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World-wide we build lasting relationships with our customers through the innovative combination of:

- high quality products
- individual application support and
- complete service.

As a specialist and innovator for relays we offer technically superior and environmentally friendly solutions for reliable electrical switching.

Our extensive knowledge of markets and technology ensure that our products and systems provide optimal solutions for our customers and their applications.

# PCB Power Relays

## Power PCB Relay PE

1 pole 5 A

- 1 C/O
- Cadmium-free contacts
- Sensitive coil 200 mW
- 4 kV coil-contact
- Low height 10.0 mm

## Power PCB Relay PE bistable

1 pole 5 A  
polarized bistable version

- 1 C/O
- Bistable with 1 coil
- Sensitive coil 200 mW
- 4 kV coil-contact
- Low height 10.0 mm



### Contacts

Configuration	1 C/O	1 C/O
Rated current	5 A	5 A
Rated voltage	250 Vac	250 Vac
Breaking capacity	1250 VA	1250 VA

### Coil

Nominal voltage	5...48 Vdc	5...24 Vdc
Nominal coil power	200 mW	200 mW
Other coil versions	-	-

### Insulation

Dielectric strength	4000 V <sub>rms</sub>	4000 V <sub>rms</sub>
Clearance / creepage	3.2 / 4 mm	3.2 / 4 mm

### General data

Ambient temperature max.	+85 °C	+85 °C
Standard versions	flux-tight, washable	flux-tight, washable
Terminals	PCB	PCB
Dimensions l x w x h	20 x 10 x 10 mm	20 x 10 x 10 mm

### Miniature PCB Relay RE

1 pole 6 A

- 1 N/O
- Sensitive coil 200 mW
- 4 kV coil-contact
- Optimized height 10.6 mm
- PCB area 200 mm<sup>2</sup>
- Immersion proof



### Slim PCB Relay SNR

1 pole 6 A

- 1 C/O or 1 N/O
- Only 5 mm wide
- Cadmium-free contacts
- Sensitive coil 170 mW
- 4 kV coil-contact
- 6/8 mm creepage/clearance
- Protection class II



### Miniature PCB Relay RY II

1 pole 8 A

- 1 C/O or 1 N/O or 1 N/C
- 5 kV / 8 mm coil-contact
- Protection class II (VDE 0700)
- Low height 12.3 mm
- Pinnings: 3.2 and 5 mm
- Sockets with PCB-type or screw-type terminals



### Miniature Power Relay MSR

1 pole 8 A

- 1 C/O or 1 N/O
- High inrush currents (TV4=65A) with AgSnO contacts
- 4 kV / 8 mm coil-contact
- Protection class II
- Ambient temperature up to 85°C at 8 A



1 N/O	1 C/O or 1 N/O	1 C/O or 1 N/O	1 C/O or 1 N/O
6 A	6 A	8 A	8 A
250 Vac	250 Vac	250 Vac	250 Vac
1500 VA	1500 VA	2000 VA	2000 VA
5...48 Vdc	5...48 Vdc	5...48 Vdc	3...60 Vdc
200 mW	170 mW	220 mW	220 mW
-	-	-	-
4000 V <sub>rms</sub>	4000 V <sub>rms</sub>	5000 V <sub>rms</sub>	4000 V <sub>rms</sub>
4 mm	6 / 8 mm	8 / 8 mm	8 / 8 mm
+70 °C	+85 °C	+85 °C	+85 °C
washable	washable	flux-tight, washable	washable
PCB	PCB	PCB	PCB
20 x 10 x 10.6 mm	28 x 5 x 15 mm	28.5 x 10.1 x 12.3 mm	28.6 x 10 x 15 mm

# PCB Power Relays

## Power PCB Relay RT1

1 pole 12 / 16 A,  
DC- or AC-coil

- 1 C/O or 1 N/O
- Sensitive coil 400 mW, 0.75 VA
- 5 kV / 10 mm coil-contact
- Protection class II
- Ambient temperature 85°C (DC-coil)
- Height 15.7 mm



