC 40mA			24 VDC 40mA
Coil	Rated voltage		5 to 48 VDC			5 to 24 VDC
	Power consumption		Approx. 250 mW	Approx. 400 mW to 430 mW Approx. 120 mW (when applying holding voltage)		Approx. 400 mW
Mechanical durability			20,000,000 operations min.			20,000,000 operations min.
Terminal arrangement/ Internal connections			G2RL-1A(-H)  (BOTTOM VIEW)	G2RL-2A  (BOTTOM VIEW)	G2RL-2  (BOTTOM VIEW)	G2RL-1A-E2-CV-HA  (BOTTOM VIEW)

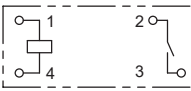
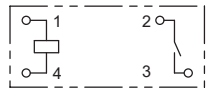
*PWM control products are also available.

Power Relay (3 to 25 A; AC/DC) Main Specifications List

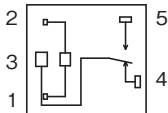
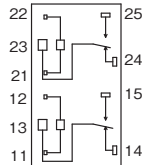
Model		G5CA			G5LE	
Outline dimensions		G5CA-1A(4)	G5CA-1A-E	G5CA-1A(4)-H		
		Standard type	High capacity type	High sensitivity type		
						
Shape (max. value mm) Length (L) × Width (W) × Height (H)		22 × 16 × 11			22.5 × 16.5 × 19	
Features		Flat power relay with 10, 15 A switching capacity			10 A cubic type 1-pole power relay	
Contact	Contact form	SPST-NO (1a)			SPST-NO (1a), SPDT(1c)	
	Contact type	Single			Single	
	Rated load	Resistive load	300,000 operations min. at 250 VAC, 10 A (plastic sealed type: 100,000 operations min.) 100,000 operations min. at 30 VDC, 10 A	100,000 operations min. at 110 VAC, 15 A 100,000 operations min. at 30 VDC, 10 A	100,000 operations min. at 250 VAC, 10 A 100,000 operations min. at 30 VDC, 10 A	100,000 operations min. at 120 VAC, 10 A 100,000 operations min. at 30 VDC, 8 A
		Inductive load	100,000 operations min. at 250 VAC, 3 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 3 A (L/R=7 ms)	100,000 operations min. at 110 VAC, 5 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 3 A (L/R=7 ms)	100,000 operations min. at 250 VAC, 3 A (COSØ=0.4) 100,000 operations min. at 30 VDC, 3 A (L/R=7 ms)	—
	Max. switching current	10 A	15 A	10 A	10 A	
	Failure rate P level (reference value)	5 VDC 100 mA			5 VDC 100 mA	
Coil	Rated voltage	5 to 24 VDC			5 to 24 VDC	
	Power consumption	Approx. 200 mW		Approx. 150 mW	Approx. 400 mW	
Mechanical durability		20,000,000 operations min.			10,000,000 operations min.	
Terminal arrangement/ Internal connections		G5CA-1A	G5CA-1A-E	G5CA-1A-H	G5LE-1A	
						
		(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	G5LE-1  (BOTTOM VIEW)	

Model		G5RL				
Outline dimensions		G5RL-1A-LN	G5RL-1A-TV8	G5RL-1A-E-LN	G5RL-1A-E-TV8	
		Standard type (low noise)	Standard type (TV-8 rating)	High capacity type (low noise)	High capacity type (TV-8 rating)	
		 29 × 12.7 × 15.7		 29 × 12.7 × 15.7		
Shape (max. value mm) Length (L) × Width (W) × Height (H)						
Features		Low noise, high insulation	High insulation, TV-8	Low noise, high insulation Miniature and low profile, 16 A switching	High insulation, TV-8 Miniature and low profile, 16 A switching	
Contact	Contact form	SPST-NO (1a)				
	Contact type	Single				
	Rated load	Resistive load	100,000 operations min. at 250 VAC, 12 A 100,000 operations min. at 24 VDC, 12 A	100,000 operations min. at 250 VAC, 12 A 100,000 operations min. at 24 VDC, 12 A	50,000 operations min. at 250 VAC, 16 A 50,000 operations min. at 24 VDC, 16 A	50,000 operations min. at 250 VAC, 16 A 50,000 operations min. at 24 VDC, 16 A
		Inductive load	—			
	Max. switching current	12 A		16 A		
	Failure rate P level (reference value)	5 VDC 100 mA				
Coil	Rated voltage	5 to 24 VDC	5 to 48 VDC	5 to 24 VDC	5 to 48 VDC	
	Power consumption	Approx. 530 mW	Approx. 400 to 430 mW	Approx. 530 mW	Approx. 400 to 430 mW	
Mechanical durability		1,000,000 operations min.	10,000,000 operations min.	1,000,000 operations min.	10,000,000 operations min.	
Terminal arrangement/ Internal connections		G5RL-1A-LN	G5RL-1A-TV8	G5RL-1A-E-LN	G5RL-1A-E-TV8	
		 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)	

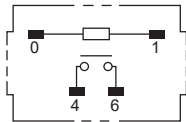
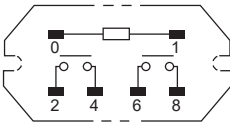
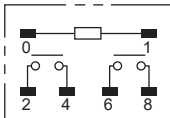
Model		G5RL							
Outline dimensions	G5RL-U1(A)-E		G5RL-K1(A)-E	G5RL-U1A-EL-HA	G5RL-K1A-EL-HA				
	Single-winding latching type, high capacity type		Double-winding latching type, high capacity type	Single-winding latching type, inrush resistance type	Double-winding latching type, inrush resistance type				
	 29 × 12.7 × 15.7		 29 × 12.7 × 15.7	 29 × 12.7 × 15.7	 29 × 12.7 × 15.7				
Shape (max. value mm) Length (L) × Width (W) × Height (H)									
Features		Miniature and low profile latching relay with 16 A switching capacity Inrush resistance, illumination load compatible Capacitor load, Conforms to the international safety standards for ignition resistance.							
Contact	Contact form	SPST-NO (1a), SPDT(1c)		SPST-NO (1a)					
	Contact type	Single							
	Rated load	(N.O) 50,000 operations min. at 250 VAC, 16 A 50,000 operations min. at 24 VDC, 16 A (N.C) 50,000 operations min. at 250 VAC, 5 A 50,000 operations min. at 24 VDC, 5 A		250 VAC 16 A 20,000 operations min.					
		Inductive load	—						
	Max. switching current	16 A (N.O), 5 A (N.C)		16 A					
	Failure rate P level (reference value)	—							
Coil	Rated voltage	3 to 24 VDC	5 to 24 VDC						
	Power consumption	Approx. 600 mW	Approx. 750 to 840 mW	Approx. 600 mW	Approx. 750 to 840 mW				
Mechanical durability		5,000,000 operations min.							
Terminal arrangement/ Internal connections		  (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)		  (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)		 (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)		 (BOTTOM VIEW) (Check carefully the coil polarity of the Relay)	

Model			G5PZ		
Outline dimensions			G5PZ-1A	G5PZ-1A-E	G5PZ-1A4-E
			Standard type (Flux resistant type)	High capacity type (Flux resistant type)	High capacity type (Plastic sealed type)
			 24 × 10.5 × 25		
Shape (max. value mm) Length (L) × Width (W) × Height (H)					
Features			High sensitivity, 530 mW power consumption, 10 kV impulse withstand voltage, reinforced insulation Plastic sealed type (conforming to explosion-proof standards) available		
Contact	Contact form		SPST-NO (1a)		
	Contact type		Single		
	Rated load	Resistive load	100,000 operations at 250 VAC, 16 A	50,000 operations at 250 VAC, 20 A	20,000 operations at 250 VAC, 20 A
		Inductive load	—		
	Max. switching current		16 A	20 A	
	Failure rate P level (reference value)		5 VDC 100 mA		
Coil	Rated voltage		5 VDC 12VDC 24 VDC		
	Power consumption		Approx. 530 mW		
Mechanical durability			2,000,000 operations min.		
Terminal arrangement/ Internal connections			G5PZ-1A	G5PZ-1A-E	G5PZ-1A4-E
			 (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)

