

Panasonic
INDUSTRY

RELAYS

Short Form



Your Committed Enabler

IN Your Future



Signal

Power

High Capacity

Safety

High Frequency

Semiconductor

Automotive

Plug-in

High Voltage



Information, Telecommunication.
Measuring Technologies



White Goods



Control Engineering



Building Automation



System Engineering



Renewable Energy,
Energy Distribution



Railway Engineering



Automotive

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Switch your Smart: Intelligent switching across all industries

On our Relays

Hardly any sector of the working or living space can exist without modern relay technology today. Panasonic Industry meets the various needs with a broad range of innovative and economical relay series. After more than 40 years of experience at the forefront of relay innovation and development, Panasonic Industry today offers a portfolio of more than 2,000 relay variants in the field of miniaturized relay technology – from ultra-miniature SMD signal relays to robust, compact industrial high power types, ready for all kinds of modern and smart application ecosystems.

With this new short form, we invite you to gain a quick and comprehensive overview on our new relay portfolio: our endurance runners, our innovations – and for sure the ones that suit your project.

About Panasonic Industry

As an established part of Panasonic Corporation with long-grown and European relationships we strive for continuous innovation and share the company's overarching purpose:

Shaping the future for the better. To take your ideas to the next level, we at Panasonic Industry research, develop and produce technologies and components for a vast range of industries.

With our own relay laboratory facilities being unique in Europe, we are able to offer in-depth technical support and, more recently, comprehensive material analysis services in the event of any actual or imminent failure within any product design. From full-custom batch-size 1 factory automation devices to next-gen electronic and electromechanical components manufactured in billions of units, our clear focus on innovation, performance and reliability sets the bar high in multiple market sectors – and trends.

Technical Support & Material Analysis

Does this relay fit my application?

And if not – which one does?

At its European headquarters in Ottobrunn, Panasonic Industry combines decades of application expertise with one of Europe's most comprehensive testing and analysis infrastructures.

Engineering insight beyond the datasheet

Our engineers support customers with relay selection, application validation, endurance testing, troubleshooting and failure analysis. Beyond standard datasheet values, we help evaluate real-world operating conditions and identify the best technical solution for your design.

Next-generation material analysis expertise

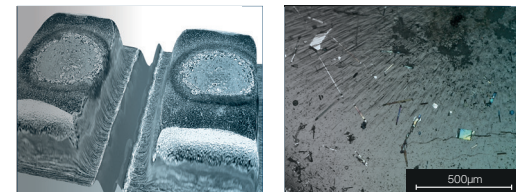
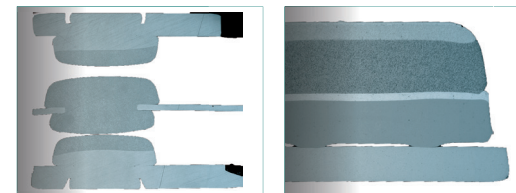
To further expand these capabilities, Panasonic Industry now offers advanced material analysis and imaging technologies. State-of-the-art laboratory equipment enables detailed investigation of electrical, mechanical and material-related phenomena, helping to identify root causes, understand failure mechanisms and assess long-term reliability.

Importantly, these material analysis services are available for a wide range of electronic and electromechanical components including components from third-party manufacturers.

The result is not just data, but actionable engineering insight.

Need technical support or material-related expertise?

Book your 15-minute consultation with our engineering experts.



Industrial Relays

Proven, reliable, innovative and energy-efficient switching solutions

We find ourselves already in the midst of the next industrial revolution, which is not only a question of visions and ideas - but also of nex-gen reliable and efficient components making a true difference in daily operations.

Get a glimpse on what Panasonic Industry has to offer in its latest portfolio of industrial relays – from circuit board connection types to plug-in or screw terminals, from low-level load switching to double-digit ampere values. Discover the variety of industrial switching.

Various connection types such as circuit boards, plug-in or screw terminals offer a large variety of options that are tailored to your application.



High Voltage

Plug-In

Automotive

Semiconductor

High Frequency

Safety

High Capacity

Power

Signal

Signal

Power

High Capacity

Safety

High Frequency

Semiconductor

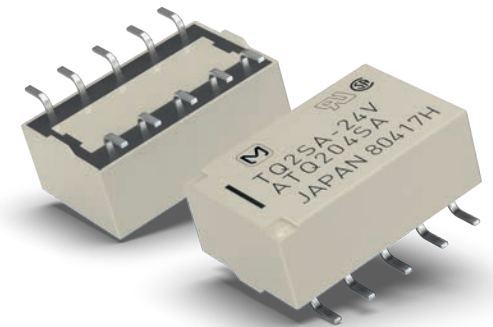
Automotive

Plug-in

High Voltage

“

...NO MATTER IF YOU'RE AIMING
FOR HIGH VOLTAGE ROBUSTNESS
OR LOW COIL POWER LOSS.

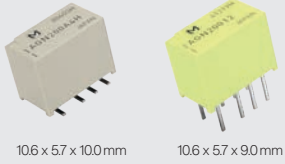
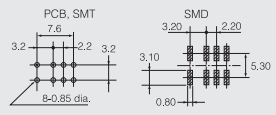
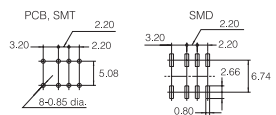
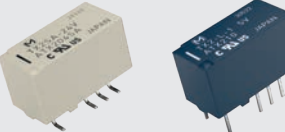
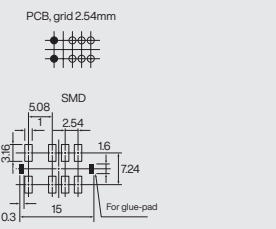


Signal Relays

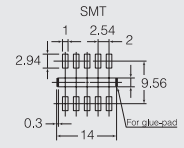
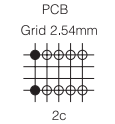
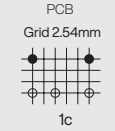
With a compact size and switching capability up to 2A, signal relays are used in a wide field of communication and security applications as well as in lighting, measurement or automation equipment.

Galvanic separation between control and load circuit and ruggedness against high inrush or voltage peaks (overload) makes them an ideal choice for any kind of application.

Even battery-driven or energy harvesting applications can benefit from the modern latching technology all signal relays offer. Power is only needed for a few hundred milliseconds during on- or off-switching, in between the relays need no energy to keep the state.

Series	Features	Coil	Mounting (bottom view)
GN  106 x 57 x 10.0mm 106 x 57 x 9.0mm RTIII 2c 1 coil latching CSA UL BSI	» Compact slim body » 1,500V FCC » 2,500V Telcordia » Twin crossbar contacts ensures high contact reliability » High sensitivity 100mW type available 1A 10µA minimal 110V DC 125V AC	DC 1.5, 3, 4.5, 6, 9, 12V DC 24V	THT SMD  Go To Overview >>
		Single side stable	
		140mW 230mW	
		Sensitive / 1 coil latching type	
GQ  106x 72 x 5.4mm 106x 72 x 5.2mm RTIII 2c 1 coil latching CSA UL BSI	» Space saving flat body » 1,500V FCC » 2,500V Telcordia » The use of twin crossbar contacts ensures high contact reliability » GQ-TH inrush type for 3.5A current available 2A 10µA minimal 110V DC 125V AC	DC 1.5, 3, 4.5, 6, 9, 12V DC 24V	THT SMD  Go To Overview >>
		Single side stable	
		140mW 230mW	
		Sensitive / 1 coil latching type	
TX  15 x 74 x 8.4mm 15 x 74 x 8.2mm RTIII 2c 1 coil latching 2 coil latching CSA UL BSI	» 1,500V FCC » 2,500V Telcordia » 3 types of surface-mount terminals available 2A 10µA minimal 220V DC 220V AC	DC 1.5, 3, 4.5, 5, 6, 9, 12V DC 24V DC 48V	THT SMD  Go To Overview >>
		Single side stable: 140mW	
		1 coil latching: 100mW	
		2 coil latching: 200mW	
	TX-TH high inrush type 7.5A inrush 2A 10µA minimal 220V DC 250V AC	Single side stable: 140mW	
		1 coil latching: 100mW	
		2 coil latching: 140mW	
	TX-D high insulation type » Surge breakdown voltage 6kV (contacts to coil) 2A 10µA minimal 220V DC 250V AC	Single side stable: 200mW	
		1 coil latching: 150mW	
		2 coil latching: 70mW	
	TX-S sensitive type » Very low operating power 1A 10µA minimal 110V DC 125V AC	Single side stable: 50mW	
		1 coil latching: 35mW	
		2 coil latching: 70mW	

Industrial Relays | Signal Relays

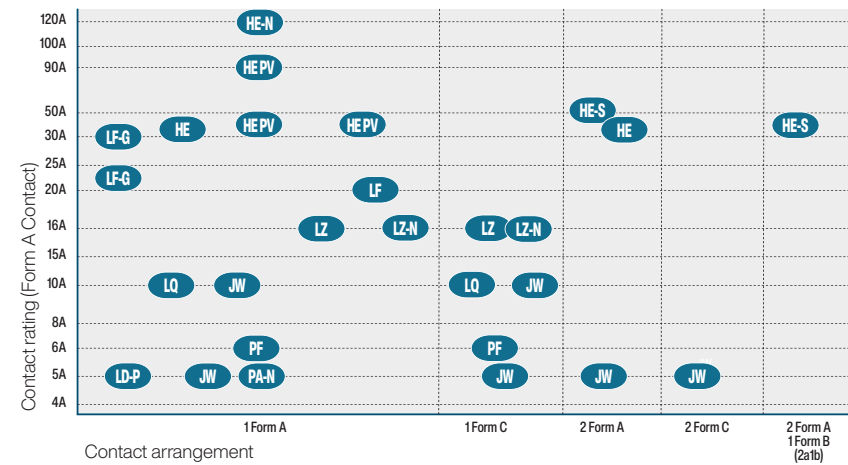
Series	Features	Coil			Mounting (bottom view)
TQ SMD  14 x 9 x 5.6 mm RTIII 2c 1 coil latching 2 coil latching CSA UL	» Ultra low profile 5.8 mm » Surge withstand 2,500V » 3 types of surface-mount terminals available 2A 10µA minimal 220V DC 125V AC	DC 1.5, 3, 4.5, 5, 6, 9, 12V	DC 24V	DC 48V	SMD  Go To Overview >>
		Single side stable: 140mW	200mW	300mW	
		1 coil latching: 70mW	100mW	–	
		2 coil latching: 140mW	200mW	–	
TQ THT  14 x 9 x 5 mm RTIII 2c 1 coil latching 2 coil latching CSA UL	» 1,500V FCC » Low thermal electromotive force approx. 5 µV 1A 10µA minimal 110V DC 125V AC	DC 3, 4.5, 5, 6, 9, 12V	DC 24V	DC 48V	THT  PCB Grid 2.54mm 2c Go To Overview >>
		Single side stable: 140mW	200mW	300mW	
		1 coil latching: 100mW	150mW	–	
		2 coil latching: 200mW	300mW	–	
DS1  15 x 9.9 x 9.9 mm RTIII 1c 1 coil latching 2 coil latching CSA UL	» 1,500V FCC 2A 10µA minimal 220V DC 250V AC	DC 1.5, 3, 5, 6, 9, 12, 24, 48V			THT SMD  PCB Grid 2.54mm 1c Go To Overview >>
		Standard type: 400mW / High sensitive type: 200mW			
		1 coil latching: 90mW			
		Standard type: 360mW / High sensitive type: 180mW			

Power relays - the backbone of applications in countless contexts.

