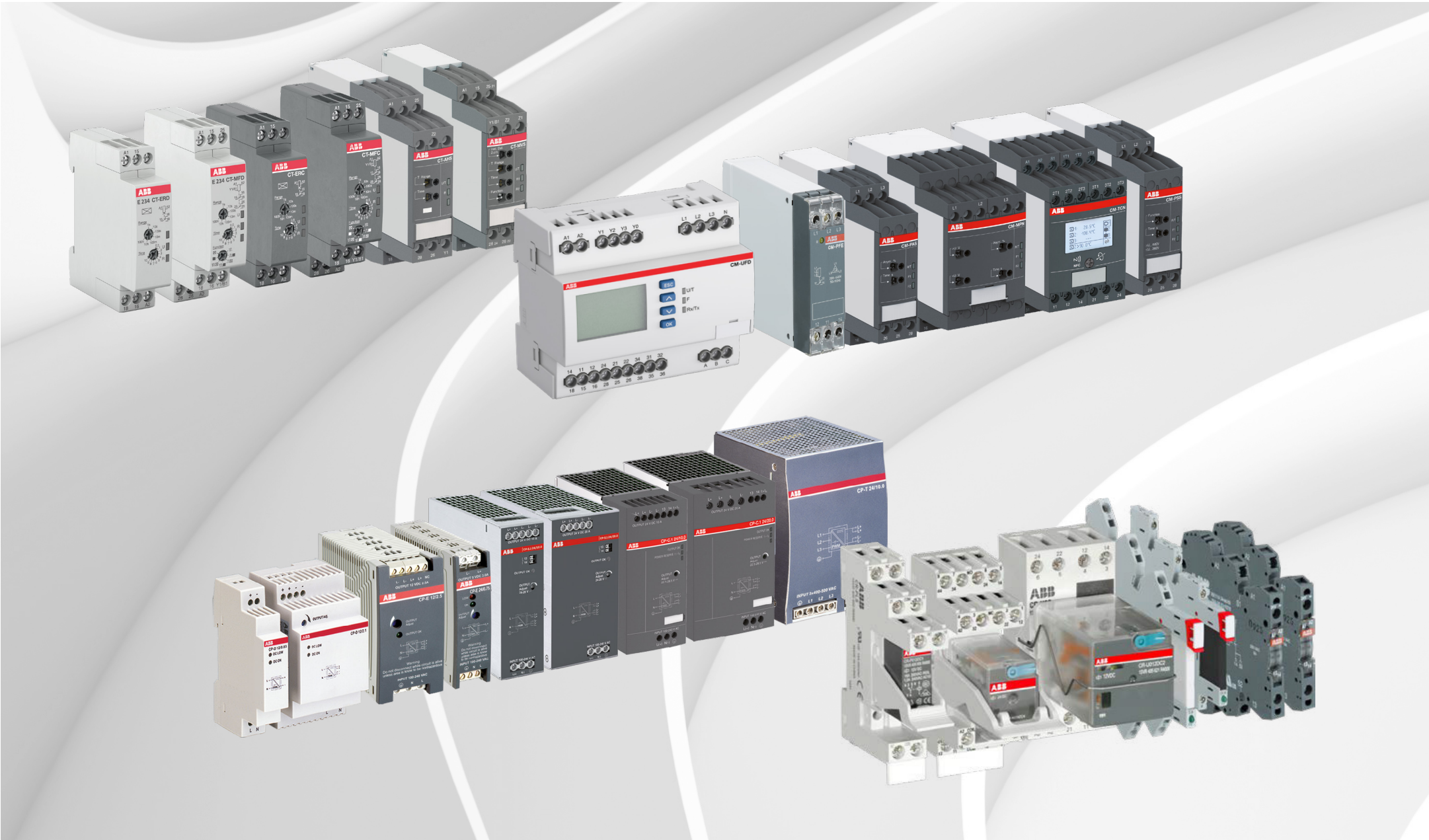


Electronic relays and control

Selection tables

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

START





Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Time relays for industrial applications

CT-C range

CT-S range

Time relays for building applications

CT-D range

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers



Time relays

CT-C, CT-S, CT-D

Available in three different ranges to cover every application, CT range time relays are used to provide reliable timing functions worldwide. They have proven their excellent functionality in daily use under the toughest conditions.

Choose ABB as the partner for all your low voltage timing control needs to leverage our wide variety of product options. From economic to high-end solutions – the range offers maximum value.



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Time relays for industrial applications

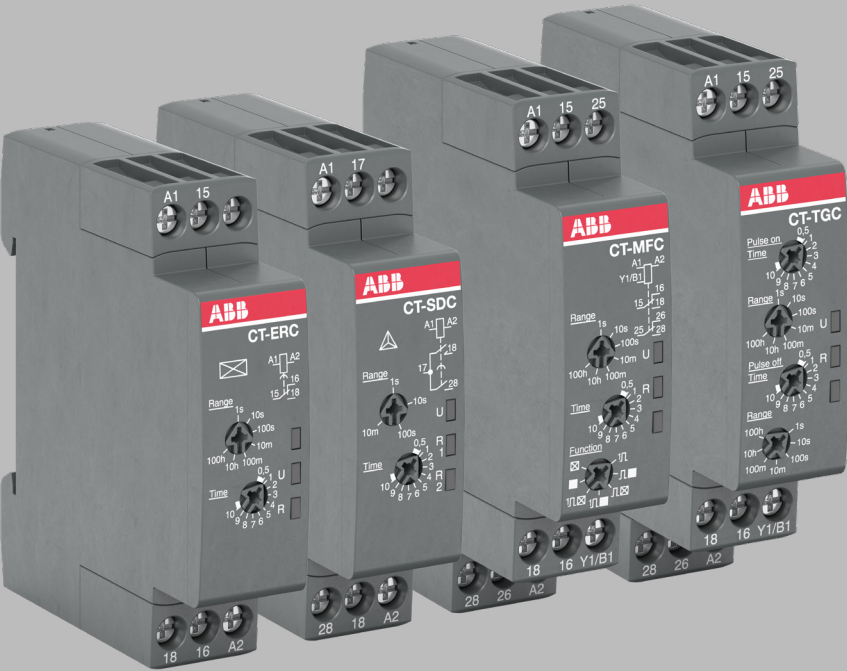
CT-C range

CT-S range

Time relays for building applications

CT-D range

CT-C range



The CT-C range combines lower cost with higher value and performance by offering essential functions in a 17.5 mm housing, freeing up room in any control cabinet. The range includes 15 devices, offering both single and multifunctional types, with a time range from 0.05 seconds to 100 hours. Equipped with wide voltage ranges, CT-C time relays allow for use across a huge variety of applications worldwide.



Selection tables

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Time relays for industrial applications

CT-C range

CT-S range

Time relays for building applications

CT-D range

CT-C range

	Type	Order number
	CT-MKC.31	1SVR508010R1300
	CT-MFC.12	1SVR508020R0000
	CT-MFC.21	1SVR508020R1100
	CT-ARC.12	1SVR508120R0000
	CT-ERC.12	1SVR508100R0000
	CT-ERC.22	1SVR508100R0100
	CT-AHC.12	1SVR508110R0000
	CT-AHC.22	1SVR508110R0100
	CT-VWC.12	1SVR508130R0000
	CT-EBC.12	1SVR508150R0000
	CT-TGC.12	1SVR508160R0000
	CT-TGC.22	1SVR508160R0100
	CT-SAC.22	1SVR508210R0100
	CT-SDC.22	1SVR508211R0100
	CT-PAC.22	1SVR508180R0100

Timing function														
ON-delay	☒	■	■	■		■	■							
OFF-delay with aux. voltage	■	■	■					■	■					
OFF-delay w/o aux. voltage	■			■										
Impulse-ON	1☒	■	■	■					■					
Impulse-OFF with aux. voltage	1☒	■	■	■										
Impulse-OFF w/o aux. voltage	1☒			■										
Flasher starting with ON	☒	■	■	■					■					
Flasher starting with OFF	☒	■	■	■					■					
Pulse generator starting with ON or OFF	☒									■	■			
Pulse former	☒	■	■	■										
Star-delta change-over	△											■	■	
Alternating w/o time delay														■

	Type	Order number
	CT-MKC.31	1SVR508010R1300
	CT-MFC.12	1SVR508020R0000
	CT-MFC.21	1SVR508020R1100
	CT-ARC.12	1SVR508120R0000
	CT-ERC.12	1SVR508100R0000
	CT-ERC.22	1SVR508100R0100
	CT-AHC.12	1SVR508110R0000
	CT-AHC.22	1SVR508110R0100
	CT-VWC.12	1SVR508130R0000
	CT-EBC.12	1SVR508150R0000
	CT-TGC.12	1SVR508160R0000
	CT-TGC.22	1SVR508160R0100
	CT-SAC.22	1SVR508210R0100
	CT-SDC.22	1SVR508211R0100
	CT-PAC.22	1SVR508180R0100

Features														
Control input, voltage-related triggering	■	■	■				■	■			■	■		
Time range														
0.05 s - 100 h	■	■	■			■	■	■	■	■	■	2	2	
0.05 s - 10 min				■										■
Supply voltage														
12-240 V AC/DC	■		■											
24-48 V DC		■		■	■	■	■	■	■	■	■	■	■	■
24-240 V AC		■		■	■	■	■	■	■	■	■	■	■	■
Output														
Solid state	■													
c/o contact		1	2	1	1	2	1	2	1	1	1	2		
n/o contact													2	2



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Time relays for industrial applications

CT-C range

CT-S range

Time relays for building applications

CT-D range

CT-S range



The advanced CT-S range includes 22 single-function devices and 16 multifunction timers with up to 13 functions. The devices feature seven or ten time ranges, which are adjustable from 0.05 seconds to 300 hours. Every device is available in two different connection technologies: double-chamber cage connection terminals or ABB’s vibration-resistant Push-in Technology.



Selection tables

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Time relays for industrial applications

CT-C range

CT-S range

Time relays for building applications

CT-D range

CT-S range

	Type*	Order number*
	CT-MVS.21●	1SVR7■0020R0200
	CT-MVS.22●	1SVR7■0020R3300
	CT-MVS.23●	1SVR7■0021R2300
	CT-MVS.12●	1SVR7■0020R3100
	CT-MXS.22●	1SVR7■0030R3300
	CT-MFS.21●	1SVR7■0010R0200
	CT-MBS.22●	1SVR7■0010R3200
	CT-WBS.22●	1SVR7■0040R3300
	CT-ERS.21●	1SVR7■0100R0300
	CT-ERS.22●	1SVR7■0100R3300
	CT-ERS.12●	1SVR7■0100R3100
	CT-APS.21●	1SVR7■0180R0300
	CT-APS.22●	1SVR7■0180R3300
	CT-APS.12●	1SVR7■0180R3100
	CT-AHS.22●	1SVR7■0110R3300
	CT-ARS.11●	1SVR7■0120R3100
	CT-ARS.21●	1SVR7■0120R3300
	CT-SDS.22●	1SVR7■0210R3300
	CT-SDS.23●	1SVR7■0211R2300

Timing function															
ON-delay	☒	■	■	■	■		■	■	■	■	■				
ON-delay, accumulative	☒(+)	■	■	■	■		■								
OFF-delay w. aux. voltage	■	■	■	■		■	■			■	■	■	■		
OFF-delay w. aux. voltage, accumulative	■					■									
OFF-delay w/o aux. voltage	■												■	■	
ON- and OFF-delay, symmetrical	☒■	■	■	■	■		■	■							
ON- and OFF-delay, symmetrical, accumulative	☒■						■								
ON- and OFF-delay, asymmetrical	☒■					■									
ON/OFF function	□	■	■	■	■		■	■	■						
Impulse-ON	1☒	■	■	■	■		■	■	■						
Impulse-ON, accumulative	1☒						■								
Impulse-OFF w. aux. voltage	1■	■	■	■	■		■	■							
Impulse-OFF w. aux. voltage, accumulative	1■						■								
Impulse-ON and OFF	1☒					■									
Fixed impulse with adjustable time delay	☒									■					
Adjustable impulse with fixed time delay	☒									■					
Flasher starting with ON	☒						■	■	■						
Flasher with reset, starting with ON	☒						■	■							
Flasher starting with OFF	☒						■	■	■						
Flasher with reset, starting with OFF	☒						■	■							
Flasher starting with ON or OFF	☒	■	■	■	■										
Pulse generator starting with ON or OFF	☒					■									
Single pulse generator	☒					■									
Pulse former	☒	■	■	■	■		■	■							
Star-delta change-over	△													■	■
Star-delta change-over with impulse	△☒	■	■	■			■	■							