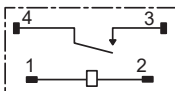
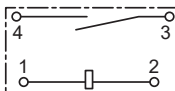
Power Relay (3 to 25 A; AC/DC) Main Specifications List

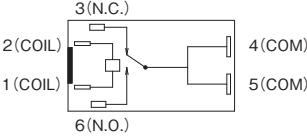
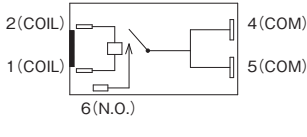
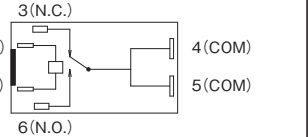
Model			G8K	
Outline dimensions			G8K-17(R,SR,UR)	G8K-27(R,SR,UR)
			Single type	Twin type(standalone 2-circuit type)
				
Shape (max. value mm) Length (L) × Width (W) × Height (H)			9.6 × 8.8 × 14.5	9.6 × 17.1 × 14.5
Features			Subminiature relay suitable for motor/resistance control	
Contact	Contact form		SPDT(1c)	SPDT(1c)×2
	Contact type		Single	Single
	Rated load	Resistive load	100,000 operations min. at 14 VDC, 5 A	100,000 operations min. at 14 VDC, 5 A
		Inductive load COSØ=0.4 L/R=7 ms	100,000 operations min. at 14 VDC, 25 A (0.3 mH)	100,000 operations min. at 14 VDC, 25 A (0.3 mH)
		Max. switching current	25 A	25 A
	Failure rate P level (reference value)		—	—
Coil	Rated voltage		12 VDC	12 VDC
	Power consumption		Standard type Approx. 900 mW	Standard type Approx. 900 mW
Mechanical durability			1,000,000 operations min.	1,000,000 operations min.
Terminal arrangement/ Internal connections			G8K-17R	G8K-27R
			 (BOTTOM VIEW)	 (BOTTOM VIEW)

Power Relay (30 to 300 A; AC/DC) Main Specifications List

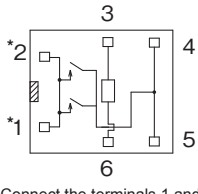
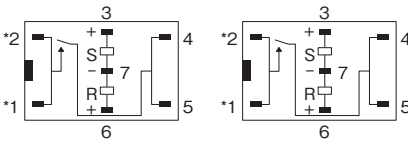
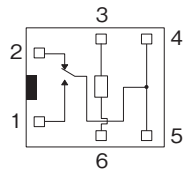
Model			G7L		G7L-PV
Outline dimensions			G7L-1A(-T,-B)	G7L-2A(-T,-B)	
			1-pole tab/screw terminal type	2-pole tab/screw terminal type	
					
Shape (max. value mm) Length (L) × Width (W) × Height (H)			52.5 × 34.5 × 55 (G7L-1A-B E-bracket mounting type)	68.5 × 33.5 × 47 (G7L-2A-TUB upper bracket mounting type)	52.5 × 35.5 × 41
Features			Multi-pole power relay that withstands a momentary voltage drop Wide range of applications with 100 V and 200 V coils		Solar systemRelay for PV inverter
Contact	Contact form		SPST-NO (1a)	DPST-NO (2a)	DPST-NO (2a)
	Contact type		Double break		Double break
	Rated load	Resistive load	220 VAC 30A 100,000 operations min.	100,000 operations min. at 220 VAC, 25 A	30,000 operations min. at 280 VAC, 30 A
		Inductive load	100,000 operations min. at 220 VAC, 25 A (COSØ=0.4)	100,000 operations min. at 220 VAC, 25 A (COSØ=0.4)	30,000 operations min. at 280 VAC, 30 A (COSØ = 0.8)
	Max. switching current		30 A	25 A	30 A
	Failure rate P level (reference value)		DC5V 100mA		5 VDC 100mA
Coil	Rated voltage		6 to 100 VDC, 12 to 240 VAC		12 VDC, 24 VDC
	Power consumption		DC: Approx. 1.9 W, AC: Approx. 1.7 to 2.5 VA		Approx. 2.3 W Approx. 0.32 W (when applying holding voltage)
Mechanical durability			1,000,000 operations min.		1,000,000 operations min.
Terminal arrangement/ Internal connections					
			(TOP VIEW)	(TOP VIEW)	(BOTTOM VIEW)

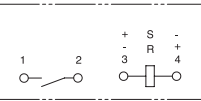
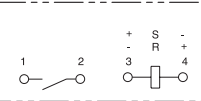
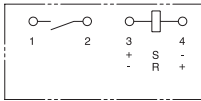
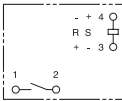
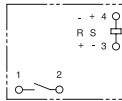
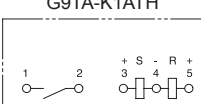
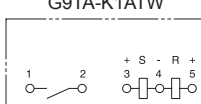
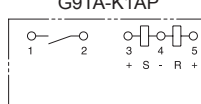
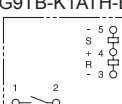
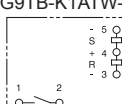
Power Relay (30 to 300 A; AC/DC) Main Specifications List

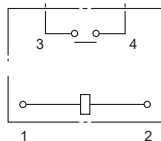
Model			G6QE		G6QG
Outline dimensions			G6QE-1A	G6QE-1A4	
			Standard (Flux protection)	Standard (Sealed)	
					
Shape (max. value mm) Length (L) × Width (W) × Height (H)			30.5 × 16 × 20.5		30.5 × 16 × 20.5
Features			1 pole 36A high capacity switching current , Miniature size, C-UL, TUV, CQC certified		Small-Size and Low Height Power Relay for Switching 55 A
Contact	Contact form		SPST-NO (1a)		SPST-NO (1a)
	Contact type		Single		Single
	Rated load	Resistive load	100,000 operations min. (30 A, 250 VAC) 50,000 operations min. (32 A, 250 VAC) 10,000 operations min. (36 A, 250 VAC)	1,000 operations min. (20 A, 250 VAC) 100 operations min. (36 A, 480 VAC) 480 VAC/Inrush: 240 A (0-P, rise time: 3 ms or longer), Carrying: 36 A, Breaking: 0 A	480 VAC, 55 A, 10 operations min. 480 VAC making 20 A, carrying 55 A, breaking 20 A, 30,000 operations min.
		Inductive load COSØ=0.4 L/R=7 ms	—	(inverter load) 100,000 times or more	—
	Max. switching current		36A DC5V 100mA		55A
	Failure rate P level (reference value)				DC5V 1A
Coil	Rated voltage		5 to 24 VDC	12 VDC	12 to 24 VDC
	Power consumption		Approx.1400 mW Approx.172 mW (With holding Voltage)		Approx.1400 mW Approx.172 mW (With holding Voltage)
Mechanical durability			1,000,000 operations min		100,000 operations min
Terminal arrangement/ Internal connections			G6QE-1A  (BOTTOM VIEW)		G6QG-1A  (BOTTOM VIEW)

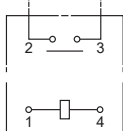
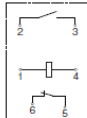
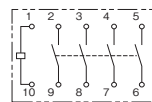
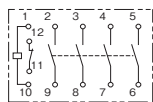
Model		G8G	
Outline dimensions		G8G-1(A)7R/G8G-1(A)7SR	G8G-1SV
		DC12 type	DC24 type
			