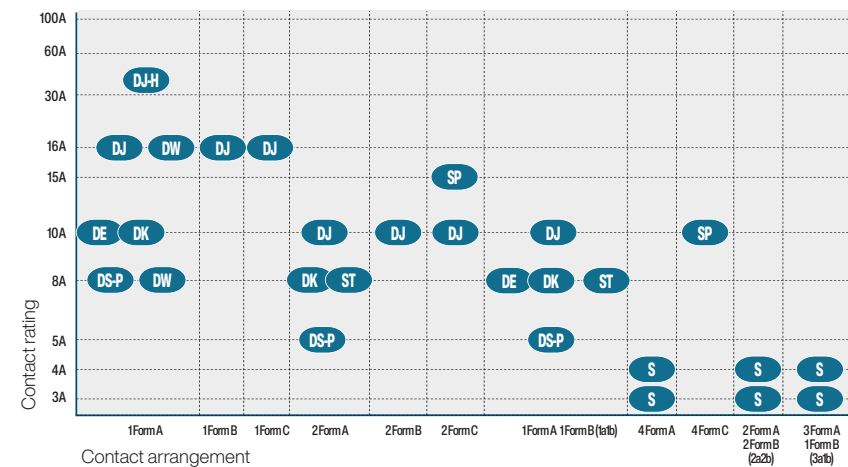
There are clear trends towards high power handling directly on the PCB – and towards polarized relay technology for low or (for the latching types) even zero energy consumption.

Power Relays

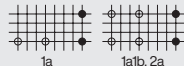
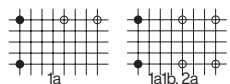
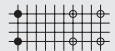
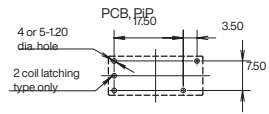
Non polarized type power relays

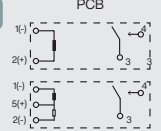
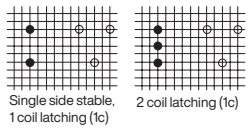
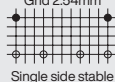


Polarized type power relays (with latching)

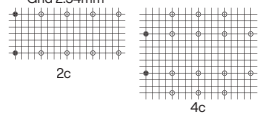
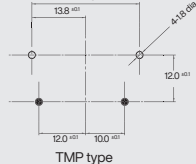
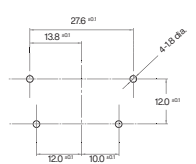


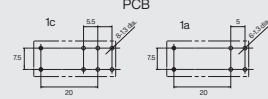
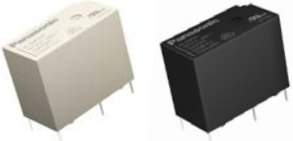
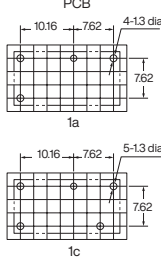
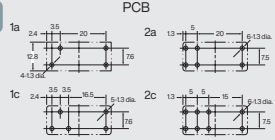
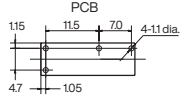
Industrial Relays | Power Relays

Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
DSP  20.2 x 11 x 10.5 mm RTIII 1a 1a1b 2a 1 coil latching 2 coil latching CSA TÜV UL	» Miniature high sensitive power relay » High breakdown voltage » Creepage & clearance distance min. 3.5 mm	DC 3, 5, 6, 9, 12, 24V Single side stable & 2 coil latching: 300mW 1 coil latching: 150mW	1,000Vrms	2,000Vrms	3,000Vrms	5,000V	THT PCB Grid 2.54mm  1a 1a1b, 2a Go To Overview >>
DK  20 x 12.5 x 9.7 mm 20 x 15 x 9.7 mm RTIII 1a 1a1b 2a 2 coil latching CSA TÜV UL VDE	» Creepage & clearance distance min. 8 mm: DK2A-L1/L2 min. 6.8 mm DK1A1B-L1/L2 min. 6.8 mm	DC 3, 5, 6, 9, 12, 24V 200mW	1,000Vrms	4,000Vrms	4,000Vrms	10,000V	THT PCB Grid 2.54mm  1a 1a1b, 2a Go To Overview >>
DE  25 x 12.5 x 12.5 mm RTIII 1a 1a1b 2a 1 coil latching 2 coil latching CSA TÜV UL VDE	» Conforms to VDE0631 » Low coil power » High switching capacity: » Creepage & clearance distance min. 8 mm » PiP Types available on request. Please contact: relays@eu.panasonic.com	DC 1.5, 3, 4.5, 5, 6, 9, 12, 24, 48V Single side stable & 2 coil latching: 200mW 1 coil latching: 100mW	1,000Vrms	4,000Vrms (1a1b, 2a)	5,000Vrms	12,000V	THT PCB Grid 2.54mm  Go To Overview >>
DW/ DW-HL  24 x 10 x 18.8 (15.8) mm RTIII 1a 1 coil latching 2 coil latching UL/C-UL VDE	» 15.8 mm low profile type available » HL inrush type available (TV-8 UL/C-UL) » IEC60335-1* compliant, PTI325V (VDE approved) type available » Creepage & clearance distance min. 6 mm » High Inrush / 20A Type available on request. Please contact: relays@eu.panasonic.com	DC 3, 5, 6, 9, 12, 24V 1 coil latching: 200mW 2 coil latching: 400mW	1,000Vrms	–	5,000Vrms	12,000V	THT PiP  4 or 5-120 dia. hole 2 coil latching type only PCB, PiP 17.50 3.50 7.50 Go To Overview >>

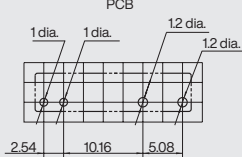
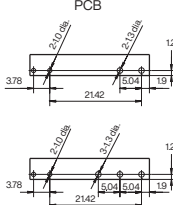
Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
DJ-H  39 x 15 x 33mm RTII 1a 1 coil latching 2 coil latching UL VDE 50A 1a 480V AC	» Manual Lever Type » Creepage and clearance distance min. 8mm » High inrush current capacity ~ 500A » EN 60669 compliant	DC 5, 6, 9, 12, 24V 1 coil latching: 1,000mW 2 coil latching: 2,000mW	1,500Vrms	–	4,000Vrms	12,000V	THT  Go To Overview >>
DJ  29 x 13 x 16/16.5mm RTII RTIII 1a 1b 1a1b 1c 1 coil latching 2a 2b 2c 2 coil latching UL VDE 20A 1a 16A 1b, 1c 10A 1a1b, 2a, 2b, 2c 125V DC 400V AC	» Optional available with manual testbutton » Creepage and clearance distance min. 8mm » Tungsten pre contact available	DC 5, 6, 12, 24, 48V Single side stable & 2 coil latching: 250mW 1 coil latching: 150mW	1,000Vrms	–	4,000Vrms	10,000V	THT Grid 2.54mm  Single side stable, 1 coil latching (1c) 2 coil latching (1c) Go To Overview >>
ST  31 x 14 x 11.3mm RTIII 1a1b 2a 1 coil latching 2 coil latching CSA UL VDE 8A 250V AC	» High inrush capability, TV rating » Frictionless pivoted rotating armature » Socket available » Not for new applications » Creepage and clearance distance more than 3mm, approx. 4mm	DC 3, 5, 6, 9, 12, 24, 48V Single side stable & 2 coil latching: 240mW 1 coil latching: 130mW	1,200Vrms	2,000Vrms	3,750Vrms	6,000V	THT Grid 2.54mm  Single side stable Go To Overview >>

Industrial Relays | Power Relays

Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
S  28 x 12 x 10.4 mm RTII 4a 2a2b 3a1b 1 coil latching 2 coil latching UL	» 5-layer contact for wide switching capacity range: 100µA...4A » High vibration and shock resistance » Low thermal electromotive force (approx. 3µV) » Sockets available	DC 3, 5, 6, 12, 24, 48V Single side stable & 2 coil latching: 200mW (48V: 271mW) 1 coil latching: 100mW (48V: 144mW)	750Vrms	1,000Vrms	1,500Vrms	–	THT PCB Grid 2.54mm  Go To Overview >>
SP  50 x 25.6 x 22mm  50 x 36.8 x 22mm 2c 4c 2 coil latching CSA UL TÜV	» Polarized power relay with rotating armature » High sensitivity » High vibration and shock resistance » Socket available	DC 3, 5, 6, 12, 24, 48V 300mW	1,500Vrms	3,000Vrms	3,000Vrms	–	THT Plug-in PCB, Plug-in Grid 2.54mm  2c 4c Go To Overview >>
LF  30.1 x 15.7 x 23.3 mm RTII 1a TÜV UL VDE CQC	» Ideal for compressor and inverter loads » High insulation resistance » Inrush current: 102A/200V AC 224A/100V AC » High surge withstand voltage » Creepage and clearance distance min. 8mm	DC 5, 6, 9, 12, 18, 24V 900mW	1,000Vrms	–	5,000Vrms	10,000V	THT Terminal mounting PCB, Top mounting  TMP type Go To Overview >>
LF-G  30.1 x 15.7 x 23.3 mm RTII 1a UL C-UL VDE	» Ideal for solar inverters » Contact gap 1.5mm / 1.8mm » Compliant with IEC62109 and VDE0126 » Inrush current: 102A/200V AC 224A/100V AC » Creepage distance contact-coil: min. 9.5mm » Clearance distance contact-coil: min. 6.5mm	DC 9, 12, 18, 24V 1,400mW	2,500Vrms	–	4,000Vrms	6,000V	THT PCB  Go To Overview >>

Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
LZ / LZ-N  28.8 x 12.5 x 15.7 mm RTIII LZ RTII 1a 1c UL VDE	» Low profile relay (15.7 mm) » EN60335-1 GWT compliant » Ambient temperature up to 105 °C » Creepage and clearance distance min. 10 mm	DC 5, 9, 12, 18, 24V (LZ 48V) 400mW	1,000Vrms	–	5,000Vrms	10,000V	THT  Go To Overview
LQ  20 x 10 x 16 mm RTIII RTII 1a 1c UL / C-UL VDE	» Low power consumption » F-coil type for 105 °C ambient temperature available » Creepage and clearance distance: 1a: min. 4.55 mm 1c: min. 3.53 mm High inrush type: min. 5.5 mm » High inrush type: 40A 100µs capacitor 30A motor load » PIP reflow solderable types available	DC 5, 6, 9, 12, 18, 24V 200mW (1a) 400mW (1c)	1,000Vrms (1a) 750Vrms (1c)	–	4,000Vrms	8,000V	THT PIP  Go To Overview
JW  28.6 x 12.8 x 20 mm RTIII 1a 2a 1c 2c CSA SEV TÜV UL VDE SEMKO	» Class B coil insulation types available » Creepage and clearance distance min. 8 mm between contacts and coil (for 2 changeover contacts min. 7.5 mm) » Universal terminal footprint	DC 5, 6, 9, 12, 18, 24, 48V 530mW	1,000Vrms	3,000Vrms (2a, 2c)	5,000Vrms	10,000V	THT  Go To Overview
LD-P  20.3 x 7 x 15 mm RTIII 1a UL / C-UL VDE CQC	» Slim type: width 7 mm » Creepage and clearance distance min. 6 mm » EN60695 (GWT2-11, GWFI2-12, GWIT2-13) data available	DC 5, 6, 9, 12, 18, 24V 200mW	750Vrms	–	4,000Vrms	10,000V	THT  Go To Overview

