

Series CA Contactors

Contactors

CA

A rugged and comprehensive range of contactors from 5 to 900 HP



Sprecher+Schuh contactors are designed and manufactured in plants that are quality certified to international standard ISO 9001

Sprecher + Schuh's broad line of IEC contactors combine performance and reliability in space saving designs that are well proven and used the world over. On average, our contactors are 30% smaller than traditional devices in the same horsepower range, yet provide millions of trouble free operations for years of reliable use.

Economy and selection

Four different contactor families provide 23 contactor sizes, one for practically every horsepower increment! The ability to select intermediate sizes assures a closer match for your motor and provides economy not found with traditionally sized devices.

Precisely match the contactor to the application

Unique to IEC-style contactors is the ability to select the exact device required for a specific application. By identifying the conditions under which the contactor will be used, i.e., resistive loads, reversing, inching and plugging, etc., published "life-curve" data predicts contact life in millions of operations. This information enables you to select the precise contactor for your application... without buying too much or too little.

Designed for long life

Destructive electrical arcs are common when opening or "breaking" the contacts of larger contactors. Sprecher + Schuh contactors in this size class are designed to dramatically reduce electrical arcing by quickly guiding the arc off of the contacts and into specially designed "arc chutes." This special design divides and eliminates the electrical arcs quickly, significantly increasing contact life and assuring reliable operation.

Other unique features...

Virtually all Sprecher+Schuh contactors offer one or more of the latest design techniques and innovations, such as electronically controlled coils, H-bridge auxiliary contacts or universal accessories across the entire contactor family.

Limitless choices

A comprehensive selection of modular accessories is available for all contactor families, which allows infinite contactor and starter combinations, both open and enclosed.

Safety in mind...

Virtually all Sprecher + Schuh contactors are designed to be safe from accidental contact with the finger or back-of-hand. On the smaller contactors, terminals and set screws are recessed, while larger devices (up to Series CA6) accept terminal covers which provide protection according to VDE 0106, Part 100.

Manufactured to rigorous quality standards

Sprecher+Schuh contactors are designed and manufactured in plants that maintain quality certification to the most rigorous international standard... ISO 9001. Sprecher + Schuh manufacturing facilities renew ISO certification every three years by passing an exacting quality assurance audit.

International standards and approvals

All Sprecher+Schuh contactors are UL Listed and CSA Approved. They also carry the CE Mark and meet IEC 947-1 requirements. They are approved in virtually every international market.

5HP

60HP

350HP

900HP



Sprecher + Schuh's series CA contactors are designed to IEC specifications, and are an average of 30% smaller than traditional devices in the same horsepower range.

CA4 Series Contactor

- Provides commercial-grade performance for motors up to 5HP
- Features low-profile design and 45mm width
- Maintains narrow width with modular, snap-on accessories
- Performs up to 700,000 electrical and 10,000,000 mechanical operations



Four different contactor families provide 23 contactor sizes. The wide range of sizes means a closer match for your application, and economy not found in traditionally-sized devices.

CA7 Series Contactor

- Covers up to 60HP industrial applications
- Features small dimensions, as little as 45mm wide
- Uses interchangeable accessories for all contactor sizes
- Provides flexibility with reversible coils for group installation
- Has dual-cage clamp lugs on CA7-30 and larger units
- Designed and tested with respect to Type 1 and 2 Coordination



Use our published "life-curve" data to determine the *exact* contactor required, according to its application and the conditions under which it will be used.

CA6 Series Contactor

- Averages 50% smaller dimensions than others in its class
- Offers 8 contactors in 3 frame sizes
- Covers 60 to 350HP applications
- Provides extended life with arc-quenching technology
- Features enclosed arc chambers for safety
- Includes electronic coils for 24V, 50mA electronic interface



Sprecher + Schuh CA series contactors are UL Listed and CSA Approved. They also carry the CE Mark and are approved in virtually every international market.