	Type*	Order number*
	CT-MVS.21●	1SVR7■0020R0200
	CT-MVS.22●	1SVR7■0020R3300
	CT-MVS.23●	1SVR7■0021R2300
	CT-MVS.12●	1SVR7■0020R3100
	CT-MXS.22●	1SVR7■0030R3300
	CT-MFS.21●	1SVR7■0010R0200
	CT-MBS.22●	1SVR7■0010R3200
	CT-WBS.22●	1SVR7■0040R3300
	CT-ERS.21●	1SVR7■0100R0300
	CT-ERS.22●	1SVR7■0100R3300
	CT-ERS.12●	1SVR7■0100R3100
	CT-APS.21●	1SVR7■0180R0300
	CT-APS.22●	1SVR7■0180R3300
	CT-APS.12●	1SVR7■0180R3100
	CT-AHS.22●	1SVR7■0110R3300
	CT-ARS.11●	1SVR7■0120R3100
	CT-ARS.21●	1SVR7■0120R3300
	CT-SDS.22●	1SVR7■0210R3300
	CT-SDS.23●	1SVR7■0211R2300

Features															
Control input, voltage-related triggering	■	■	■	■	■								■	■	■
Control input, volt-free triggering						2	1							■	
Remote potentiometer connection	■				2	■	■								
2nd c/o contact selectable as instantaneous contact	■					■	■								
Extended temperature range (-40...+60 °C)	■					■			■			■			

Time range															
0.05 s - 10 min															
0.05 s - 300 h	■	■	■	■	2	■	■	■	■	■	■	■	■	■	■

Supply voltage															
24-48 V DC		■		■	■		■	■		■	■		■	■	■
24-240 V AC		■		■	■		■	■		■	■		■	■	■
24-240 V AC/DC	■					■			■			■			
380-440 V AC			■												■

Output															
c/o contact	2	2	2	1	2	2	2	2	2	2	1	2	2	1	2
n/o contact															

Order number and type

All devices are available either with push-in terminals (P-type) or double-chamber cage connection terminals (S-type).

Terminal	Type	Order number
Push-in	■ = P	● = 4
Screw	■ = S	● = 3



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Time relays for industrial applications

CT-C range

CT-S range

Time relays for building applications

CT-D range

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

CT-D range



The CT-D range is ideal for building applications and installation panels, due to its compact modular housing. For maximum flexibility in operation, nine single-function as well as two multifunction devices with seven timing functions are available. The devices offer four or seven time ranges from 0.05 seconds up to 100 hours. Their wide supply voltage range allows their use in applications worldwide.

 **Selection tables**

Time relays for industrial applications

CT-C range

CT-S range

Time relays for building applications

CT-D range

CT-D range

	Type	Order number											
	CT-MFD.12	1SVR500020R0000											
	CT-MFD.21	1SVR500020R1100											
	CT-ERD.12	1SVR500100R0000											
	CT-ERD.22	1SVR500100R0100											
	CT-AHD.12	1SVR500110R0000											
	CT-AHD.22	1SVR500110R0100											
	CT-VWD.12	1SVR500130R0000											
	CT-EBD.12	1SVR500150R0000											
	CT-TGD.12	1SVR500160R0000											
	CT-TGD.22	1SVR500160R0100											
	CT-SAD.22	1SVR500210R0100											
	CT-SDD.22	1SVR500211R0100											
Timing function													
ON-delay	☒	■	■	■	■								
OFF-delay with aux. voltage	■	■	■			■	■						
Impulse-ON	1┐☒	■	■					■					
Impulse-OFF with aux. voltage	1┐■	■	■										
Flasher starting with ON	┐☒	■	■						■				
Flasher starting with OFF	┐■	■	■										
Pulse generator starting with ON or OFF	☒┐									■	■		
Pulse former	☐☐	■	■										
Star-delta change-over	△											■	■

	Type	Order number											
	CT-MFD.12	1SVR500020R0000						■	■				
	CT-MFD.21	1SVR500020R1100											
	CT-ERD.12	1SVR500100R0000											
	CT-ERD.22	1SVR500100R0100											
	CT-AHD.12	1SVR500110R0000						■	■				
	CT-AHD.22	1SVR500110R0100											
	CT-VWD.12	1SVR500130R0000						■	■				
	CT-EBD.12	1SVR500150R0000											
	CT-TGD.12	1SVR500160R0000								■	■		
	CT-TGD.22	1SVR500160R0100											
	CT-SAD.22	1SVR500210R0100											
	CT-SDD.22	1SVR500211R0100											
Features													
Control input, voltage-related triggering			■	■				■	■				
Time range													
0.05 s - 100 h			■	■	■	■	■	■	■		2	2	
0.05 s - 10 min												■	■
Supply voltage													
12-240 V AC/DC				■									
24-48 V DC			■		■	■	■	■	■	■	■	■	■
24-240 V AC			■		■	■	■	■	■	■	■	■	■
Output													
c/o contact			1	2	1	2	1	2	1	1	1	2	
n/o contact													2

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



- Single-phase current monitoring relays
- Single-phase voltage monitoring relays
- Three-phase voltage monitoring relays
- Grid-feeding monitoring relays
- Insulation monitoring relays
- Thermistor motor protection relays
- Temperature monitoring relays
- Liquid level monitoring relays



Measuring and monitoring relays

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

No matter what measuring or monitoring function is needed – physical or electrical – ABB protects your equipment and ensures processes run smoothly.

Choose from a large range of products that provide reliable protection, cost savings and maximum availability for processes and equipment. No matter what the environment, ABB's high quality products are built and tested to give you uninterrupted monitoring.



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Single-phase current monitoring relays

Single-phase voltage monitoring relays

Three-phase voltage monitoring relays

Grid-feeding monitoring relays

Insulation monitoring relays

Thermistor motor protection relays

Temperature monitoring relays

Liquid level monitoring relays

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Single-phase monitoring relays

For the monitoring of currents and voltages in single-phase AC/DC systems, ABB's CM-range contains a wide selection of powerful and compact devices, all in an only 22.5 mm wide housing. This product range includes current and voltage monitoring relays for over- and undercurrent and voltage protection – from 3 mA to 15 A, and from 3 V to 600 V.



[Selection tables](#) > [Single-phase current monitoring relays](#)

[Selection tables](#) > [Single-phase voltage monitoring relays](#)

- Single-phase current monitoring relays
- Single-phase voltage monitoring relays
- Three-phase voltage monitoring relays
- Grid-feeding monitoring relays
- Insulation monitoring relays
- Thermistor motor protection relays
- Temperature monitoring relays
- Liquid level monitoring relays

Single-phase current monitoring relays

		Type	Order number																												
			CM-SRS.11S	CM-SRS.11P	CM-SRS.11S	CM-SRS.11P	CM-SRS.11S	CM-SRS.11P	CM-SRS.11S	CM-SRS.11P	CM-SRS.12S	CM-SRS.12S	CM-SRS.12S	CM-SRS.21S	CM-SRS.21P	CM-SRS.21S	CM-SRS.21P	CM-SRS.21S	CM-SRS.21P	CM-SRS.21S	CM-SRS.21P	CM-SRS.22S	CM-SRS.22S	CM-SRS.22S	CM-SRS.22S	CM-SRS.M1S	CM-SRS.M1P	CM-SRS.M2S	CM-SFS.21S	CM-SFS.21P	CM-SFS.22S
			1SVR730840R0200	1SVR740840R0200	1SVR730841R0200	1SVR740841R0200	1SVR730841R1200	1SVR740841R1200	1SVR730841R0300	1SVR730841R1300	1SVR730840R0400	1SVR740840R0400	1SVR730841R0400	1SVR740841R0400	1SVR730841R1400	1SVR740841R1400	1SVR730840R0500	1SVR730841R0500	1SVR730841R1500	1SVR730840R0600	1SVR740840R0600	1SVR730840R0700	1SVR730760R0400	1SVR740760R0400	1SVR730760R0500						
Rated control supply voltage U _c																															
24 - 240 V AC/DC			■	■					■				■	■					■				■	■	■	■	■	■	■	■	■
110 - 130 V AC					■	■				■				■	■					■											
220 - 240 V AC							■	■				■					■	■					■								
Measuring ranges AC/DC																															
3 - 30 mA			■	■	■	■	■	■					■	■	■	■	■	■							■	■			■	■	
10 - 100 mA			■	■	■	■	■	■					■	■	■	■	■	■							■	■			■	■	
0.1 - 1 A			■	■	■	■	■	■					■	■	■	■	■	■							■	■			■	■	
0.3 - 1.5 A										■	■	■									■	■	■					■			■
1 - 5 A										■	■	■								■	■	■					■				■
3 - 15 A										■	■	■								■	■	■					■				■
Monitoring function																															
Over- or undercurrent			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
Window current monitoring																													■	■	■
Latching																									sel	sel	sel	sel	sel	sel	sel
Open-circuit or closed-circuit principle																									sel	sel	sel	sel	sel	sel	sel
Timing functions for tripping delay																															
ON-delay, 0.1 - 30 s													adj	adj	adj	adj	adj	adj	adj	adj	adj	adj	adj	adj	adj	adj	adj				
ON- or OFF-delay, 0.1 - 30 s																													sel	sel	sel
Output																															
c/o contact			1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Connection type																															
Push-in terminals				■		■		■						■		■		■		■						■				■	
Double-chamber cage connection terminals			■		■		■		■	■	■	■		■		■		■		■		■	■	■	■		■	■		■	
adj: adjustable sel: selectable																															

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

		Type	Order number															
		CM-ESS.1S	1SVR730830R0300	1SVR740830R0300	1SVR730831R0300	1SVR740831R0300	1SVR730831R1300	1SVR740831R1300	1SVR730830R0400	1SVR740830R0400	1SVR730831R0400	1SVR740831R0400	1SVR730831R1400	1SVR740831R1400	1SVR730830R0500	1SVR740830R0500	1SVR730750R0400	1SVR740750R0400
Rated control supply voltage U _s																		
24 - 240 V AC/DC			■	■					■	■					■	■	■	■
110 - 130 V AC					■	■					■	■						
220 - 240 V AC							■	■					■	■				
Measuring ranges AC/DC																		
3 - 30 V			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6 - 60 V			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
30 - 300 V			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
60 - 600 V			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Monitoring function																		
Over- or undervoltage			■	■	■	■	■	■	■	■	■	■	■	■	■	■		
Windows voltage monitoring																	■	■
Latching															sel	sel	sel	sel
Open-circuit or closed-circuit principle															sel	sel	sel	sel
Timing functions for tripping delay																		
ON-delay, 0.1 - 30 s									adj	adj	adj	adj	adj	adj	adj	adj		
ON- or OFF-delay, 0.1 - 30 s																	sel	sel
Output																		
c/o contact			1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2
Connection type																		
Push-in terminals				■		■		■		■		■		■		■		■
Double-chamber cage connection terminals			■		■		■		■		■		■		■		■	



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Single-phase current monitoring relays

Single-phase voltage monitoring relays

Three-phase voltage monitoring relays

Grid-feeding monitoring relays

Insulation monitoring relays

Thermistor motor protection relays

Temperature monitoring relays

Liquid level monitoring relays

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Three-phase monitoring relays



For the monitoring of voltages in a three-phase system or network, ABB's CM range contains a wide selection of powerful and compact devices. This product range includes voltage monitoring relays for phase sequence, phase loss, unbalance and monitoring of over- and under voltage from 160 V to 820 V.