Industrial Relays | Power Relays

Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
PA-N  20 x 5 x 12.5 mm RTIII 1a UL/C-UL TÜV	» High density mounting » Low operating power » Complies with IEC61010 reinforced insulation standards » Insulation distance: 5.29 mm clearance, 5.35 mm creepage » Complies with Standard for Hazardous Location (ANSI/ISA 12.12.01)	DC 3, 4.5, 5, 6, 9, 12, 18, 24V 110mW	1,000Vrms	–	3,000Vrms	6,000V	THT  Go To Overview >>
PF  28 x 5 x 15 mm RTIII 1a 1c UL/C-UL VDE CSA	» Slim size permits high density mounting » Slim relay for grid applications » Gold flash or gold-clad contacts available » Clearance distance min. 6.0 mm » Creepage distance min. 8.0 mm » Bent pin type available » EN60335-1, clause 30 (GWT) approved	DC 4.5, 5, 6, 9, 12, 18, 24, 48, 60V 170mW 48V: 217mW 60V: 175mW	1,000Vrms	–	4,000Vrms	6,000V	THT  Go To Overview >>

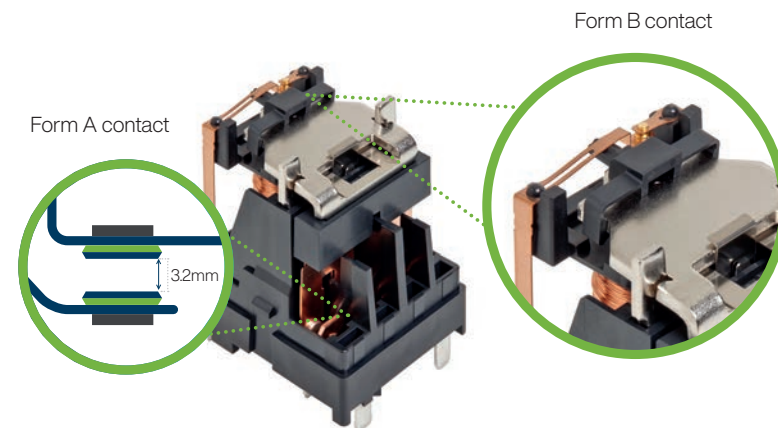


EXTREMELY LOW POWER DISSIPATION
AT THE CONTACTS IS ACHIEVED
BY REDUCING THE CONTACT
RESISTANCE DOWN TO FEW MΩ.

High Capacity Relays

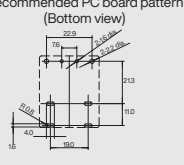
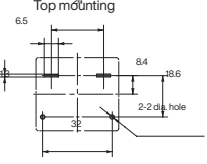
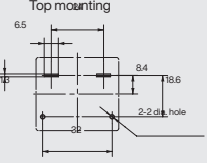
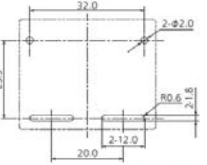
Our energy grid is changing. Decentralized power generation like wind turbines or solar panels on each building require new ways to manage and distribute electrical power that keeps our modern life running.

In addition, e-mobility solutions bring high power applications to each and everyone. To miniaturize this technology - and to make it affordable, HE relays are designed to bring the high power handling on the PCB - without wiring, with improved reliability and low power losses.

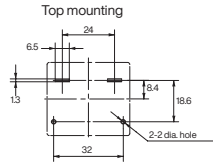
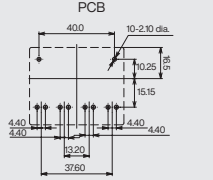
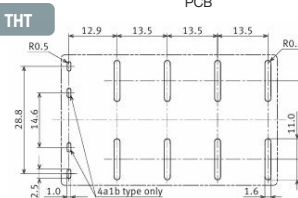
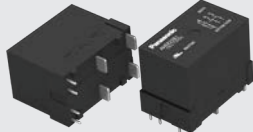
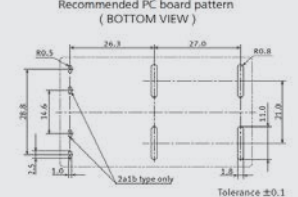


With a gap between normally open contacts of 3.2mm, the HE-S exceeds mandatory regulations.

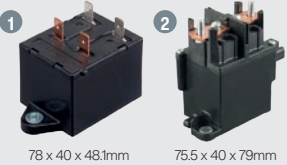
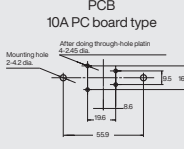
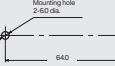
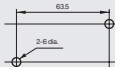
Industrial Relays | High Capacity Relays

Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
HE-S/ HES SC  30 x 36 x 40 mm RTII 2a 2a1b CSA TÜV UL VDE 35A 300V DC 480V AC	» High-capacity and long life » HES: 170mW / HES SC: 440mW coil holding power for energy saving » Contact gap: HE-S: 3.2mm / HE SC: 3.0mm » Safety: Mirror contact mechanisms according to IEC 60947-4-1 » HES SC: SCCR (Short-Circuit Current Rating) : $I_p = 185 \text{ kA} / I_{2t} = 4.5 \text{ kA2s}, I_p = 1.5 \text{ kA} / I_{2t} = 6.0 \text{ kA2s}$	DC 6, 9, 12, 24, 48V 1,880mW	2,000Vrms	5,000Vrms	5,000Vrms (between coil and Form A contacts)	10,000V	THT Recommended PC board pattern (Bottom view)  Go To Overview >>
HE-Y5/ HE-PV  33 x 38 x 36.3 mm 1a CSA UL VDE 35A PV type 48A Y5 type 277V AC	» Compliant with European photovoltaic standard VDE0126 » Compliant with EN61810-1 2.5kW surge breakdown voltage (between contacts) » Contact gap 2.5 mm » Only 310mW holding power	DC 6, 9, 12, 24V 1,920mW	2,000Vrms	-	5,000Vrms	10,000V	THT Top mounting  Go To Overview >>
HE-Y6  33 x 38 x 38.8 mm RTII 1a CSA UL VDE 90A 277V AC	» Compliant with European photovoltaic standard VDE0126 » Compliant with EN61810-1 2.5kW surge breakdown voltage (between contacts) » Contact gap 3.0 mm » Only 310mW holding power	DC 6, 9, 12, 24V 1,920mW	2,000Vrms	-	5,000Vrms	10,000V	THT Top mounting  Go To Overview >>
HE-A  38 x 33 x 38.8 mm 1a 1a1b UL VDE 90A 800V AC	» Max. carrying current 110 A » 1b mirror contact structure » Contact gap 3.6mm » Only 310mW holding power » Creepage / clearance >10.0mm » SCCR 5,000A rms	DC 12, 24V 1,920mW	2,000Vrms	5,000Vrms	5,000Vrms	10,000Vrms	THT Recommended PC board pattern (BOTTOM VIEW)  Go To Overview >>

Industrial Relays | High Capacity Relays

Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
HE-Y7  50 x 40 x 43 mm RTII 1a CSA UL/C-UL VDE	» For inverter, battery charger, battery storage » Contact gap 3.6 mm » Only 400mW holding power » Very low contact resistance » Creepage & clearance distance min. 10.55 mm	DC 6, 9, 12, 24V 2,500mW	2,000Vrms	-	5,000Vrms	10,000V	THT  Go To Overview >>
HE-V  41 x 50 x 39.4 mm 2a UL/C-UL VDE	» Max. 1,000V DC, 20A cutoff » Coil holding power 210mW » Protective construction: Flux-resistant type » Contact gap: min. 3.0mm » Clearance distance min. 8mm » Creepage distance min. 9.6mm	DC 6, 9, 12, 15, 24V 1,920mW	2,000Vrms	4,000Vrms	5,000Vrms	10,000V	THT  Go To Overview >>
HE-R  58 x 35 x 47mm 4a 4a1b UL/C-UL VDE	» Compliant IEC 62955 » 1b mirror contact structure » Contact gap 3.6mm and 4.0mm » Only 490mW holding power » Creepage / clearance >8.0mm » Short circuit withstand: I _p =2.6kA, I _{2t} =6.5kA2s	DC 12, 24V 4,000mW	2,000Vrms	5,000Vrms	5,000Vrms	10,000V	THT  Go To Overview >>
HE-R  37 x 60 x 47mm 2a 2a2b UL/C-UL VDE	» Compliant with UL508 » 1b mirror contact structure » Contact gap 3.6mm » Only 490mW holding power » Creepage / clearance >8.0mm » SCCR 5,000A rms	DC 12, 24V 4,000mW	2,000Vrms	5,000Vrms	5,000Vrms	10,000Vrms	 Go To Overview >>

Industrial Relays | High Capacity Relays

Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
EP  78 x 40 x 48.1mm 75.5 x 40 x 79mm RTV 1a UL / C-UL	» Max. cut-off current 2,500A/300VDC (300A type) » Max. 1,000VDC contact voltage » Low operating noise » High contact reliability » DC type with sealed capsule						THT TM type Lead wire Connector 
	1 20A 400V DC	DC 12, 100V 3.9W	2,500Vrms	-	2,500Vrms		20A type 
	2 80A 400V DC	DC 12, 100V 4.2W					80A type 

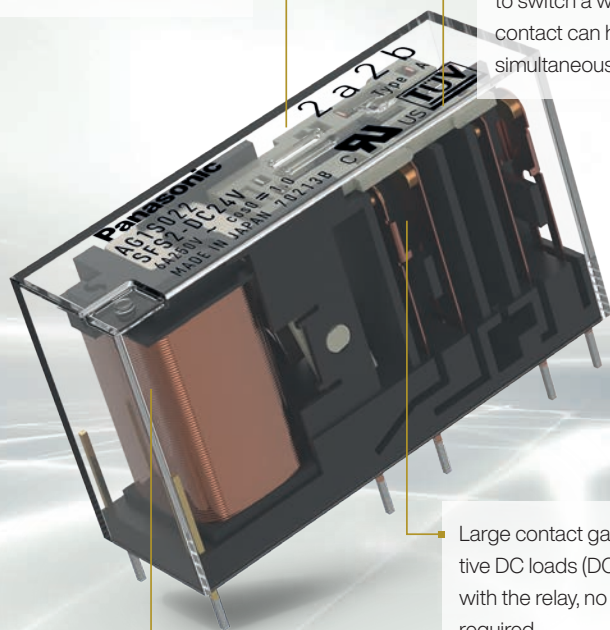
A safety relay has two or more forcibly guided contacts according to **EN 61810-3**

In case of the SF-S series, it is realized by the white actuator.

1mA 5V up to **6A 250VAC** (SF-S series), the silver alloy contacts are designed to switch a wide range of loads. Each contact can handle maximum load simultaneously without derating.