Shape (max. value mm) Length (L) × Width (W) × Height (H)		15 × 8 × 18	15 × 8 × 19.1
Features		Medium-capacity relay suitable for motor/heater control	
Contact	Contact form	SPST-NO (1a), SPDT(1c)	
	Contact type	Single	
	Rated load	Resistive load	100,000 operations min. at 14 VDC, 35 A
			100,000 operations min. at 28 VDC, 14 A
	Rated load	Inductive load	100,000 operations min. at 14 VDC, 32 A (0.25 mH)
			100,000 operations min. at 28 VDC, 12 A (3 mH)
Coil	Max. switching current	54 A	
	Failure rate P level (reference value)	—	
	Rated voltage	12 VDC	
Power consumption		Standard type Approx. 480 mW	
Mechanical durability		1,000,000 operations min.	
Terminal arrangement/ Internal connections		G8G-17R  Note: Connect the terminal 6 to the positive pole of the battery (BOTTOM VIEW)	G8G-1A7R  Note: Connect the terminal 6 to the positive pole of the battery (BOTTOM VIEW)
		G8G-1SV  Note: Connect the terminal 6 to the positive pole of the battery (BOTTOM VIEW)	

Power Relay (30 to 300 A; AC/DC) Main Specifications List

Model		G8PM		G8PC
		G8PM-1AW7R	G8PM-K1A7(1)R	G8PC-17
		Single Stable	Latching	
Outline dimensions				
Shape (max. value mm) Length (L) × Width (W) × Height (H)		14.9 × 12.9 × 16.6	14.9 × 12.9 × 16.6	14.9 × 12.9 × 16.6
Features		High-capacity relay suitable for motor/resistance/lamp control	High-capacity relay suitable for motor/resistance/lamp control	Miniature Power PCB Relay for OBC with Carry Current of 32 A, 22kW
Contact	Contact form	SPST-NO (1a)	SPST-NO (1a)	1c
	Contact type	Twin	Single	Single
	Rated load	Resistive load	100,000 operations min. at 14 VDC, 45 A	250 VAC making 2 A, carrying 32 A, breaking 2 A, 100,000 operations min.
		Inductive load	14 VDC, 150 A Inrush/50 A break, (0.16mH), 156,000 operations min.	—
	Max. switching current	67.5A	54A	32A
Coil	Failure rate P level (reference value)	—	—	—
	Rated voltage	12 VDC	12 VDC	12 VDC
Power consumption		Approx. 640 mW	Operating : 2.52W / Release : 3.21W	Approx. 640 mW
Mechanical durability		1,000,000 operations min.	1,000,000 operations min.	1,000,000 operations min.
Terminal arrangement/ Internal connections		 Note: Connect the terminals 1 and 2 to the positive pole of the battery (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)

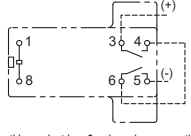
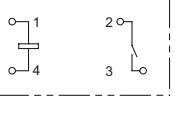
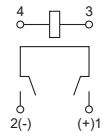
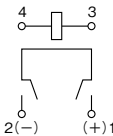
Model		G9TA			G9TB	
		G9TA-(U, K)1A-TH	G9TA-(U, K)1A-TW	G9TA-(U, K)1A-P	G9TB-(U, K)1ATH-E	G9TB-(U, K)1ATW-E
		M5 securing screw	Welding terminals	PCB terminals	M8 securing screw	Welding terminals
Outline dimensions						
Shape (max. value mm) Length (L) × Width (W) × Height (H)		39.1 × 18 × 34.5	39.1 × 18 × 34.5	39.1 × 18 × 36.7	43.5 × 22.5 × 37.5	
Features		60A AC power latching relay			120A AC power latching relay	
Contact	Contact form	SPST-NO (1a)			SPST-NO (1a)	
	Contact type	Single			Single	
	Rated load	Resistive load			6,000 operations min. at 276 VAC, 120 A*	
		5,000 operations min. at 250 VAC, 60 A			5,000 operations min. at 276 VAC, 100 A	
	Max. switching current	60 A			120 A	
Coil	Failure rate P level (reference value)	—			—	
	Rated voltage	12 V			12 V	
Power consumption		Approx. 1,000 mW (Single-winding latching) Approx. 2,600 mW (Double-winding latching)			Approx. 2,700 mW (Single-winding latching) Approx. 5,400 mW (Double-winding latching)	
Mechanical durability		100,000 operations min.			100,000 operations min.	
Terminal arrangement/ Internal connections		 (TOP VIEW)	 (TOP VIEW)	 (BOTTOM VIEW)	 (TOP VIEW)	 (TOP VIEW)
		 (TOP VIEW)	 (TOP VIEW)	 (BOTTOM VIEW)	 (TOP VIEW)	 (TOP VIEW)

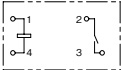
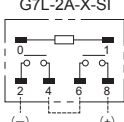
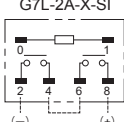
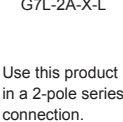
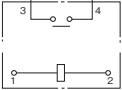
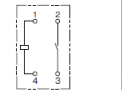
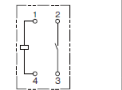
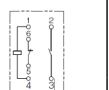
Model			G7EB				
			G7EB-1A	G7EB-1AP1	G7EB-1A-E	G7EB-1AP1-E	G7EB-1A-E2
			Standard type	Standard type (Special terminal type)	High-capacity 120 A type	High-capacity 120 A type (Special terminal type)	High-capacity 150 A type
Outline dimensions							
Shape (max. value mm) Length (L) × Width (W) × Height (H)			50.5 × 40.5 × 37				
Features			High temperature compatible power relay with 480 VAC 100 A switching, Supports normal/reverse polarity DC load switching, Rated carry current of 100 A, Contact gap of 3.6 mm min.		High temperature compatible power relay with 480 VAC 100 A switching, Supports normal/reverse polarity DC load switching, Rated carry current of 120 A, Contact gap of 3.6 mm min.		High temperature compatible power relay with Max. Switching Voltage of 800 VAC, Supports normal/reverse polarity DC load switching, Rated carry current of 150 A, Contact gap of 3.6 mm min.
Contact	Contact form		SPST-NO (1a)				
	Contact type		Double break				
	Rated load	Resistive load	(1) 480 VAC 100 A at 85°C 300 operations min. (2) 800 VAC making 40 A, carrying 100 A, breaking 40 A at 85°C; 30,000 operations min. (3) 60 VDC 100 A at 85°C 400 operations min. (4) 60 VDC 50 A at 85°C 1,000 operations min. (5) 60 VDC 40 A at 85°C 6,000 operations min. (6) 800 VAC making 40 A, carrying 60 A, breaking 40 A at 105°C; 8,000 operations min.		(1) 480 VAC 100 A at 85°C 300 operations min. (2) 60 VDC 100 A at 85°C 400 operations min. (3) 60 VDC 50 A at 85°C 1,000 operations min. (4) 60 VDC 40 A at 85°C 6,000 operations min. (5) 800 VAC making 40 A, carrying 120 A, breaking 40 A at 85°C; 30,000 operations min. (6) 800 VAC making 40 A, carrying 80 A, breaking 40 A at 105°C; 8,000 operations min.		(1) 480 VAC 150 A at 85°C 100 operations min. (2) 800 VAC 150 A at 85°C 30 operations min. (3) 800 VAC making 40 A, carrying 150 A, breaking 40 A at 85°C; 30,000 operations min. (4) 60 VDC 150 A at 85°C 400 operations min. (5) 60 VDC 40 A at 85°C 6,000 operations min.
		Inductive load	—				
	Max. switching current		100 A		150 A		
	Failure rate P level (reference value)		5 VDC 1 A				
Coil	Rated voltage		12 VDC, 24 VDC				
	Rated current		12 VDC Approx. 235.3mA 24 VDC Approx. 116.5mA		12 VDC Approx. 291.7mA 24 VDC Approx. 145.8mA		
	Power consumption		Approx. 2,800 mW Approx. 575 mW (when applying holding voltage)		Approx. 3,500 mW Approx. 709 mW (when applying holding voltage)		
Mechanical durability			1,000,000 operations min.				
Terminal arrangement/ Internal connections			Terminal Shape : Standard type		Terminal Shape : Special terminal type		G7EB-1AP1-E2
			G7EB-1A, G7EB-1AP1		G7EB-1A-E, G7EB-1AP1-E		
							