- Selection tables > Three-phase monitoring relays | singlefunctional
- Selection tables > Three-phase monitoring relays | multifunctional

Single-phase current monitoring relays

Single-phase voltage monitoring relays

Three-phase voltage monitoring relays

Grid-feeding monitoring relays

Insulation monitoring relays

Thermistor motor protection relays

Temperature monitoring relays

Liquid level monitoring relays

Three-phase voltage monitoring relays – singlefunctional

	Order number	
	Type	
	CM-PBE	1SVR550881R9400
	CM-PBE	1SVR550882R9500
	CM-PVE	1SVR550870R9400
	CM-PVE	1SVR550871R9500
	CM-PFE	1SVR550824R9100
	CM-PFE.2	1SVR550826R9100
	CM-PFS.S	1SVR730824R9300
	CM-PFS.P	1SVR740824R9300
	CM-PSS.31S	1SVR730784R2300
	CM-PSS.31P	1SVR740784R2300
	CM-PSS.41S	1SVR730784R3300
	CM-PSS.41P	1SVR740784R3300
	CM-PVS.31S	1SVR730794R1300
	CM-PVS.31P	1SVR740794R1300
	CM-PVS.41S	1SVR730794R3300
	CM-PVS.41P	1SVR740794R3300
	CM-PVS.81S	1SVR730794R2300
	CM-PVS.81P	1SVR740794R2300
	CM-PAS.31S	1SVR730774R1300
	CM-PAS.31P	1SVR740774R1300
	CM-PAS.41S	1SVR730774R3300
	CM-PAS.41P	1SVR740774R3300
Rated control supply voltage U _c		
Phase to phase		
160-300 V AC		
200-400 V AC		
200-500 V AC		
208-440 V AC		
300-500 V AC		
320-460 V AC		
380 V AC		
380-440 V AC		
400 V AC		
Phase to neutral		
185-265 V AC		
220-240 V AC		
Rated frequency		
50/60 Hz		
Suitable for monitoring		
Single-phase mains		
Three-phase mains		

	Order number	
	Type	
	CM-PBE	1SVR550881R9400
	CM-PBE	1SVR550882R9500
	CM-PVE	1SVR550870R9400
	CM-PVE	1SVR550871R9500
	CM-PFE	1SVR550824R9100
	CM-PFE.2	1SVR550826R9100
	CM-PFS.S	1SVR730824R9300
	CM-PFS.P	1SVR740824R9300
	CM-PSS.31S	1SVR730784R2300
	CM-PSS.31P	1SVR740784R2300
	CM-PSS.41S	1SVR730784R3300
	CM-PSS.41P	1SVR740784R3300
	CM-PVS.31S	1SVR730794R1300
	CM-PVS.31P	1SVR740794R1300
	CM-PVS.41S	1SVR730794R3300
	CM-PVS.41P	1SVR740794R3300
	CM-PVS.81S	1SVR730794R2300
	CM-PVS.81P	1SVR740794R2300
	CM-PAS.31S	1SVR730774R1300
	CM-PAS.31P	1SVR740774R1300
	CM-PAS.41S	1SVR730774R3300
	CM-PAS.41P	1SVR740774R3300
Monitoring function		
Phase failure		
Phase sequence		
Overvoltage		
Undervoltage		
Unbalance		
Neutral ⁽¹⁾		
Thresholds		
adjustable (adj) or fixed (fix)	fix	fix
Timing functions for tripping delay		
ON delay		
On and OFF delay	fix	fix
Connection type		
Push-in terminals		
Double-chamber cage connection terminals		
.The external conductor voltage towards the neutral conductor is measured (1)		
adj: adjustable sel: selectable fix: fixed		

Single-phase current monitoring relays

Single-phase voltage monitoring relays

Three-phase voltage monitoring relays

Grid-feeding monitoring relays

Insulation monitoring relays

Thermistor motor protection relays

Temperature monitoring relays

Liquid level monitoring relays

Three-phase voltage monitoring relays – multifunctional

	Order number	
	Type	
	CM-MPS.11S	1SVR730885R1300
	CM-MPS.11P	1SVR740885R1300
	CM-MPS.21S	1SVR730885R3300
	CM-MPS.21P	1SVR740885R3300
	CM-MPS.31S	1SVR730884R1300
	CM-MPS.31P	1SVR740884R1300
	CM-MPS.41S	1SVR730884R3300
	CM-MPS.41P	1SVR740884R3300
	CM-MPS.23S	1SVR730885R4300
	CM-MPS.23P	1SVR740885R4300
	CM-MPS.43S	1SVR730884R4300
	CM-MPS.43P	1SVR740884R4300
	CM-MPN.52S	1SVR750487R8300
	CM-MPN.52P	1SVR760487R8300
	CM-MPN.62S	1SVR750488R8300
	CM-MPN.62P	1SVR760488R8300
	CM-MPN.72S	1SVR750489R8300
	CM-MPN.72P	1SVR760489R8300
Rated control supply voltage U _s		
Phase to phase		
160-300 V AC		■ ■
300-500 V AC		■ ■
350-580 V AC		■ ■
450-720 V AC		■ ■
530-820 V AC		■ ■
Phase to neutral		
90-170 V AC	■ ■	
180-280 V AC	■ ■	■ ■
Rated frequency		
50/60 Hz	■ ■ ■ ■ ■ ■ ■ ■	■ ■ ■ ■ ■
50/60/400 Hz		■ ■ ■ ■
Suitable for monitoring		
Mains with harmonic content		■ ■ ■ ■
Single-phase mains	■ ■ ■ ■	■ ■ ■ ■
Three-phase mains	■ ■ ■ ■ ■ ■ ■ ■	■ ■ ■ ■ ■ ■ ■ ■

	Order number	
	Type	
	CM-MPS.11S	1SVR730885R1300
	CM-MPS.11P	1SVR740885R1300
	CM-MPS.21S	1SVR730885R3300
	CM-MPS.21P	1SVR740885R3300
	CM-MPS.31S	1SVR730884R1300
	CM-MPS.31P	1SVR740884R1300
	CM-MPS.41S	1SVR730884R3300
	CM-MPS.41P	1SVR740884R3300
	CM-MPS.23S	1SVR730885R4300
	CM-MPS.23P	1SVR740885R4300
	CM-MPS.43S	1SVR730884R4300
	CM-MPS.43P	1SVR740884R4300
	CM-MPN.52S	1SVR750487R8300
	CM-MPN.52P	1SVR760487R8300
	CM-MPN.62S	1SVR750488R8300
	CM-MPN.62P	1SVR760488R8300
	CM-MPN.72S	1SVR750489R8300
	CM-MPN.72P	1SVR760489R8300
Monitoring function		
Phase failure	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	
Phase sequence	sel sel sel sel sel sel sel sel adj adj adj adj adj adj adj adj adj adj adj adj	
Automatic phase sequence correction		adj adj adj adj adj adj adj adj adj adj
Overvoltage	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	
Undervoltage	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	
Unbalance	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	
Interrupted neutral monitoring ¹⁾	■ ■ ■ ■	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Thresholds		
Adjustable (adj)	adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj	
Timing functions for tripping delay		
On- or OFF delay	adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj adj	
Connection type		
Push-in terminals		■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Double-chamber cage connection terminals	■	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

The relay detects by means of a phase unbalance the interruption of the neutral conductor. The external conductor voltage (1) towards the neutral conductor is measured too

adj: adjustable
sel: selectable

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Single-phase current monitoring relays

Single-phase voltage monitoring relays

Three-phase voltage monitoring relays

Grid-feeding monitoring relays

Insulation monitoring relays

Thermistor motor protection relays

Temperature monitoring relays

Liquid level monitoring relays

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Grid feeding monitoring relays



ABB’s grid feeding monitoring relays detect unusual events in the public power grid and keeps it stable by automatically disconnecting and reconnecting the renewable power plant. The CM-UFD displays all relevant measuring data and events and can communicate them via a build-in communication interface. The cloud-based service Ability™ EDCS enables customers to monitor the conditions in real-time, send the values into the cloud and access the diagnostics remotely.

➤ **Selection tables**

- Single-phase current monitoring relays
- Single-phase voltage monitoring relays
- Three-phase voltage monitoring relays
- Grid-feeding monitoring relays
- Insulation monitoring relays
- Thermistor motor protection relays
- Temperature monitoring relays
- Liquid level monitoring relays

Grid feeding monitoring relays

	Order number						
		CM-UFED.M22M	CM-UFED.M31	CM-UFED.M31M	CM-UFED.M33	CM-UFED.M33M	CM-UFED.M34M
	1SVR560731R3700	1SVR560730R3401	1SVR560731R3701	1SVR560730R3402	1SVR560731R3702	1SVR560731R3703	
Rated control supply voltage U _s							
24-240 V AC/DC		■	■	■	■	■	■
Standard							
CEI 0-21		■					
VDE AR-N 4105, VDE AR-N 4110, VDE AR-N 4120			■	■			
ENA G98, G99					■	■	
DRRG standard of DEWA							■
Rated frequency							
DC or 50/60 Hz		■	■	■	■	■	■
Modbus RTU		■		■		■	■
Suitable for monitoring							
Single-phase mains		■	■	■	■	■	■
Three-phase mains		■	■	■	■	■	■
Monitoring function							
Over-/undervoltage		■	■	■	■	■	■
Over-/underfrequency		■	■	■	■	■	■
ROCOF (rate of change of frequency)		■	■	■	■	■	■
10 minutes average value		■	■	■	■	■	■
Vector shift			■	■	■	■	■
Thresholds		adj	adj	adj	adj	adj	adj

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



- Single-phase current monitoring relays
- Single-phase voltage monitoring relays
- Three-phase voltage monitoring relays
- Grid-feeding monitoring relays
- Insulation monitoring relays
- Thermistor motor protection relays
- Temperature monitoring relays
- Liquid level monitoring relays

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Insulation monitoring relays

The insulation monitoring relays of the CM-IWx range guarantee a continuous insulation monitoring of an IT system. The devices recognize insulation faults as they develop and warn immediately if the value has fallen below the minimum set threshold. This ensures a reliable operation of the system and prevents operational interruption caused by a second, more severe, insulation fault which may lead to a short circuit tripping the main circuit breaker.



> Selection tables

	Type	Order number
	CM-IWS.2S	1SVR730670R0200
	CM-IWS.2P	1SVR740670R0200
	CM-IWS.1S	1SVR730660R0100
	CM-IWS.1P	1SVR740660R0100
	CM-IWN.1S	1SVR750660R0200
	CM-IWN.1P	1SVR760660R0200
	CM-IWM.10	1SVR470670R1000
	CM-IWM.11	1SVR470670R1100
Output		
1 c/o	■	■
1 x 2 c/o or 2 x 1 c/o		
2 c/o		
Operating principle		
Open-circuit principle	■	■
Open- or closed-circuit principle adjustable		
Test		
Front-face button or control input	■	■
Reset		
Front-face button or control input	■	■
Fault storage / latching configurable	■	■
Non volatile storage configurable	■	■
Interrupted wire detection		
Threshold values configurable	1	1
Control input (measuring input deactivation)		
Connection type		
Push-in terminals		
Double-chamber cage connection terminals	■	
Screw terminals		

3) Allowed voltage range of the supervised network: 0-1100 V AC / 0-1500 V DC



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



- Single-phase current monitoring relays
- Single-phase voltage monitoring relays
- Three-phase voltage monitoring relays
- Grid-feeding monitoring relays
- Insulation monitoring relays
- Thermistor motor protection relays
- Temperature monitoring relays
- Liquid level monitoring relays

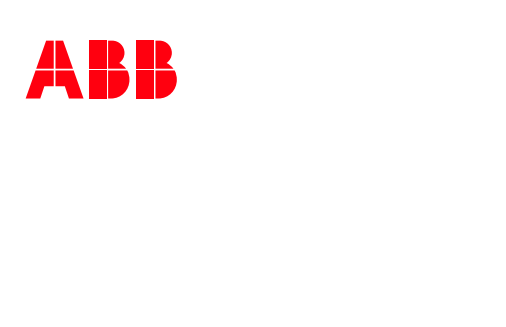
- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Thermistor motor protection relays

The thermistor motor protection relays of the CM-MSx range protect motors with PTC sensors against high temperature. These sensors are incorporated in the motor windings, thus measuring the motor heat directly.