Large contact gaps helps to switch inductive DC loads (DC13) like valves directly with the relay, no additional contactor is required.

All Panasonic Industry safety relays use a **polarized coil** system for low energy consumption



“

WHEN SAFETY MUST NOT FAIL,
YOUR RELAY MUST NOT EITHER

Safety Relays

Safety is not a feature – it is a system requirement. In modern industrial environments, relays play a key role in ensuring fail-safe operation of machines and processes.

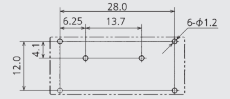
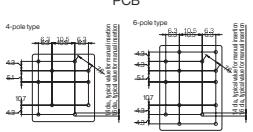
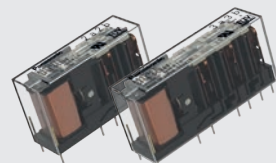
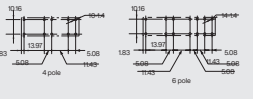
Panasonic safety relays with forcibly guided contacts according to EN 61810-3 are engineered to detect failures such as welded contacts and immediately trigger safe system responses. This enables designers to build reliable safety circuits that actively prevent hazardous conditions.

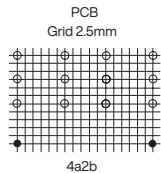
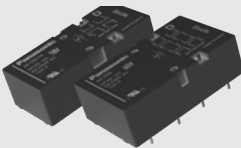
With decades of proven field experience, Panasonic offers:

- Proven reliability in critical applications
- Robust design for harsh industrial environments
- Long service life and stable performance
- Energy-efficient operation with low coil power consumption

Panasonic safety relays are used worldwide in applications such as factory automation, railway systems, building automation, and elevator control – wherever safe switching is essential for protecting people, equipment, and processes.

Industrial Relays | Safety Relays

Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
SFM  330 x 140 x 78 mm RTII PIP type RTIII THT type 1a1b 	» Extremely low height » Low holding power 100mW » High shock resistance >20g » Reinforced insulation ≥ 5.5 mm (V=230V overvoltage category III, 6kV) on NO side » Tested under EN 60947 conditions » Ambient temperature -40 to +85°C » Tape & Reel available	DC 3, 5, 12, 16, 18, 21, 24, 48V 270mW	1,500Vrms	- (no contact sets next to each other)	2,500Vrms for NC side 4,000Vrms for NO side		THT PIP  General tolerance: ± 0.1 Schematic (BOTTOM VIEW) Go To Overview
SFY  310 x 286 x 145 mm 390 x 286 x 145 mm RTIII 2a2b 3a1b 4a2b 5a1b 	» Gold clad contacts on request » Reinforced insulation according to EN 50178, creepage and clearance distance ≥ 5.5 mm (V=230V overvoltage category III, 6 kV) » Tested under EN 60947 conditions » Ambient temperature -40 to +85°C » Tested as sealed device according to IEC / EN 60079-15:2010 clause 22.5 (VDE)	DC 5, 12, 16, 18, 21, 24V 670mW	1,500Vrms	4,000Vrms	2,500Vrms for NC side 4,000Vrms for NO side		THT PCB  Go To Overview
SFS  400 x 130 x 240 mm 500 x 130 x 240 mm RTIII 2a2b 3a1b 4a2b 5a1b 3a3b 	» Slim profile reduces mounting area » PC board sockets available » DIN-rail terminal sockets available » RTII (IP54), RTIII 4pole on request » Tested under EN 60947 conditions » Ambient temperature -40 to +85°C » LED indication type available	DC 12, 18, 21, 24, 48V 360mW (4pole) 500mW (6pole)	2,500Vrms	4,000Vrms	4,000Vrms		THT PCB  Go To Overview

Series	Features	Coil	Breakdown voltage			Surge voltage	Mounting (bottom view)
			open contacts	contact sets	contacts to coil		
SFN4D  53.3 x 33 x 14.5 mm RTIII 4a2b 	» EN 61810-3, Type B safety double contact » Reinforced insulation, creepage and clearance distance 5.5mm » Tested under EN 60947 conditions 8A N.O. 8A N.C. 500V DC 500V AC	DC 5, 9, 12, 16, 18, 21, 24, 36, 48, 60V 390mW (5 - 24V) 420mW (36 - 60V)	2,500Vrms	4,000Vrms	5,000Vrms		THT  4a2b Go To Overview >>
SF  53.3 x 25 x 16.5 mm 53.3 x 33 x 16.5 mm RTIII 2a2b 3a1b 4a4b 	» SF4D: EN 61810-3, Type B safety double contact » SF2D: EN 61810-3, Type A safety double contact » SF3: EN 61810-3, Type A » IEC/EN 60335-1 (GWT) available » Tested under EN 60947 conditions 8A N.O. 8A N.C. 400V DC 400V AC	DC 5, 9, 12, 18, 21, 24, 36, 48, 60V 500mW	2,500Vrms	4,000Vrms	5,000Vrms		THT Go To Overview >>

Signal

Power

High Capacity

Safety

High Frequency

Semiconductor

Automotive

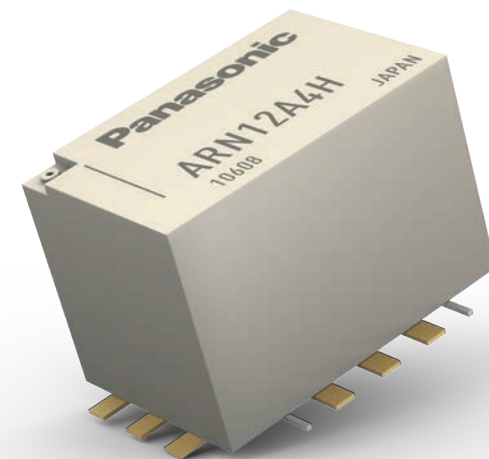
Plug-in

High Voltage

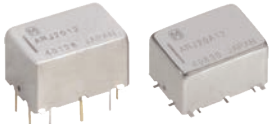
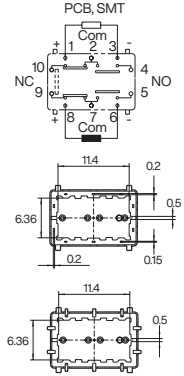
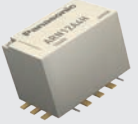
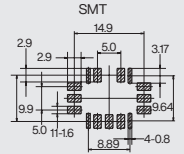
High Frequency Relays

Microwave devices can be classified into relays and coaxial switches which handle high frequency signals above several 100MHz. These devices are frequently used in the field of test and measurement equipment, wireless devices and base stations.

Panasonic Industry has a wide range of relays and coaxial switch products for various frequency bands. Features include low insertion loss, high isolation, and low VSWR for impedance matching.



Industrial Relays | High Frequency Relays

Series	Features	Coil	Mounting (bottom view)
ARD  <p>34 x 132 x 40mm 32 x 32 x 40mm 80 x 80 x 40.5mm</p> <p>SPDT Transfer SP6T</p>	<ul style="list-style-type: none"> » Long life » Stable contact resistance » High sensitive coaxial switch <p>50Ω Impedance 26.5GHz</p>	DC 4.5, 5, 12, 24V Fail-safe (with or without indicator) Latching (with or without indicator) Latching with TTL driver (with self cut-off function, with or without indicator)	<p>SMA Coax</p> <p>Go To Overview >></p>
ARJ  <p>14 x 9 x 8.2mm</p> <p>RTIII 2c 2 coil latching</p>	<ul style="list-style-type: none"> » Shielded HF relay » HF characteristics at 5GHz: » Isolation min. 35dB » Isolation min. 30dB between contact sets » Insertion loss max. 0.5dB » V.S.W.R. max.1.25 <p>50Ω Impedance 8GHz 1W @5GHz</p>	DC 3, 4.5, 12, 24V Single side stable: 200mW 2 coil latching: 150mW	<p>THT SMD</p> <p>PCB, SMT</p>  <p>Go To Overview >></p>
ARN  <p>14.6 x 9.6 x 10.0mm</p> <p>1c 1c reversed 2 coil latching</p>	<ul style="list-style-type: none"> » 150W carrying power at 2GHz » HF characteristics at 2GHz: » Isolation min. 55dB » Insertion loss max. 0.12dB » V.S.W.R. max. 1.15 <p>50Ω Impedance 8GHz 80W @2GHz</p>	DC 4.5, 12, 24V Single side stable: 320mW 2 coil latching: 400mW	<p>SMD</p>  <p>Go To Overview >></p>

Industrial Relays | Note



Semiconductor Relays

Maximum service life - many application purposes

Panasonic Industry offers a wide range of PhotoMOS® relays for use in telecommunication, measurement, security devices and industrial control.

The power MOSFET's output acts as a pure ohmic resistance thus distinguishing the PhotoMOS® from an optocoupler or triac solution, since no saturation voltage or offset voltage is required.

PhotoMOS® relays with a MOSFET output enjoy an almost unlimited lifetime if used according to the specifications. Moreover, they are extremely reliable, unaffected by vibration, and their On-resistance remains stable throughout their entire lifetime. In addition to our broad product line-up for the industrial market, automotive-qualified types are also available.

