

EDITION 2020

# Electronic relays and controls

## SELECTION TABLES



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

**ABB has the industry's most comprehensive range of time relays, measuring and monitoring relays, interface relays and power supplies – helping you to source all critical components from a single global supplier.**

**Increase the reliability of process equipment with control devices that provide intelligent signals and smart adjustments that help you achieve maximum system availability.**

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# Interface relays and optocouplers

## A proven technology used worldwide

Relays are universally applicable and are utilized in a diverse array of applications. They are a significant element in contemporary industrial processes and are used in applications where galvanic isolation, signal separation, voltage coupling and signal amplification are required.

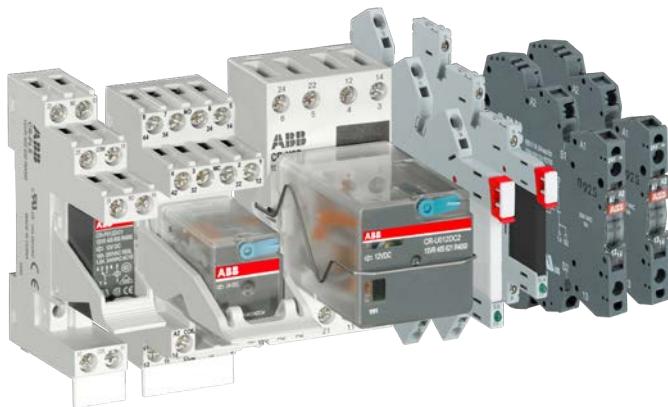
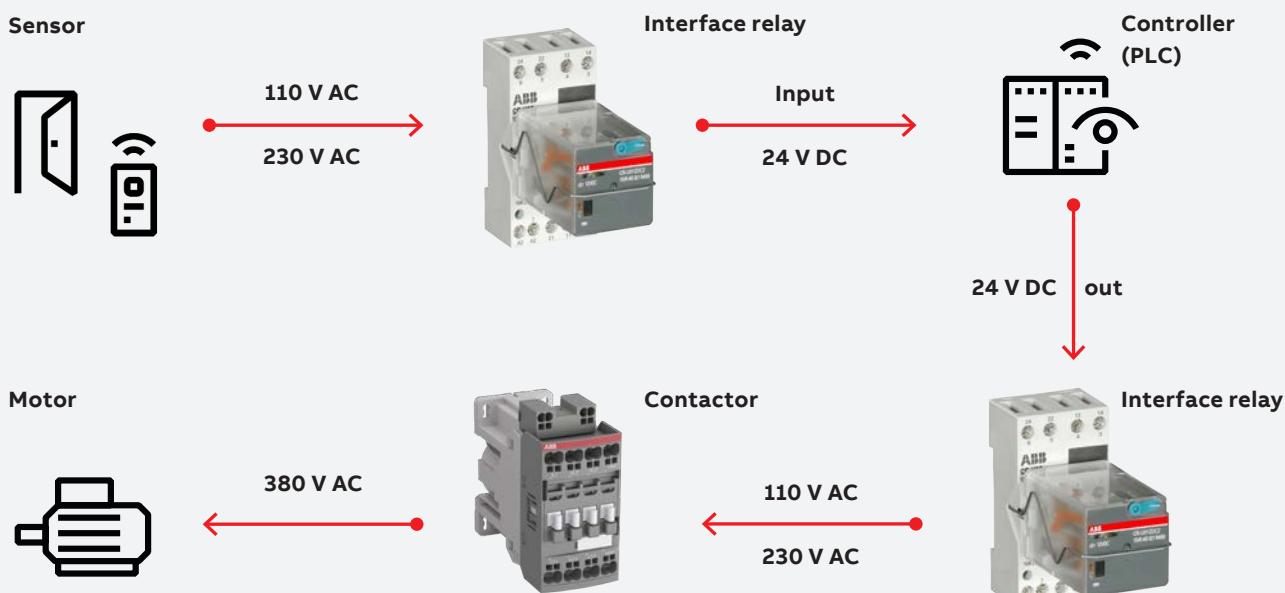


ABB offers a complete range of interface relays and optocouplers for increased flexibility and choice. This portfolio includes pluggable relays for easy interchangeability and optocouplers for an extended electrical life. The portfolio includes electromechanical relays and optocouplers - the electromechanical relays operate using an electromagnetic field, whereas optocouplers use light.

Optocouplers are predominantly used in applications where a high switching frequency is necessary. Furthermore, optocouplers do not contain any moving parts and are therefore bounce-free, immune to vibrations and possess a long electrical life. This wide selection of relays adheres to the highest global standards and satisfies the requirements for a diverse number of applications and needs.

**Billions**  
of relays operate and  
interface between control  
circuits and electrical loads



## Time relays

Have the perfect timing- everywhere

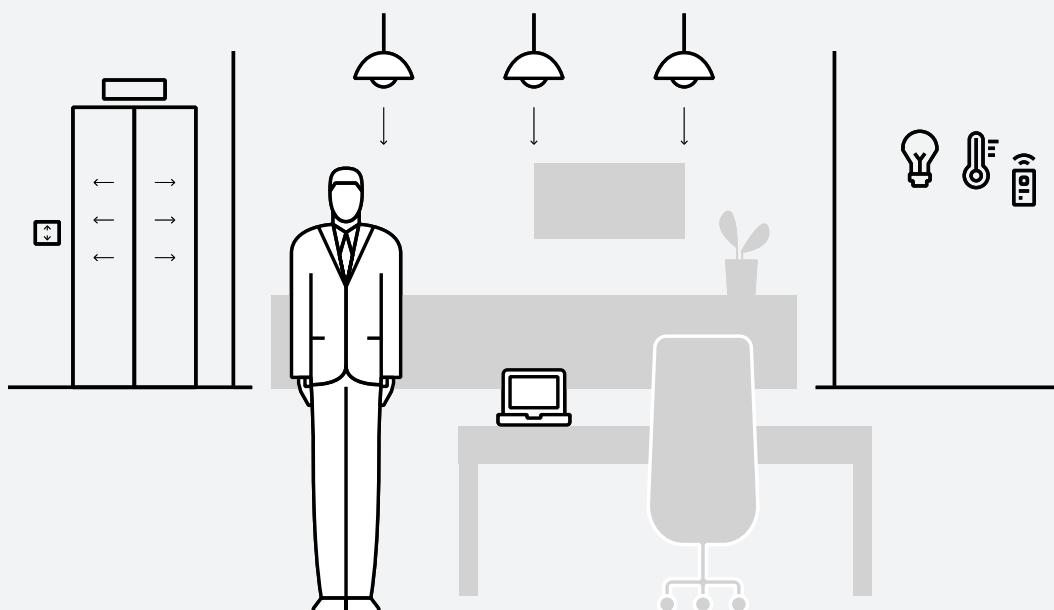
Available in three different ranges to cover every application, the CT range time relays are used to provide reliable timing functions worldwide. In both industrial and building applications, the time relays of the CT range have proven their excellent functionality in daily use under the toughest conditions.

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 are found everywhere, for example in air conditioning systems, heaters and fans in industrial and in residential buildings . On-delay, off-delay and a range of other functions cover all requirements.



**Shock  
and vibration resistant**  
**CT-S relays are perfect  
for use in rolling stock**

- Control panels
- Pump controls
- Star-delta motor starting
- Movable equipment like cranes
- Machine tools
- Automatic doors
- Car park barriers
- Assembly machines
- HVAC
- Compressor controls
- Transportation
- Industrial refrigeration
- Packaging machines
- Backing ovens
- Water and wastewater
- Wind
- Industrial cleaning processes



# Primary switch mode power supplies

Excellent reliability in harsh environments

Available in four different ranges to cover every application requirement, ABB's CP range power supplies are used to power valuable assets worldwide.



E-mobility



Building applications



Process industry



Robotics



OEM Machine builders



Packaging industry



Food & Beverage



Renewables



Marine



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. Their excellent reliability in daily use is well proven even under the toughest of conditions.





