

Series CEP7 Motor Protection Solid State Overload Relays



THE THIRD GENERATION

The Sprecher+Schuh CEP7 Electronic Motor Overload Relay can help customers better protect their motors and avoid unplanned downtime due to motor failure. As the next generation of Sprecher+Schuh basic-tier electronic overload relays for our scalable solution portfolio, it more accurately measures a motor's current load, models its temperature and can de-energize the motor to help minimize potential equipment damage due to overheating.

The CEP7 overload relay is part of the Sprecher+Schuh integrated motor control system. It can mount directly to CA7/CAN7 contactors up to 97A. The CEP7 basic model has two user-adjustable trip class settings of 10 and 20. The CEP7 advanced model has selectable trip class adjustment 10...30 and a plug-in port for front mount accessories.

Optional accessories and expansion modules can extend the functionality of the CEP7-1__ overload relays, enhancing motor overload protection while maintaining a cost-effective solution.



Features and Benefits

- 5:1 wide current adjustment range to cover a variety of motor applications in a single device
- Selectable Trip Class
 - Dip Switch Selection of trip class 10 or 20 on Basic model
 - Dial Selection of trip class 10...30 on Advanced model
- 48% footprint reduction using pass-thru solution
- Agency recognized certification strategy across portfolio
- Accurate and repeatable settings to help minimize commissioning time
- Higher efficiency and low heat dissipation versus traditional eutectic or bimetal relays
- Pass-thru model minimizes number of power terminal connections
- Built-in thermal memory and phase loss detection helps protect your motor investment
- CEP7-1__ single- and three-phase compatibility, reducing inventory SKUs'

Additional Capabilities with Accessories:

- Jam & Ground Fault Protection
- Electronic Remote Reset
- Status Indication Display
- Anti-Tamper Shielding



Standards/Certifications

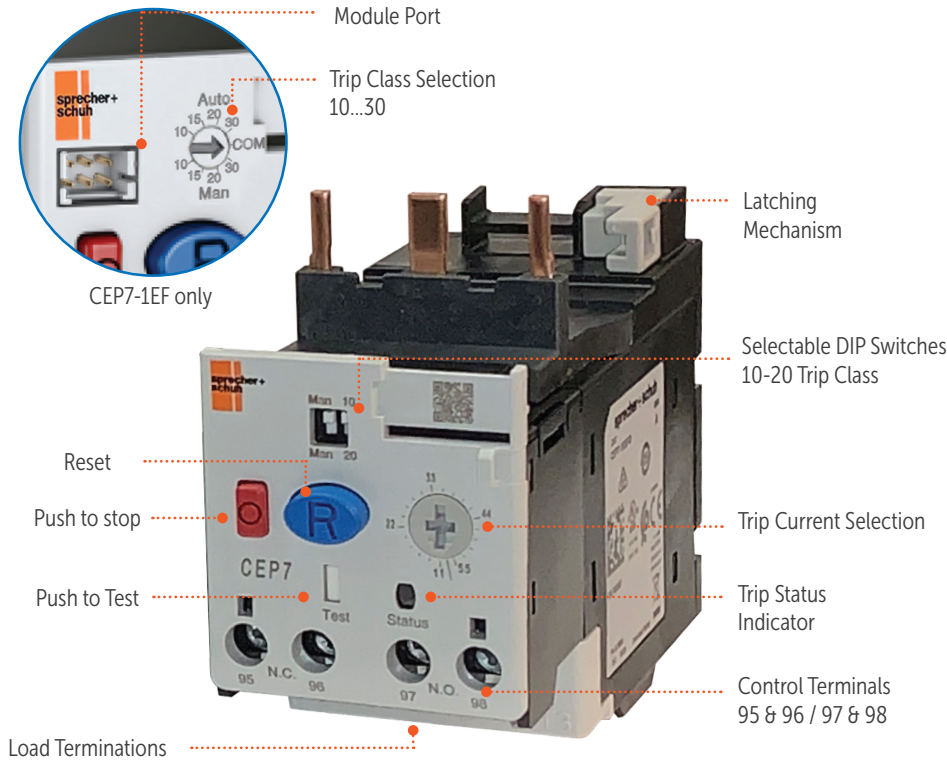
Standards Compliance

- CSA22.2, No. 60947-4-1
- EN 60947-4-1
- UL 60947-4-1
- GB/T 14048.4-2010
- SJ/T 11364, GB/T 26572, SJ/Z 11388

Certifications

- cULus Listed – File No. E14840
- CE Marked
- RCM (formerly C-tick)
- CCC





Shown above: CEP7-1EEFD



CEP7-1EECB



CEP7-1EFEB

Third Generation Advantage

- Selectable tripping class
- Choice of reset options
- More robust design
- Increased accuracy
- Improved motor protection
- Self-powered design
- Lowers energy requirements
- Reduces panel space
- Superior phase failure protection
- Improved Flexibility