## Power PCB Relay RT1 bistable

1 pole 16A,  
polarized bistable version

- 1 C/O
- Bistable with 1 or 2 coils
- 5 kV/10 mm coil-contact
- Height 15.7 mm
- Cadmium-free contacts
- Protection class II (VDE 0700)



## Power PCB Relay RT1 sensitive

1 pole 10 A,  
highly sensitive version

- 1 C/O or 1 N/O
- Sensitive coil 250 mW
- 5 kV/10 mm coil-contact
- Protection class II (VDE 0700)
- Ambient temperature 85°C at rated load
- Height 15.7 mm



### Contacts

Configuration	1 C/O or 1 N/O	1 C/O	1 C/O or 1 N/O
Rated current	12 A    16 A	16 A	10 A
Rated voltage	250 Vac	250 Vac	250 Vac
Breaking capacity	3000 VA    4000 VA	4000 VA	2500 VA

### Coil

Nominal voltage	5...110 Vdc    24...230 Vac	5...24 Vdc	5...60 Vdc
Nominal coil power	400 mW    0.75 VA	400 / 600 mW	250 mW
Other coil versions	-	-	-

### Insulation

Dielectric strength	5000 V <sub>rms</sub>	5000 V <sub>rms</sub>	5000 V <sub>rms</sub>
Clearance / creepage	10 / 10 mm	10 / 10 mm	10 / 10 mm

### General data

Ambient temperature max.	DC: +85 °C    AC: +70 °C	+85 °C	+85 °C
Standard versions	flux-tight, washable	flux-tight	flux-tight, washable
Terminals	PCB	PCB	PCB
Dimensions l x w x h	29 x 12.7 x 15.7 mm	29 x 12.7 x 15.7 mm	29 x 12.7 x 15.7 mm

### Power PCB Relay RT1 Inrush

1 pole 16 A, for inrush peak currents up to 80 A

- 1 N/O
- Sensitive coil 400 mW
- 5 kV / 10 mm coil-contact
- Protection class II (VDE 0700)
- Ambient temperature 85°C
- Height 15.7 mm



### Power PCB Relay RTH 105°C sensitive

1 pole 10 A, high-temperature version

- 1 N/O
- Sensitive coil 250 mW
- 5 kV / 10 mm coil-contact
- Protection class II (VDE 0700)
- Ambient temperature 105°C at rated load
- Height 15.7 mm



### Power PCB Relay RTH 105°C 16 A

1 pole 16 A, high-temperature version

- 1 C/O or 1 N/O
- 16 A rated current
- 5 kV / 10 mm coil-contact
- Protection class II (VDE 0700)
- Ambient temperature 105°C at rated load
- Height 15.7 mm



### PCB Relay RP II/1

1 pole 8 / 12 / 16 A

- 1 C/O or 1 N/O
- 4 kV / 8 mm coil-contact
- Pinning 3.5 or 5 mm (8 / 12 A) and 5 mm (16 A)
- PCB-sockets



1 N/O	1 N/O	1 C/O or 1 N/O	1 C/O or 1 N/O
16 A	10 A	16 A	8 A 12 A 16 A
250 Vac	250 Vac	250 Vac	250 Vac
4000 VA	2500 VA	4000 VA	2000 VA 3000 VA 4000 VA
5...110 Vdc	5...60 Vdc	5...60 Vdc	6...110 Vdc
400 mW	250 mW	400 mW	500 mW
-	-	-	-
5000 V <sub>rms</sub>	5000 V <sub>rms</sub>	5000 V <sub>rms</sub>	4000 V <sub>rms</sub>
10 / 10 mm	10 / 10 mm	10 / 10 mm	8 / 8 mm
+85 °C	+105 °C	+105 °C	+70 °C
flux-tight	flux-tight	flux-tight	flux-tight, washable
PCB	PCB	PCB	PCB
29 x 12.7 x 15.7 mm	29 x 12.7 x 15.7 mm	29 x 12.7 x 15.7 mm	29 x 12.6 x 25.5 mm