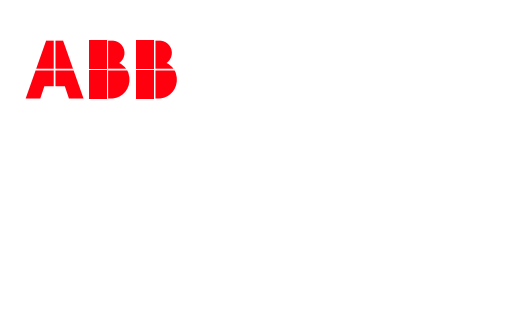


Selection tables



Measuring and monitoring relays

Interface relays and optocouplers





Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

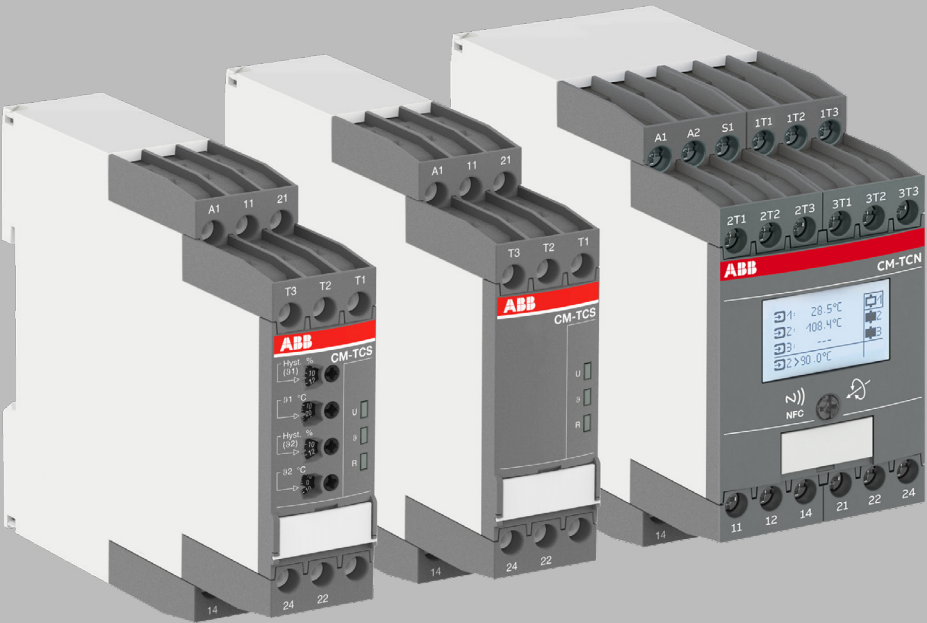
Interface relays and optocouplers ↓



- Single-phase current monitoring relays
- Single-phase voltage monitoring relays
- Three-phase voltage monitoring relays
- Grid-feeding monitoring relays
- Insulation monitoring relays
- Thermistor motor protection relays
- Temperature monitoring relays
- Liquid level monitoring relays

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Temperature monitoring relays



ABB's portfolio of temperature monitoring relays is designed to measure the temperatures of solids, liquids and gaseous media using a variety of different sensors. Temperature monitoring relays are used in a wide array of applications. In conjunction with temperature sensors, such as PT100, PT1000, NTC or PTC sensors, they monitor the temperature of electric motors, control cabinets, busbars and protect transformers from overheating.



Selection tables

Single-phase current monitoring relays

Single-phase voltage monitoring relays

Three-phase voltage monitoring relays

Grid-feeding monitoring relays

Insulation monitoring relays

Thermistor motor protection relays

Temperature monitoring relays

Liquid level monitoring relays

Temperature monitoring relays

		Type	Order number															
			CM-TCS.21S	CM-TCS.21P	CM-TCS.11S	CM-TCS.11P	CM-TCS.22S	CM-TCS.22P	CM-TCS.12S	CM-TCS.12P	CM-TCS.23S	CM-TCS.23P	CM-TCS.13S	CM-TCS.13P	CM-TCN.011S	CM-TCN.011P	CM-TCN.012S	CM-TCN.012P
Rated control supply voltage U _s																		
24 V AC/DC			■	■			■	■			■	■						
24-240 V AC/DC					■	■			■	■			■	■	■*	■*	■	■
Sensor circuits (2 or 3 wire)																		
Number of temperature sensors			1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3
Number of thresholds			2	2	2	2	2	2	2	2	2	2	2	2	9	9	9	9
Sensor types																		
PT100			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
PT1000															■	■	■	■
NTC															■	■	■	■
PTC															■	■	■	■
Bi-metal switch															■	■	■	■
Measuring temperature range																		
-50...+50 °C			■	■	■	■												
0...+100 °C							■	■	■	■								
0...+200 °C											■	■	■	■				
-200...+850 °C															■	■	■	■
Interface																		
Potentiometers			■	■	■	■	■	■	■	■	■	■	■	■				
Display															■	■	■	■
NFC															■	■	■	■
Modbus RTU																	■	■

* CM-TCN.011: supply voltage 24-240 V AC/DC for revision G or later and supply voltage 24 V AC/DC for revision F or earlier.

	Order number																
	Type	CM-TCS.21S	CM-TCS.21P	CM-TCS.11S	CM-TCS.11P	CM-TCS.22S	CM-TCS.22P	CM-TCS.12S	CM-TCS.12P	CM-TCS.23S	CM-TCS.23P	CM-TCS.13S	CM-TCS.13P	CM-TCN.011S	CM-TCN.011P	CM-TCN.012S	CM-TCN.012P
Monitoring function																	
Overtemperature		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Undertemperature		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Window temperature		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Temperature difference														■	■	■	■
Operating principle																	
open or closed-circuit principle		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Output contacts																	
c/o		2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓

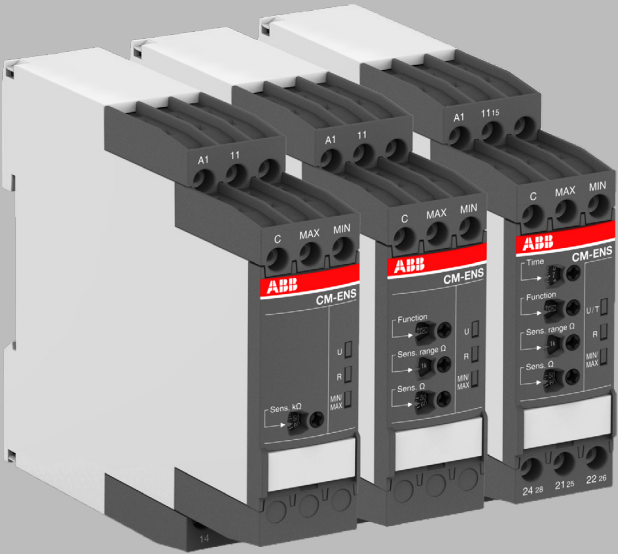


- Single-phase current monitoring relays
- Single-phase voltage monitoring relays
- Three-phase voltage monitoring relays
- Grid-feeding monitoring relays
- Insulation monitoring relays
- Thermistor motor protection relays
- Temperature monitoring relays
- Liquid level monitoring relays

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Liquid level monitoring relays

ABB’s liquid level monitoring relays are the ideal solution to regulate and control liquid levels and ratios of mixtures of conductive fluids. The assortment includes single- or multifunctional devices which can be used for overflow protection, dry-running protection of pumps, filling and draining applications as well as max. and min. level alarming.



 **Selection tables**

Liquid level monitoring relays

[illegible]

	Type	Order code
	CM-ENE MIN	1SVR550855R9500
	CM-ENE MIN	1SVR550850R9500
	CM-ENE MIN	1SVR550851R9500
	CM-ENE MAX	1SVR550855R9400
	CM-ENE MAX	1SVR550850R9400
	CM-ENE MAX	1SVR550851R9400
	CM-ENS.11S	1SVR730850R0100
	CM-ENS.11P	1SVR740850R0100
	CM-ENS.13S	1SVR730850R2100
	CM-ENS.13P	1SVR740850R2100
	CM-ENS.21S	1SVR730850R0200
	CM-ENS.21P	1SVR740850R0200
	CM-ENS.23S	1SVR730850R2200
	CM-ENS.23P	1SVR740850R2200
	CM-ENS.31S	1SVR730850R0300
	CM-ENS.31P	1SVR740850R0300
Adjustable ON-/OFF-delay		
0.1-10 s		
Output contacts		
n/o	1	1
c/o (SPDT)		
Connection type		
Push-in terminals		
Double-chamber cage connection terminals		
Screw		

adj: adjustable
sel: selectable



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

- ⌕ Time relays
- ⌕ Measuring and monitoring relays
- ⌕ Primary switch mode power supplies
- ⌕ Interface relays and optocouplers



Primary switch mode power supplies

CP-D, CP-E, CP-T, CP-S.1, CP-C.1

Available in five different ranges to cover every application requirement, CP range power supplies are used to empower your valued assets worldwide. Their excellent reliability in daily use has under the toughest of conditions and harshest of environments is proven.

Choose ABB as your power supply partner and leverage our wide variety of product options. From economic to high-end solutions, the CP range offers maximum value.



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

CP-E range



ABB’s CP-E range offers enhanced functionality and a simpler, more rational selection process. All power supply units can be operated at an ambient temperature of up to +70 °C (158 °F).



Selection tables

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

CP-E range

	Order number	1SVR427033R3000	1SVR427032R1000	1SVR427035R1000	1SVR427030R0000	1SVR427031R0000	1SVR427032R0000	1SVR427034R0000	1SVR427035R0000	1SVR427036R0000	1SVR427030R2000	1SVR427031R2000	1SVR427034R0000	1SVR427035R2000
		Single-phase												
Rated output voltage	5 V DC	■												
	12 V DC		■	■										
	24 V DC				■	■	■	■	■					
	48 V DC										■	■	■	■
Rated output current	0.42 A													
	0.625 A										■			
	0.75 A				■									
	0.83 A													
	1.25 A					■						■		
	1.3 A													
	2.1 A													
	2.5 A		■				■							
	3 A	■												
	4.2 A													
	5 A							■					■	
	10 A			■					■					■
	20 A									■				
	40 A													
Rated output power	10 W													
	15 W	■												
	18 W				■									
	25 W					■					■			
	30 W		■				■							
	60 W						■					■		
	72 W													
	100 W													
	120 W			■				■						
	240 W								■				■	
	480 W									■				■
	960 W													

	Order number	1SVR427033R3000	1SVR427032R1000	1SVR427035R1000	1SVR427030R0000	1SVR427031R0000	1SVR427032R0000	1SVR427034R0000	1SVR427035R0000	1SVR427036R0000	1SVR427030R2000	1SVR427031R2000	1SVR427034R0000	1SVR427035R2000
		Single-phase												
Rated input voltage	100-240 V AC	■	■		■	■	■				■	■		
	110-240 V AC													
	115/230 V AC auto select			■				■	■				■	
	115-230 V AC									■				■
DC input voltage range	90-300 V DC													
	90-375 V DC		■			■	■					■	■	
	100-250 V DC													
	110-250 V DC													
	120-375 V DC	■			■					■				■
	210-375 V DC			■				■	■				■	
Features	Power reserve design													
	Adjustable output voltage	■	■	■	■	■	■	■	■	■	■	■	■	■
	Integrated input fuse	■	■	■	■	■	■	■	■	■	■	■	■	■
	Short-circuit stable	■	■	■	■	■	■	■	■	■	■	■	■	■
	Fold-forward behavior (U/I)		■	■		■	■	■	■	■	■	■	■	■
	Fold-back behavior (hiccup)	■			■									
	Power factor correction			pas				pas	pas	act			pas	act
	Signalling contact					■	■	■	■	■				
	Extended temp. range		■	■		■	■	■	■	■	■	■	■	■
	Parallel connection	■	■	3	■	■	■	3	3	3	■	■	3	3
	Serial connection	■	■	2	■	■	■	2	2	2	■	■	2	2
	Coated PCBA													

pas = passive, act = active



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

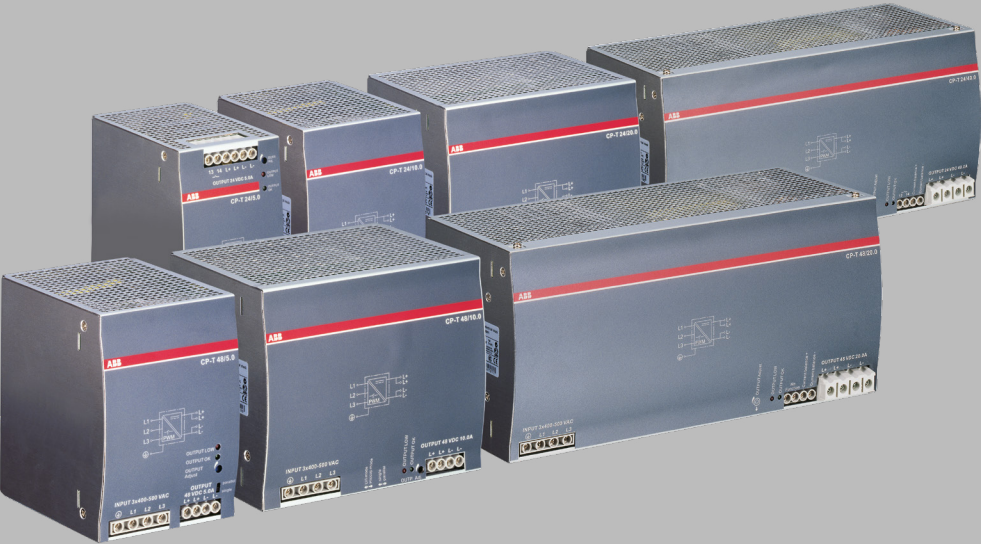
CP-C.1 range

Power supplies for building applications

CP-D range



CP-T range



ABB’s CP-T range of three-phase power supply units perfectly complements our existing power supply offering in terms of design and functionality, giving you more advanced options for your three-phase applications.