Model			G9KA			G9KC		
Outline dimensions			G9KA-1A	G9KA-1A-E	G9KA-1A1B-E	Standard type		
			Standard type	High capacity type				
								
Shape (max. value mm) Length (L) × Width (W) × Height (H)			51 × 51 × 47.2	51 × 51 × 56.7	61 × 56.7 × 58.4	58.5 × 35.5 × 47.5		
Features			High capacity power relay with 800 VAC 260 A breaking and ultra-low contact resistance Contact gap of 4.0 mm min. (Compliant to the photovoltaic standard VDE0126)	High-capacity power relay with 1,000 VAC 300 A breaking and ultra-low contact resistance Contact gap of 4.0 mm min. (Compliant to the photovoltaic standard VDE0126)	High-capacity power relay with 1,000 VAC 300 A breaking and ultra-low contact resistance Contact gap of 4.0 mm min. (Compliant to the photovoltaic standard VDE0126) Auxiliary contact option conformed to mirror contact (Structure defined in IEC/EN60947-4-1 Annex F7.2)	480 VAC 40 A 4-pole High Power Relay Contact gap: 4.0 mm min.* Low initial contact resistance: 6 mΩ max. High short circuit capacity conformed to IEC62955 (I _{nc} =10 kA, I _{ns} 32 A) Auxiliary contact conformed to IEC60947-4-1 mirror contact requirement * Applicable to products manufactured on or after October 31, 2025.		
Contact	Contact form		SPST-NO (1a)			SPST-NO (1a)+SPST-NC (1b)	4PST-NO (4a)	4PST-NO (4a) + SPST-NC (1b)
	Contact type		Double break			Main contact: Double break, Auxiliary contact: Bifurcated crossbar	Main contact: Double break	Main contact: Double break, Auxiliary contact: Single Auxiliary contact
	Rated load	Resistive load	800 VAC making 50 A, carrying 260 A, breaking 50 A; 30,000 operations min. 800 VAC making 150 A, carrying 260 A, breaking 260 A; 10 operations min. 200 A at 60 VDC; 2,000 operations min.	1,000 VAC making 50 A, carrying 300 A, breaking 50 A; 30,000 operations min. 1,000 VAC making 150 A, carrying 300 A, breaking 300 A; 10 operations min.	Main contact: 1,000 VAC, making 50 A, carrying 300 A, breaking 50 A; 30,000 operations min. 1,000 VAC making 150 A, carrying 300 A, breaking 300 A; 10 operations min. Auxiliary contact: 30 VDC 1 A	Main contact: 32 A at 277 VAC 50,000 operations min. 40 A at 480 VAC 30,000 operations min. Auxiliary contact: 1 A at 277 VAC 100,000 operations min. 1 A at 30 VDC 100,000 operations min.		
		Inductive load	—			—		
	Max. switching current		260 A	300 A	Main contact: 300 A, Auxiliary contact: 1 A	Main contact: 40 A Auxiliary contact: 1 A		
	Failure rate P level (reference value)		5 VDC, 1 A (M level)			Main contact: 5 VDC, 1 A, Auxiliary contact: 5 VDC, 1 mA	Main contact: 100 mA at 24 VDC (M Level) Auxiliary contact: 10 mA at 5 VDC (M Level)	
Coil	Rated voltage		12 VDC, 24 VDC			12 VDC, 24 VDC		
	Power consumption		Approx. 5,000 mW Approx. 1,012 mW (when applying holding voltage)			Approx. 6,000 mW Approx. 1,012 mW (when applying holding voltage)	Approx. 5,000 mW Approx. 613 mW (With holding voltage)	
Mechanical durability			100,000 operations min.			1,000,000 operations min.	100,000 operations min.	
Terminal arrangement/ Internal connections			G9KA-1A	G9KA-1A-E	G9KA-1A1B-E	G9KC-4A	G9KC-4A1B	
								
			(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)	(BOTTOM VIEW)		

*Please check the data sheet for details.

Power Relay (10 to 300 A (200 VDC min.); DC high voltage) Main Specifications List

Model	G2RG-X	G5PZ-X	G9EJ-1-E		G9EJH-1(-P)-E
Outline dimensions			G9EJ-1-P-E	G9EJ-1-E	
			PCB terminal	Tab terminal	
					
Shape (max. value mm) Length (L) × Width (W) × Height (H)	29 × 23.5 × 29.5	26.4 × 15.2 × 29.5	31.5 × 27.5 × 32.7	44.5 × 27.5 × 30.5	31.5 × 27.5 × 32.7
Features	Miniature power relay capable of 500 VDC, 10 A high-voltage DC switching (2-pole series wiring with 1a contact)	Miniature power relay capable of bi-directional switching at 200 VDC, 20 A The product also enables 400 VDC 20 A bi-directional switching with 2-contact series connection	Miniature power relay capable of switching 400 VDC 15 A loads	Miniature power relay capable of switching 400 VDC 15 A loads	800 VDC specialized for pre-charging applications
Contact	Contact form	DPST-NO (2a) (with 2-pole series wiring)	SPST-NO (1a)		SPST-NO (1a)
	Contact type	Single	Double break		Double break
	Rated load	Resistive load	10,000 operations min. at 400 VDC, 15 A		—
		Capacitor load	400 VDC, 25 A		800 VDC, 30 A
	Max. switching current	10 A	15 A		(inrush current) 30 A (continuous) 15 A
Coil	Failure rate P level (reference value)	—	—		—
	Rated voltage	12 VDC, 24 VDC	12 VDC, 24 VDC		12 VDC
	Power consumption	Approx. 800 mW	Approx. 1.2 W		Approx. 1.2 W
Mechanical durability	1,000,000 operations min.		200,000 operations min.		200,000 operations min.
Terminal arrangement/ Internal connections	 Use this product in a 2-pole series connection. (BOTTOM VIEW)	 (BOTTOM VIEW)	 (BOTTOM VIEW)		 (BOTTOM VIEW)

Model		G9KJ	G7L-X			G9KB		G9KD					
		G9KJ-1A	G7L-2A-X	G7L-2A-X-SI	G7L-2A-X-L	G9KB-1A	G9KB-1A-E	G9KD-1A	G9KD-1A1B				
Outline dimensions			Standard type	Low contact resistance type	General purpose type	Standard type	High-capacity type	Standard type					
													