Go To
PhotoMOS®
Android
APP



Go To
PhotoMOS®
IOS
APP

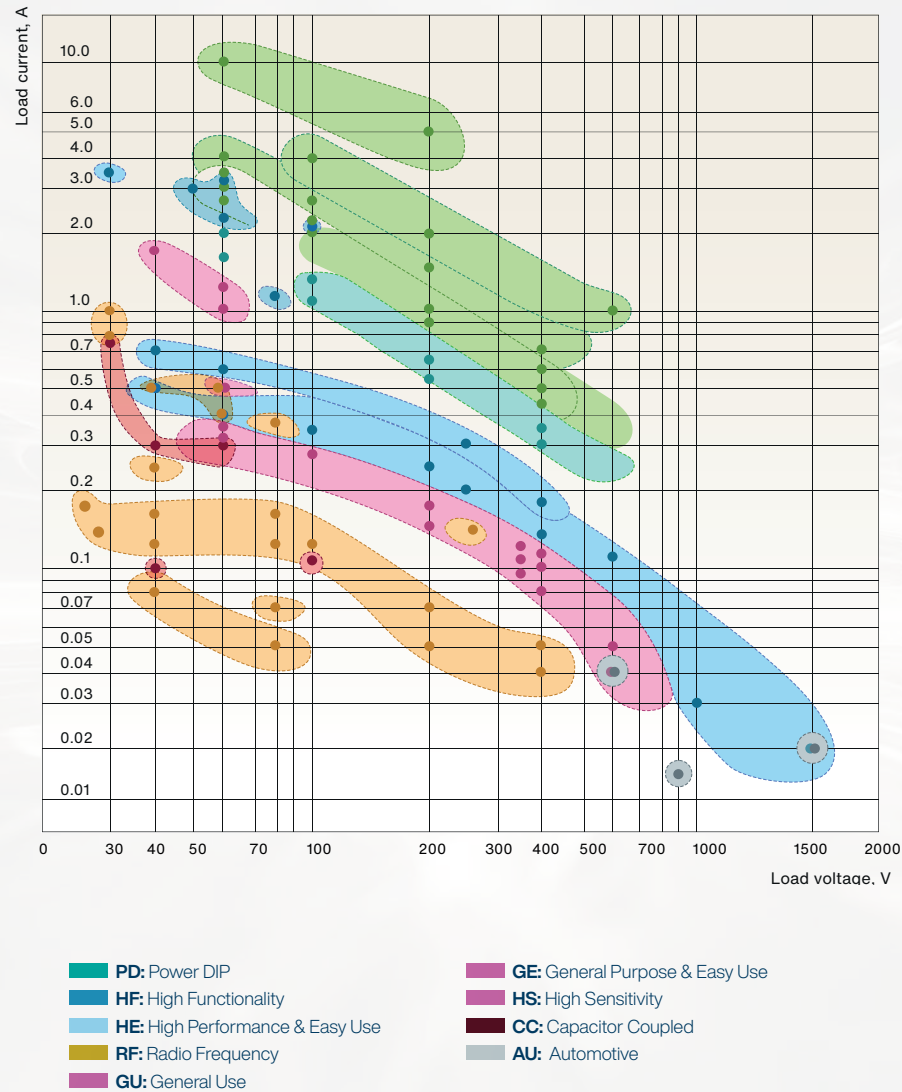


Go To
Learn more
PhotoMOS®
technology



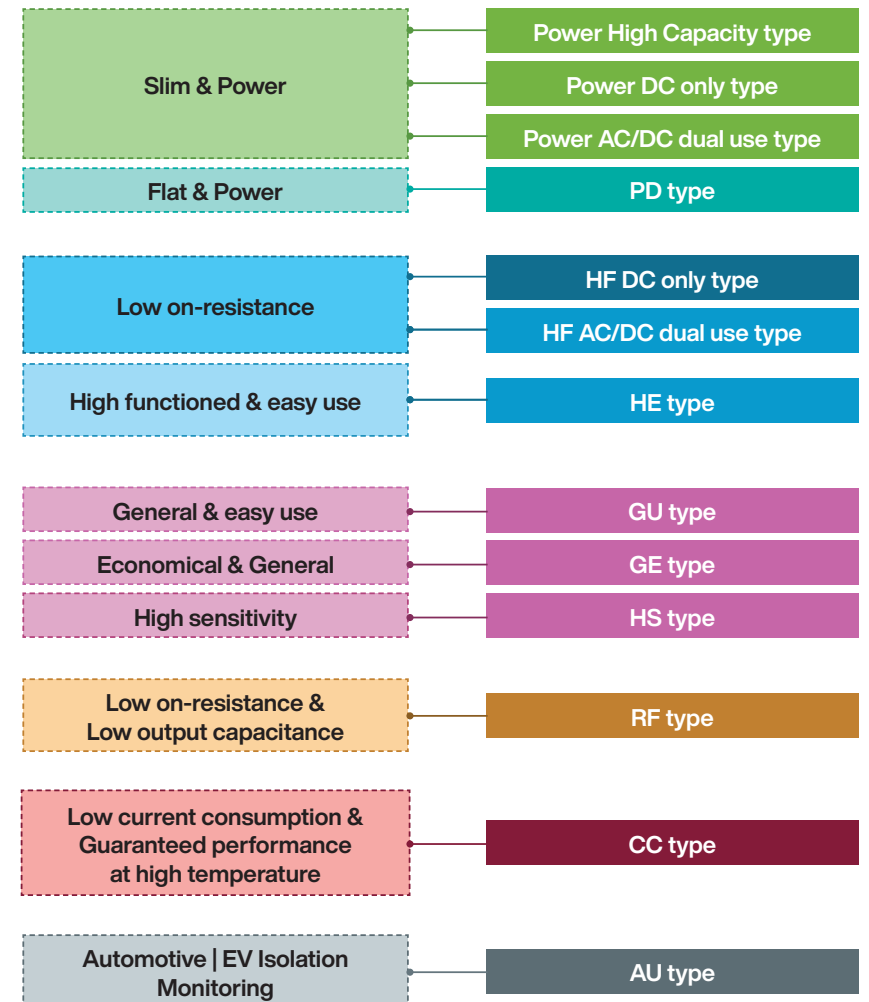


Signal	
Power	
High Capacity	
Safety	
High Frequency	
Semiconductor	
Automotive	
Plug-In	
High Voltage	

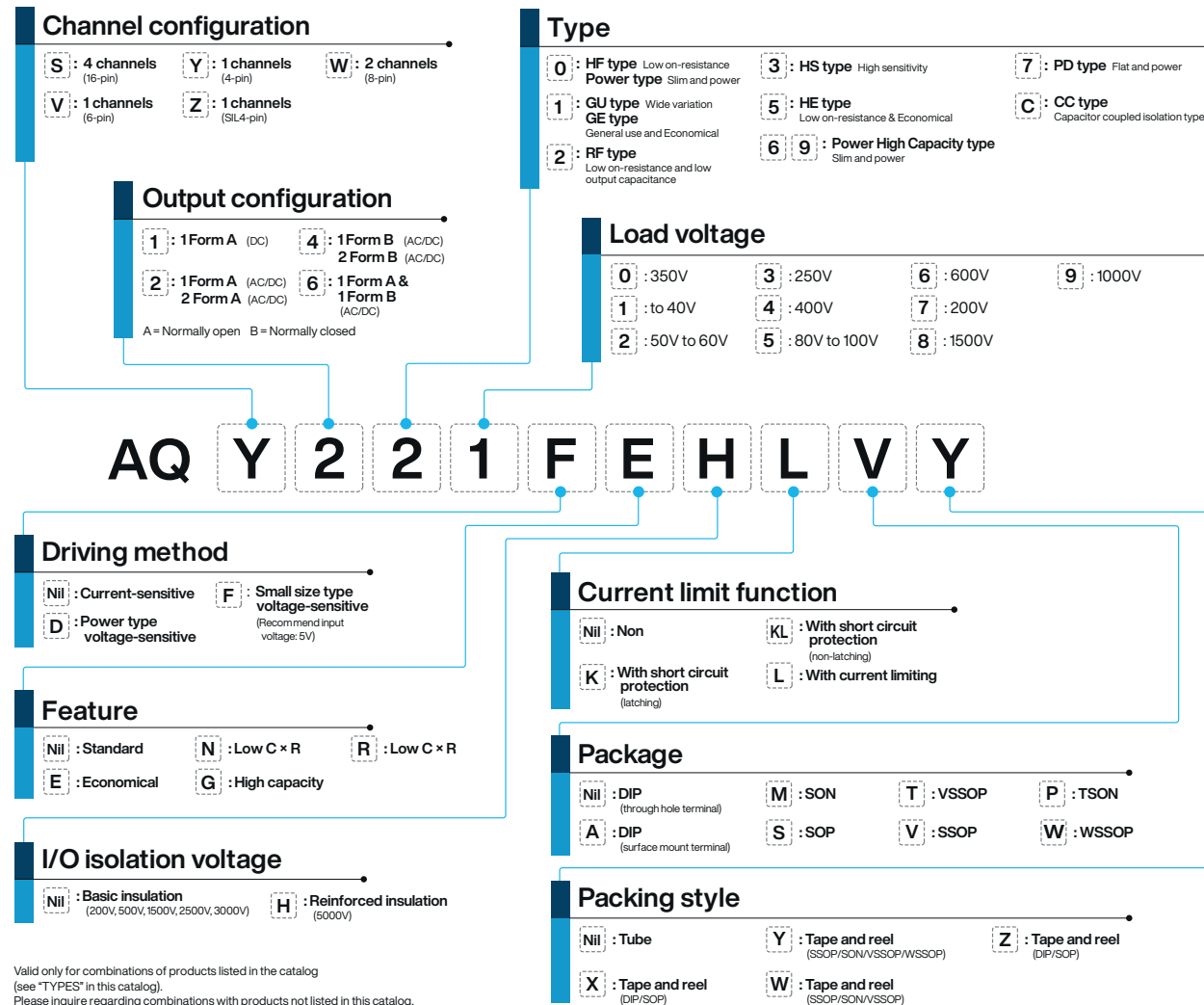


PhotoMOS®

Overview



Product key & Packages



Valid only for combinations of products listed in the catalog
(see "TYPES" in this catalog).
Please inquire regarding combinations with products not listed in this catalog.

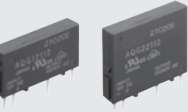
Packages	
TSON Thin Small Outline No lead Package	
VSSOP Very Shrink Small Outline Package	
WSSOP Very Very Shrink Small Outline Package	
SON Small Outline No lead Package	
SSOP Shrink Small Outline Package	
SOP Small Outline Package	   
DIP Dual Inline Package	   
Power-DIP Power Dual Inline Package	 
SIL Single Inline Package	 

Semiconductor Relays | PhotoMOS®

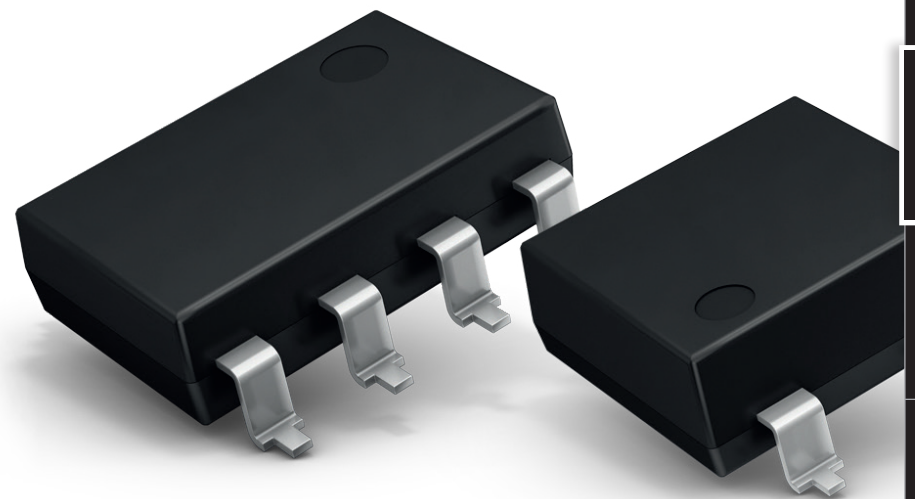
Series	Features	Output
GU General Use  <div>1a 1b 2a 2b 1a1b</div>	» Wide product range for most applications » Reinforced insulation type available <div>DIP SOP</div>	<div>40V 1.6A 0.1Ω</div> <div>60V 1.8A 0.08Ω</div> <div>100V 0.32A 2.3Ω</div> <div>200V 0.4A 1.8Ω</div> <div>350V 0.13A 0.32Ω</div> <div>400V 0.12A 26Ω</div> <div>600V 0.05A 70Ω</div> <div>Go To Overview >></div>
GE General & Easy Use  <div>1a 1b 2a 2b 1a1b</div>	» Reinforced insulation of 5kV » Low on-resistance » Controls low-level analog signals <div>DIP</div>	<div>30V 1.0A 0.25Ω</div> <div>60V 0.55A 0.85Ω</div> <div>350V 0.13A 18Ω</div> <div>400V 0.12A 26Ω</div> <div>600V 0.05A 52Ω</div> <div>Go To Overview >></div>
HS High Sensitivity  <div>1a</div>	» Low LED operate current » Miniature packages » High speed operation <div>DIP SOP WSSOP</div>	<div>40V 0.35A 0.75Ω</div> <div>60V 2A 0.07Ω</div> <div>350V 0.12A 19Ω 32pF</div> <div>400V 0.12A 30Ω 45pF</div> <div>Go To Overview >></div>
RF Radio Frequency  <div>1a 2a 4a</div>	» Very good RF characteristics » Low signal loss » Low on resistance » Low output capacitance <div>DIP SOP SSOP VSSOP SON</div>	<div>20V 0.18A 2.8Ω 1pF</div> <div>25V 0.15A 5.5Ω 1.1pF</div> <div>30V 1A 0.18Ω 37.5pF</div> <div>40V 0.12A 9.5Ω 1pF</div> <div>60V 0.4A 0.8Ω 24.5pF</div> <div>80V 0.12A 10.5Ω 4.5pF</div> <div>100V 0.12A 8.8Ω 5.8pF</div> <div>200V 0.07A 30Ω 10pF</div> <div>250V 0.14A 11Ω 33pF</div> <div>400V 0.05A 70Ω 10pF</div> <div>Go To Overview >></div>
CC Capacitive Coupled  <div>1a 1b</div>	» Capacitor Coupled isolation type » Low On resistance, low output capacitance » High temperature range up to +105°C <div>TSON</div>	<div>30V 0.75A 0.2Ω 40pF</div> <div>40V 0.3A 0.8Ω 14.5pF</div> <div>60V 0.3A 0.9Ω 27pF</div> <div>100V 0.12A 9Ω 5.9pF</div> <div>Go To Overview >></div>