# PCB Power Relays

## Special Load PCB Relay RP 3 SL

1 pole 16 A, for high inrush currents, mono- or bistable

- 1 N/O
- 120 A / 20 ms inrush peak current
- DC- or bistable version
- 4 kV / 8 mm coil-contact



## Miniature Power Relay IF-Faston

1 pole 16 A

- 1 N/O or 1 N/C
- Insulation to VDE 0631 and VDE 0700
- Ambient temperature up to 125°C
- Faston-terminals
- Version with 1 N/O with 3 mm contact gap on request



## Power PCB Relay RT2

2 pole 8 A, DC and AC-coil

- 2 C/O or 2 N/O
- Sensitive coil 400 mW
- DC- or AC-coil
- 5 kV / 10 mm coil-contact
- Protection class II (VDE 0700)
- Height 15.7 mm



Contacts	
Configuration	1 N/O
Rated current	16 A
Rated voltage	250 Vac
Breaking capacity	4000 VA
Coil	
Nominal voltage	5...110 Vdc
Nominal coil power	500 mW
Other coil versions	bistable
Insulation	
Dielectric strength	4000 V <sub>rms</sub>
Clearance / creepage	8 / 8 mm
General data	
Ambient temperature max.	+70 °C
Standard versions	flux-tight, washable
Terminals	PCB
Dimensions l x w x h	29 x 12.6 x 25.5 mm

Configuration	1 N/O or 1 N/C
Rated current	16 A
Rated voltage	250 Vac
Breaking capacity	4000 VA
Nominal voltage	6...48 Vdc
Nominal coil power	360 mW
Other coil versions	-
Dielectric strength	4000 V <sub>rms</sub>
Clearance / creepage	8 / 8 mm
Ambient temperature max.	+125 °C
Standard versions	flux-tight
Terminals	PCB
Dimensions l x w x h	29 x 13.2 x 29 mm

Configuration	2 C/O or 2 N/O
Rated current	8 A
Rated voltage	250 Vac
Breaking capacity	2000 VA
Nominal voltage	5...110 Vdc 24...230 Vac
Nominal coil power	400 mW 0.75 VA
Other coil versions	-
Dielectric strength	5000 V <sub>rms</sub>
Clearance / creepage	10 / 10 mm
Ambient temperature max.	+70 °C
Standard versions	flux-tight, washable
Terminals	PCB
Dimensions l x w x h	29 x 12.7 x 15.7 mm

## Power PCB Relay RT2 bistable

2 pole 8 A,  
polarized bistable version

- 2 C/O
- Bistable with 1 or 2 coils
- 5 kV / 10 mm coil-contact
- Height 15.7 mm
- Cadmium-free contacts
- Protection class II (VDE 0700)



## PCB Relay RP II/2

2 pole 8 A

- 2 C/O or 2 N/O
- 4 kV / 8 mm coil-contact
- Twin contacts available
- PCB-sockets



## Card Relay E

1 pole 8 A

- 1 C/O or 1 N/O
- 4 kV coil-contact
- Vertical and horizontal version
- Version with twin contacts
- Washable



## Miniature Power Relay U/UB

1 pole 7 A, mono or bistable

- 1 C/O or 1 N/O or 1 N/C
- Bistable and DC-version
- Versions with 230 mW or 180 mW pull-in power