CA5 Series Contactor

- Covers up to 900HP applications
- Averages 40% smaller dimensions than others in its class
- Offers 4 contactors in 2 frame sizes
- Provides extended life with "bounce-free" contact system
- Features the ability to interlock vertically or horizontally
- Includes coil "feeder group" design on 700, 860 models

Sprecher + Schuh Contactor Series ❶	Maximum Horsepower (UL/CSA)						NEMA Ratings
	Single Phase		Three Phase				
	115 Volt	230 Volt	200 Volt	230 Volt	460 Volt	575 Volt	
	1/3	1	1 1/2	1 1/2	2	2	NEMA Size 00
CA7-9	1/3	1	2	2	5	7 1/2	
CA7-12	1/2	2	3	3	7 1/2	10	
	1	2	3	3	5	5	NEMA Size 0
CA7-16	1	3	5	5	10	15	
	2	3	7 1/2	7 1/2	10	10	NEMA Size 1
CA7-23	2	3	5	7 1/2	15	15	
CA7-30	2	5	7 1/2	10	20	25	
CA7-37	3	5	10	10	25	30	
	3	7 1/2	10	15	25	25	NEMA Size 2
CA7-43	3	7 1/2	10	15	30	30	
CA7-60	5	10	15	20	40	50	
CA7-72	5	15	20	25	50	60	
	7 1/2	15	25	30	50	50	NEMA Size 3
CA7-85	7 1/2	15	25	30	60	60	
CA6-85	7 1/2	15	25	30	60	75	
CA6-105(-EI)	10	25	40	40	75	100	
	~	~	40	50	100	100	NEMA Size 4
CA6-140(-EI)	15	30	40	50	100	125	
CA6-170-EI	~	40	50	60	150	150	
CA6-210-EI	~	50	60	75	150	200	
	~	~	75	100	200	200	NEMA Size 5
CA6-250-EI	~	~	75	100	200	250	
CA6-300-EI	~	~	100	125	250	300	
CA6-420-EI	~	~	150	175	350	400	
	~	~	150	200	400	400	NEMA Size 6
CA5-700	~	~	200	250	500	500	
	~	~	~	300	600	600	NEMA Size 7
CA5-860	~	~	250	300	600	600	
CA5-1000 ❷	~	~	350	400	800	900	
	~	~	~	450	900	900	NEMA Size 8
CA5-1200	~	~	450	450	900	900	

❶ "EI" designation indicates coil has electronic interface capability with a PLC.

❷ CA5-1000 horsepower ratings per IEC Utilization category AC-3. See CA5 Technical Data section for additional sizing information. Label does not bear a UL/CSA horsepower rating.

Horsepower	60Hz AC Induction Motor					
	Single Phase		Three Phase			
	115 Volt	230 Volt	200 Volt	230 Volt	460 Volt	575 Volt
1/6	4.4	2.2	~	~	~	~
1/4	5.8	2.9	~	~	~	~
1/3	7.2	3.6	~	~	~	~
1/2	9.8	4.9	2.5	2.2	1.1	0.9
3/4	13.8	6.9	3.7	3.2	1.6	1.3
1	16.0	8.0	4.8	4.2	2.1	1.7
1 1/2	20.0	10.0	6.9	6.0	3.0	2.4
2	24.0	12.0	7.8	6.8	3.4	2.7
3	34.0	17.0	11.0	9.6	4.8	3.9
5	56.0	28.0	17.5	15.2	7.6	6.1
7 1/2	80.0	40.0	25.0	22.0	11.0	9.0
10	100	50.0	32.0	28.0	14.0	11.0
15	135	68.0	48.0	42.0	21.0	17.0
20	~	88.0	62.0	54.0	27.0	22.0
25	~	110	78.0	68.0	34.0	27.0
30	~	136	92.0	80.0	40.0	32.0
40	~	176	120	104	52.0	41.0
50	~	216	150	130	65.0	52.0
60	~	~	177	154	77.0	62.0
75	~	~	221	192	96.0	77.0
100	~	~	285	248	124	99.0
125	~	~	359	312	156	125
150	~	~	414	360	180	144
200	~	~	552	480	240	192
250	~	~	692	602	302	242
300	~	~	~	~	361	289
350	~	~	~	~	414	336
400	~	~	~	~	477	382
500	~	~	~	~	590	472

The information in this chart was derived from Table 430-148 & 430-150 of the NEC and Table 52.2 of UL standard 508. The voltages listed are rated motor voltages. The currents listed shall be permitted for system voltage ranges of 110-120, 220-240, 440-480 and 550-600 volts.