Series	Features	Output
AU Automotive  1a	» Tested in accordance to AEC-Q101 » Optimized for Isolation Monitoring & HV measurement DIP SOP	<div>60V 0.6A 0.85Ω</div> <div>100V 0.25A 2.3Ω</div> <div>600V 0.04A 70Ω</div> <div>900V 0.015A 310Ω</div> <div>1500V 0.02A 305Ω</div> <div>1800V 0.015A 620Ω</div> Go To Overview >>
Power Slim & Power  1a 1b	» High Current in SIL package » Voltage sensitive types » No restriction on mounting direction SIL	<div>60V 10A 0.008Ω</div> <div>100V 4A 0.035Ω</div> <div>200V 5A 0.031Ω</div> <div>400V 0.7A 1.06Ω</div> <div>600V 1A 0.52Ω</div> Go To Overview >>
PD Flat & Power  1a	» High Current in Power DIP package Power DIP	<div>60V 2A 0.11Ω</div> <div>100V 1.3A 0.23Ω</div> <div>200V 0.65A 0.7Ω</div> <div>400V 0.35A 21Ω</div> Go To Overview >>
HF High Functioned  1a	» AC and DC types » Low on resistance DIP SSOP	<div>40V 0.7A 0.3Ω</div> <div>60V 0.6A 0.37Ω</div> <div>250V 0.3A 27Ω</div> <div>400V 0.18A 6.3Ω</div> <div>600V 0.15A 8Ω</div> <div>1200V 0.75A 1Ω</div> Go To Overview >>
HE High Functioned & Easy Use  1a 1b 2a 2b 1a1b	» High Efficiency » Low on resistance & economical DIP SOP	<div>30V 3.5A 0.035Ω</div> <div>40V 0.5A 0.6Ω</div> <div>50V 3A 0.04Ω</div> <div>60V 3.5A 0.033Ω</div> <div>80V 1.25A 0.09Ω</div> <div>100V 2.4A 0.07Ω</div> <div>200V 0.25A 2.6Ω</div> <div>250V 0.2A 5.5Ω</div> <div>400V 0.15A 11Ω</div> <div>600V 0.13A 20Ω</div> <div>1000V 0.03A 85Ω</div> <div>1500V 0.02A 345Ω</div> Go To Overview >>

Semiconductor Relays | Solid State Relays

Series	Features	Output
APT 	» Phototriac Coupler DIP SOP	600VAC 0.1A Go To Overview >>
AQH 	» No derating up to +40°C » SMD mounting DIP	600VAC 1.2A Go To Overview >>
AQG 	» Voltage Controlled » Integrated Snubber Circuit SIL	230VAC 2A Go To Overview >>
AQ1 	» Voltage Controlled » Heat Sink ready SIL	230VAC 10A Go To Overview >>
AQJ 	» Plug terminals » Integrated Varistor Hockey-Puck	230VAC 25A Go To Overview >>
AQA 	» Wide range input (3 – 30VDC) » Screw terminals » Status LED » Integrated Varistor Hockey-Puck	230VAC 40A 1.00VDC 10A Go To Overview >>

Semiconductor Relays | Note



Signal	
Power	
High Capacity	
Safety	
High Frequency	
Semiconductor	
Automotive	
Plug-In	
High Voltage	

Automotive Relays

All Panasonic Industry Automotive relays comply with IATF 16949.

Panasonic Industry has been contributing to the ever increasing need for innovation in transportation electronics for decades, with highly reliable, long lasting devices for transportation safety, comfort, entertainment and powertrain applications. There is continued effort within the transportation industry to balance societal and economic perspectives with the environment.

Panasonic Industry continually supports these efforts with proven quality, a solid manufacturing organization and experienced engineering talent.