Shape (max. value mm) Length (L) × Width (W) × Height (H)		37.2 × 17 × 25.5	52.5 × 35.5 × 41			50.5 × 37 × 50.5		60.5 × 43.5 × 56.5	60.5 × 43.5 × 56.5				
Features		Small size relay that can be used in a 1,500 VDC environment Applicable to precharge circuits with making current up to 25 A	600 to 1,000 VDC isolation/switching thanks to 2-pole series wiring			High-capacity power relay capable of bi-directional switching at 600 VDC, 50 A Contact gap of 3.6 mm min. Achieves an initial low contact resistance of 5 mΩ max.	Power Relay with Bidirectional Switching and a High Capacity of up to 800 VDC, 100 A * * 100 A switching up to a maximum of 600 VDC	High-capacity power relay that can be used with 1,500 VDC / 150 A* Contact gap of 6.0 mm min. Achieves an initial low contact resistance of 4 mQ max. * 150 A breaking up to a maximum of 1,000 VDC	High-capacity power relay that can be used with 1,500 VDC / 150 A* Contact gap of 6.0 mm min. Achieves an initial low contact resistance of 4 mΩ max. Auxiliary contact option conformed to mirror contact structure defined in IEC/ EN60947-4-1 * 150 A breaking up to a maximum of 1,000 VDC				
Contact	Contact form		SPST-NO (1a)			DPST-NO (2a) (with 2-pole series wiring)		SPST-NO (1a)		SPST-NO (1a)+SPST-NC (1b)			
	Contact type		Single			Double break		Double break		Main contact: Double break, Auxiliary contact: Single			
	Rated load	Resistive load	1,500 VDC making: 25 A, carrying: 5 A, breaking: 0 A 40 VDC 5 A			(Normal polarity) 1,000 VDC, 25 A, 100 operations 600 VDC, 30 A, 6,000 operations 500 VDC, 40 A, 3,000 operations (Reverse polarity) 600 VDC, -30 A, 5,000 operations 500 VDC, -40 A, 3,000 operations (Normal polarity / Reverse polarity* Only Connected in series can be used.) 1,000 VDC, make 1 A, carry 35 A, break 1 A, 20,000 operations 600 VDC, make 0.5 A, carry 35 A, break 0.5 A, 20,000 operations 700 VDC, make 1 A, carry 35 A, break 1 A, 50,000 operations 600 VDC, make 0.5 A, carry 35 A, break 0.5 A, 30,000 operations	(Normal polarity) 100 operations at 1,000 VDC, 20 A 6,000 operations at 600 VDC, 20 A (Reverse polarity) 5,000 operations at 400 VDC, -20A	(1) 600 VDC 50 A at 85°C (2) 600 VDC 1 A at 85°C (3) 500 VDC 25 A at 85°C (4) 600 VDC 10 A at 85°C (5) 600 VDC making 1 A, carrying 35 A, breaking 1 A at 85°C (6) 600 VDC 30 A at 105°C	(1) 600 VDC 100 A at 85°C (2) 500 VDC 100 A at 85°C (3) 800 VDC 50 A at 85°C (4) 800 VDC 18 A at 85°C (5) 600 VDC 50 A at 105°C (6) 800 VDC making 1 A, carrying 50 A, breaking 1 A at 105°C	1,000 VDC 50 A 1,000 VDC 100 A 1,500 VDC 40 A 1,000 VDC 150 A (breaking only)	Main contact: 1,000 VDC 50 A 1,000 VDC 100 A 1,500 VDC 40 A 1,000 VDC 150 A (breaking only) Auxiliary contact: 30 VDC 1 A		
			Inductive load	—			—			—			
		Max. switching current		Making: 25 A, breaking: 5 A			40 A		20 A		50 A	100 A	150 A
	Failure rate P level (reference value)		—			—			5 VDC 1A		100 mA at 24 VDC (M Level) Auxiliary contact: 10 mA at 5 VDC (M Level)		
Coil	Rated voltage		12 VDC, 24 VDC			12 VDC, 24 VDC		12 VDC, 24 VDC		12 VDC, 24 VDC			
	Power consumption		Approx. 530 mW			Approx. 2.3 W Approx. 0.6 W (when applying holding voltage)		Approx. 2,800 mW Approx. 575 mW (when applying holding voltage)		Approx. 5,000 mW Approx. 613 mW (when applying holding voltage)			
Mechanical durability		500,000 operations min.			1,000,000 operations min.			1,000,000 operations min.		500,000 operations min.		100,000 operations min.	
Terminal arrangement/ Internal connections		G9KJ-1A  (BOTTOM VIEW)	G7L-2A-X  (BOTTOM VIEW)	G7L-2A-X-SI  (BOTTOM VIEW)	G7L-2A-X-L  (BOTTOM VIEW)	Use this product in a 2-pole series connection.		G9KB-1A  (BOTTOM VIEW) (No coil polarity)	G9KB-1A-E  (BOTTOM VIEW)	G9KD-1A  (BOTTOM VIEW)	G9KD-1A1B  (BOTTOM VIEW)		

Model			G9EA-1		G9EK-1	G9EK-1-E	G9EK-1-EX
Outline dimensions			G9EA-1(-B)	G9EA-1(-B)-CA	G9EK-1-UTU	G9EK-1-E	G9EK-1-EX
			Switching, carry current type	High current carry type	Switching/current conduction models	Switching/current conduction models	Switching/current conduction models
							
Shape (max. value mm) Length (L) × Width (W) × Height (H)			74 × 36.5 × 68.2		86.5 × 48.2 × 64.7	86.5 × 48.2 × 64.7	86.5 × 48.2 × 64.7
Features			Supports DC load interruption at high voltage and current		Capable of interrupting 400VDC 500A high voltage high current DC loads Capable of 500 VDC, 120 A with bidirectional switching performance	Capable of interrupting 400VDC 1,000A high voltage high current DC loads Capable of 500 VDC, 200 A with bidirectional switching performance	Capable of interrupting 400VDC 1,000A high voltage high current DC loads Capable of 500 VDC, 250 A with bidirectional switching performance
Contact	Contact form		SPST-NO (1a)		SPST-NO (1a)	SPST-NO (1a)	SPST-NO (1a)
	Contact type		Double break		Double break	Double break	Double break
	Rated load	Resistive load	3,000 operations min. at 400 VDC, 60 A 3,000 operations min. at 120 VDC, 100 A	1,000 operations min. at 400 VDC, 30 A	120 A at 500 VDC	200 A at 500 VDC	250 A at 500 VDC
		Inductive load COSφ=0.4 L/R=7ms	—		—	—	—
	Max. switching current		100 A		120 A	200 A	250 A
	Failure rate P level (reference value)		—		—	—	—
Coil	Rated voltage		12 to 100 VDC		12 VDC	12 VDC	12 VDC
	Power consumption		Approx. 5 to 5.4 W		Approx. 3 W	Approx. 3 W	Approx. 4 W
Mechanical durability			200,000 operations min.		200,000 operations min.	200,000 operations min.	200,000 operations min.
Terminal arrangement/ Internal connections			G9EA-1(-B) 1(+) 2(-) 7 8 (TOP VIEW)	G9EA-1(-B)-CA 1(+) 2(-) 7 8 (TOP VIEW)	G9EK-1-UTU 3 1 2 4	G9EK-1-E 3 1 2 4	G9EK-1-EX 3 1 2 4

Model			G9EC-1		G9EH
Outline dimensions			G9EC-1(-B)	G9EC-1-B-X1	G9EH
			Switching, carry current type	Switching, carry current type	Switching, carry current type
					
Shape (max. value mm) Length (L) × Width (W) × Height (H)			99 × 44.5 × 87.7		112 × 61 × 77.7
Features			Supports DC load interruption at high voltage and current of 400 VDC, 200 A	Supports DC load interruption at high voltage and current of 1,000 VDC, 150 A	Supports DC load interruption at high voltage and current of 400 VDC, 300 A
Contact	Contact form		SPST-NO (1a)	SPST-NO (1a)	SPST-NO (1a)
	Contact type		Double break	Double break	Double break
	Rated load	Resistive load	3,000 operations min. at 400 VDC, 200 A	1,000 VDC, 100 A (6,000 operations min.) 1,000 VDC, 150 A (1,000 operations min.)	3,000 operations min. at 400 VDC, 200 A 1,000 operations min. at 400 VDC, 300 A
		Inductive load COSφ=0.4 L/R=7ms	—	—	—
	Max. switching current		200 A	200 A	300 A
	Failure rate P level (reference value)		—	—	—
Coil	Rated voltage		12 to 100 VDC	12 VDC, 24 VDC	12 VDC, 24 VDC
	Power consumption		Approx. 11 W	Approx. 7 W	Approx. 7 W
Mechanical durability			200,000 operations min.	200,000 operations min.	200,000 operations min.
Terminal arrangement/ Internal connections			G9EC-1(-B) 1(+)  2(-) 7  8 (TOP VIEW)	G9EC-1-B-X1 1 (+)  2 (-) 7  8 (TOP VIEW)	G9EH-1 1(+)  2(-)  (BOTTOM VIEW)