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers



Selection tables

Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

CP-T range

		Order number	1SVR427054R0000	1SVR427055R0000	1SVR427056R0000	1SVR427057R0000	1SVR427054R2000	1SVR427055R2000	1SVR427056R2000
		Three-phase							
		CP-T							
Rated output voltage	24 V DC	■	■	■	■				
	48 V DC					■	■	■	
Rated output current	5 A	■				■			
	10 A		■				■		
	20 A			■					■
	40 A				■				
Rated output power	120 W	■							
	240 W		■			■			
	480 W			■			■		
	960 W				■				■
Rated input voltage	3 x 400-500 V AC	■	■	■	■	■	■	■	■
DC input voltage range	480-820 V DC	■	■	■	■	■	■	■	■
Features	Adjustable output voltage	■	■	■	■	■	■	■	■
	Integrated input fuse	■	■	■	■	■	■	■	■
	Short-circuit stable	■	■	■	■	■	■	■	■
	Fold forward behavior (U/I)	■	■	■		■	■		
	Fold back behavior (hiccup)	■	■	■	■	■	■	■	■
	Extended temp. range	■	■	■	■	■	■	■	■
	Signalling contact	■	■	■	■				
	Parallel connection		2	2	2	2	2	2	2
	Serial connection		2	2	2	2	2	2	2



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

CP-S.1 range



CP-S.1 power supplies: high efficiency and reliability delivered in a compact footprint. Designed for a huge variety of applications, including machine building segments, this advanced range boosts an integrated 150 % power reserve for five seconds and operates at an efficiency of up to 94 %. With overheat protection, active power factor correction, a broad certified AC and DC input range and extensive worldwide approvals including marine, the all-new CP-S.1 power supplies are a preferred choice for multiple industrial applications.



Selection tables

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

CP-S.1 range

	Order number	1SVR320361R1000	1SVR320561R1000	1SVR320661R1000	1SVR320761R1000	1SVR320861R1000
		Single-phase				
Rated output voltage	5 V DC					
	12 V DC					
	24 V DC	■	■	■	■	■
	48 V DC					
Rated output current	0.42 A					
	0.625 A					
	0.75 A					
	0.83 A					
	1.25 A					
	1.3 A					
	2.1 A					
	2.5 A					
	3 A	■				
	4.2 A					
	5 A		■			
	10 A			■		
	20 A				■	
	40 A					■
Rated output power	10 W					
	15 W					
	18 W					
	25 W					
	30 W					
	60 W					
	72 W	■				
	100 W					
	120 W		■			
	240 W			■		
	480 W				■	
	960 W					■

	Order number	1SVR320361R1000	1SVR320561R1000	1SVR320661R1000	1SVR320761R1000	1SVR320861R1000
		Single-phase				
Rated input voltage	100-240 V AC	■	■	■	■	
	110-240 V AC					■
	115/230 V AC auto select					
	115-230 V AC					
DC input voltage range	90-300 V DC					
	90-375 V DC					
	100-250 V DC	■	■	■	■	
	110-250 V DC					■
	120-375 V DC					
	210-375 V DC					
Features	Power reserve design	■	■	■	■	■
	Adjustable output voltage	■	■	■	■	■
	Integrated input fuse	■	■	■	■	■
	Short-circuit stable	■	■	■	■	■
	Fold-forward behavior (U/I)	■	■	■	■	■
	Fold-back behavior (hiccup)					
	Power factor correction	no	act	act	act	act
	Signalling contact	■	■	■	■	■
	Extended temp. range					
	Parallel connection	3	3	3	3	3
	Serial connection	2	2	2	2	2
	Coated PCBA	■	■	■	■	■

pas = passive, act = active



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

CP-C.1 range



The high-performance CP-C.1 power supplies are ABB’s most advanced range. With excellent efficiency, high reliability and innovative functionality, it is ready to take on the most demanding of industrial applications. These power supplies have a 150 % integrated power reserve, operate at an efficiency of up to 94 % and are equipped with overheat protection and active power factor correction. Combined with a broad AC and DC input range and extensive worldwide approvals, CP-C.1 power supplies are the preferred choice for professional DC applications. ATEX and IECEx approvals are available for the use in hazardous areas.



Selection tables

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

CP-C.1 range

	Order number	1SVR360563R1001	1SVR360663R1001	1SVR360763R1001	1SVR360563R2001	1SVR360663R2001	1SVR360763R2001	1SVR361563R1001	1SVR361663R1001	1SVR361763R1001
		Single-phase								
Rated output voltage	5 V DC									
	12 V DC									
	24 V DC	■	■	■	■	■	■	■	■	■
	48 V DC									
Rated output current	0.42 A									
	0.625 A									
	0.75 A									
	0.83 A									
	1.25 A									
	1.3 A									
	2.1 A									
	2.5 A									
	3 A									
	4.2 A									
	5 A	■			■			■		
	10 A		■			■			■	
	20 A			■			■			■
	40 A									
Rated output power	10 W									
	15 W									
	18 W									
	25 W									
	30 W									
	60 W									
	72 W									
	100 W									
	120 W	■			■			■		
	240 W		■			■			■	
	480 W			■			■			■
	960 W									

	Order number	1SVR360563R1001	1SVR360663R1001	1SVR360763R1001	1SVR360563R2001	1SVR360663R2001	1SVR360763R2001	1SVR361563R1001	1SVR361663R1001	1SVR361763R1001
		Single-phase								
Rated input voltage	100-240 V AC	■	■	■	■	■	■	■	■	■
	110-240 V AC									
	115/230 V AC auto select									
	115-230 V AC									
DC input voltage range	90-300 V DC	■	■	■	■	■	■	■	■	■
	90-375 V DC									
	100-250 V DC									
	110-250 V DC									
	120-375 V DC									
	210-375 V DC									
Features	Power reserve design	■	■	■	■	■	■	■	■	■
	Adjustable output voltage	■	■	■	■	■	■	■	■	■
	Integrated input fuse	■	■	■	■	■	■	■	■	■
	Short-circuit stable	■	■	■	■	■	■	■	■	■
	Fold-forward behavior (U/I)	■	■	■	■	■	■	■	■	■
	Fold-back behavior (hiccup)									
	Power factor correction	act	act	act	act	act	act	act	act	act
	Signalling contact	■	■	■	■	■	■	■	■	■
	Extended temp. range				■	■	■			
	Parallel connection	5	5	5	5	5	5	5	5	5
	Serial connection	2	2	2	2	2	2	2	2	2
	Coated PCBA				■	■	■			

pas = passive, act = active



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

CP-D range



Thanks to its compact modular housing, the CP-D range is ideal for building applications and installation. For maximum flexibility in operation, six different versions are available, from 10 W up to 100 W. Their wide input voltage range allows their use in global applications.



Selection tables

- ⌵ Time relays
- ⌵ Measuring and monitoring relays
- ⌵ Primary switch mode power supplies
- ⌵ Interface relays and optocouplers

Power supplies for industrial applications

CP-E range

CP-T range

CP-S.1 range

CP-C.1 range

Power supplies for building applications

CP-D range

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

CP-D range

		Order number	1SVR427041R1000	1SVR427043R1200	1SVR427041R0000	1SVR427043R0100	1SVR427044R0200	1SVR427045R0400
			Single-phase					
Rated output voltage	5 V DC							
	12 V DC		■	■				
	24 V DC				■	■	■	■
	48 V DC							
Rated output current	0.42 A				■			
	0.625 A							
	0.75 A							
	0.83 A		■					
	1.25 A							
	1.3 A					■		
	2.1 A			■				
	2.5 A						■	
	3 A							
	4.2 A							■
	5 A							
	10 A							
	20 A							
	40 A							
Rated output power	10 W		■		■			
	15 W							
	18 W							
	25 W			■				
	30 W					■		
	60 W						■	
	72 W							
	100 W							■
	120 W							
	240 W							
	480 W							
	960 W							

		Order number	1SVR427041R1000	1SVR427043R1200	1SVR427041R0000	1SVR427043R0100	1SVR427044R0200	1SVR427045R0400
			Single-phase					
Rated input voltage	100-240 V AC		■	■	■	■	■	■
	110-240 V AC							
	115/230 V AC auto select							
	115-230 V AC							
DC input voltage range	90-300 V DC							
	90-375 V DC							
	100-250 V DC							
	110-250 V DC							
	120-375 V DC		■	■	■	■	■	■
	210-375 V DC							
Features	Power reserve design							
	Adjustable output voltage			■		■	■	■
	Integrated input fuse		■	■	■	■	■	■
	Short-circuit stable		■	■	■	■	■	■
	Fold-forward behavior (U/I)			■		■	■	■
	Fold-back behavior (hiccup)		■		■			
	Power factor correction							
	Signalling contact							
	Extended temp. range		■	■	■	■	■	■
	Parallel connection							
	Serial connection		■	■	■	■	■	■
	Coated PCBA							

pas = passive, act = active



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Pluggable interface relays

CR-S range

CR-P range

CR-M range

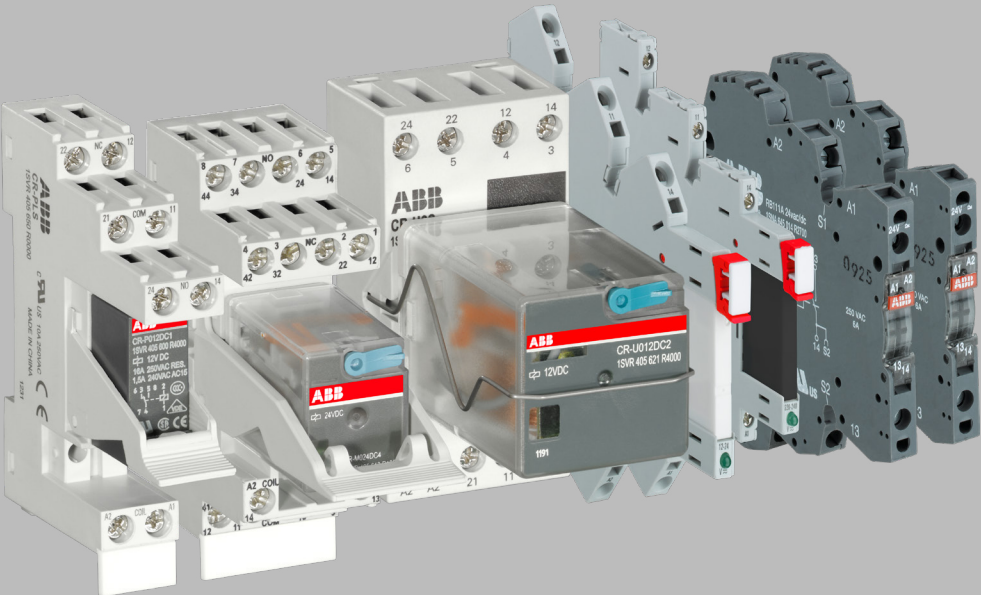
CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays and optocouplers

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers



Interface relays and optocouplers

CR-S, CR-P, CR-M, CR-U, R600

ABB offers a complete range of interface relays and optocouplers for increased flexibility and choice. This portfolio includes pluggable relays for easy interchangeability and optocouplers for an extended electrical life.

Furthermore, interface relays with gold plated contacts suitable for sensitive applications are available. This wide selection of relays adheres to the highest global standards and satisfies the requirements for a diverse number of applications and needs.



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

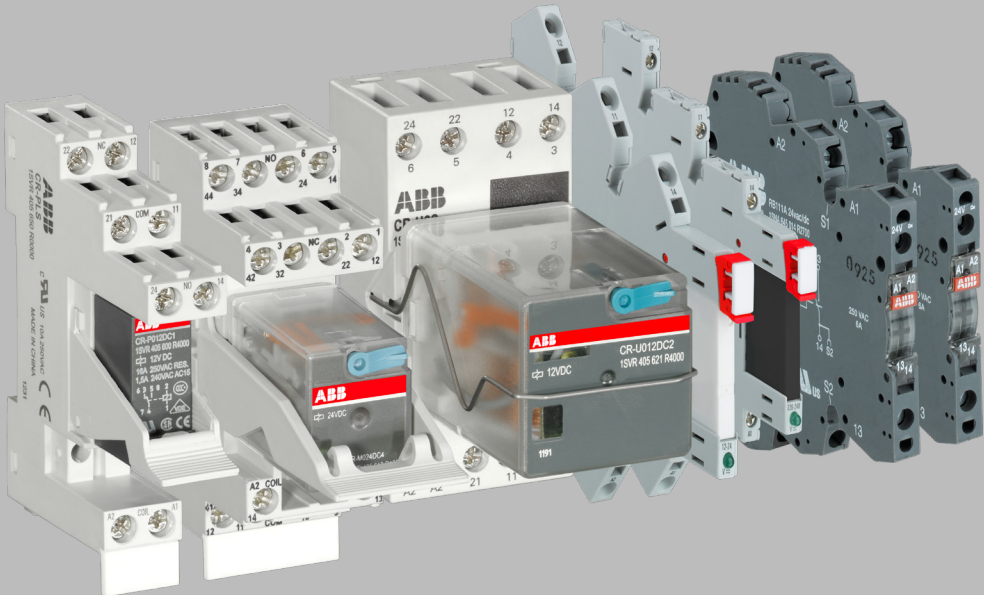
CR-U function modules

Boxed interface relays and optocouplers

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

CR-S, CR-P, CR-M, CR-U

ABB’s interface relays and optocouplers ensure a reliable voltage conversion between process peripherals and higher level control systems. These relays ensure reliable signal switching and provide electrical isolation for sensitive electronics such as PLCs. The wide variety of pluggable interface relays with accompanied by standard or logic sockets may be used for switching AC or DC loads. Suitable for extreme environments, ABB’s interface relays are offered across a wide spectrum of coil voltages, with a variety of optional function modules.



Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays and optocouplers

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

CR-S range relay assemblies



How to use the selection table
Choose the desired control supply voltage from the column “Control voltage”, e.g. "5 V DC".
Choose the desired kind of connection terminal from the column “Connection terminal”, e.g. "spring".
Choose the desired material of contact from the column “Contact Material” e.g. "gold plated".

Control voltage	Connection terminal	Contact material	Socket type	Socket order code	Relay type	Relay order code
5 V DC	screw	standard	CR-S006/024VDC1SS	1SVR405521R1100	CR-S005VDC1R	1SVR405501R1010
		gold plated	CR-S006/024VDC1SS	1SVR405521R1100	CR-S005VDC1RG	1SVR405501R1020
	spring	standard	CR-S006/024VDC1SZ	1SVR405521R1200	CR-S005VDC1R	1SVR405501R1010
		gold plated	CR-S006/024VDC1SZ	1SVR405521R1200	CR-S005VDC1RG	1SVR405501R1020
12 V AC	screw	standard	CR-S012/024VADC1SS	1SVR405521R3100	CR-S012VDC1R	1SVR405501R2010
		gold plated	CR-S012/024VADC1SS	1SVR405521R3100	CR-S012VDC1RG	1SVR405501R2020
	spring	standard	CR-S012/024VADC1SZ	1SVR405521R3200	CR-S012VDC1R	1SVR405501R2010
		gold plated	CR-S012/024VADC1SZ	1SVR405521R3200	CR-S012VDC1RG	1SVR405501R2020



Example
When you have chosen 5 V DC as control supply voltage, spring connection as connection terminal and gold plated as contact material the following order codes and type designators are valid:

Socket: CR-S006/024VDC1SZ, 1SVR405521R1200
Relay: CR-S005VDC1RG, 1SVR405501R1020

Control voltage	Connection terminal	Contact material	Socket type	Socket order code	Relay type	Relay order code
5 V DC	screw	standard	CR-S006/024VDC1SS	1SVR405521R1100	CR-S005VDC1R	1SVR405501R1010
		gold plated	CR-S006/024VDC1SS	1SVR405521R1100	CR-S005VDC1RG	1SVR405501R1020
	spring	standard	CR-S006/024VDC1SZ	1SVR405521R1200	CR-S005VDC1R	1SVR405501R1010
		gold plated	CR-S006/024VDC1SZ	1SVR405521R1200	CR-S005VDC1RG	1SVR405501R1020
12 V DC	screw	standard	CR-S006/024VDC1SS or CR-S012/024VADC1SS	1SVR405521R1100 or 1SVR405521R3100	CR-S012VDC1R	1SVR405501R2010
		gold plated	CR-S006/024VDC1SS or CR-S012/024VADC1SS	1SVR405521R1100 or 1SVR405521R3100	CR-S012VDC1RG	1SVR405501R2020
	spring	standard	CR-S006/024VDC1SZ or CR-S012/024VADC1SZ	1SVR405521R1200 or 1SVR405521R3200	CR-S012VDC1R	1SVR405501R2010
		gold plated	CR-S006/024VDC1SZ or CR-S012/024VADC1SZ	1SVR405521R1200 or 1SVR405521R3200	CR-S012VDC1RG	1SVR405501R2020
12 V AC	screw	standard	CR-S012/024VADC1SS	1SVR405521R3100	CR-S012VDC1R	1SVR405501R2010
		gold plated	CR-S012/024VADC1SS	1SVR405521R3100	CR-S012VDC1RG	1SVR405501R2020
	spring	standard	CR-S012/024VADC1SZ	1SVR405521R3200	CR-S012VDC1R	1SVR405501R2010
		gold plated	CR-S012/024VADC1SZ	1SVR405521R3200	CR-S012VDC1RG	1SVR405501R2020
24 V DC	screw	standard	CR-S006/024VDC1SS or CR-S012/024VADC1SS	1SVR405521R1100 or 1SVR405521R3100	CR-S024VDC1R	1SVR405501R3010
		gold plated	CR-S006/024VDC1SS or CR-S012/024VADC1SS	1SVR405521R1100 or 1SVR405521R3100	CR-S024VDC1RG	1SVR405501R3020
	spring	standard	CR-S006/024VDC1SZ or CR-S012/024VADC1SZ	1SVR405521R1200 or 1SVR405521R3200	CR-S024VDC1R	1SVR405501R3010
		gold plated	CR-S006/024VDC1SZ or CR-S012/024VADC1SZ	1SVR405521R1200 or 1SVR405521R3200	CR-S024VDC1RG	1SVR405501R3020
24 V AC	screw	standard	CR-S012/024VADC1SS	1SVR405521R3100	CR-S024VDC1R	1SVR405501R3010
		gold plated	CR-S012/024VADC1SS	1SVR405521R3100	CR-S024VDC1RG	1SVR405501R3020
	spring	standard	CR-S012/024VADC1SZ	1SVR405521R3200	CR-S024VDC1R	1SVR405501R3010
		gold plated	CR-S012/024VADC1SZ	1SVR405521R3200	CR-S024VDC1RG	1SVR405501R3020
48 V AC/DC	screw	standard	CR-S048/060VADC1SS	1SVR405521R5100	CR-S048VDC1R	1SVR405501R4010
		gold plated	CR-S048/060VADC1SS	1SVR405521R5100	CR-S048VDC1RG	1SVR405501R4020
	spring	standard	CR-S048/060VADC1SZ	1SVR405521R5200	CR-S048VDC1R	1SVR405501R4010
		gold plated	CR-S048/060VADC1SZ	1SVR405521R5200	CR-S048VDC1RG	1SVR405501R4020

Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays and optocouplers

CR-S range relay assemblies

Control voltage	Connection terminal	Contact material	Socket type	Socket order code	Relay type	Relay order code
60 V AC/DC	screw	standard	CR-S048/060VADC1SS	1SVR405521R5100	CR-S060VDC1R	1SVR405501R5010
		gold plated	CR-S048/060VADC1SS	1SVR405521R5100	CR-S060VDC1RG	1SVR405501R5020
	spring	standard	CR-S048/060VADC1SZ	1SVR405521R5200	CR-S060VDC1R	1SVR405501R5010
		gold plated	CR-S048/060VADC1SZ	1SVR405521R5200	CR-S060VDC1RG	1SVR405501R5020
110-125 V AC/DC	screw	standard	CR-S110/125VADC1SS	1SVR405521R6100	CR-S060VDC1R	1SVR405501R5010
		gold plated	CR-S110/125VADC1SS	1SVR405521R6100	CR-S060VDC1RG	1SVR405501R5020
	spring	standard	CR-S110/125VADC1SZ	1SVR405521R6200	CR-S060VDC1R	1SVR405501R5010
		gold plated	CR-S110/125VADC1SZ	1SVR405521R6200	CR-S060VDC1RG	1SVR405501R5020
220-240 V AC/DC	screw	standard	CR-S220/240VADC1SS	1SVR405521R7100	CR-S060VDC1R	1SVR405501R5010
		gold plated	CR-S220/240VADC1SS	1SVR405521R7100	CR-S060VDC1RG	1SVR405501R5020
	spring	standard	CR-S220/240VADC1SZ	1SVR405521R7200	CR-S060VDC1R	1SVR405501R5010
		gold plated	CR-S220/240VADC1SZ	1SVR405521R7200	CR-S060VDC1RG	1SVR405501R5020

CR-S optocoupler range relay assemblies

Control voltage	Connection terminal	Output characteristics	Socket type	Socket order code	Opto type	Opto order code
24 V DC	screw	Transistor 100 mA - 48 V DC	CR-S012/024VADC1SS	1SVR405521R3100	CR-S024VDC1TRA	1SVR405510R3050
	spring		CR-S012/024VADC1SZ	1SVR405521R3200	CR-S024VDC1TRA	1SVR405510R3050
	screw	MOS-FET 2 A - 24 V DC	CR-S012/024VADC1SS	1SVR405521R3100	CR-S024VDC1MOS	1SVR405510R3060
	spring		CR-S012/024VADC1SZ	1SVR405521R3200	CR-S024VDC1MOS	1SVR405510R3060
	screw	Triac 2 A - 240 V AC	CR-S012/024VADC1SS	1SVR405521R3100	CR-S024VDC1TRI	1SVR405510R3070
	spring		CR-S012/024VADC1SZ	1SVR405521R3200	CR-S024VDC1TRI	1SVR405510R3070

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays and optocouplers

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

CR-P range

Pluggable relays and optocouplers

	Type	Order code
	CR-P012DC1	1SVR405600R4000
	CR-P024DC1	1SVR405600R1000
	CR-P048DC1	1SVR405600R6000
	CR-P110DC1	1SVR405600R8000
	CR-P024AC1	1SVR405600R0000
	CR-P048AC1	1SVR405600R5000
	CR-P110AC1	1SVR405600R7000
	CR-P120AC1	1SVR405600R2000
	CR-P230AC1	1SVR405600R3000
	CR-P012DC2	1SVR405601R4000
	CR-P024DC2	1SVR405601R1000
	CR-P048DC2	1SVR405601R6000
	CR-P110DC2	1SVR405601R8000
	CR-P012AC2	1SVR405601R0200
	CR-P024AC2	1SVR405601R0000
	CR-P048AC2	1SVR405601R5000
	CR-P110AC2	1SVR405601R7000
	CR-P120AC2	1SVR405601R2000
	CR-P230AC2	1SVR405601R3000
	CR-P024DC2G	1SVR405606R1000
	CR-P024AC2G	1SVR405606R0000
	CR-P110AC2G	1SVR405606R7000
	CR-P230AC2G	1SVR405606R3000
	CR-P024MOS1	1SVR405610R4060
	CR-P024TRI1	1SVR405610R4070

Control voltage	
12 V DC	■
24 V DC	■
48 V DC	■
110 V DC	■
12 V AC	■
24 V AC	■
48 V AC	■
110 V AC	■
120 V AC	■
230 V AC	■

Output rating	
35 V DC 5 A	■
250 V AC 16 A	■
250 V AC 8 A	■
275 V AC 3 A	■

Output contacts	
c/o	1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2
Gold plated contacts	
MOS-FET	
TRIAC 3 A	■

Complete versions

	Type	Order code
	CR-P012DC1S542V	1SVR405600R4010
	CR-P024DC1S542V	1SVR405600R1010
	CR-P024DC1LC42V	1SVR405600R1011
	CR-P024DC1LC62C	1SVR405600R1013
	CR-P110DC1S542CV	1SVR405600R8010
	CR-P024AC1S562CV	1SVR405600R0010
	CR-P120AC1S592CV	1SVR405600R2010
	CR-P230AC1S592CV	1SVR405600R3110
	CR-P230AC1LS	1SVR405600R3011
	CR-P230AC1LC92CV	1SVR405600R3010
	CR-P012DC2S542V	1SVR405601R4010
	CR-P024DC2S542V	1SVR405601R1010
	CR-P024DC2LS42	1SVR405601R1013
	CR-P024DC2LS42V	1SVR405601R1011
	CR-P024DC2LC42	1SVR405601R1012
	CR-P024DC2GLC42V	1SVR405606R1010
	CR-P024DC2GLC62C	1SVR405606R1013
	CR-P024DC2GLC62CV	1SVR405606R1011
	CR-P110DC2S542CV	1SVR405601R8010
	CR-P024AC2S562CV	1SVR405601R0010
	CR-P120AC2S592CV	1SVR405601R2010
	CR-P230AC2S592CV	1SVR405601R3110
	CR-P230AC2LS92CV	1SVR405601R3011
	CR-P230AC2LC92	1SVR405601R3012
	CR-P230AC2GLC92	1SVR405606R3013
	CR-P230AC2GLC92C	1SVR405606R3012
	CR-P230AC2GLC92CV	1SVR405606R3010