## Measuring and monitoring relays

Increase process availability and take action

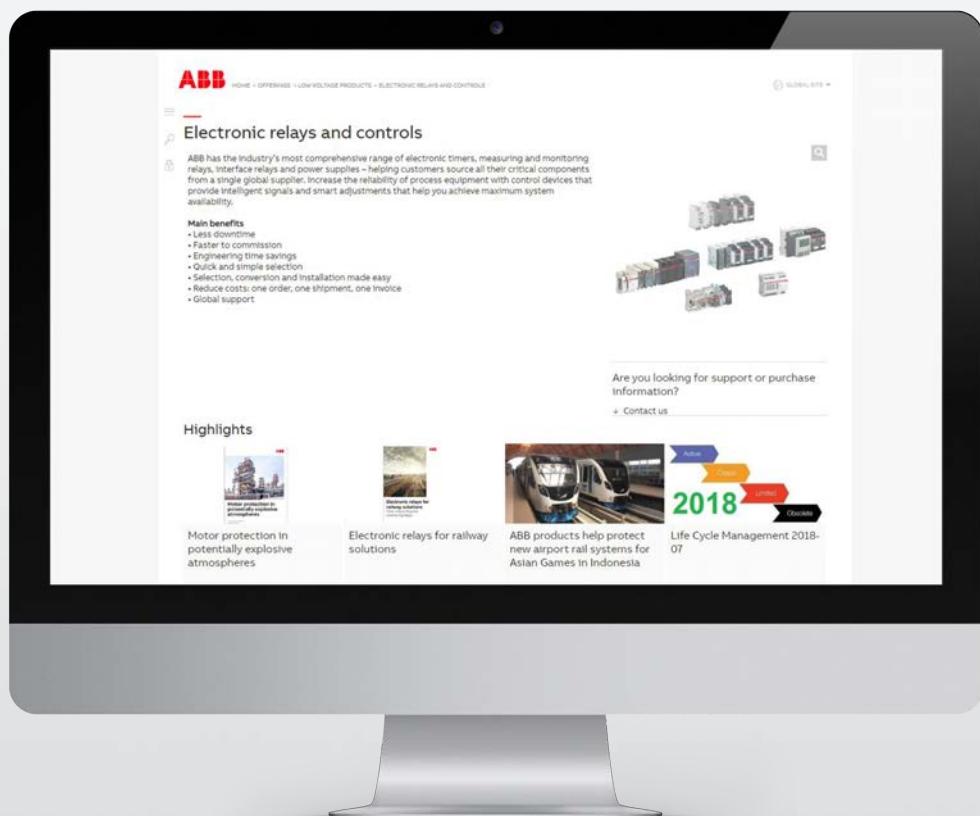
The relays inform users about abnormal conditions and allow them to take necessary corrective actions before severe and costly failures can occur.



Measuring and monitoring relays monitor and detect operating conditions with regard to phase, current, voltage, frequency, temperature, liquid level or insulation faults. The relays inform users about abnormal conditions and allow them to take necessary corrective actions before severe and costly failures can occur.

ABB offers the broadest range of measuring and monitoring relays in the industry - so you can source your critical components from a global supplier. Increase the reliability of your process equipment with controllers that deliver intelligent signals and settings to ensure maximum availability. Ensure continuous operation, engineer time savings and benefit from ABB's global support for measuring and monitoring relays.





## Electronic relays and controls websites

Your one-stop shop for product information

On our web site you will also find the products in this catalog together with the current life cycle status, data sheets, certificates and tools.



**3D data**



**Life cycle  
information**



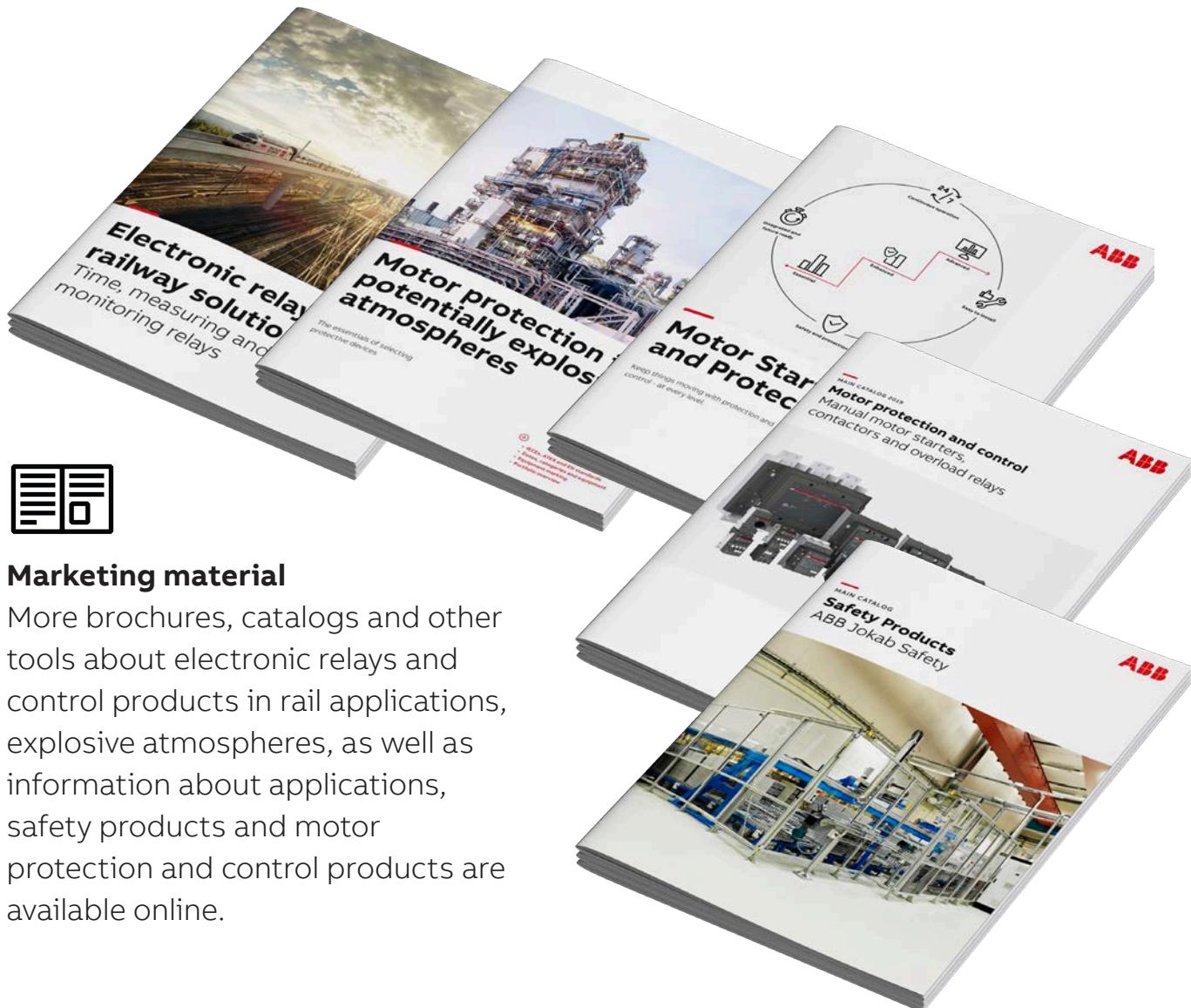
**Coordination  
tables (SOC)**



**E-configure**



**Certificates**



## Marketing material

More brochures, catalogs and other tools about electronic relays and control products in rail applications, explosive atmospheres, as well as information about applications, safety products and motor protection and control products are available online.



## Online data sheets

For detailed product information, use the order code to access the online data sheets as in the following example:

[new.abb.com/products/1SVR740110R3300](http://new.abb.com/products/1SVR740110R3300)

**Detailed Information for: CT-AHS-22P**

This page contains technical data sheet, documents library and links to offering related to this product. If you require any other information, please contact us using form located at the bottom of the page.

[Data Sheet](#) [Downloads](#)

**CT-AHS-22P**

**General Information**

Extended Product Type: CT-AHS-22P  
Product Id: 1SVR740110R3300  
EAN: 4046774050688

Catalog Description: CT-AHS-22P 1NO (SPST), OFF-Delay (0.0...240 h) or Break Function (0...20 min) electronic time relay. It provides an OFF-delay (delay on break function) or a break function with controlled supply voltage of 24...48 V DC / 24...240 V AC and has a Z-LOS output. The relay is designed for use in harsh environments and is protected by a polycarbonate cover with volt-free floating triggering. A sealable transparent cover for process connection fittings is available as an accessory. The device offers maintenance-free easy connect technology with push-in terminals.

**Categories**  
Products > Low Voltage Products and Systems > Control Products > Electronic Relays and Controls > Time Delay Relays

**Ordering**

Size: 1SVR740110R3300  
Minimum Order Quantity: 1 piece  
Customer Part Number: 85564800

**Container Information**

Package Level 1 Units: 1 piece  
Package Level 1 Width: 59 mm  
Package Level 1 Depth / Length: 50 mm  
Package Level 1 Height: 109 mm  
Package Level 1 Gross Weight: 0.147 kg  
Package Level 1 EAN: 4046774050688

**Dimensions**

Product Net Width: 22.5 mm  
Product Net Height: 65.4 mm  
Product Net Depth / Length: 103.7 mm  
Product Net Weight: 0.127 kg

**Technical**

Time Relay Type: OFF-Delay  
Time Range: 0.05 s ... 200 h



# Time relays

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14 CT-S range

15 CT-D range

# Time relays

## Offer overview

### Time relays for industrial applications



#### CT-C: the compact range

The CT-C range combines lower cost with higher value and performance by offering essential functions in a space-saving 17.5 mm housing. The range offers a choice of 11 devices, including single and multifunctional types, with timing functions that range from 0.05 seconds to 100 hours. Equipped with a wide voltage range, the CT-C range is suitable for a huge variety of applications worldwide.