2 C/O
8 A
250 Vac
2000 VA

2 C/O or 2 N/O
8 A
250 Vac
2000 VA

1 C/O or 1 N/O
8 A
250 Vac
2000 VA

1 C/O or 1 N/O or 1 N/C
7 A
250 Vac
1750 VA

5...24 Vdc
400 / 600 mW
-

5..110 Vdc
500 mW
-

6..60 Vdc
450...500 mW
-

6...48 Vdc
450 mW      330 mW
sensitive

5000 V <sub>rms</sub>
10 / 10 mm

4000 V <sub>rms</sub>
8 / 8 mm

4000 V <sub>rms</sub>
4 / 4 mm

2000 V <sub>rms</sub> 4000 V <sub>rms</sub>
2.5 mm      3.5 mm

+70 °C
flux-tight
PCB
29 x 12.7 x 15.7 mm

+70 °C
flux-tight, washable
PCB
29 x 12.6 x 25.5 mm

+70 °C
washable
PCB
28 x 10.4 x 25.1 mm

+70 °C
washable
PCB
21.2 x 16.2 x 14.9 mm

# PCB Power Relays

## Miniature Power Relay PCD

1 pole 10 A

- 1 N/O
- Low coil power 200 mW
- Height 10.2 mm
- Washable



## Miniature Power Relay T7N / T7N-WG

1 pole 10 A

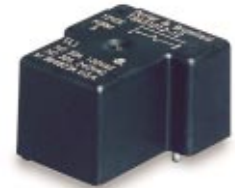
- 1 C/O or 1 N/O
- Coil version 360 mW or 450 mW
- Ambient temperature up to 85°C
- Creepage- and clearance of base insulation according to VDE 0435 (T7N-WG: VDE 0700)



## Miniature Power Relay T9A

1 pole 30 A

- 1 N/O or 1 C/O
- High breaking capacity
- PCB- and Faston connections and chassis mount version
- UL-class F as standard
- Ambient temperature 85°C
- Open version available



### Contacts

Configuration	1 N/O	1 C/O or 1 N/O	1 C/O	1 N/O
Rated current	10 A	10 A	20(N/O)/10(N/C) A	30 A
Rated voltage	250 Vac	250 Vac	250 Vac	
Breaking capacity	2500 VA	2500 VA	4800 VA	7200 VA

### Coil

Nominal voltage	6...24 Vdc	6...48 Vdc	12...48 Vdc	6...48 Vdc
Nominal coil power	200 mW	360 mW	450 mW	1 W
Other coil versions	-	-	-	-

### Insulation

Dielectric strength	2500 V <sub>rms</sub>	2000 V <sub>rms</sub>		2500 V <sub>rms</sub>
Clearance / creepage	4 mm	2 / 3 mm	3 / 4 mm	3.1 / 6.3 mm

### General data

Ambient temperature max.	+70 °C	+85 °C		+85 °C
Standard versions	washable	washable		washable
Terminals	PCB	PCB		PCB, Faston
Dimensions l x w x h	23 x 15.9 x 10.2 mm	22.5 x 16.5 x 16.9 mm		32.3 x 27.4 x 20.4 mm

# Safety Relays

## Power Relay T92

2 pole 30 A, DC- and AC-coil

- 2 C/O or 2 N/O
- Switching capacity 7500 VA
- DC- or AC coil
- 4 kV / 8 mm coil-contact
- Insulation to VDE 0631 and VDE 0700
- PCB- or Faston connections or chassis mount



## Safety Relay SR2M

2 pole 6 A

- 1 N/O + 1 N/C or 2 C/O
- Relay with forcibly guided contacts
- According to EN 50205
- Washable



## Safety Relay SR4

4 pole 6 A

- 2 N/O + 2 N/C or 3 N/O + 1 N/C
- Relay with forcibly guided contacts
- According to EN 50205
- Low coil power
- Small size
- Washable



## Safety Relay SR6

6 pole 8 A

- Smallest 6 pole safety relay
- 4 N/O + 2 N/C, 3 N/O + 3 N/C, 5 N/O + 1 N/C
- Relay with forcibly guided contacts
- According to EN 50205
- Washable



2 C/O or 2 N/O 30(N/O) / 3(N/C) A 250 Vac 7500 VA	1 N/O + 1 N/C or 2 C/O 6 A 250 Vac 1500 VA	2N/O+2N/C or 3N/O+1N/C 6 A 250 Vac 1500 VA	4N/O+2N/C, 3N/O+3N/C, 5N/O+1N/C 8 A 250 Vac 2000 VA
6...48 Vdc    24...240 Vac 1.7 W        4.0 VA -	5...110 Vdc 700 mW -	6...110 Vdc 540...640 mW -	5...110 Vdc 1200 mW -
4000 V <sub>rms</sub> 8 / 9.5 mm	4000 V <sub>rms</sub> 8 mm	2500 V <sub>rms</sub> 3 / 4 mm	3000 V <sub>rms</sub> 5.5 / 5.5 mm
DC: +70 °C    AC: +65 °C dust-proof, washable PCB, Faston 52.3 x 34.6 x 30.8 mm	+70 °C washable PCB 29 x 12.6 x 25.5 mm	+80 °C washable PCB 42 x 12.5 x 30 mm	+70 °C washable PCB 55 x 16 x 16.5 mm