Superior phase failure protection

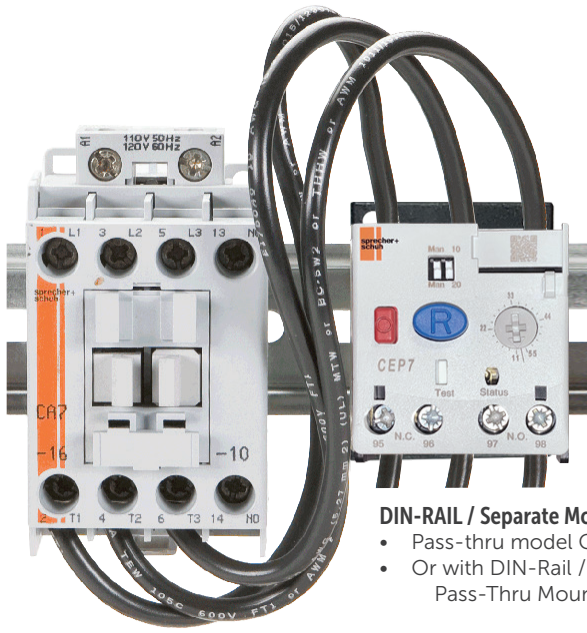
The CEP7's on-board electronics are constantly monitoring all three phases. If the ASIC board senses that one phase is missing during a steady state running condition on a fully loaded motor, it will trigger in 3 seconds. If a single phase condition is present during starting, the CEP7 will trip within 8 seconds (for a motor >80% loaded). These times are much faster than any thermal bimetallic overload relay. In addition, CEP7 overload relays detect a 50% phase imbalance in the same way as a phase loss.



CA7-37 contactor + CEP7-1EEFD overload

Overload Relays (Direct Mount)

For use with	Current Range [A]	Catalog No.
CA7-9...23 CAN7-12, CAN7-16	0.1...0.5	CEP7-1EEAB
	0.2...1	CEP7-1EEBB
	1.0...5.0	CEP7-1EECB
	3.2...16	CEP7-1EEDB
	5.4...27	CEP7-1EEEB
CA7-30...55 CAN7-37, CAN7-43	5.4...27	CEP7-1EEED
	11...55	CEP7-1EEFD
	20...100	CEP7-1EEGE
CA7-9...23 CAN7-12, CAN7-16	0.1...0.5	CEP7-1EFAB
	0.2...1.0	CEP7-1EFBB
	1.0...5.0	CEP7-1EFCB
	3.2...16	CEP7-1EFDB
	5.4...27	CEP7-1EFEB
CA7-30...55 CAN7-37, CAN7-43	5.4...27	CEP7-1EFED
	11...55	CEP7-1EFFD
	20...100	CEP7-1EFGE



DIN-RAIL / Separate Mount

- Pass-thru model CEP7-1__P
- Or with DIN-Rail / for Pass-Thru Mount

Overload Relays (Pass-Thru Models)

For use with	Current Range [A]	Catalog No.
All contactors	1.0...5.0	CEP7-1EECP
	3.2...16	CEP7-1EEDP
	5.4...27	CEP7-1EEEP
	11...55	CEP7-1EEFP
	20...100	CEP7-1EEGP
	1.0...5.0	CEP7-1EFCP
	3.2...16	CEP7-1EFDP
	5.4...27	CEP7-1EFEP
All contactors and external current transformers	11...55	CEP7-1EFFP
	20...100	CEP7-1EFGP
	30...150A	CEP7-1EFHZ
	40...200A	CEP7-1EFJZ
	60...300A	CEP7-1EFKZ
	80...400A	CEP7-1EFWZ
	100...500A	CEP7-1EFLZ
	120...600A	CEP7-1EFMZ
	160...800A	CEP7-1EFNZ

Accessories

Accessory	Description	For use with	Catalog No.
	Base Unit Anti-Tamper Shield	CEP7-1EE... CEP7-1EF..	CEP7-1BC8
	Protection Accessory Anti-Tamper Shield	CEP7-1EGJ	CEP7-1EMC
	240V AC Remote Reset Solenoid	CEP7-1EE... CEP7-1EF..	CEP7-1EMRA
	120V AC Remote Reset Solenoid		CEP7-1EMRD
	24V DC Remote Reset Solenoid		CEP7-1EMRZ
	DIN Rail/Panel Adapter Frame B	CEP7-1EE... CEP7-1EF..	CEP7-1EPB
	DIN Rail/Panel Adapter Frame D		CEP7-1EPD
	DIN Rail/Panel Adapter Frame E		CEP7-1EPE
	External Reset Adapter	CEP7-1EE... CEP7-1EF..	CEP7-1ERA
	Accessory Panel/ DIN Mounting Kit	CEP7-1EGJ, CEP7-1ERR	CEP7-1EIKIT1
	Accessory Install Kit & Spare TBs		CEP7-1EIKIT2
	Universal Protection Module (Ground Fault / Jam)	CEP7-1EF..	CEP7-1EGJ
	Reset Adapter (Electronic Remote Reset)	CEP7-1EF..	CEP7-1ERR
	Remote indication Display with Reset	CEP7-1ERR	CEP7-ERID
	Remote Indication Display - No Reset	CEP7-1ERR	CEP7-1ERIDN

Front Mount Modules



CEP7-ERID

Electronic Reset and Indication Display

Display the status of a CEP7 from the front of a panel and features a reset button. Mounts in a standard 22mm pushbutton cutout.