#### CT-S: the high-performance range

The advanced CT-S range is ABB's universal range of electronic timers. It includes 22 single-function devices and 16 multifunction time relays, offering flexibility in operation with up to 13 functions. The devices feature seven or ten time ranges, adjustable from 0.05 seconds to 300 hours. Additionally, every device is available in two different connection technologies: familiar double-chamber cage connection terminals (screw terminals) and ABB's vibration-resistant Easy Connect technology (push-in terminals).

### Time relays for building applications



#### 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.

## **CT-C range**

### Selection table

	Type	Order number
<b>Timing function</b>		
ON-delay	☒	ISVR508010R1300
OFF-delay with aux. voltage	■	ISVR508020R0000
OFF-delay w/o aux. voltage	■	ISVR508020R1100
Impulse-ON	1□☒	ISVR508120R0000
Impulse-OFF with aux. voltage	1□■	ISVR508100R0000
Impulse-OFF w/o aux. voltage	1□■	ISVR508100R0100
Flasher starting with ON	□☒	ISVR508110R0000
Flasher starting with OFF	□■	ISVR508150R0000
Pulse generator starting with ON or OFF	☒□	ISVR508160R0000
Pulse former	☒	ISVR508130R0000
Star-delta change-over	△	ISVR508210R0100
<b>Features</b>		
Control input, voltage-related triggering	☒	ISVR508211R0100
<b>Time range</b>		
0.05 s - 100 h	☒	ISVR508220R0000
0.05 s - 10 min	☒	ISVR508221R0000
<b>Supply voltage</b>		
12-240 V AC/DC	☒	ISVR508222R0000
24-240 V AC/DC	☒	ISVR508223R0000
24-48 V DC	☒	ISVR508224R0000
24-240 V AC	☒	ISVR508225R0000
<b>Output</b>		
Solid state	☒	ISVR508226R0000
c/o contact	1 2	ISVR508227R0000
n/o contact	1 2	ISVR508228R0000
	1 1	ISVR508229R0000
	1 1	ISVR508230R0000
	1 2	ISVR508231R0000
	2	ISVR508232R0000

# **CT-S range**

## Selection table

Order number and type

**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

	Type*	Order number*
<b>Timing function</b>		
ON-delay	☒	CT-MVS.21● 1SVR7■00020R0200
ON-delay, accumulative	☒(+)	CT-MVS.22● 1SVR7■0020R3300
OFF-delay w. aux. voltage	☒	CT-MVS.23● 1SVR7■0021R2300
OFF-delay w. aux. voltage, accumulative	☒	CT-MVS.12● 1SVR7■0020R3100
OFF-delay w/o aux. voltage	☒	CT-MXS.22● 1SVR7■0030R3300
ON- and OFF-delay, symmetrical	☒☒	CT-MFS.21● 1SVR7■0010R0200
ON- and OFF-delay, symmetrical, accumulative	☒☒	CT-MBS.22● 1SVR7■0010R3200
ON- and OFF-delay, asymmetrical	☒☒	CT-WBS.22● 1SVR7■0040R3300
ON/OFF function	□	CT-ERS.21● 1SVR7■0100R0300
Impulse-ON	1□☒	CT-ERS.22● 1SVR7■0100R3300
Impulse-ON, accumulative	1□☒	CT-ERS.12● 1SVR7■0100R3100
Impulse-OFF w. aux. voltage	1□☒	CT-APS.21● 1SVR7■0110R3300
Impulse-OFF w. aux. voltage, accumulative	1□☒	CT-APS.22● 1SVR7■0110R3100
Impulse-ON and OFF	1□☒	CT-AHS.22● 1SVR7■0120R3300
Fixed impulse with adjustable time delay	☒1□	CT-ARS.11● 1SVR7■0120R3100
Adjustable impulse with fixed time delay	☒1□	CT-ARS.21● 1SVR7■0210R3300
Flasher starting with ON	□☒	CT-SDS.22● 1SVR7■0211R2300
Flasher with reset, starting with ON	□☒	CT-SDS.23● 1SVR7■0211R2300
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	△1□	
<b>Features</b>		
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)	☒	
<b>Time range</b>		
0.05 s - 10 min		
0.05 s - 300 h	☒	2
<b>Supply voltage</b>		
24-48 V DC	☒	
24-240 V AC	☒	
24-240 V AC/DC	☒	
380-440 V AC	☒	
<b>Output</b>		
c/o contact	2 2 2 1 2 2 2 2 2 1 2 2 1 2 1 2	2
n/o contact		2

# CT-D range

## Selection table

Type	Order number
CT-MFD.12	1SVR500020R000
CT-MFD.21	1SVR500020R1100
CT-ERD.12	1SVR500100R000
CT-ERD.22	1SVR500100R0100
CT-AHD.12	1SVR500110R000
CT-AHD.22	1SVR500110R0100
CT-VWD.12	1SVR500130R000
CT-EBD.12	1SVR500150R000
CT-TGD.12	1SVR500160R000
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	△					■	■	■		

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	2	

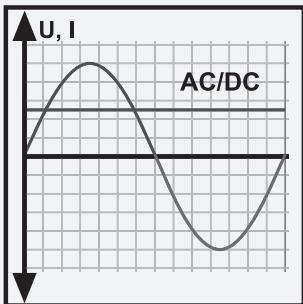


# Measuring and monitoring relays

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# Measuring and monitoring relays

## Offer overview



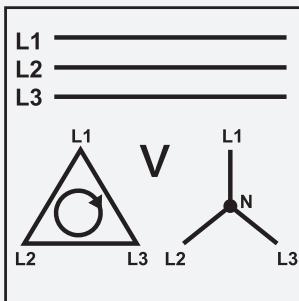
### Single-phase current and voltage monitoring relays

#### Current monitoring

- Monitoring of motor current consumption
- Monitoring of lighting installations and heating circuits
- Monitoring of transportation equipment overload
- Monitoring of locking devices, electromechanical brake gear and locked rotors

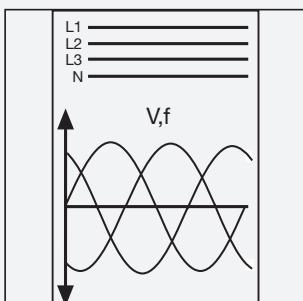
#### Voltage monitoring

- Speed monitoring of DC motors
- Monitoring of battery voltages and other supply networks



### Three-phase monitoring relays

- Voltage monitoring of mobile three-phase equipment
- Protection of personnel and installations against phase reversal
- Monitoring of the supply voltage of machines and installations
- Protection of equipment against damage caused by unstable supply voltage
- Switching to emergency or auxiliary supply
- Protection of motors against damage caused by unbalanced phase voltages and phase loss



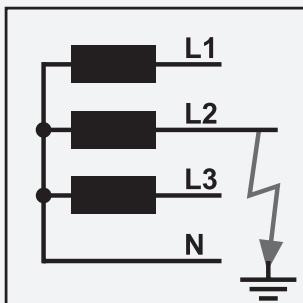
### Grid feeding monitoring relays

The CM-UFX range monitors all voltage and frequency parameters in a grid and ensures the safe feeding of decentral produced electrical energy into the grid.

- Monitoring of the voltage with up to 2 thresholds for over- and undervoltage
- Monitoring of the frequency with up to 2 thresholds for over- and under-frequency
- ROCOF (rate of change of frequency) and vector shift detection
- In compliance with several local standards
- Modbus connection for selected devices

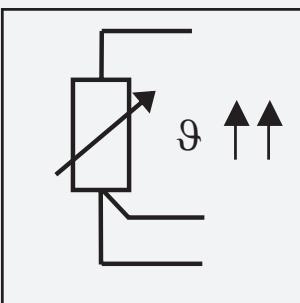
# Measuring and monitoring relays

## Offer overview



### Insulation monitoring relays

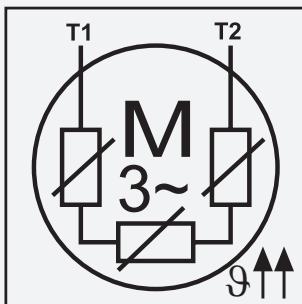
- Monitoring of electrically isolated supply mains for insulation resistance failure
- Detection of initial faults
- Protection against earth faults



### Temperature monitoring relays

Acquisition, messaging and regulation of temperatures of solid, liquid and gaseous media in processes and machines

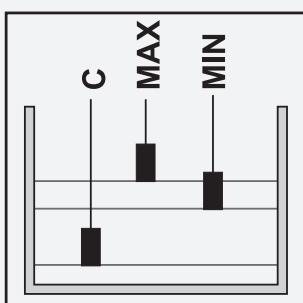
- Motor and system protection
- Control panel temperature monitoring
- Frost monitoring
- Temperature limits for process variables, e.g. in the packing or electroplating industry
- Control of systems and machines like heating, air-conditioning and ventilation systems, solar collectors, heat pumps or hot water supply systems
- Bearing, gear oil and coolant monitoring



### Thermistor motor protection

CM-MSE and CM-MSS provide full protection of motors with integrated PTC resistor sensors.