# Industrial Relays

## Slim Interface Relais SNR

1 pole 6 A

- 1 C/O 6 A
- Module width 5,08 mm
- Cadmium-free contacts
- Sensitive coil 170 mW
- 4 kV coil-contact
- 6/8 mm clearance/creepage
- Protection class II (VDE 0700)
- Safe separation to VDE0106



## Interface Power Relay RT

1 pole 12 / 16 A, 2 pole 8 A,  
DC- or AC coil

- 1 C/O 12 or 16 A or 2 C/O 8 A
- Sensitive coil 400 mW
- Cadmium-free contacts
- Protection class II (VDE 0700)
- Safe separation to VDE0106
- 5 kV / 10 mm coil-contact



## Miniature Relay PT

2 / 3 / 4 pole 12 / 10 / 5 A,  
DC- or AC-coil

- 2, 3 or 4 C/O
- Sensitive coil
- Low height 29 mm
- Cadmium-free contacts
- Mechanical indicator
- Manual test tab, optionally lockable
- C250 in 3 pole version



### Contacts

Configuration	1 C/O	1 C/O	2 C/O	2 C/O	3 C/O	4 C/O
Rated current	6 A	12 / 16 A	8 A	12 A	10 A	6 A
Rated voltage	250 Vac	250 Vac		250 Vac		
Breaking capacity	1500 VA	3000 / 4000 VA	2000 VA	3000 VA	2500 VA	1500 VA

### Coil

Nominal voltage	5...48 Vdc	6...110 Vdc	24...230Vac	6...220 Vdc	6...230 Vac	
Nominal coil power	170...210 mW	400 mW	0.75 VA	0.75 W	1.0 VA	
Other coil versions	-	see RT		-		

### Insulation

Dielectric strength	4000 V <sub>rms</sub>	5000 V <sub>rms</sub>		2500 V <sub>rms</sub>		
Clearance / creepage	6 / 8 mm	10 / 10 mm		3/4mm	2.6/4mm	1.8/3mm

### General data

Ambient temperature max.	+85 °C	+85 °C		+70°C		
Standard versions	flux-tight	flux-tight		dust-proof, flux-tight		
Terminals	plug-in	plug-in		plug-in, PCB		
Dimensions l x w x h	28 x 5 x 15 mm	29 x 12.7 x 15.7 mm		28 x 22.5 x 29 mm		

## Multimode Relay MT

2 / 3 pole 10 A,  
DC- or AC-coil

- 2 C/O or 3 C/O
- Cadmium-free contacts
- Mechanical indicator as standard and electrical indicator
- New front operated test system



## Power Relay RM 2/3/7

2 / 3 pole 10 / 16 A,  
DC- or AC-coil

- 2 C/O or 3 C/O
- Switching capacity up to 6000VA
- Mechanical indicator
- Push-to-test-button
- Plug-in version, PCB terminals, chassis- or DIN-rail mount



## Power Relay RM 5/6

2 / 3 pole 10 / 16 A,  
DC- or AC-coil

- 2 N/O or 3 N/O
- 3 mm contact gap
- Push-to-test-button
- Plug-in version, PCB terminals, chassis- or DIN-rail mount



## Power Relay RM 8

2 pole 25 A, DC- or AC-coil

- 2 C/O
- Mechanical indicator
- Push-to-test-button
- Chassis- or DIN-rail mount



