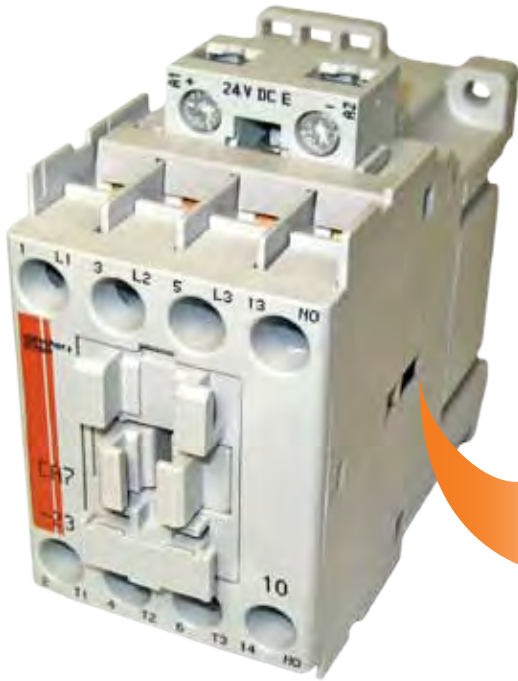


# Series CA7 ELECTRONIC COIL DC Contactors



Sprecher + Schuh has expanded its line of CA7 industrial contactors with a low consumption electronic coil. The electronic DC coil with low power consumption is integrated in a small contactor body and draws less than 1.7W/60mA holding power. The new design results in a shorter and more energy efficient contactor, as it eases wiring and uniform panel appearance.



- Electronic DC Coil with integrated (built-in) diode
- Extremely low inrush
- Same size as AC coil contactors in 12V and 24V
- Draws less than 1.7W/60mA
- RoHs compliant
- NEMA labeled contactors available



## Advantages of Electronic DC Coil

CA7-9E through CA7-43E are provided with DC coils that dramatically decrease wattage consumption during pull-in. This allows the use of smaller power supplies. The electronic DC coil design brings the same size as the AC version for 12V or 24V. The 48V...220V versions are only slightly taller.

## Advanced safety and reliability features

The entire CA7 line features mechanically linked contacts, sometimes referred to as “positively guided contacts” or “force guided contacts.” If a main power pole welds, adequate clearances exist ( $\geq 0.3\text{mm}$ ) to ensure that the auxiliary contacts do not change state when coil power is removed and the device tries to open. This is a requirement in safety circuits per IEC 60947-5-1. Reliability is further assured by “cross-stamped” auxiliary contacts, which provide multi-point reliability in low current, low voltage applications.

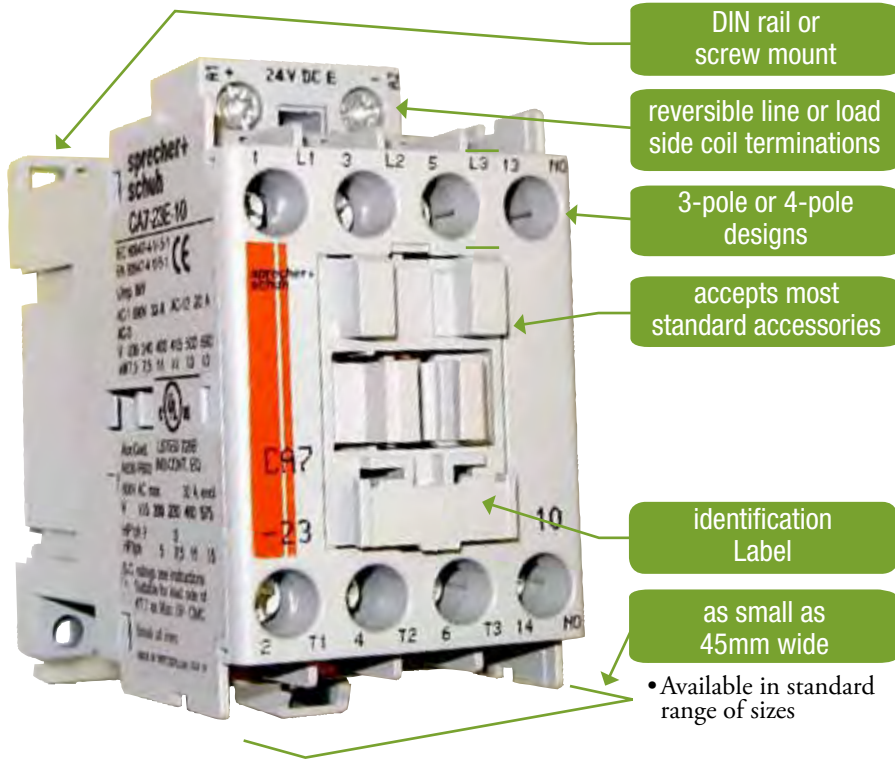
## Direct Control from PLC

The low power consumption contactor designed to control motors and other loads is especially aligned to the specific requirement of electronic control circuits. The low power consumption allows direct control through PLC's without the need for interposing relays. This means smaller power supplies which reduce panel space and cost.