List of common sockets

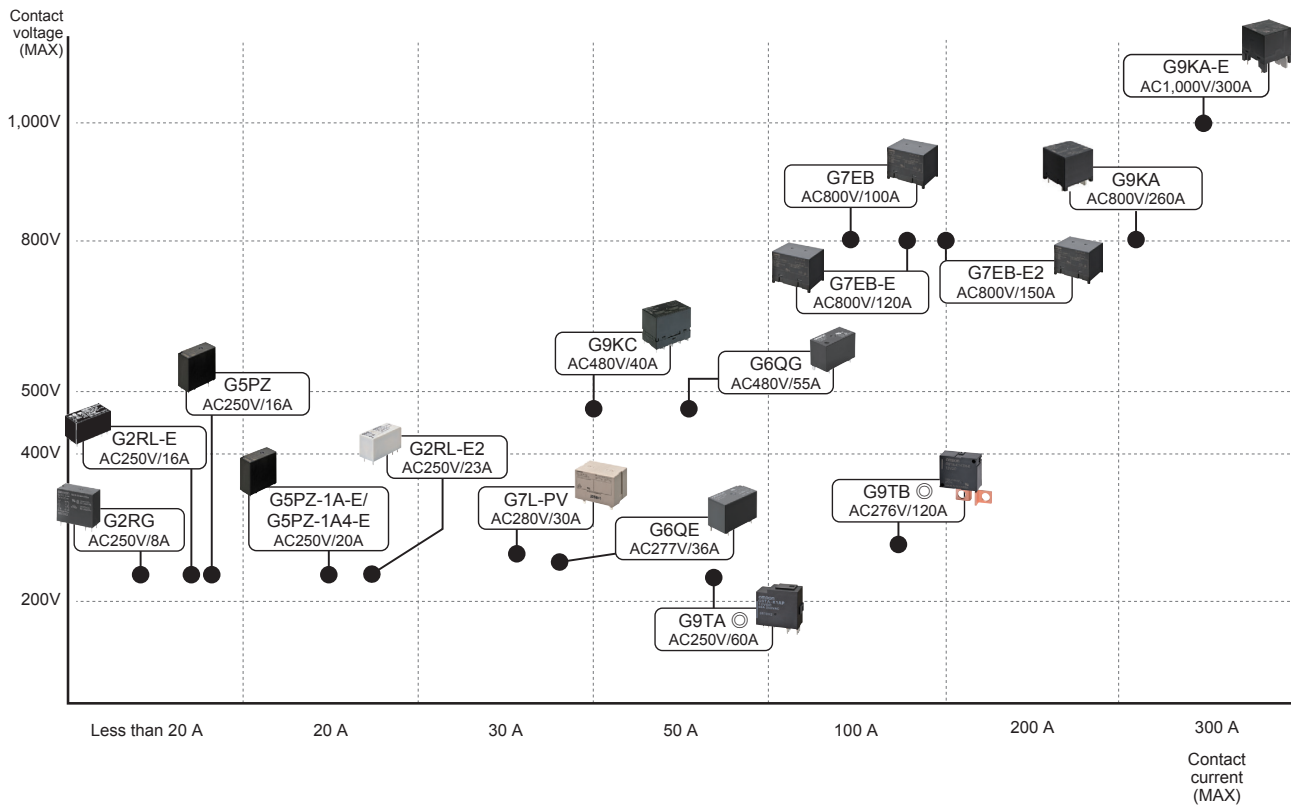
Model	G6B		
Contact form	SPST-NO (1a)		SPST-NO (1a) +SPST-NC (1b), DPST-NO (2a), DPST-NC (2b)
Applicable socket	P6B-04P	P6B-06P (Double-winding latching type compatible)	P6B-26P
Outline dimensions			
Model	G6C		
Contact form	SPST-NO (1a), SPST-NO (1a)+SPST-NC (1b)		
Applicable socket	P6C-06P	P6C-08P (Double-winding latching type compatible)	
Outline dimensions			
Model	G6D		G7L
Contact form	SPST-NO (1a)		SPST-NO (1a), DPST-NO (2a)
Applicable socket	P6D-04P		P7LF-06
Outline dimensions			
Model	G6K-2P		G6K(U)-2P-Y
Contact form	DPDT(2c)		
Applicable socket	P6K-08F		P6K-08F-Y
Outline dimensions			



High Voltage, Large Current AC Relay Lineup*

*The values indicated refer to maximum voltages and currents, respectively.