Protection of motors against thermal overload, e. g. caused by insufficient cooling, heavy load starting conditions, undersized motors, etc.



### Liquid level monitoring relays

- Protection of pumps against dry running
- Protection against container overflow
- Control of liquid levels
- Detection of leaks
- Control of mixing ratios

# Measuring and monitoring relays

## Product range



### CM-N range: Multifunctional

- 45 mm wide housing
- Output contacts: 2 c/o (SPDT) contacts
- Continuous voltage range (24-240 V AC/DC) or single-supply
- Setting and operation via front-face operating controls
- Adjustment of threshold values and switching hysteresis via direct reading scale
- Adjustable time delays
- Integrated and snap-fitted front-face marker label
- Sealable transparent cover (accessory)



### CM-S range:

#### Universal and multifunctional

- Only 22.5 mm wide housing
- Output contacts: 1 or 2 c/o (SPDT) contacts
- One supply voltage range or supplied by measuring circuit
- Setting and operation via front-face operating controls
- Adjustment of threshold values and switching hysteresis via direct reading scale
- Integrated and snap-fitted front-face marker
- Snap-on housing: The relays can be placed on a DIN rail tool-free - just snap it on or remove it tool-free
- Sealable transparent cover (accessory)



### CM-E range: Economy

- Only 22.5 mm wide housing
- Output contacts: 1 c/o contact or 1 n/o contact
- One supply voltage range
- One monitoring function
- Cost-efficient solution for OEM applications
- Preset monitoring ranges

# **Single-phase current monitoring relays**

## Selection table

Type	Order number
CM-SRS.11S	1SVR730840R0200
CM-SRS.11P	1SVR740840R0200
CM-SRS.11S	1SVR730841R0200
CM-SRS.11P	1SVR740841R0200
CM-SRS.11S	1SVR730841R1200
CM-SRS.11P	1SVR740841R1200
CM-SRS.12S	1SVR730840R0300
CM-SRS.12S	1SVR730841R0300
CM-SRS.12S	1SVR730841R1300
CM-SRS.21S	1SVR730840R0400
CM-SRS.21P	1SVR740840R0400
CM-SRS.21S	1SVR730841R0400
CM-SRS.21P	1SVR740841R0400
CM-SRS.21S	1SVR730841R1400
CM-SRS.21S	1SVR730841R1400
CM-SRS.21P	1SVR740841R1400
CM-SRS.22S	1SVR730840R0500
CM-SRS.22S	1SVR730841R0500
CM-SRS.22S	1SVR730841R1500
CM-SRS.M1S	1SVR730840R0600
CM-SRS.M1P	1SVR740840R0600
CM-SRS.M2S	1SVR730840R0700
CM-SFS.21S	1SVR730760R0400
CM-SFS.21P	1SVR740760R0400
CM-SFS.22S	1SVR730760R0500

adj: adjustable  
sel: selectable

# Single-phase voltage monitoring relays

## Selection table

Type	Order number
CM-ESS.1S	1SVR730830R0300
CM-ESS.1P	1SVR740830R0300
CM-ESS.1S	1SVR730831R0300
CM-ESS.1P	1SVR740831R0300
CM-ESS.1S	1SVR730831R1300
CM-ESS.1P	1SVR740831R1300
CM-ESS.2S	1SVR740830R0400
CM-ESS.2P	1SVR740830R0400
CM-ESS.2S	1SVR730831R0400
CM-ESS.2P	1SVR740831R0400
CM-ESS.2S	1SVR730831R1400
CM-ESS.2P	1SVR740831R1400
CM-ESS.MS	1SVR730830R0500
CM-ESS.MP	1SVR740830R0500
CM-EFS.2S	1SVR730750R0400
CM-EFS.2P	1SVR740750R0400

<b>Rated control supply voltage <math>U_s</math></b>													
24 - 240 V AC/DC	■	■											
110 - 130 V AC			■	■									
220 - 240 V AC				■	■					■	■		

<b>Measuring ranges AC/DC</b>													
3 - 30 V	■	■	■	■	■	■	■	■	■	■	■	■	■
6 - 60 V	■	■	■	■	■	■	■	■	■	■	■	■	■
30 - 300 V	■	■	■	■	■	■	■	■	■	■	■	■	■
60 - 600 V	■	■	■	■	■	■	■	■	■	■	■	■	■

<b>Monitoring function</b>													
Over- or undervoltage	■	■	■	■	■	■	■	■	■	■	■	■	■
Windows voltage monitoring											■	■	
Latching										sel	sel	sel	sel
Open-circuit or closed-circuit principle										sel	sel	sel	sel

<b>Timing functions for tripping delay</b>													
ON-delay, 0.1 - 30 s					adj								
ON- or OFF-delay, 0.1 - 30 s											sel	sel	

<b>Output</b>													
c/o contact	1	1	1	1	1	1	1	2	2	2	2	2	2

<b>Connection type</b>													
Push-in terminals		■		■		■		■		■		■	
Double-chamber cage connection terminals	■		■		■		■		■		■		■

adj: adjustable  
sel: selectable

# Three-phase monitoring relays

## Selection table - singlefunctional

	Type	Order number
<b>Rated control supply voltage <math>U_s</math></b>		
<b>Phase to phase</b>		
160-300 V AC	CM-PBE	1SVR550881R9400
200-400 V AC	CM-PBE	1SVR550882R9500
200-500 V AC	CM-PVE	1SVR550870R9400
208-440 V AC	CM-PVE	1SVR550871R9500
300-500 V AC	CM-PFE	1SVR550824R9100
320-460 V AC	CM-PFE	1SVR550826R9100
380 V AC	CM-PSS	1SVR730824R9300
380-440 V AC	CM-PFS.P	1SVR740824R9300
400 V AC	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

(1) The external conductor voltage towards the neutral conductor is measured.

adj: adjustable  
sel: selectable  
fix: fixed

## **Three-phase monitoring relays**

### Selection table - multifunctional

Type	Order number
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

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

adj: adjustable  
sel: selectable

# Grid feeding monitoring relays

## Selection table

Type	Order number
CM-UFD.M22M	1SVR560731R3700
CM-UFD.M31	1SVR560730R3401
CM-UFD.M31M	1SVR560731R3701
CM-UFD.M33	1SVR560730R3402
CM-UFD.M33M	1SVR560731R3702
CM-UFD.M34M	1SVR560731R3703

Rated control supply voltage Us							
24-240 V AC/DC		<input checked="" type="checkbox"/>					
Standard							
CEI 0-21		<input checked="" type="checkbox"/>					
VDE AR-N 4105, VDE AR-N 4110		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>					
ENA G98, G99							
DRRG standard of DEWA							
Rated frequency							
DC or 50 Hz		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>					
DC or 50/60 Hz							
Modbus RTU		<input checked="" type="checkbox"/>					
Suitable for monitoring							
Single-phase mains		<input checked="" type="checkbox"/>					
Three-phase mains		<input checked="" type="checkbox"/>					
Monitoring function							
Over-/undervoltage		<input checked="" type="checkbox"/>					
Over-/underfrequency		<input checked="" type="checkbox"/>					
ROCOF (rate of change of frequency)		<input checked="" type="checkbox"/>					
10 minutes average value		<input checked="" type="checkbox"/>					
Vector shift		<input checked="" type="checkbox"/>					
Thresholds		adj	adj	adj	adj	adj	adj