2 C/O or 3 C/O
10 A
250 Vac
2500 VA

2 C/O	3 C/O	3 C/O
16 A	10 A	16 A
380 Vac		
6000 VA	3800 VA	6000 VA

2 N/O	3 N/O
16 A	10 A
380 Vac	
6000 VA	3800 VA

2 C/O
25 A
250 Vac
6000 VA

6...220Vdc	6...230 Vac
1.2 W	2.3 VA
-	

6...220 Vdc	6...400 Vac
1.2...1.6 W	2.3...2.8 VA
-	

6...220 Vdc	6...400 Vac
1.6 W	2.8 VA
-	

6...220 Vdc	6...400 Vac
1.2 W	2.8 VA
-	

2500 V <sub>rms</sub>
2.8 / 4 mm

2500 V <sub>rms</sub>
3.5 / 6 mm

2500 V <sub>rms</sub>
3.5 / 6 mm

2500 V <sub>rms</sub>
2.8 / 4 mm

DC: +60 °C	AC: +50 °C
dust-proof	
plug-in	
35.5 x 35.5 x 57 mm	

DC: +60/70 °C	AC: +50/55 °C
dust-proof	
plug-in, PCB	
38.5 x 35.5 x 48.5 mm	

DC: +60 °C	AC: +50 °C
dust-proof	
plug-in, PCB	
38.5 x 35.5 x 48.5 mm	

DC: +65 °C	AC: +40 °C
dust-proof	
Faston	
38.5 x 35.5 x 48.5 mm	

# Industrial Relays

## Power Relay RMC/RMD

1 pole 30 A, DC- or AC-coil

- 1 N/O or 1 N/O + 1 N/C
- Switching capacity up to 7200 VA
- Push-to-test-button
- Chassis mount



## Miniature Power Relay TM

2 pole 10 A, DC- or AC-coil

- 2 C/O
- Plug-in version, PCB or chassis mount version



### Contacts

Configuration	1 N/O + 1 N/C	1 N/O	2 C/O
Rated current	30 A		10 A
Rated voltage	250 Vac		250 Vac
Breaking capacity	7500 VA		2500 VA

### Coil

Nominal voltage	6...220 Vdc	6...400 Vac	12...60 Vdc	12...230Vac
Nominal coil power	1.2 W	2.8 VA	900 mW	1.2 VA
Other coil versions	-		-	

### Insulation

Dielectric strength	2500 V <sub>rms</sub>		1500 V <sub>rms</sub>	
Clearance / creepage	2.8 / 4 mm		1.2 / 1.2 mm	

### General data

Ambient temperature max.	DC: +60 °C	AC: +40 °C	+50 °C	
Standard versions	dust-proof		dust-proof	
Terminals	Faston		plug-in, PCB	
Dimensions l x w x h	38.5 x 35.5 x 48.5 mm		27.5 x 21.6 x 35.2 mm	

# Circuit Breakers

## Circuit Breaker W28

1 pole 0.25...16 A

- Approved to international standards (push to reset type)
- Labor-saving snap-in mounting
- Button extends for visible trip indication



## Circuit Breaker W58

1 pole 0.5...25 A

- 0.5...25 A ratings
- Cannot be manually tripped
- Push button to reset breaker
- Button extends for visible trip indication



## Circuit Breaker W6 / W9 series

1...4 pole 0.2...50 A

- UL, CSA and VDE approved
- Ratings to 50 A
- Heavy duty stud connections
- Several delay curve options
- Trip free operation



### Series

Type	thermal	thermal	magnetic
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### Electrical data

Number of poles	1	1	1...4
Current rating	0.25...16 A	0.5...25 A	0.2...50 A
Max. operating voltage	32 Vdc, 250 Vac	50 Vdc, 250 Vac	65 Vdc, 415 Vac
Interrupt capacity	1000 A at 32 Vdc or 250 Vac	2000 A at 50 Vdc 1000 A at 250 Vac	2000 A at 65 Vdc up to 5000 A at 250 Vac