Go To
discontinued
parts





High Voltage

Plug-In

Automotive

Semiconductor

High Frequency

Safety

High Capacity

Power

Signal

Signal

Power

High Capacity

Safety

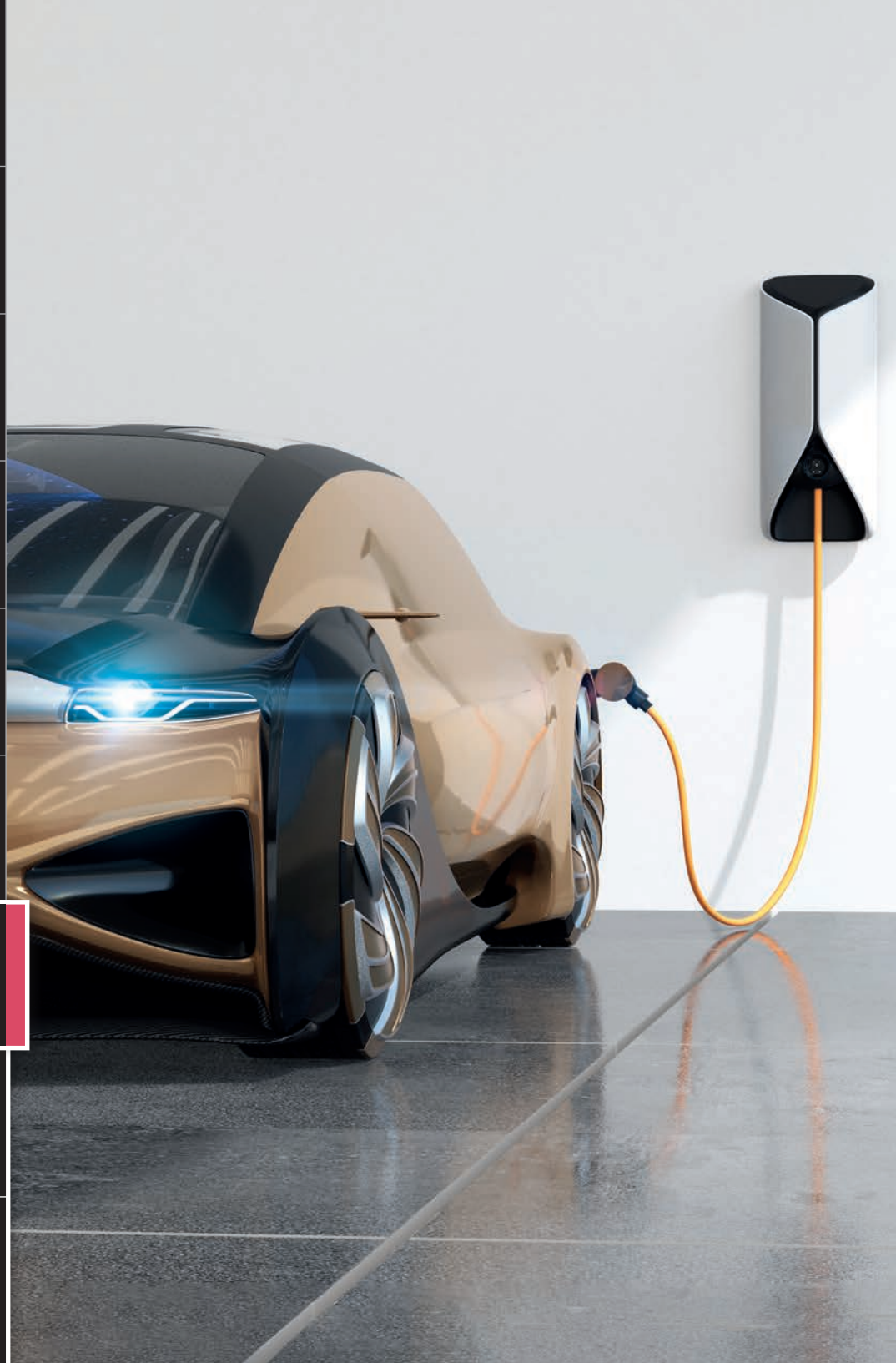
High Frequency

Semiconductor

Automotive

Plug-in

High Voltage

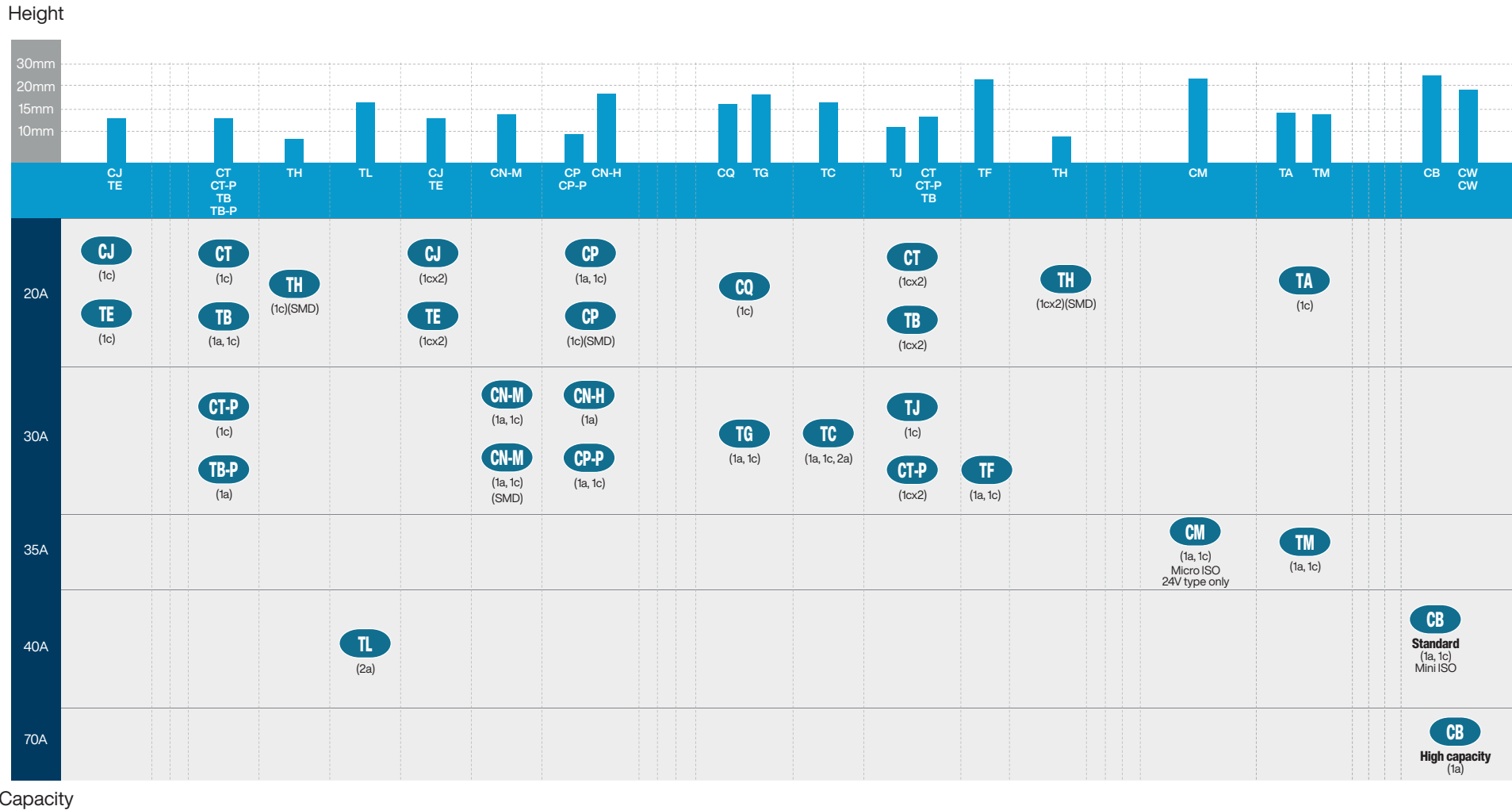


PCB Relays

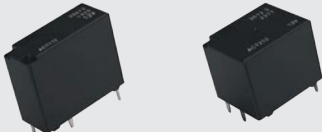
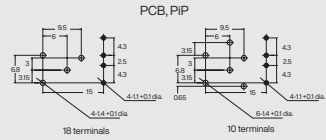
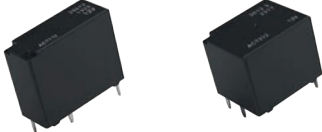
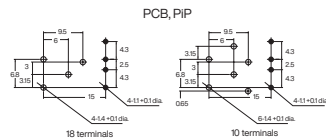
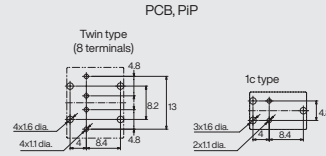
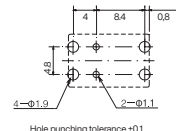


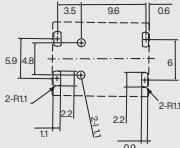
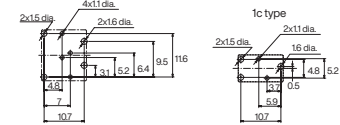
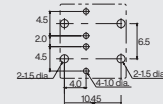
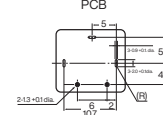
Modern automotive electric equipment and control technologies are a key aspect to achieve the safety, comfort and efficiency customers expect from a car nowadays. Discover how our relays and connectors meet the demand for sophisticated and sustainable automotive power and body control applications.

Overview

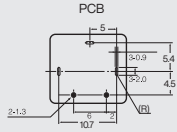
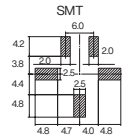
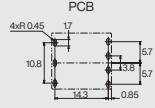
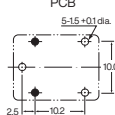


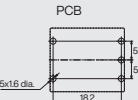
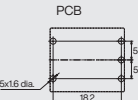
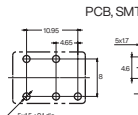
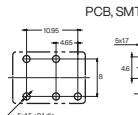
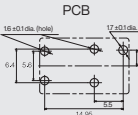
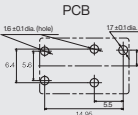
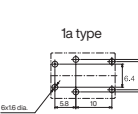
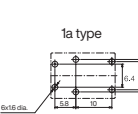
Automotive Relays | PCB Relays

Series	Features	Coil	Mounting (bottom view)
CT  17.4 x 7.2 x 13.5mm 17.4 x 14 x 13.5mm 1c 1c x2 (Twin)	» Super miniature size » ACT512 layout = layout of 2 x ACT112 » H-bridge type available (twin relay) » Quiet operation » Pin in Paste (with vent hole) available » Twin type as 8 pin or 10 pin version available	12V DC 800mW	THT PIP  Go To Overview
CT Power  17.4 x 7.2 x 13.5mm 17.4 x 14 x 13.5mm 1c 1c x2 (Twin)	» Super miniature size » Footprint same as CT standard type » Suitable for motor loads » H-bridge type available (twin relay) » Pin in Paste (with vent hole) available	12V DC 1000mW	THT PIP  Go To Overview
TB  14.0 x 9.2 x 14.0mm 17.4 x 14.0 x 14.0mm 1a 1c 1c x2 (Twin)	» Super miniature size » H-bridge type available (twin relay) » Pin in Paste (with vent hole) available » Lamp load type available	12V DC 1,440mW (for pick-up max. 5.5V DC) 900mW (for pick-up max. 6.5V DC) 640mW (for pick-up max. 7.7V DC)	THT PIP  Go To Overview
TB1P  14.0 x 9.2 x 14.0mm 1a	» Low power consumption » Small board space » Light weight	12V DC 480mW	 Go To Overview

Series	Features	Coil	Mounting (bottom view)
<div>TL</div> <div> 14.4 x 11 x 16mm</div> <div>1u</div>	<div>» 1 form U contact arrangement (double make)</div> <div>» Small board space</div> <div>» Light weight</div> <div>40A N.O.</div> <div>16V</div>	12V DC 640mW (for pick-up max. 6.5V DC)	<div></div> <div>Go To Overview >></div>
<div>TE</div> <div> 136 x 12 x 13.5mm 120 x 72 x 14.4mm 136 x 12 x 13.5mm</div> <div>1c 1c 1c x2 (Twin)</div>	<div>» Ultra small size, smallest in its class</div> <div>» High capacity in a compact body</div> <div>» H-bridge type available (twin relay)</div> <div>» Pin in Paste (with vent hole) available</div> <div>20A N.O.</div> <div>25A N.C.</div> <div>10A N.C.</div> <div>16V</div>	12V DC 1,309mW (for pick-up max. 5.5V DC) 900mW (for pick-up max. 6.5V DC) 655mW (for pick-up max. 7.7V DC)	<div><div>THT</div><div>PIP</div><div>PCB, PIP</div><div></div><div>Go To Overview >></div></div>
<div>CJ</div> <div> 72 x 12.2 x 13.5mm 137 x 12.2 x 13.5mm</div> <div>1c 1c x2 (Twin)</div>	<div>» Ultra small size</div> <div>» High capacity in a compact body</div> <div>» H-bridge type available (twin relay)</div> <div>» Pin in Paste (with vent hole) available</div> <div>20A N.O.</div> <div>10A N.C.</div> <div>16V</div>	12V DC 800mW High sensitive type 640mW	<div><div>THT</div><div>PIP</div><div>PCB, PIP</div><div></div><div>Go To Overview >></div></div>
<div>CP</div> <div> 14.0 x 13.0 x 9.5mm</div> <div>1a 1c</div>	<div>» Very low profile</div> <div>» High capacity</div> <div>» 24V DC type available on request</div> <div>20A N.O.</div> <div>10A N.C.</div> <div>16V</div>	12V DC 640mW	<div><div>THT</div><div>PCB</div><div></div><div>Go To Overview >></div></div>

Automotive Relays | PCB Relays

Series	Features	Coil	Mounting (bottom view)
CP POWER  14.0 x 13.0 x 9.5mm <div>1a1c</div>	» Very low profile » Improved heat conduction by additional pin » Pin in Paste (with vent hole) available <div>20A N.O.10A N.C.16V</div>	12V DC 450mW 640mW	THT  Go To Overview >>
CP SMD  14.0 x 13.0 x 10.5mm <div>1c</div>	» Very low profile » High capacity <div>20A N.O.10A N.C.16V</div>	12V DC 640mW	SMD  Go To Overview >>
TJ  15.0 x 16.0 x 11.2mm <div>1c</div>	» Compact flat type (height: 11.2mm) » High capacity switching » Thermal resistant type <div>30A N.O.15A N.C.16V</div>	12V DC 450mW	THT  Go To Overview >>
CQ  17.0 x 13.0 x 16.6mm <div>1c</div>	» Very quiet operation » Terminal layout identical to JJM <div>20A N.O.10A N.C.16V</div>	12V DC 640mW	THT  Go To Overview >>

Series	Features	Coil	Mounting (bottom view)
TA  19.8 x 17.0 x 14.0mm 1c	» Very quiet operation » Flat type 20A N.O. 10A N.C. 16V	12V DC 640mW (for pick-up max. 7.7V DC) 900mW (for pick-up max. 6.5V DC)	THT  PCB  Go To Overview >>
CN-M  15.5 x 11 x 14.4mm 1a 1c	» Space-saving design » SMD type available » Pin in Paste (with vent hole) available 17.8 x 12.6 x 18mm 30A N.O. 25A N.C. 16V	12V DC 640mW	THT  PCB, SMT  PIP SMD Go To Overview >>
CN-H  17 x 10.6 x 18.3mm 1a	» Best space savings in its class » Substitute for Micro-ISO relay » Low operating power type » High current-carrying capacity 30A N.O. 16V	12V DC 450mW (for pick-up max. 6.5V DC) 640mW (for pick-up max. 5.5V DC)	THT  PCB  Go To Overview >>
TG  17.8 x 12.6 x 18mm 1a 1c	» Large switching capacity in small size » Substitute for micro ISO relays » Low operating power type 30A N.O. 15A N.C. 16V	12V DC 640mW (for pick-up max. 6.5V DC) 450mW (for pick-up max. 7.0V DC)	THT  PCB  1a type 1c type Go To Overview >>

Series	Features	Coil	Mounting (bottom view)
<div>TH</div> <div><div>110 x 12.0 x 8.8mm</div><div>216 x 12.0 x 8.8mm</div><div>1c</div><div>1c x2 (Twin)</div></div>	<div><div>» Ultra compact flat type</div><div>» High switching capacity (up to 25A)</div><div>» 10 terminals twin type</div></div> <div>20A N.O.10A N.C.16V</div>	<div>12V DC</div> <div>900mW</div> <div>(for pick-up max. 6.5V DC)</div> <div>655mW</div> <div>(for pick-up max. 7.7V DC)</div>	<div>SMD</div> <div>SMT</div> <div>Twin type (10 terminal type)</div> <div>1c type</div> <div>Go To Overview >></div>
<div>TF</div> <div><div>230 x 15.4 x 22.4mm</div><div>1a 1c</div></div>	<div><div>» 1 Form A and 1 Form C contact type available</div><div>» Automotive-grade AC relay</div><div>» Maximum carrying current capability of 40 A</div><div>» Contact gap (initial): 2.3 mm</div><div>» Insulation distance (Clearance/Creepage) min. 6.0 mm (initial)</div></div> <div>20A N.O.10A N.C.16V</div>	<div>12V DC</div> <div>2060mW</div> <div>(for pick-up max. 8.0 V 1Form A / max. 8.6V 1Form C)</div>	<div>SMD</div> <div>1a standard type</div> <div>1c standard type</div> <div>Go To Overview >></div>