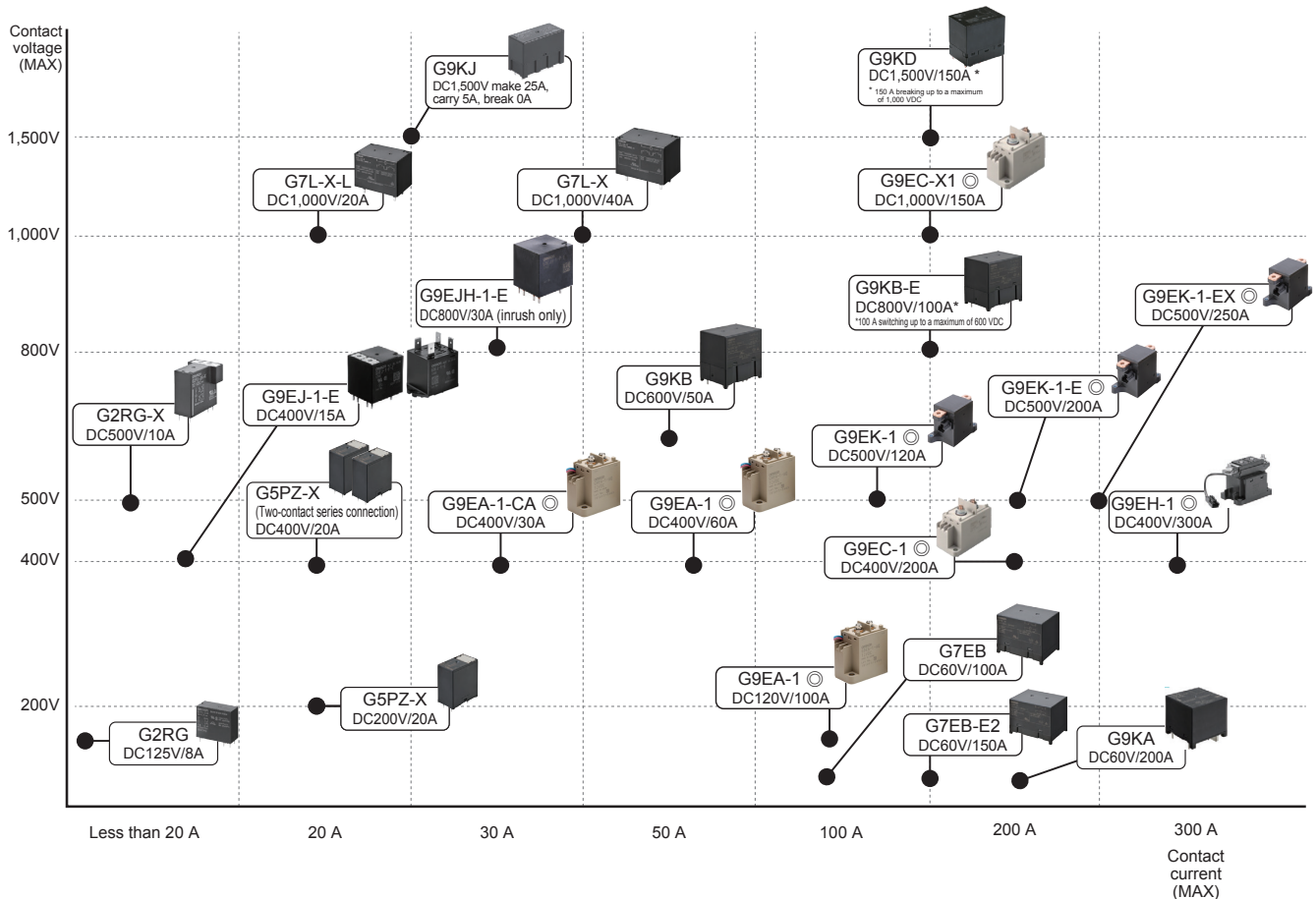
⊙Screw terminal



High Voltage, Large Current DC Relay Lineup*

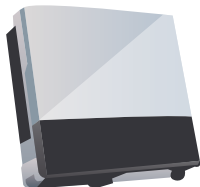
*The values indicated refer to maximum voltages and currents, respectively.

⊙Screw terminal



PV Inverter

Low-contact resistance type AC relays and high-voltage switching type DC relays are available, contributing to the development of high-output and decentralized photovoltaic power systems.



Ground Fault Detection Circuit

G6JY

G6S

G7L-X

G2RG-X



Grid connection/disconnection

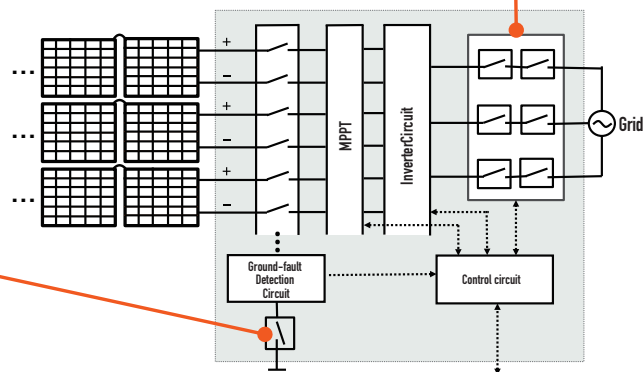
G7EB

G9KA

G9KA-E

G9KC

G7L-PV



EV Fast Charger

DC fast chargers are used in locations, e.g. the expressway service areas, where short-duration charging is required. (Mode4 DC Charging)

AC Safety Shutoff/AC Inrush Prevention

G9TA

G6QE

G9KA

G7EB

G9KC



DC Discharging Circuit/DC Inrush Prevention

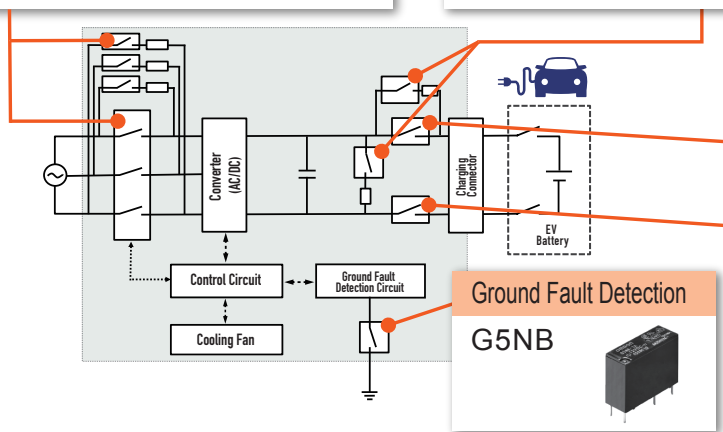
G2RG-X

G5PZ-X

G9KB

G9EJ-1-E/
G9EJH-1-E

G9KJ



DC Safety Shutoff

G9KB

G9EC-1

G9KD



G9EA-1

G9EK-1

G9EK-1-E



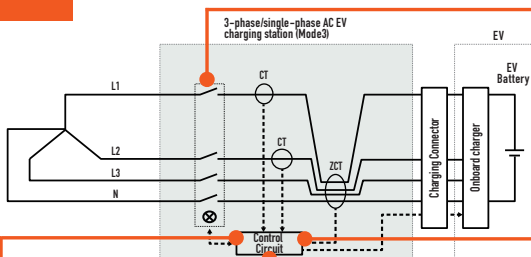
Ground Fault Detection

G5NB



EV AC Charger

Also known as EVSE (EV Supply Equipment), these are primarily installed in homes, offices, and commercial facilities.



Charging Sequence Control

G6DN



CAN Signal Control

G6J-Y

G6K

P6K



* Socket for G6K
PCB terminal types

AC Safety Shutoff

G7EB

G9KC

G6QG



G9TA

G9TB



Electronic Lock Control

G5NB-EL

G5Q

G5NB



The above applications and products are just examples.
There are many other products that are not listed in this catalog.

Energy Storage System

Available in a wide range of contact voltages and currents to meet a growing demand for energy storage solutions.



System Connection/Disconnection

G6QE



G6QG



G9KA



G7EB



G9KC



Inrush Prevention Circuit

G2RG-X



G5PZ-X



G7L-X



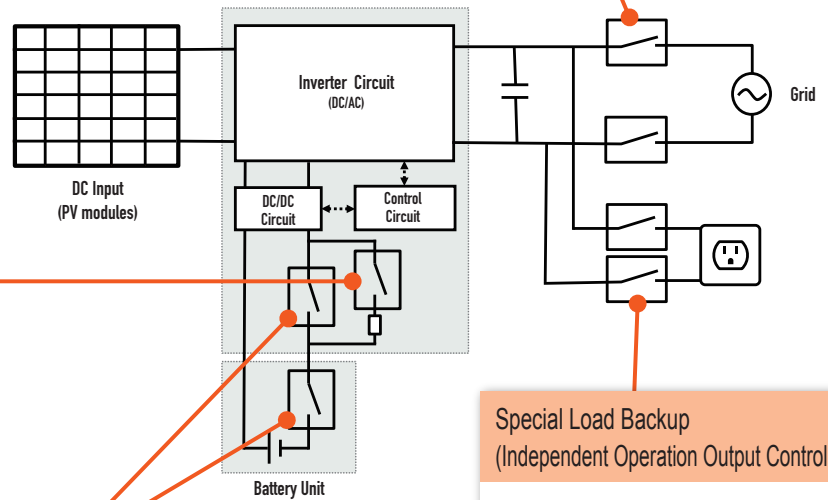
G9EJ-1-E



G9KJ



G9EJH-1-E



Special Load Backup (Independent Operation Output Control)

G6QE



G6QG



G2RL-E2



DC Safety Shutoff

G9EA-1



G7L-X



G9EC-1



G9EK-1



G9EK-1-E



G9KA



G9KB



G7EB



G5PZ-X



G9KD



The above applications and products are just examples.
There are many other products that are not listed in this catalog.

Smart Building



Floor Heating, Temperature Regulation

Heater Operation

G5RL-LN G2RL(-E) G2RL-E2

Bathroom and Toilet

Oil Feed and Boiler Control

G5Q G6RN

Signal Receiver

G6S G6J-Y G6K P6K

* Socket for G6K PCB terminal types

Commercial Air Conditioning System

Power Supply Switching

G5PZ G6QE G7EB G9KA

Communications Control

G6S

G6J-Y

Exterior Light Control

G8G

Fire Alarm

Alarm Output for Abnormality Signal

G6S G6J-Y G6K P6K G5V-1

* Socket for G6K PCB terminal types

HVAC Controller (Controller for Cooling and Heating Equipment in a Building)

This series of miniature and high switching capacity power relays helps deliver increased sophistication in terms of control of air flow and temperature in air conditioning equipment, contributing to the creation of a cleaner and more comfortable environment.