# Insulation monitoring relays

## Selection table

Type	Order number	CM-IWS.2S	1SVR730670R0200	CM-IWS.2P	1SVR740670R0200	CM-IWS.1S	1SVR730669R0100	CM-IWS.1P	1SVR740669R0100	CM-IWN.1S	1SVR750669R0200	CM-IWN.1P	1SVR760669R0200	CM-IWM.10	1SVR470670R1000	CM-IWM.11	1SVR470670R1100
<b>Rated control supply voltage <math>U_s</math></b>																	
24 - 240 V AC/DC		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
24 V DC										■	■						
<b>Measuring voltages</b>																	
250 V AC (L-PE)				■	■												
400 V AC (L-PE)		■	■						■	■							
690 V AC (L-PE)									■ <sup>(1)</sup>	■ <sup>(1)</sup>	■ <sup>(2)</sup>						
1000 V AC (L-PE)											■ <sup>(3)</sup>						
300 V DC (L-PE)				■	■												
600 V DC (L-PE)								■	■								
690 V DC (L-PE)										■ <sup>(2)</sup>							
1000 V DC (L-PE)						■ <sup>(1)</sup>	■ <sup>(1)</sup>				■ <sup>(3)</sup>						
<b>Measuring range</b>																	
1 - 100 k $\Omega$		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
2 - 200 k $\Omega$									■	■							
2 - 250 k $\Omega$										■	■						
<b>System leakage capacitance, max.</b>																	
10 $\mu\text{F}$		■	■	■	■	■											
20 $\mu\text{F}$									■	■							
1000 $\mu\text{F}$											■						
3000 $\mu\text{F}$												■					
<b>Output</b>																	
1 c/o		■	■	■	■	■											
1 x 2 c/o or 2 x 1 c/o									■	■							
2 c/o											■	■					
<b>Operating principle</b>																	
Open-circuit principle		■	■	■	■	■						■	■	■	■	■	
Open- or closed-circuit principle adjustable										■	■						
<b>Test</b>																	
Front-face button or control input		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
<b>Reset</b>																	
Front-face button or control input		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Fault storage / latching configurable		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Non volatile storage configurable		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Interrupted wire detection									■	■	■	■	■	■	■	■	
Threshold values configurable	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	
Control input (measuring input deactivation)												■					
<b>Connection type</b>																	
Push-in terminals			■			■			■			■					
Double-chamber cage connection terminals		■		■			■		■								
Screw terminals									■		■						

1) With coupling unit CM-IVN screw version CM-IVN.S: 1SVR750669R9400  
push-in version CM-IVN.P: 1SVR760669R9400

2) Allowed voltage range of the supervised network: 0-760 V AC / 0-1000 V

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

# **Thermistor motor protection relays**

## Selection table

Type	Order code
CM-MSE	1SVR550805R93300
CM-MSE	1SVR550800R93300
CM-MSE	1SVR550801R93300
CM-MSS.11P	1SVRT40720R1400
CM-MSS.11S	1SVR730720R1400
CM-MSS.12P	1SVRT40700R0100
CM-MSS.12S	1SVRT30700R0100
CM-MSS.13P	1SVR740700R2100
CM-MSS.13S	1SVR730700R2100
CM-MSS.21P	1SVRT40722R1400
CM-MSS.21S	1SVR730722R1400
CM-MSS.22P	1SVRT40700R0200
CM-MSS.22S	1SVR730700R0200
CM-MSS.23P	1SVR740700R2200
CM-MSS.23S	1SVR730700R2200
CM-MSS.31P	1SVRT40712R1400
CM-MSS.31S	1SVR730712R1400
CM-MSS.32P	1SVRT40712R0200
CM-MSS.32S	1SVR730712R0200
CM-MSS.33P	1SVR740712R2200
CM-MSS.33S	1SVR730712R2200
CM-MSS.41P	1SVR740712R1200
CM-MSS.41S	1SVR730712R1200
CM-MSS.51P	1SVR740712R1300
CM-MSS.51S	1SVR730712R1300

1) For automatic reset, connect terminals S1 to T2.

2) For automatic reset, connect Terminals S1 to 1T2/2T2.

# Temperature monitoring relays

## Selection table

Type	Order number
CM-TCS.21S	1SVR730740R9100
CM-TCS.21P	1SVR740740R9100
CM-TCS.11S	1SVR730740R0100
CM-TCS.11P	1SVR740740R0100
CM-TCS.22S	1SVR730740R9200
CM-TCS.22P	1SVR740740R9200
CM-TCS.12S	1SVR730740R0200
CM-TCS.12P	1SVR740740R0200
CM-TCS.23S	1SVR730740R9300
CM-TCS.23P	1SVR740740R9300
CM-TCS.13S	1SVR730740R0300
CM-TCS.13P	1SVR740740R0300

**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 1
Number of thresholds	2 2 2 2 2 2 2 2 2 2 2 2 2

**Measuring temperature range**

-50...+50 °C	■ ■ ■ ■											
0...+100 °C		■ ■ ■ ■										
0...+200 °C			■ ■ ■ ■									

**Monitoring function**

Overtemperature	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Undertemperature	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Window temperature	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

**Operating principle**

open or closed-circuit principle	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
----------------------------------	-----------------------------

**Output contacts**

c/o	2 2 2 2 2 2 2 2 2 2 2 2 2
-----	---------------------------

# Liquid level monitoring relays

## Selection table

Type	Order code												
CM-ENE MIN	1SVR550855RR9500												
CM-ENE MIN	1SVR550850RR9500												
CM-ENE MIN	1SVR550851RR9500												
CM-ENE MAX	1SVR550855RR9400												
CM-ENE MAX	1SVR550850RR9400												
CM-ENE MAX	1SVR550851RR9400												
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												
<b>Rated control supply voltage Us</b>													
24-240 V AC/DC													
24 V AC	■			■			■	■				■	■
110-130 V AC		■		■			■	■				■	■
220-240 V AC		■		■			■	■				■	■
<b>Sensor circuit</b>													
Number of electrodes (including ground reference)	2	2	2	2	2	2	3	3	3	3	3	3	3
<b>Response sensitivity range</b>													
0-100 kOhm	■	■	■	■	■	■							
5-100 kOhm							adj	adj	adj	adj			
0.1-1000 kOhm											adj	adj	adj
<b>Monitoring function</b>													
Dry running protection	■	■	■				■	■	■	■	■	■	■
Overflow protection				■	■	■	■	■	■	■	■	■	■
Liquid level control				■	■	■	■	■	■	■	■	■	■
<b>Operating principle</b>													
Open-circuit principle	■	■	■				■	■	■	■			
Closed-circuit principle				■	■	■							
Open- or closed-circuit principle									sel	sel	sel	sel	sel
<b>Adjustable ON-/OFF-delay</b>													
0.1-10 s											■	■	
<b>Output contacts</b>													
n/o	1	1	1	1	1	1							
c/o (SPDT)							1	1	1	1	1	1	2
<b>Connection type</b>													
Push-in terminals							■	■	■	■	■	■	■
Double-chamber cage connection terminals							■	■	■	■	■	■	
Screw	■	■	■	■	■	■							

adj: adjustable  
sel: selectable



# Primary switch mode power supplies

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# Primary switch mode power supplies

## Offer overview

### Power supplies for building applications



#### CP-D range

##### Distribution panel design

The CP-D range of power supply units in MDRC design (modular DIN rail components) fits into all domestic installation and distribution panels. With their width between 18 to 90 mm only, the CP-D range switch mode power supplies are ideally suited for installation in distribution panels. The range is optimized for world-wide applications: The CP-D power supplies can be supplied with 90-264 V AC or 120-375 V DC. The continuously adjustable output voltage (CP-D > 10 W) ensures optimal adaption to the application, e.g. compensating the voltage drop caused by a long line length. Additional redundancy unit CP-RUD available to establish true redundancy is available.

### Power supplies for industrial applications



#### CP-E range

##### Economy range

The CP-E range offers enhanced functionality while the number of different types has been considerably reduced. Now all power supply units can be operated at an ambient temperature of up to +70 °C. The CP-E range 24 V devices over 18 W offer an output/contact for monitoring of the output voltage and remote diagnosis. Optimized for world-wide applications, the CP-E power supplies can be supplied within a wide range of AC or DC voltage. The output voltage is continuously adjustable, ensuring optimal adaptation to the application, e.g. compensating the voltage drop caused by a long line length. For decoupling of parallel connected power supplies below or equal 56 V, redundancy modules are available in order to achieve true redundancy.



#### CP-T Three-phase range

The CP-T range of three-phase power supply units perfectly complements existing power supply offering in terms of design and functionality, giving you more advanced options for your three-phase applications. Solid state output for function monitoring and remote diagnostics is available. The range is to be used in 340 - 575 V AC or 480 - 820 V DC supply systems. Its continuously adjustable output voltage ensures optimal adaptation to the application, e.g. compensating the voltage drop caused by a long line length.

# Primary switch mode power supplies

## Offer overview

### Power supplies for industrial applications



#### CP-C.1 range

##### High-performance range

The CP-C.1 power supplies are ABB's high-performance and most advanced range. With excellent efficiency, high reliability and innovative functionality it is prepared for the most demanding industrial applications. These power supplies have a 150 % integrated power reserve and operate at an efficiency of up to 94 %. They are equipped with overheat protection and active power factor correction. Combined with a broad AC and DC input voltage range and extensive worldwide approvals the CP-C.1 power supplies are the preferred choice for professional DC applications. Giving the power to control.



#### CP-B range

##### Short time buffers

ABB offers an innovative and completely maintenance-free product range for buffering the 24 V DC supply in case of interrupted mains on the primary side of the switch mode power supply.