CEP7-1ERIDN

Indication Display (No Reset)

Displays the status of a CEP7 from the front of a panel. Mounts in a standard 22mm pushbutton cutout.



CEP7-1ERR

Reset Adapter (Electronic Remote Reset)

The Remote Reset/Indication Module is available for applications that require remote reset of CEP7 overload relays after a trip occurs. Side or Contactor mount options.

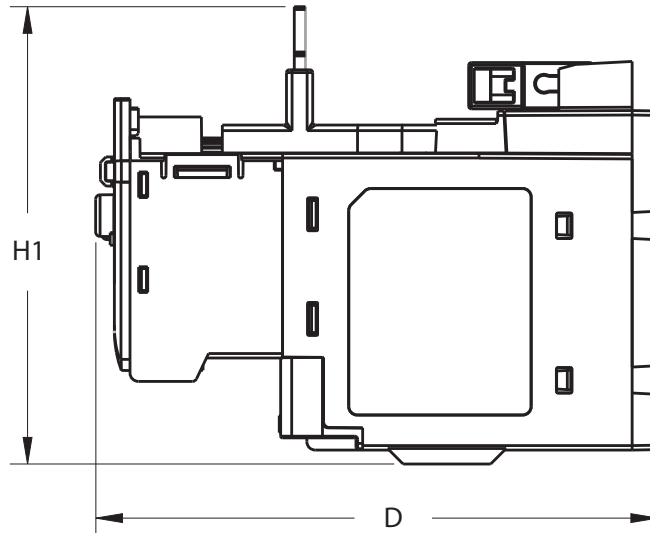
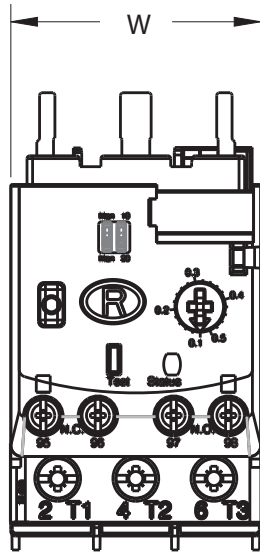


CEP7-1EGJ

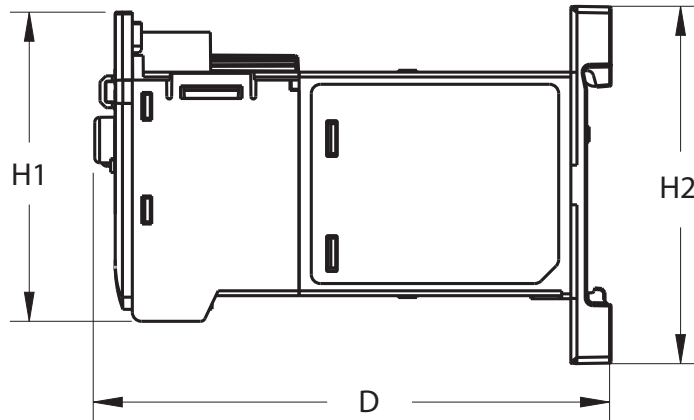
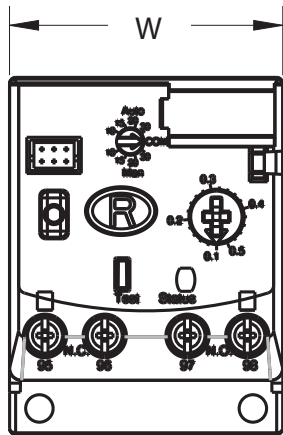
Universal Protection Expansion Module

Front-accessible DIP switches offer flexibility to configure the operation to match application requirements. In addition, this module offers selectable jam & ground fault protection. Side or Contactor mount options.

Overload Relays / Direct-Mounted



Overload Relays / Pass-Thru



Overload Relay	Mounting Style		W	D	H1	H2
CEP7-1EE/EF_B	Direct-mount CA7-9...23	mm (in)	44.80 (1.76)	84.66 (3.33)	86.63 (3.41)	~
CEP7-1EE/EF_D	Direct-mount CA7-30...55	mm (in)	44.80 (1.76)	100.66 (3.96)	81.96 (3.23)	~
CEP7-1EE/EF_E	Direct-mount CA7-60...97	mm (in)	71.60 (2.82)	121.16 (4.77)	95.17 (3.75)	~
CEP7-1EE/EF_P	Pass-thru 0.1...27A	mm (in)	44.80 (1.76)	84.66 (3.33)	50.68 (2.0)	58.60 (2.31)
CEP7-1EE/EF_P	Pass-thru 11...55A	mm (in)	44.80 (1.76)	103.41 (4.07)	50.68 (2.0)	58.60 (2.31)
CEP7-1EE/EF_P	Pass-thru 20...100A	mm (in)	71.60 (2.82)	127.83 (5.03)	50.71 (2.0)	78.35 (3.08)

* Approximate dimensional information.

For more information visit sprechershuh.com