## Accessories

Most standard accessories are interchangeable among CA7 electronic coil contactors. This minimizes inventory requirements and maximizes flexibility. Top and side mount auxiliary contacts are available. A mechanical interlock with two built-in NC auxiliaries also provides electrical interlocking if desired. Pneumatic and electronic timers, surge suppressors and electronic interface modules provide solutions for even the most complex applications.

# Series CA7 Features



Contact your Sprecher + Schuh representative for more information.

## Accessories

All accessories are interchangeable among all CA7 contactors and CS7 control relays. Top and side mount auxiliary contacts are available.



### Auxiliary Contact Blocks

- 1- and 2-pole side mounts and 2- and 4- pole top mounts.
- Two way numbering for right or left side mounting on the contactor
- Snap-on design



### Pneumatic Timing Module

The contacts in the Pneumatic Timing Element switch after the delay time. The contacts on the main contactor continue to operate without delay.



### CV7-11 Mechanical Latch

Following contactor latching, the contactor coil is immediately de-energized by the NC auxiliary contact.



### Mechanical/Electrical Interlocks

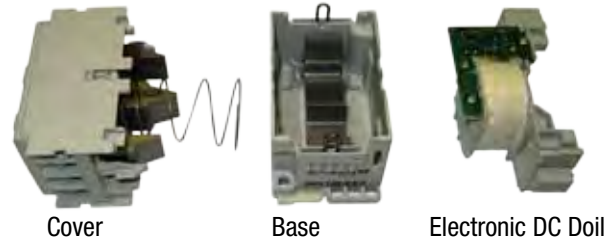
Mechanical and electrical interlocking possible in one module by means of integrated auxiliary contacts



### Backpack Module

Voltages of 48V DC and greater are supplied with backpack module standard.

Ratings for Switching AC Motors (AC2 / AC3 / AC4)						3-Pole Open Type	Also Available	
UL/CSA HP (60 Hz)							Catalog Number Prefix	4-pole
1 Ø		3 Ø						
115V	230V	200V	230V	460V	575V			
1/2	1 1/2	2	2	5	7-1/2	CA7-9E	✓	✓
1/2	2	3	3	7-1/2	10	CA7-12E	✓	✓
1	3	5	5	10	15	CA7-16E	✓	✓
2	3	5	7-1/2	15	15	CA7-23E	✓	✓
2	5	7-1/2	10	20	25	CA7-30E		✓
3	5	10	10	25	30	CA7-37E		✓
3	7-1/2	10	15	30	30	CA7-43E		✓



All CA7 contactors are stocked and delivered with the coil terminals located on the line side (top) of the contactor. This is the typical configuration when using the contactor with an overload relay. CA7 coils can easily be reversed in the field, however, they are also available for order with the coils reversed from the factory.

### Coil Data - Electronic DC

Voltage Range		
Voltage Code	Nominal Voltage US (VDC)	Ratings [XU <sub>0</sub> ]
12E	12	0.7...1.25
24E	24	0.7...1.25
48E	48...72	0.8...1.25
110E	110...125	0.7...1.12
220E	220...250	0.8...1.1

Coil Consumption & Operating Times ①						
Pickup (W)		Hold-in (W)		Dropout Voltage [XU <sub>0</sub> ]	Pickup [ms]	Dropout [ms]
CA7-9E...37E	CA7-43E	CA7-9E...37E	CA7-43E			
17	24	1.7	2.5	0.3...0.4	20...50	20...50
17	24	1.7	2.5			
17	24	1.7	2.5			
19	26	2	2.7			
22	29	2.7	3.5			

① The hold-in demand of the CA7-9E...43E is very low but the pick-up demand is approximately 1 ampere at 24 VDC. When sizing (dimensioning) a power supply for applications involving parallel switched contactors then multiply the peak demand by the number of contactors to be simultaneously switched and add to the hold-in demand of all other control circuit burdens, including other contactors, pilot devices, solenoids, etc.