- Ultra cap based buffer modules for short time UPS systems
- Rated input voltage 24 V DC
- Rated currents 3 A, 10 A and 20 A
- Expandable with CP-B EXT.2 module
- LEDs for status indication
- High efficiency, higher than 90%
- Signaling and status outputs
- Buffering times at 100% load current from 13 s to 38 s (depending on device)

# Primary switch mode power supplies

## Selection table - Single phase

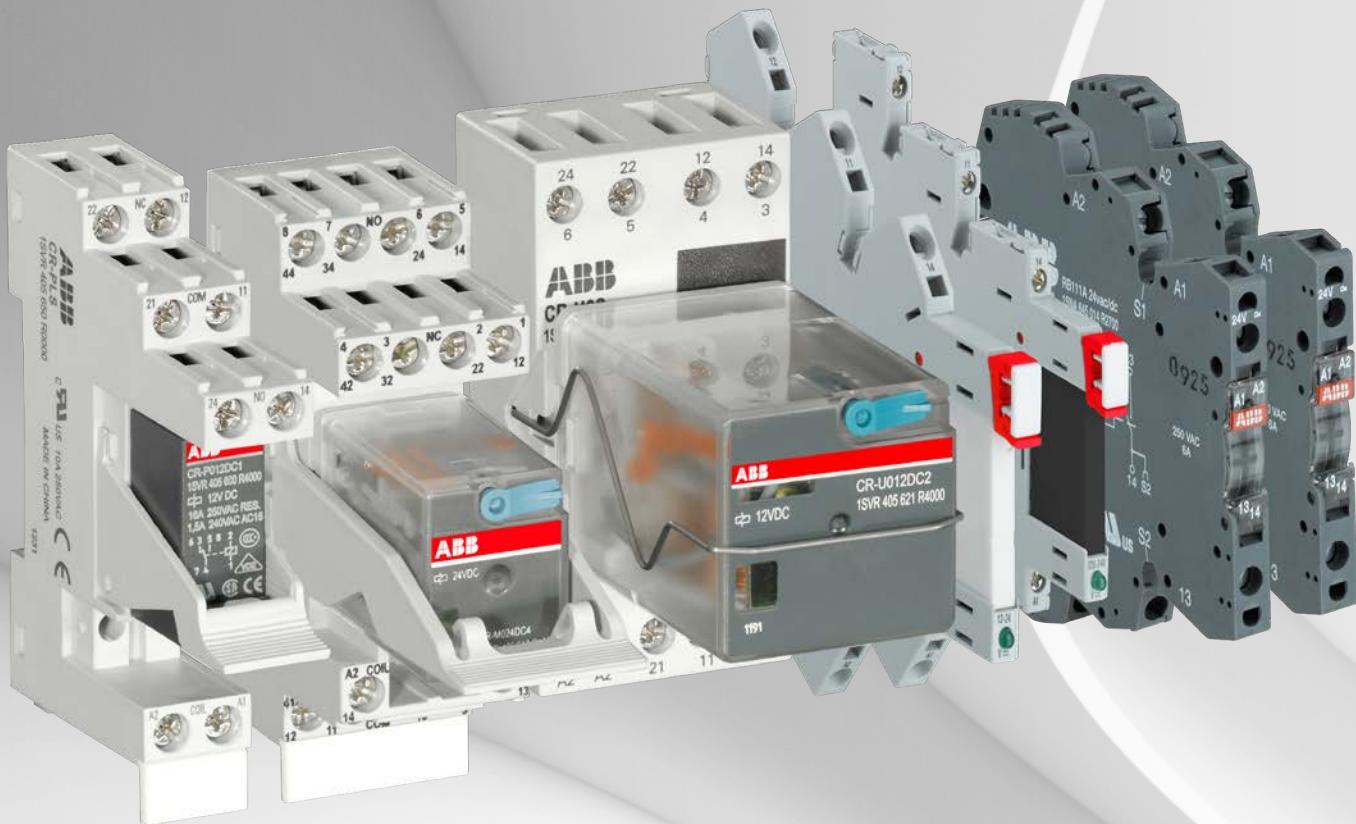
	Order number	1SVR427041R1000	1SVR427043R1200	1SVR427041R0000	1SVR427043R0100	1SVR427044R0200	1SVR427045R0400	1SVR427033R3000	1SVR427032R1000	1SVR427035R1000	1SVR427030R0000	1SVR427031R0000	1SVR427032R0000	1SVR427034R0000	1SVR427035R0000	1SVR427036R0000	1SVR427034R2000	1SVR427035R2000	1SVR427031R2000	1SVR427032R0000	1SVR427034R0000	1SVR427035R0000	1SVR427036R0000	1SVR427034R2000	1SVR427035R2000	1SVR360563R1001	1SVR360663R1001	1SVR360763R1001	1SVR360563R2001	1SVR360663R2001	1SVR361563R1001	1SVR361663R1001	1SVR361763R1001		
	Single-phase																																		
		CP-D		CP-E										CP-C.1																					
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									■																									
Rated output power	10 W	■	■																																
	15 W																																		
	18 W																																		
	25 W		■																																
	30 W			■																															
	60 W				■																														
	100 W					■																													
	120 W						■																												
	240 W							■																											
	480 W								■																										
Rated input voltage	100-240 V AC	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
	115/230 V AC auto select																																		
	115-230 V AC																																		
DC input voltage range	90-300 V DC																																		
	90-375 V DC																																		
	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														■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	Serial connection	■	■	■	■	■	■	■	■	■	■	■	■	■	■	2	■	■	■	2	2	2	■	■	2	2	2	2	2	2	2	2	2		
	Coated PCBA																																		

pas = passive, act = active

# Primary switch mode power supplies

## Selection table - Three phase

	Order number	1SVR427054R0000	1SVR427055R0000	1SVR427056R0000	1SVR427057R0000	1SVR427054R2000	1SVR427055R2000	1SVR427056R2000
<b>Three-phase</b>								
<b>CP-T</b>								
<b>Rated output voltage</b>								
24 V DC	■ ■ ■ ■							
48 V DC					■ ■ ■			
<b>Rated output current</b>								
5 A	■					■		
10 A		■				■		
20 A			■				■	
40 A				■				■
<b>Rated output power</b>								
120 W	■							
240 W		■				■		
480 W			■			■		
960 W				■			■	
<b>Rated input voltage</b>								
3 x 400-500 V AC	■ ■ ■ ■ ■ ■ ■ ■							
<b>DC input voltage range</b>								
480-820 V DC	■ ■ ■ ■ ■ ■ ■ ■							
<b>Features</b>								
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							
Serial connection	2 2 2 2 2 2							



# Interface relays and optocouplers

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40	CR-S range
42	CR-S range complete versions
43	CR-P range
45	CR-P range complete versions
46	CR-M range
51	CR-M range complete versions
53	CR-P/M function modules
54	CR-U range
56	CR-U function modules
57	Boxed interface relays R600 range

# Interface relays and optocouplers

## Offer overview



### CR-S range

#### The slim line of interface relays and optocouplers

The pluggable interface relays and optocouplers of the CR-S Range are used for electrical isolation, amplification and signal matching between the electronic controlling, e.g. PLC, field bus systems and the sensor / actuator level. The CR-S Range combines the flexibility of a modular system and the ability of switching high currents on a small footprint thus can be used in applications where space saving is essential. The CR-S range also includes complete versions consisting of a relay, socket and marker.



### CR-P range

#### The pluggable pcb interface relays and optocouplers

The pluggable interface relays of the CR-P range are used for electrical isolation, amplification and signal matching between the electronic controlling, e.g. PLC, field bus systems and the sensor / actuator level. The CR-P range offers highest current switching in an IP67 rated relay housing. Furthermore, nine different coil voltages are available to suit world wide applications and even gold contact version are available which is essential when it comes to switch sensitive signals. The CR-P range also includes complete versions consisting of a relay, socket, holder, marker and function module.

# Interface relays and optocouplers

## Offer overview



### CR-M range

#### The pluggable miniature interface relays

The pluggable interface relays of the CR-M range are used for electrical isolation, amplification and signal matching between the electronic controlling, e.g. PLC, field bus systems and the sensor / actuator level. The CR-M range offers up to 4 contacts in one relay and a built in test button which makes a circuit check fast and easy. 14 different coil voltages are available to suit world wide applications and even gold contact versions are available which is essential when it comes to switch sensitive signals. The CR-M range also includes complete versions consisting of a relay, socket, holder, marker and where applicable a function module.



### CR-U range

#### The pluggable universal interface relays

The pluggable interface relays of the CR-U range are used for electrical isolation, amplification and signal matching between the electronic controlling, e.g. PLC, field bus systems and the sensor / actuator level. The CR-U range offers up to 3 contacts in one relay and a built in test button which makes a circuit check fast and easy. 13 different coil voltages are available to suit world wide applications.