Control voltage	
12 V DC	■
24 V DC	■
48 V DC	■
110 V DC	■
12 V AC	■
24 V AC	■
48 V AC	■
110 V AC	■
120 V AC	■
230 V AC	■

Output rating	
250 V AC 16 A	■
250 V AC 8 A	■

Output contacts	
c/o	1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2
Gold plated contacts	

Socket type	
Standard socket	■
Logical socket	■

Additional features	
LED	■
Free-wheeling diode	■

Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays and optocouplers

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers

CR-M range

CR-M pluggable relays without LED

	Type	Order code
	CR-M012DC2	1SVR405611R4000
	CR-M024DC2	1SVR405611R1000
	CR-M048DC2	1SVR405611R6000
	CR-M060DC2	1SVR405611R4200
	CR-M110DC2	1SVR405611R8000
	CR-M125DC2	1SVR405611R8200
	CR-M220DC2	1SVR405611R9000
	CR-M024AC2	1SVR405611R0000
	CR-M048AC2	1SVR405611R5000
	CR-M110AC2	1SVR405611R7000
	CR-M120AC2	1SVR405611R2000
	CR-M230AC2	1SVR405611R3000
	CR-M012DC3	1SVR405612R4000
	CR-M024DC3	1SVR405612R1000
	CR-M048DC3	1SVR405612R6000
	CR-M060DC3	1SVR405612R4200
	CR-M110DC3	1SVR405612R8000
	CR-M125DC3	1SVR405612R8200
	CR-M220DC3	1SVR405612R9000
	CR-M024AC3	1SVR405612R0000
	CR-M048AC3	1SVR405612R5000
	CR-M060AC3	1SVR405612R5200
	CR-M110AC3	1SVR405612R7000
	CR-M120AC3	1SVR405612R2000
	CR-M230AC3	1SVR405612R3000
	CR-M012DC4	1SVR405613R4000
	CR-M024DC4	1SVR405613R1000
	CR-M048DC4	1SVR405613R6000
	CR-M060DC4	1SVR405613R4200
	CR-M110DC4	1SVR405613R8000
	CR-M125DC4	1SVR405613R8200
	CR-M220DC4	1SVR405613R9000
	CR-M024AC4	1SVR405613R0000
	CR-M048AC4	1SVR405613R5000
	CR-M110AC4	1SVR405613R7000
	CR-M120AC4	1SVR405613R2000
	CR-M230AC4	1SVR405613R3000
Control voltage		
12 V DC		■
24 V DC		■
48 V DC		■
60 V DC		■
110 V DC		■
125 V DC		■
220 V DC		■
24 V AC		■
48 V AC		■
60 V AC		■
110 V AC		■
120 V AC		■
230 V AC		■
Output rating		
250 V AC 6 A		■
250 V AC 10 A		■
250 V AC 12 A	■	■
Output contacts		
c/o	2	2
Gold plated contacts		
Additional features		
LED		
Free-wheeling diode		

- > CR-M without LED
- > CR-M with LED
- > CR-M with gold-plated contacts
- > CR-M with gold-plated contacts, complete versions
- > CR-M range

- CR-M
without LED
- CR-M
with LED
- CR-M
with gold-plated
contacts
- CR-M
with gold-plated
contacts,
complete versions
- CR-M range

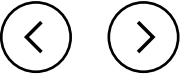


Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays
and optocouplers

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

CR-M range

CR-M pluggable relays with Gold Plated contacts

		Type	Order code																	
		CR-M024DC4G	1SVR405618R1000																	
		CR-M024AC4G	1SVR405618R0000																	
		CR-M110AC4G	1SVR405618R7000																	
		CR-M230AC4G	1SVR405618R3000																	
		CR-M230AC4G	1SVR405618R3000																	
		CR-M012DC4LG	1SVR405618R4100																	
		CR-M024DC4LG	1SVR405618R1100																	
		CR-M048DC4LG	1SVR405618R6100																	
		CR-M060DC4LG	1SVR405618R4300																	
		CR-M110DC4LG	1SVR405618R8100																	
		CR-M125DC4LG	1SVR405618R8300																	
		CR-M220DC4LG	1SVR405618R9100																	
		CR-M024AC4LG	1SVR405618R0100																	
		CR-M048AC4LG	1SVR405618R5100																	
		CR-M110AC4LG	1SVR405618R7100																	
		CR-M120AC4LG	1SVR405618R2100																	
		CR-M230AC4LG	1SVR405618R3100																	
		CR-M012DC4LDG	1SVR405618R4400																	
		CR-M024DC4LDG	1SVR405618R1400																	
Control voltage																				
12 V DC								■												■
24 V DC			■							■										
48 V DC											■									
60 V DC												■								
110 V DC													■							
125 V DC														■						
220 V DC															■					
24 V AC				■											■					
48 V AC																■				
60 V AC																	■			
110 V AC						■											■			
120 V AC																	■			
230 V AC							■	■											■	
Output rating																				
250 V AC 6 A			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250 V AC 10 A																				
250 V AC 12 A																				
Output contacts																				
c/o			4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Gold plated contacts			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Additional features																				
LED									■	■	■	■	■	■	■	■	■	■	■	■
Free-wheeling diode																				■

- CR-M without LED
- CR-M with LED
- CR-M with gold-plated contacts
- CR-M with gold-plated contacts, complete versions
- CR-M range

Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays and optocouplers

CR-M range

CR-M range complete versions

	Type	Order code
	CR-M012DC4LDGSS	1SVR405618R4410
	CR-M024DC4SS42V	1SVR405613R1010
	CR-M024DC4LS42V	1SVR405613R1011
	CR-M024DC4LC42	1SVR405613R1012
	CR-M024DC4GSS42V	1SVR405618R1011
	CR-M024DC4GLC62CV	1SVR405618R1010
	CR-M024DC4LGLC22	1SVR405618R1110
	CR-M024DC4LDGSS	1SVR405618R1410
	CR-M024AC4LS62CV	1SVR405613R0010
	CR-M230AC4SS92CV	1SVR405613R3110
	CR-M230AC4LS92CV	1SVR405613R3011
	CR-M230AC4LC92	1SVR405613R3012
	CR-M230AC4GSS92CV	1SVR405618R3112
	CR-M230AC4LGLC	1SVR405618R3110
	CR-M230AC4LGSS	1SVR405618R3111
Control voltage		
12 V DC	■	
24 V DC		■ ■ ■ ■ ■ ■ ■
48 V DC		
60 V DC		
110 V DC		
125 V DC		
220 V DC		
24 V AC		■
48 V AC		
60 V AC		
110 V AC		
120 V AC		
230 V AC		■ ■ ■ ■ ■ ■

	Type	Order code
	CR-M012DC4LDGSS	1SVR405618R4410
	CR-M024DC4SS42V	1SVR405613R1010
	CR-M024DC4LS42V	1SVR405613R1011
	CR-M024DC4LC42	1SVR405613R1012
	CR-M024DC4GSS42V	1SVR405618R1011
	CR-M024DC4GLC62CV	1SVR405618R1010
	CR-M024DC4LGLC22	1SVR405618R1110
	CR-M024DC4LDGSS	1SVR405618R1410
	CR-M024AC4LS62CV	1SVR405613R0010
	CR-M230AC4SS92CV	1SVR405613R3110
	CR-M230AC4LS92CV	1SVR405613R3011
	CR-M230AC4LC92	1SVR405613R3012
	CR-M230AC4GSS92CV	1SVR405618R3112
	CR-M230AC4LGLC	1SVR405618R3110
	CR-M230AC4LGSS	1SVR405618R3111
Output rating		
250 V AC 6 A	■	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
250 V AC 10 A		
250 V AC 12 A		
Output contacts		
c/o	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4
Gold plated contacts	■	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Socket type		
Standard socket	■	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Logical socket		■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Additional features		
LED	■	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Free-wheeling diode	■	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

- > CR-M without LED
- > CR-M with LED
- > CR-M with gold-plated contacts
- > CR-M with gold-plated contacts, complete versions
- > CR-M range

- > Time relays
- > Measuring and monitoring relays
- > Primary switch mode power supplies
- > Interface relays and optocouplers



Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays and optocouplers



Time relays



Measuring and monitoring relays



Primary switch mode power supplies



Interface relays and optocouplers

CR-P/M function modules

		Type	Order code
		CR-P/M 22	1SVR405651R0000
		CR-P/M 42	1SVR405652R0000
		CR-P/M 42V	1SVR405652R1000
		CR-P/M 42B	1SVR405652R4000
		CR-P/M 42BV	1SVR405652R4100
		CR-P/M 42C	1SVR405652R9000
		CR-P/M 42CV	1SVR405652R9100
		CR-P/M 52B	1SVR405653R0000
		CR-P/M 52D	1SVR405653R4000
		CR-P/M 52C	1SVR405653R1000
		CR-P/M 62	1SVR405654R0000
		CR-P/M 62V	1SVR405654R1000
		CR-P/M 62E	1SVR405654R4000
		CR-P/M 62EV	1SVR405654R4100
		CR-P/M 92	1SVR405654R0100
		CR-P/M 92V	1SVR405654R1100
		CR-P/M 62C	1SVR405655R0000
		CR-P/M 62CV	1SVR405655R1000
		CR-P/M 62D	1SVR405655R4000
		CR-P/M 62DV	1SVR405655R4100
		CR-P/M 92C	1SVR405655R0100
		CR-P/M 92CV	1SVR405655R1100
		CR-P/M 72	1SVR405656R0000
		CR-P/M 72A	1SVR405656R1000
		CR-P/M 82	1SVR405656R2000

Control voltage																
6-220 V DC	■															
6-24 V DC		■	■													
24-60 V DC			■	■	■											
110 V DC							■	■								
110-230 V DC										■						
6-24 V AC								■		■						
24-60 V AC									■							
110-230 V AC										■	■					
24 V AC											■	■				
115 V AC															■	
230 V AC																■
24-240 V AC/DC																

Function																
Diode - Reverse polarity protection / free-wheeling diode	■															
Diode and LED - Reverse polarity protection / free-wheeling diode and LED to indicate energized coil		■	■	■	■	■	■									
RC element - Spark quenching								■	■	■						
Diode and LED - LED to indicate energized coil										■	■	■	■	■	■	
Varistor and LED - Overvoltage protection and LED to indicate energized coil													■	■	■	■
Varistor - Overvoltage protection															■	■
LED red		■		■	■	■				■		■	■		■	
LED green			■		■		■				■		■		■	

Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays and optocouplers

- >

Time relays
- >

Measuring and monitoring relays
- >

Primary switch mode power supplies
- >

Interface relays and optocouplers

CR-U range

CR-U pluggable relays without LED

	Type	Order code
	CR-U012DC2	1SVR405621R4000
	CR-U024DC2	1SVR405621R1000
	CR-U048DC2	1SVR405621R6000
	CR-U110DC2	1SVR405621R8000
	CR-U220DC2	1SVR405621R9000
	CR-U024AC2	1SVR405621R0000
	CR-U048AC2	1SVR405621R5000
	CR-U110AC2	1SVR405621R7000
	CR-U120AC2	1SVR405621R2000
	CR-U230AC2	1SVR405621R3000
	CR-U012DC3	1SVR405622R4000
	CR-U024DC3	1SVR405622R1000
	CR-U048DC3	1SVR405622R6000
	CR-U110DC3	1SVR405622R8000
	CR-U125DC3	1SVR405622R8200
	CR-U220DC3	1SVR405622R9000
	CR-U024AC3	1SVR405622R0000
	CR-U048AC3	1SVR405622R5000
	CR-U060AC3	1SVR405622R5200
	CR-U110AC3	1SVR405622R7000
	CR-U120AC3	1SVR405622R2000
	CR-U230AC3	1SVR405622R3000
Control voltage		
12 V DC		■
24 V DC		■
48 V DC		■
110 V DC		■
125 V DC		■
220 V DC		■
12 V AC		■
24 V AC		■
48 V AC		■
60 V AC		■
110 V AC		■
120 V AC		■
230 V AC		■
Output rating		
250 V AC 10 A		■
Output contacts		
c/o	2	2
Gold plated contacts		