Fan Motor/Valve Control

G5NB(-EL)



G5Q

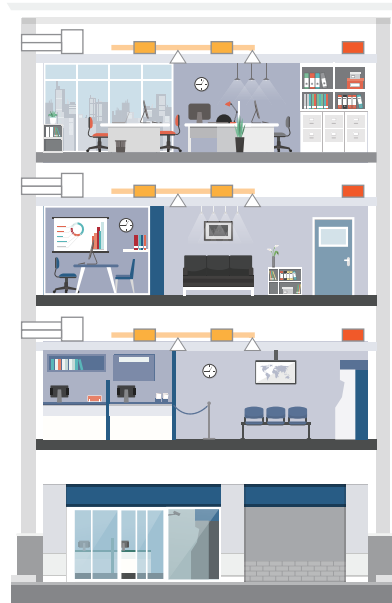


Compressor Control

G5PZ-E



G7L



Boiler Control

G2RL



G6RN



Access Signal Control, Abnormality Alarm Output

G6J-Y



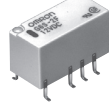
G6K



P6K



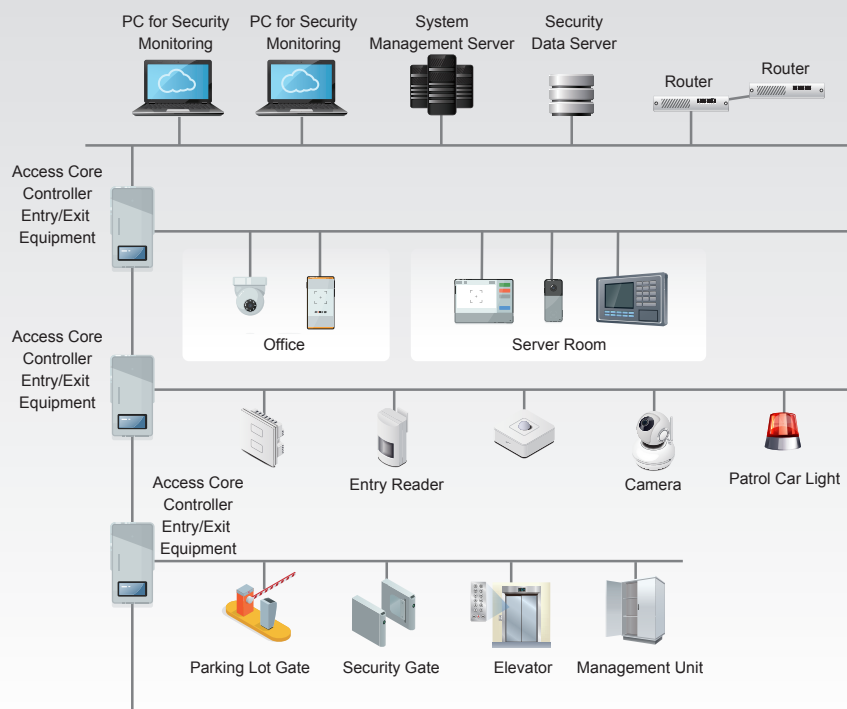
G6S



* Socket for G6K
PCB terminal types

Access Control System

Despite its subminiature size, the product helps deliver safe and secure control systems focused on signal relays with excellent contact reliability and insulation performance.



Automated Shutters/Blinds Control

G5Q



G6RN



G8K



Electronic Locking

G6S



Factory Automation



Programmable Controller

By providing miniature and slim output power relays with excellent switching performance for use in FA systems, OMRON is contributing to the evolution of manufacturing.

External Output Circuit

G6DN

G5NB(-EL)



Robot Controller

OMRON supports the evolution of robotics technology through its extensive product lineup, covering everything from power supply switching to control functionality.

Power Supply Circuit

G2RL(-E)

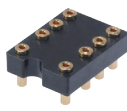


Control Signal Changeover

G6K

P6K

G6S

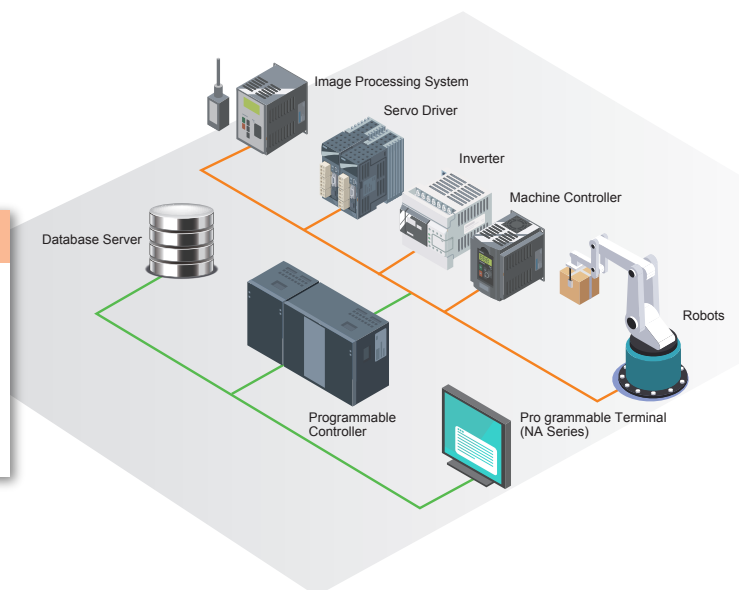


* Socket for G6K PCB terminal types

External Relay Output Applications

G6B

G6DN



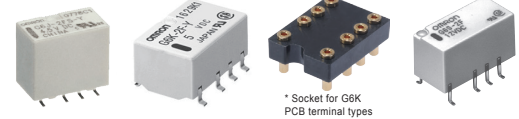
High-Voltage DC Power Supply

From control signal changeover to DC high current breaking. OMRON products can be used in a wide range of applications, satisfying demands for new and innovative solutions.



Circuit Changeover

G6J-Y G6K P6K G6S



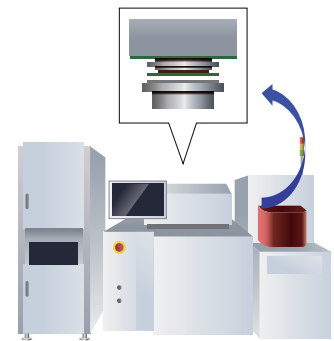
DC Circuit Emergency Shutoff (Safety Shutoff)

G7L-X G9EA-1 G9EK-1 G9EK-1-E G9EC-1 G9EH-1



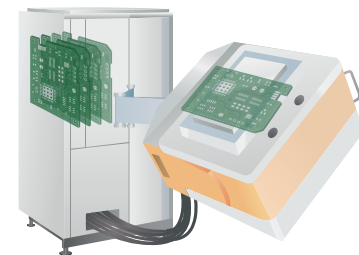
Automated Test Equipment

OMRON's comprehensive range of subminiature high-density mounting type signal relays and high frequency relays with superior characteristics will support the ever advancing semiconductor manufacturing and inspection processes with high reliability...



Test Signal Changeover

G6K P6K G6J-Y 6K-RF G6K-RF-V



Servo Inverter

Miniature and high capacity relays allow for the miniaturization design in pursuit of greater cost effectiveness, regardless of the capacity of the device itself.

Main Power Circuit Switching

G9KA



Inrush Prevention Circuit Main Power Circuit Switching

G6QE

G6QG



Inrush Prevention Circuit Brake Circuit

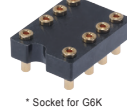
G2RL(-E)



Control Signal Changeover

G6K

P6K



Industrial Motor Changeover

G8K

G8G

G8PM



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