### R600 range

#### Boxed interface relays and optocouplers

Boxed interface relays of the R600 range are used for electrical isolation, amplification and signal matching between the electronic controlling, e.g. PLC, field bus systems and the sensor / actuator level. The relay itself is built in thus the perfect solution because this design fulfills highest vibration requirements. The compact design and different connection terminal possibilities further optimize your panel installation.

# CR-S range

## Selection table



### 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	<b>CR-S006/024VDC1SZ</b>	<b>1SVR405521R1200</b>	<b>CR-S005VDC1RG</b>	<b>1SVR405501R1020</b>
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

# CR-S range

## Selection table

### CR-S range relay assemblies

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
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
			CR-S012/024VADC1SZ	1SVR405521R3200	CR-S024VDC1TRA	1SVR405510R3050
	screw	MOS-FET 2 A - 24 V DC	CR-S012/024VADC1SS	1SVR405521R3100	CR-S024VDC1MOS	1SVR405510R3060
			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

# CR-S range complete versions

## Selection table - List of components



The complete versions of the CR-S range comprise of a pluggable interface relay, socket and marker.

**CR-S complete versions**

Order code	Type	Relay				Socket				
		CR-S024VADC1R	CR-S024VADC1RG	CR-S060VADC1R	CR-S060VADC1RG	CR-S012/024VADC1SS	CR-S012/024VADC1SZ	CR-S110/125VADC1SS	CR-S110/125VADC1SZ	CR-S220/240VADC1SS
1SVR405541R3110	CR-S024VADC1CRS	■				■				
1SVR405541R3120	CR-S024VADC1CRGS		■			■				
1SVR405541R3210	CR-S024VADC1CRZ	■					■			
1SVR405541R3220	CR-S024VADC1CRGZ		■				■			
1SVR405541R6110	CR-S110VADC1CRS			■			■			
1SVR405541R6120	CR-S110VADC1CRGS				■			■		
1SVR405541R6210	CR-S110VADC1CRZ		■					■		
1SVR405541R6220	CR-S110VADC1CRGZ			■				■		
1SVR405541R7110	CR-S230VADC1CRS		■					■		
1SVR405541R7120	CR-S230VADC1CRGS			■				■		
1SVR405541R7210	CR-S230VADC1CRZ		■					■		
1SVR405541R7220	CR-S230VADC1CRGZ		■					■		

# CR-P range

## Selection table

CR-P pluggable relays

	Type	Order code
12 V DC	CR-P012DC1	1SVR405600R4000
24 V DC	CR-P024DC1	1SVR405600R1000
48 V DC	CR-P048DC1	1SVR405600R6000
110 V DC	CR-P110DC1	1SVR405600R8000
12 V AC	CR-P024AC1	1SVR405600R0000
24 V AC	CR-P048AC1	1SVR405600R5000
48 V AC	CR-P110AC1	1SVR405600R7000
110 V AC	CR-P120AC1	1SVR405600R2000
120 V AC	CR-P230AC1	1SVR405600R3000
230 V AC	CR-P012DC2	1SVR405601R4000
	CR-P024DC2	1SVR405601R1000
	CR-P048DC2	1SVR405601R6000
	CR-P110DC2	1SVR405601R8000
	CR-P110AC2	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-P range

## Selection table

CR-P complete versions

	Type	Order code
	CR-P012DC1SS42V	ISVR405600R4010
	CR-P024DC1SS42V	ISVR405600R1010
	CR-P024DC1LC42V	ISVR405600R1011
	CR-P024DC1LC62C	ISVR405600R1013
	CR-P110DC1SS42CV	ISVR405600R8010
	CR-P024AC1SS62CV	ISVR405600R0010
	CR-P120AC1SS92CV	ISVR405600R2010
	CR-P230AC1SS92CV	ISVR405600R3110
	CR-P230AC1LS	ISVR405600R3011
	CR-P230AC1LC92CV	ISVR405600R3010
	CR-P012DC2SS42V	ISVR405601R4010
	CR-P024DC2SS42V	ISVR405601R1010
	CR-P024DC2LS42	ISVR405601R1013
	CR-P024DC2LS42V	ISVR405601R1011
	CR-P024DC2LC42	ISVR405601R1012
	CR-P024DC2GLC42V	ISVR405606R1010
	CR-P024DC2GLC62C	ISVR405606R1013
	CR-P024DC2GLC62CV	ISVR405606R1011
	CR-P110DC2SS42CV	ISVR405601R8010
	CR-P024AC2SS62CV	ISVR405601R0010
	CR-P120AC2SS92CV	ISVR405601R2010
	CR-P230AC2SS92CV	ISVR405601R3110
	CR-P230AC2LS92CV	ISVR405601R3011
	CR-P230AC2LC92	ISVR405601R3012
	CR-P230AC2GLC92	ISVR405606R3013
	CR-P230AC2GLC92CV	ISVR405606R3012
		ISVR405606R3010

# CR-P range complete versions

## Selection table - List of components



The complete versions of the CR-P range comprise of a pluggable interface relay, socket, holder, marker and a function module.

### CR-P complete versions

Complete versions		Type	Order code	Relay	Socket	Function module	Holder
Order code	Type						
1SVR405601R4010	CR-P012DC2SS42V	■			■		■
1SVR405601R1010	CR-P024DC2SS42V	■			■		■
1SVR405601R1013	CR-P024DC2LS42	■			■		■
1SVR405601R1011	CR-P024DC2LS42V	■			■		■
1SVR405601R1012	CR-P024DC2LC42	■			■		■
1SVR405606R1010	CR-P024DC2GLC42V	■			■		■
1SVR405606R1013	CR-P024DC2GLC62C	■			■		■
1SVR405606R1011	CR-P024DC2GLC62CV	■			■		■
1SVR405601R8010	CR-P110DC2SS42CV	■			■		■
1SVR405601R0010	CR-P024AC2SS62CV	■			■		■
1SVR405601R2010	CR-P120AC2SS92CV	■			■		■
1SVR405601R3110	CR-P230AC2SS92CV	■			■		■
1SVR405601R3011	CR-P230AC2LS92CV	■			■		■
1SVR405601R3012	CR-P230AC2LC92	■			■		■
1SVR405606R3013	CR-P230AC2GLC92	■			■		■
1SVR405606R3012	CR-P230AC2GLC92C	■			■		■
1SVR405606R3010	CR-P230AC2GLC92CV	■			■		■

# CR-M range

## Selection table

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

# CR-M range

## Selection table

CR-M pluggable relays with LED

Type	Order code
CR-M012DC2L	1SVR405611R4100
CR-M012DC2LD	1SVR405611R4400
CR-M024DC2L	1SVR405611R1100
CR-M024DC2LD	1SVR405611R1400
CR-M048DC2L	1SVR405611R6100
CR-M048DC2LD	1SVR405611R6400
CR-M060DC2L	1SVR405611R4300
CR-M110DC2L	1SVR405611R8100
CR-M110DC2LD	1SVR405611R8400
CR-M125DC2L	1SVR405611R8300
CR-M125DC2LD	1SVR405611R8500
CR-M220DC2L	1SVR405611R9100
CR-M220DC2LD	1SVR405611R9400
CR-M012AC2L	1SVR405611R0300
CR-M024AC2L	1SVR405611R0300
CR-M048AC2L	1SVR405611R5100
CR-M110AC2L	1SVR405611R7100
CR-M120AC2L	1SVR405611R2100
CR-M230AC2L	1SVR405611R3100

## **CR-M range**

### Selection table

## **CR-M pluggable relays with LED**

## **CR-M range**

### Selection table

## **CR-M pluggable relays with LED**

# CR-M range

## Selection table

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-M012DC4G	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

Input 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 6 A	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250 V 10 A																	
250 V 12 A																	
Output contacts																	
c/o	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 range complete versions**

## Selection table

## **CR-M range complete versions**

# CR-M range complete versions

## Selection table - List of components



The complete versions of the CR-M range comprise of a pluggable interface relay, socket, holder, marker and where applicable a function module.