Signal

Power

High Capacity

Safety

High Frequency

Semiconductor

Automotive

Plug-in

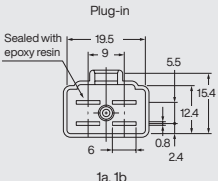
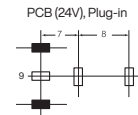
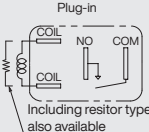
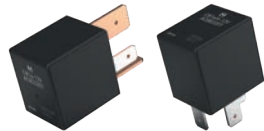
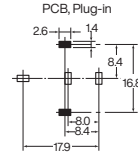
High Voltage

Plug-in Relays

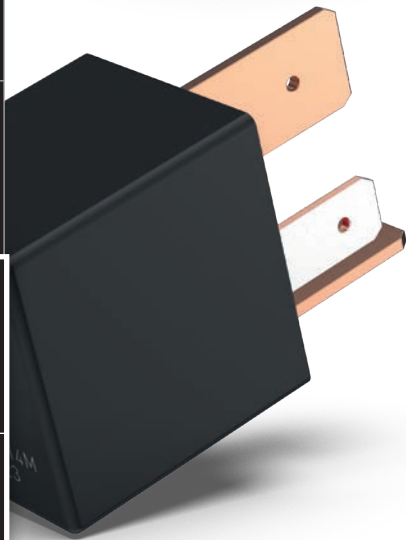
Panasonic Industry provides high-performing micro and mini ISO plug-in relays suitable for 12V and 24V power supply systems.

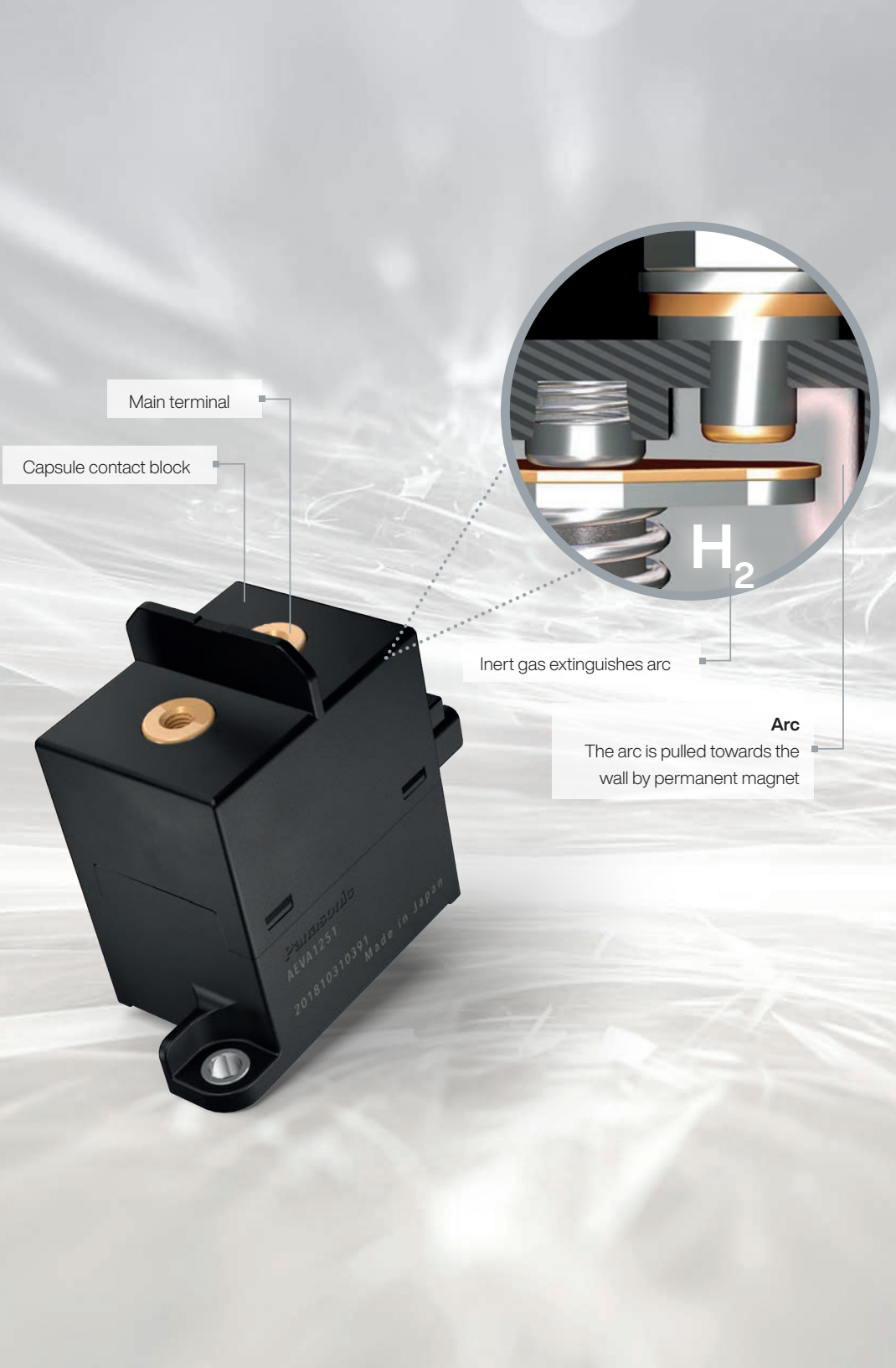


Automotive Relays | Plug-in Relays

Series	Features	Coil	Mounting (bottom view)
CA  21.5 x 14.4 x 37.0 mm 1a 1b 1c	» Rubber bracket / screw mounting » Direct plug-in		Plug-in  1a, 1b Go To Overview >>
	Standard 30A 1a 20A 1b, 1c 15V 1c 16V 1a, 1b	12V DC 1,800mW	
	Type S 20A N.O. 10A N.C. 16V	12V DC 1,400mW	
	1c 24V 20A N.O. 20A N.C. 30V	24V DC 1,800mW	
CM  20 x 15 x 22 mm 1a 1c	» Small substitute for Mini-ISO relay » Micro-ISO terminal type		Plug-in THT  PCB (24V), Plug-in Go To Overview >>
	35A N.O. 20A N.C. 16V 35A N.O. 20A N.C. 32V	12V DC 1500mW 24V DC 1800mW	
CV-N  22.5 x 15 x 15.7 mm 1a 1c	» Low profile » Low temperature rise » Low sound pressure level » RTIII (IP67) available	24V DC 800mW	Plug-in  Go To Overview >>
CB  26 x 22 x 25 mm 1a 1c	» 40A switching current at 85°C » Mini-ISO type terminals » High shock resistance » High thermal resistance		Plug-in THT  PCB, Plug-in PCB, standard type Go To Overview >>
	Standard 40A N.O. 30A N.C. 16Va	12V DC 1400mW	
	H Type 70A N.O. 16V 24V Type 40A N.O. 30A N.C. 32V	12V DC 1800mW 24V DC 1800mW	

Automotive Relays | Note





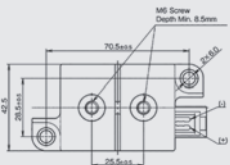
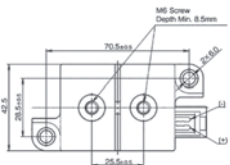
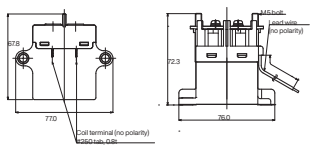
High Voltage DC Relays

With increasing concern for the environment, the market for eco-friendly vehicles is expanding. To contribute to a greener world and environmental compliance regulations, we provide a broad range of solutions for hybrid to full-electric vehicles.

We aim at contributing to the electrification and safety of cars by offering EV relays (DC contactors) achieving high-capacity DC cutoff & space saving and Automotive relays capable of large current/voltage cutoff.

Charging the next generation of mobility.

Automotive Relays | High Voltage DC Relays

Series	Features	Coil	Mounting
EV-A  82.6 x 73.0 x 23.0mm 1a	<ul style="list-style-type: none"> » One of the smallest and lightest in 250 A class » 8,000 A short circuit tolerance » High cut-off capacity 1,800A at 500V DC without contact polarity » Vertical and horizontal type available 250A 500V	12V DC 6000mW	Screw terminal  Go To Overview >>
EV-B  82.6 x 73.0 x 23.0mm 1a	<ul style="list-style-type: none"> » One of the smallest and lightest in 250 A class » 8,000 A short circuit tolerance » High cut-off capacity 2,000A at 500V DC without contact polarity » Horizontal configuration is also available 250A 500V	12V DC 6000mW	Screw terminal  Go To Overview >>
EV-G, EV-H high short-circuit capacity  66.8 x 49.7 x 37.9mm  78 x 40 x 48.1mm 1a	<ul style="list-style-type: none"> » High short-circuit capacity type » AEVH (100A) available with lead wire 1 60A 450V 2 100A 450V	12V DC 5200mW 5400mW	Screw terminal Go To Overview >>
EV-S quiet  76 x 36 x 72.3mm  77 x 67.8 x 37.7mm 1a	<ul style="list-style-type: none"> » DC type with sealed capsule, mainly for hybrid vehicles » Very quiet operation » Small size and light weight » Blow-out magnets allow small arcing space » Safety construction » High contact reliability » Standard type for horizontal mounting available 60A 450V	12V DC 4500mW	Screw terminal  Go To Overview >>

Automotive Relays | High Voltage DC Relays

Series	Features	Coil		Mounting
EV  1 78 x 40 x 48.1mm 2 82.8 x 40 x 79mm 3 75.5 x 40 x 80mm	» Sealed capsule for xEV » Compact size » Blow-out magnets allow small arcing space » Safety construction » High contact reliability	12V DC	24V DC	Screw terminal Faston terminal Go To Overview >>
	1 20A 400V	1240mW		
	2 80A 450V	3900mW		
	3 120A 450V	4200mW		
EBN  82.6 x 73.0 x 23.0mm	» Low height for mounting within battery packs » Max. 1,500 A 60 V DC switching off possible	12V DC 2000mW		Plug-in Go To Overview >>
ECN  29.0 x 25.0 x 28.9mm	» Small pre-charging relay » Easy connect plug-in terminal	12V DC 1400mW		Screw terminal Go To Overview >>

Panasonic

INDUSTRY



We are dedicated to the highest standards of global sustainability as
Your Committed Enabler. Find out more on our website.

Panasonic Industry Europe GmbH

Caroline-Herschel-Strasse 100
85521 Ottobrunn
Tel. 49 89 45354-1000
info.pieu@eu.panasonic.com
industry.panasonic.eu