CR-U pluggable relays with LED

	Type	Order code
	CR-U012DC2L	1SVR405621R4100
	CR-U012DC2LD	1SVR405621R4400
	CR-U024DC2L	1SVR405621R1100
	CR-U024DC2LD	1SVR405621R1400
	CR-U048DC2L	1SVR405621R6100
	CR-U048DC2LD	1SVR405621R6400
	CR-U110DC2L	1SVR405621R8100
	CR-U110DC2LD	1SVR405621R8400
	CR-U220DC2L	1SVR405621R9100
	CR-U012AC2L	1SVR405621R0300
	CR-U024AC2L	1SVR405621R0100
	CR-U048AC2L	1SVR405621R5100
	CR-U110AC2L	1SVR405621R7100
	CR-U120AC2L	1SVR405621R2100
	CR-U230AC2L	1SVR405621R3100
	CR-U012DC3L	1SVR405622R4100
	CR-U012DC3LD	1SVR405622R4400
	CR-U024DC3L	1SVR405622R1100
	CR-U024DC3LD	1SVR405622R1400
	CR-U048DC3L	1SVR405622R6100
	CR-U048DC3LD	1SVR405622R6400
	CR-U110DC3L	1SVR405622R8100
	CR-U110DC3LD	1SVR405622R8400
	CR-U220DC3L	1SVR405622R9100
	CR-U012AC3L	1SVR405622R0300
	CR-U024AC3L	1SVR405622R0100
	CR-U048AC3L	1SVR405622R5100
	CR-U110AC3L	1SVR405622R7100
	CR-U120AC3L	1SVR405622R2100
	CR-U230AC3L	1SVR405622R3100
Control voltage		
12 V DC		■
24 V DC		■
48 V DC		■
110 V DC		■
125 V DC		■
220 V DC		■
12 V AC		■
24 V AC		■
48 V AC		■
60 V AC		■
110 V AC		■
120 V AC		■
230 V AC		■
Output rating		
250 V AC 10 A		■
Output contacts		
c/o	2	2
Gold plated contacts		
Additional features		
LED		■
Free-wheeling diode		■



Pluggable interface relays

CR-S range

CR-P range

CR-M range

CR-P/M function modules

CR-U range

CR-U function modules

Boxed interface relays and optocouplers

CR-U function modules

		Type	Order code
		CR-U 21	1SVR4056661R0000
		CR-U 41	1SVR4056662R0000
		CR-U 41V	1SVR4056662R1000
		CR-U 41B	1SVR4056662R4000
		CR-U 41BV	1SVR4056662R4100
		CR-U 41C	1SVR4056662R9000
		CR-U 41CV	1SVR4056662R9100
		CR-U 51B	1SVR4056663R0000
		CR-U 51D	1SVR4056663R4000
		CR-U 51C	1SVR4056663R1000
		CR-U 61	1SVR4056664R0000
		CR-U 61V	1SVR4056664R1000
		CR-U 61E	1SVR4056664R4000
		CR-U 61EV	1SVR4056664R4100
		CR-U 91	1SVR4056664R0100
		CR-U 91V	1SVR4056664R1100
		CR-U 61C	1SVR4056665R0000
		CR-U 61CV	1SVR4056665R1000
		CR-U 61D	1SVR4056665R4000
		CR-U 61DV	1SVR4056665R4100
		CR-U 91C	1SVR4056665R0100
		CR-U 91CV	1SVR4056665R1100
		CR-U 71	1SVR4056666R0000
		CR-U 71A	1SVR4056666R1000
		CR-U 81	1SVR4056666R2000
		CR-U T	1SVR405677R0000

Control voltage																
6-220 V DC	■															
6-24 V DC		■	■					■			■	■				
24-60 V DC				■	■				■							
110 V DC						■	■									
110-230 V DC										■						
6-24 V AC								■			■	■				
24-60 V AC									■							
110-230 V AC										■						
24 V AC															■	
115 V AC																■
230 V AC																■
24-240 V AC/DC																■

Function																
Diode - Reverse polarity protection / free wheeling diode	■															
Diode and LED - Reverse polarity protection / free-wheeling diode and LED to indicate energized coil		■	■	■	■	■	■									
RC element - Spark quenching								■	■	■						
Diode and LED - LED to indicate energized coil										■	■	■	■	■		
Varistor and LED - Overvoltage protection and LED to indicate energized coil												■	■	■	■	
Varistor - Overvoltage protection															■	■
Multi-function time module																■
LED red		■		■		■				■		■		■		
LED green			■		■	■					■		■			■

➤ Time relays

➤ Measuring and monitoring relays

➤ Primary switch mode power supplies

➤ Interface relays and optocouplers



Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



**Boxed interface relays
and optocouplers**

Boxed interface relays
R600 range

Boxed optocouplers relays
R600 range

Boxed interface relays and optocouplers R600

ABB's R600 range may be used in applications where electrical isolation, amplification and signal matching are required. The slim, compact design, incorporated with the variety of terminal connections available allow for the optimization of space within a control panel. This broad portfolio allows for the flexibility of choice and includes both electromagnetic relays and optocouplers.



- ⤵ Time relays
- ⤵ Measuring and monitoring relays
- ⤵ Primary switch mode power supplies
- ⤵ Interface relays and optocouplers



Time relays

Measuring and monitoring relays

Primary switch mode power supplies

Interface relays and optocouplers



Boxed interface relays and optocouplers

Boxed interface relays

R600 range

Boxed optocouplers relays

R600 range

Boxed interface relays R600 range

		Order number		Type		Control voltage																												Output rating				Output contacts				Terminal type			
		1SNA645034R2300		RB121P-5VDC																																									
		1SNA645036R2500		RB121PG-5VDC																																									
		1SNA645534R2500		RBR121P-5VDC																																									
		1SNA645073R0000		RB121-12VDC																																									
		1SNA645035R2400		RB121P-12VDC																																									
		1SNA645075R0000		RB121G-12VDC																																									
		1SNA645535R2600		RBR121P-12VDC																																									
		1SNA645019R0400		RB101R-24VUC																																									
		1SNA645519R0600		RBR101R-24VUC																																									
		1SNA645014R2700		RB111-24VUC																																									
		1SNA645018R0300		RB111R-24VUC																																									
		1SNA645518R0500		RBR111R-24VUC																																									
		1SNA645514R2100		RBR111-24VUC																																									
		1SNA645001R0300		RB121-24VUC																																									
		1SNA645005R0700		RB121G-24VUC																																									
		1SNA645501R0500		RBR121-24VUC																																									
		1SNA645505R0100		RBR121G-24VUC																																									
		1SNA645012R2500		RB122G-24VUC																																									
		1SNA645512R2700		RBR122G-24VUC																																									
		1SNA645071R0000		RB121-24VDC																																									
		1SNA645571R0000		RBR121-24VDC																																									
		1SNA645072R0000		RB121G-24VDC																																									
		1SNA645572R0000		RBR121G-24VDC																																									
		1SNA645002R0400		RB121-48-60VUC																																									
		1SNA645006R0000		RB121G-48-60VUC																																									
		1SNA645502R0600		RBR121-48-60VUC																																									
		1SNA645506R0200		RBR121G-48-60VUC																																									
		1SNA645040R1500		RB122G-48-60VUC																																									
		1SNA645540R1700		RBR122G-48-60VUC																																									
		1SNA645003R0500		RB121-115VUC																																									
		1SNA645007R0100		RB121G-115VUC																																									
		1SNA645046R0700		RB121R-115VUC																																									
		1SNA645503R0700		RBR121-115VUC																																									
		1SNA645507R0300		RBR121G-115VUC																																									
		1SNA645041R0200		RB122G-115VUC																																									
		1SNA645541R0400		RBR122G-115VUC																																									
		1SNA645016R2100		RB111-115VUC																																									
		1SNA645017R2200		RB111-230VUC																																									
		1SNA645004R0400		RB121-230VUC																																									
		1SNA645008R1200		RB121G-230VUC																																									
		1SNA645011R2400		RB121R-230VUC																																									
		1SNA645504R0000		RBR121-230VUC																																									
		1SNA645508R1400		RBR121G-230VUC																																									
		1SNA645511R2600		RBR121R-230VUC																																									
		1SNA645013R2600		RB122G-230VUC																																									
		1SNA645513R2000		RBR122G-230VUC																																									
		1SNA645020R0100		RB121-60-230VUC																																									
		1SNA645520R0300		RBR121-60-230VUC																																									

- Time relays
- Measuring and monitoring relays
- Primary switch mode power supplies
- Interface relays and optocouplers

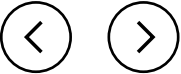


Time relays ↓

Measuring and monitoring relays ↓

Primary switch mode power supplies ↓

Interface relays and optocouplers ↓



Boxed interface relays
and optocouplers

Boxed interface relays
R600 range

Boxed optocouplers relays
R600 range

Boxed optocouplers R600 range

	Type	Order number
	OBIC0100-5-12VDC	1SNA645047R0000
	OBRIC0100-5-12VDC	1SNA645547R0200
	OBIC0100-24VDC	1SNA645021R2600
	OBRIC0100-24VDC	1SNA645521R2000
	OBIC0100-48-60VUC	1SNA645049R1200
	OBRIC0100-48-60VUC	1SNA645549R1400
	OBIC0100-115-230	1SNA645022R2700
	OBRIC0100-115-230	1SNA645522R2100
	OBOC2000-5-12VDC	1SNA645050R1700
	OBROC2000-5-12VDC	1SNA645550R1100
	OBOC2000-24VDC	1SNA645051R0400
	OBROC2000-24VUC	1SNA645025R2200
	OBOC5000-24VDC	1SNA645024R2100
	OBROC2000-24VDC	1SNA645551R0600
	OBROC2000-24VUC	1SNA645525R2400
	OBROC5000-24VDC	1SNA645524R2300
	OBOC2000-48-60VUC	1SNA645053R0600
	OBROC2000-48-60VUC	1SNA645553R0000
	OBOC2000-115VUC	1SNA645054R0700
	OBOC5000-115VUC	1SNA645058R1300
	OBOC2000-230VUC	1SNA645026R2300
	OBROC2000-230VUC	1SNA645526R2500
	OBROC5000-230VUC	1SNA645559R1600
	OBOA1000-24VDC	1SNA645027R2400
	OBOA2000-24VDC	1SNA645029R0600
	OBROA1000-24VDC	1SNA645527R2600
	OBROA2000-24VDC	1SNA645529R0000
	OBOA1000-115VUC	1SNA645062R0700
	OBOA1000-230VUC	1SNA645028R0500
Control voltage		
5-12 V DC	■	■
24 V DC		■
48-60 V DC		■
115-230 V DC		■
115 V DC		■
230 V DC		■
24 V AC		■
48-60 V AC		■
115-230 V AC		■
115 V AC		■
230 V AC		■
Output rating		
100 mA	■	■
1 A		■
2 A		■
5 A		■

	Type	Order number
	OBIC0100-5-12VDC	1SNA645047R0000
	OBRIC0100-5-12VDC	1SNA645547R0200
	OBIC0100-24VDC	1SNA645021R2600
	OBRIC0100-24VDC	1SNA645521R2000
	OBIC0100-48-60VUC	1SNA645049R1200
	OBRIC0100-48-60VUC	1SNA645549R1400
	OBIC0100-115-230	1SNA645022R2700
	OBRIC0100-115-230	1SNA645522R2100
	OBOC2000-5-12VDC	1SNA645050R1700
	OBROC2000-5-12VDC	1SNA645550R1100
	OBOC2000-24VDC	1SNA645051R0400
	OBROC2000-24VUC	1SNA645025R2200
	OBOC5000-24VDC	1SNA645024R2100
	OBROC2000-24VDC	1SNA645551R0600
	OBROC2000-24VUC	1SNA645525R2400
	OBROC5000-24VDC	1SNA645524R2300
	OBOC2000-48-60VUC	1SNA645053R0600
	OBROC2000-48-60VUC	1SNA645553R0000
	OBOC2000-115VUC	1SNA645054R0700
	OBOC5000-115VUC	1SNA645058R1300
	OBOC2000-230VUC	1SNA645026R2300
	OBROC2000-230VUC	1SNA645526R2500
	OBROC5000-230VUC	1SNA645559R1600
	OBOA1000-24VDC	1SNA645027R2400
	OBOA2000-24VDC	1SNA645029R0600
	OBROA1000-24VDC	1SNA645527R2600
	OBROA2000-24VDC	1SNA645529R0000
	OBOA1000-115VUC	1SNA645062R0700
	OBOA1000-230VUC	1SNA645028R0500
Output voltage		
58 V DC	■	■
230 V AC		■
400 V AC		■
Terminal type		
Screw	■	■
Spring	■	■
Kind of output		
Transistor	■	■
MOS-FET		■
Triac		■

- Time relays
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ABIB