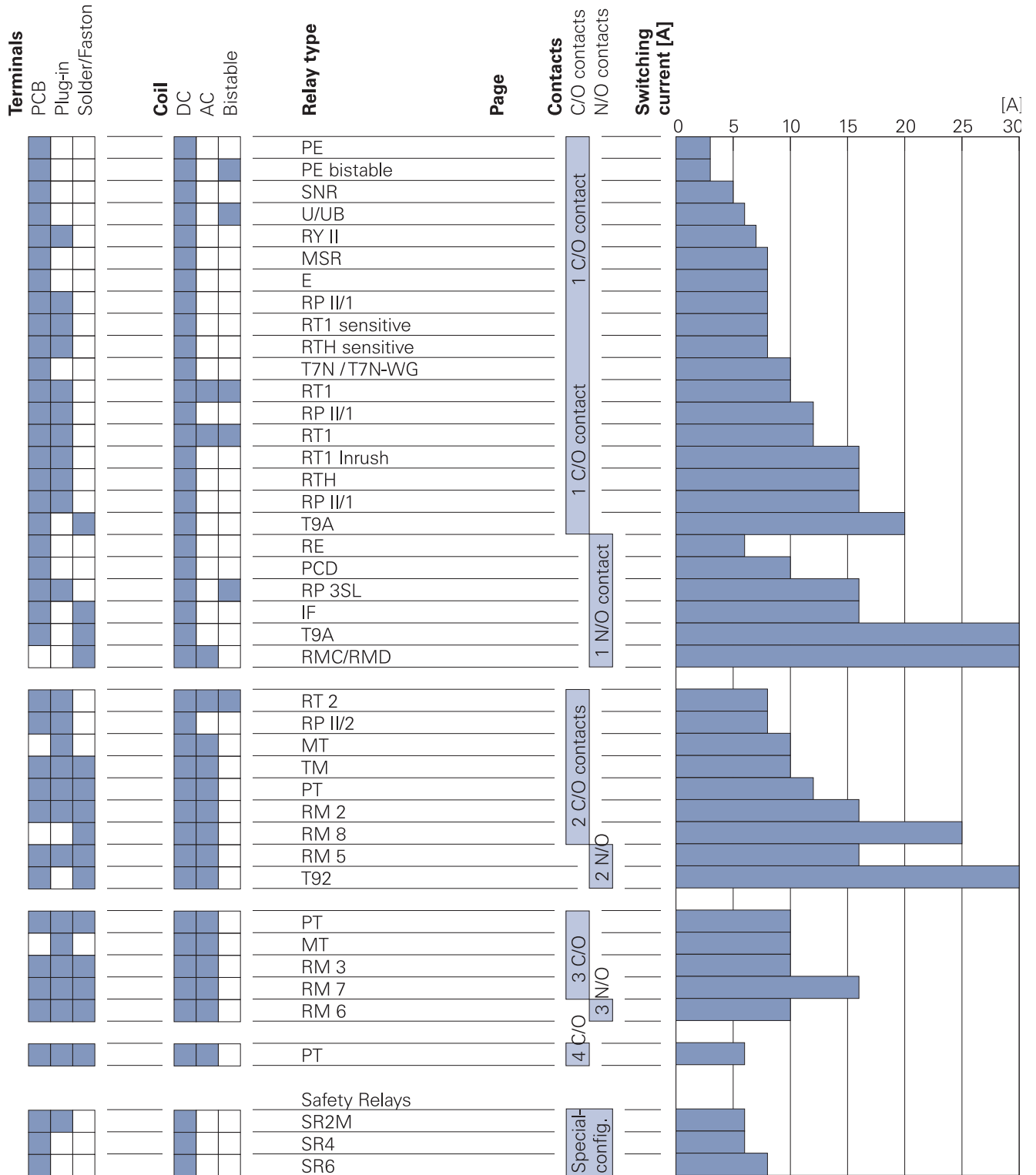
### General data

Ambient temperature max.	+60 °C	+60 °C	+85 °C
Terminals	6.35 mm Quick Connect	6.35 mm Quick Connect screw terminals	6.35 mm Quick Connect stud terminal
Dimensions l x w x h	13.7 x 15.9 x 40 mm	16.8 x 34.9 x 34.9 mm	W6: 19.1 x 50.8 x 41.1 mm W9: 19.1 x 63.5 x 53 mm

# ***Relay Range***

Data subject to change without prior notice.

# Relay Range



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