CR-M complete versions

Complete versions		Type	Order code	Relay		Socket	Function module		Holder
1SVR405618R4410	CR-M012DC4LDGSS	■	CR-M012DC4LDG	1SVR405618R4400	1SVR405613R1000	1SVR405651R3100	1SVR405651R3200	1SVR405651R0000	1SVR405659R1000
1SVR405613R1010	CR-M024DC4SS42V	■	CR-M024DC4	1SVR405613R1010	1SVR405618R1000	1SVR405651R3100	1SVR405652R0000	1SVR405652R1000	1SVR405659R1000
1SVR405613R1011	CR-M024DC4LS42V	■	CR-M024DC4G	1SVR405613R1011	1SVR405618R1100	1SVR405651R3100	1SVR405652R9100	1SVR405655R1000	1SVR405659R1000
1SVR405613R1012	CR-M024DC4LC42	■	CR-M024DC4LG	1SVR405613R1400	1SVR405613R0000	1SVR405651R3000	1SVR405654R0100	1SVR405654R0100	1SVR405659R1000
1SVR405618R1011	CR-M024DC4GSS42V	■	CR-M230AC4	1SVR405613R3000	1SVR405618R3000	1SVR405651R3100	1SVR405655R1100	1SVR405659R1100	1SVR405659R1000
1SVR405618R1010	CR-M024DC4GLC62CV	■	CR-M230AC4G	1SVR405618R3100	1SVR405651R3000	1SVR405651R3100	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
1SVR405618R1110	CR-M024DC4LGLC22	■	CR-M230AC4LG	1SVR405651R3100	1SVR405651R3100	1SVR405651R3100	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
1SVR405618R1410	CR-M024DC4LDGSS	■	CR-M230AC4LS	1SVR405651R3100	1SVR405651R3100	1SVR405651R3100	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
1SVR405613R0010	CR-M024AC4LS62CV	■	CR-M4SS	1SVR405651R3100	1SVR405651R3100	1SVR405651R3100	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
1SVR405613R3110	CR-M230AC4SS92CV	■	CR-M4LS	1SVR405651R3100	1SVR405651R3100	1SVR405651R3100	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
1SVR405613R3011	CR-M230AC4LS92CV	■	CR-M4LC	1SVR405651R3100	1SVR405651R3100	1SVR405651R3100	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
1SVR405613R3012	CR-M230AC4LC92	■	CR-P/M 22	1SVR405651R0000	1SVR405651R0000	1SVR405651R0000	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
1SVR405618R3112	CR-M230AC4GSS92CV	■	CR-P/M 42	1SVR405652R0000	1SVR405652R0000	1SVR405652R0000	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
1SVR405618R3110	CR-M230AC4LGLC	■	CR-P/M 42V	1SVR405652R1000	1SVR405652R1000	1SVR405652R1000	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
1SVR405618R3111	CR-M230AC4LGSS	■	CR-P/M 92	1SVR405654R0100	1SVR405654R0100	1SVR405654R0100	1SVR405655R1200	1SVR405659R1200	1SVR405659R1000
			CR-P/M 92CV	1SVR405655R1100	1SVR405655R1100	1SVR405655R1100	1SVR405656R1200	1SVR405659R1200	1SVR405659R1000

# CR-P/M function modules

## Selection table

### 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

# CR-U range

## Selection table

CR-U pluggable relays without LED

Type	Order code
<b>Input voltage</b>	
12 V DC	CR-U012DC2 1SVR405621R4000
24 V DC	CR-U024DC2 1SVR405621R1000
48 V DC	CR-U048DC2 1SVR405621R6000
110 V DC	CR-U110DC2 1SVR405621R8000
125 V DC	CR-U220DC2 1SVR405621R9000
220 V DC	CR-U024AAC2 1SVR405621R0000
12 V AC	CR-U048AC2 1SVR405621R5000
24 V AC	CR-U110AC2 1SVR405621R7000
48 V AC	CR-U120AC2 1SVR405621R2000
60 V AC	CR-U230AC2 1SVR405621R3000
110 V AC	CR-U012DC3 1SVR405622R4000
120 V AC	CR-U024DC3 1SVR405622R1000
230 V AC	CR-U048DC3 1SVR405622R6000
<b>Output rating</b>	
250 V 10 A	CR-U110DC3 1SVR405622R8000
<b>Output contacts</b>	
c/o	CR-U125DC3 1SVR405622R8200
Gold plated contacts	CR-U220DC3 1SVR405622R9000
	CR-U024AC3 1SVR405622R0000
	CR-U048AC3 1SVR405622R5000
	CR-U060AC3 1SVR405622R5200
	CR-U110AC3 1SVR405622R7000
	CR-U120AC3 1SVR405622R2000
	CR-U230AC3 1SVR405622R3000

# CR-U range

## Selection table

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	1SVR405623R1100
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

# CR-U function modules

## Selection table

### CR-U function modules

Type	Order code
CR-U21	1SVR405661R0000
CR-U41	1SVR405662R0000
CR-U41V	1SVR405662R1000
CR-U41B	1SVR405662R4000
CR-U41BV	1SVR405662R4100
CR-U41C	1SVR405662R9000
CR-U41CV	1SVR405662R9100
CR-U51B	1SVR405663R0000
CR-U51D	1SVR405663R4000
CR-U51C	1SVR405663R1000
CR-U61	1SVR405664R0000
CR-U61V	1SVR405664R1000
CR-U61E	1SVR405664R4000
CR-U61EV	1SVR405664R4100
CR-U91	1SVR405664R0100
CR-U91V	1SVR405664R1100
CR-U61C	1SVR405665R0000
CR-U61CV	1SVR405665R1000
CR-U61D	1SVR405665R4000
CR-U61DV	1SVR405665R4100
CR-U91C	1SVR405665R0100
CR-U91CV	1SVR405665R1100
CR-U71	1SVR405666R0000
CR-U71A	1SVR405666R1000
CR-U81	1SVR405666R2000
CR-UT	1SVR405677R0000

Related control supply 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

# Boxed interface relays R600 range

## Selection table

	Type	Order number
	RB121P-5VDC	1SNA645034R2300
	RB121P-G-5VDC	1SNA645036R2500
	RBR121P-5VDC	1SNA645533R2500
	RB121-12VDC	1SNA645073R0000
	RB121P-12VDC	1SNA645035R2400
	RB121G-12VDC	1SNA645075R0000
	RBR121P-12VDC	1SNA645535R2600
	RB101R-24VUC	1SNA645019R0400
	RBR101R-24VUC	1SNA645519R0600
	RB111-24VUC	1SNA645014R2700
	RB111R-24VUC	1SNA645018R0300
	RBR111R-24VUC	1SNA645518R0500
	RBR111-24VUC	1SNA645514R2100
	RB121-24VUC	1SNA645001R0300
	RB121G-24VUC	1SNA645005R0700
	RBR121-24VUC	1SNA645501R0500
	RBR121G-24VUC	1SNA645505R0100
	RB122G-24VUC	1SNA645012R2500
	RBR122G-24VUC	1SNA645512R2700
	RB121-24VDC	1SNA645071R0000
	RBR121-24VDC	1SNA645571R0000
	RB121G-24VDC	1SNA645072R0000
	RBR121G-24VDC	1SNA645572R0000
	RB121-48-60VUC	1SNA645002R0400
	RBR121G-48-60VUC	1SNA645006R0000

Input voltage													
5 V DC	■	■	■										
12 V DC				■	■	■	■	■					
24 V DC				■	■	■	■	■	■	■	■	■	■
48-60 V DC					■	■	■	■	■	■	■	■	■
115 V DC													
230 V DC													
60-230 V DC													
24 V AC				■	■	■	■	■	■	■	■	■	■
48-60 V AC													
115 V AC													
230 V AC													
60-230 V AC													
Output rating													
10 mA - 6 A	■	■	■	■	■	■	■	■	■	■	■	■	■
3 mA - 6 A		■		■	■				■	■	■	■	■
1 mA - 8 A									■	■			
Output contacts													
c/o	1	1	1	1	1	1	1		1	1	1	1	1
n/o								1	1	1	1		
n/c								1	1				
Gold plated contacts	■		■						■	■	■	■	■
Terminal type													
Screw	■	■	■	■	■	■	■	■	■	■	■	■	■
Spring			■		■		■		■	■	■	■	■

# Boxed interface relays R600 range

## Selection table

Type	Order number
RBR121-48-60VUC	1SNA645505R0600
RBR121G-48-60VUC	1SNA645506R0200
RB122G-48-60VUC	1SNA645504R1500
RBR122G-48-60VUC	1SNA645540R1700
RB121-115VUC	1SNA645003R0500
RB121G-115VUC	1SNA645007R0100
RB121R-115VUC	1SNA645046R0700
RBR121-115VUC	1SNA645503R0700
RBR121G-115VUC	1SNA645507R0300
RB122G-115VUC	1SNA645041R0200
RBR122G-115VUC	1SNA645541R0400
RB111-115VUC	1SNA645016R2100
RB111-230VUC	1SNA645017R2200
RB121-230VUC	1SNA645004R0400
RB121G-230VUC	1SNA645008R1200
RB121R-230VUC	1SNA645011R2400
RBR121-230VUC	1SNA645504R0000
RBR121G-230VUC	1SNA645508R1400
RBR121R-230VUC	1SNA645511R2600
RB122G-230VUC	1SNA645013R2600
RBR122G-230VUC	1SNA645513R2000
RB121-60-230VUC	1SNA645020R0100
RBR121-60-230VUC	1SNA645520R0300



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**ABB STOTZ-KONTAKT GmbH**

Eppelheimer Strasse 82  
69123 Heidelberg  
Germany

**You can find the address of your local  
sales organization on the ABB homepage**



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