The full-load current values are for motors running at usual speeds and motors with normal torque characteristics. Motors built for especially low speeds or high torques may have higher full-load currents, and

multi-speed motors will have full-load currents varying with speed. In these cases, the nameplate current ratings shall be used.

Caution: The actual motor amps may be higher or lower than the average values listed above. For more reliable motor protection, use the actual motor current as listed on the motor nameplate. Use this table as a guide only

Catalog Number Coding

Sprecher+Schuh employs a catalog number coding system for contactors (and many other devices) that follows a logical pattern, where every digit signifies a specific device attribute. Where indicated, the use of dashes (–) serves to separate device characteristics and should always be used when ordering.

The following example illustrates all of the possible combinations when specifying contactors and reversing contactors (open type only). See Section C for an explanation of the catalog number coding system for enclosed contactors and starters.

CA	7-30	10	120																												
<p>Configuration</p> <p>CA Contactor CAU Reversing Contactor</p>	<p>Contactor Series</p> <p>Series CA4 Series CA6 ②</p> <p>4-9 6-85 6-105(-EI) 6-140(-EI)</p> <p>Series CA7 ①</p> <p>7-9(C) 7-12(C) 7-16(C) 7-23(C) 7-30(C) 7-37(C) 7-43(C) 7-60(D) 7-72(D) 7-85(D)</p> <p> 6-170(-EI) 6-210(-EI) 6-250(-EI) 6-300(-EI) 6-420(-EI)</p> <p> Series CA5</p> <p> 5-700 5-860 5-1000 5-1200</p>	<p>Auxiliary Contacts</p> <p>-10 N.O. Auxiliary -01 N.C. Auxiliary -11 N.O. & N.C. Auxiliary -00 No Auxiliaries</p> <p>4-pole CA7 Contactors ③</p> <p>-M40 4 N.O. Power Poles -M31 3 N.O. Power Poles/ 1 N.C. Power Pole -M22 2 N.O. Power Poles/ 2 N.C. Power Poles</p>	<p>Coil Code</p> <table border="0"> <tr> <td>AC</td> <td>DC</td> </tr> <tr> <td>24(Z)</td> <td>12D(D)</td> </tr> <tr> <td>110</td> <td>24D(D)</td> </tr> <tr> <td>120</td> <td>48D(D)</td> </tr> <tr> <td>208</td> <td>110D(D)</td> </tr> <tr> <td>220</td> <td>220D(D)</td> </tr> <tr> <td>220W</td> <td></td> </tr> <tr> <td>240</td> <td>No Coil</td> </tr> <tr> <td>277</td> <td>XXX</td> </tr> <tr> <td>380</td> <td>(CA5 contactors only)</td> </tr> <tr> <td>440</td> <td></td> </tr> <tr> <td>480</td> <td></td> </tr> <tr> <td>575</td> <td></td> </tr> <tr> <td>600</td> <td></td> </tr> </table>	AC	DC	24(Z)	12D(D)	110	24D(D)	120	48D(D)	208	110D(D)	220	220D(D)	220W		240	No Coil	277	XXX	380	(CA5 contactors only)	440		480		575		600	
AC	DC																														
24(Z)	12D(D)																														
110	24D(D)																														
120	48D(D)																														
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380	(CA5 contactors only)																														
440																															
480																															
575																															
600																															

This illustration is for reference only.
Turn to the appropriate page in this catalog to determine specific catalog number and pricing.

① (C) & (D) suffix designates DC contactors
 ② (-EI) suffix indicates electronic coil. Optional on CA6-105 & 140, standard on CA6-170...420.
 ③ On four pole CA7 contactors, this number designates main power pole configuration.

Predicting Electrical Life

Aside from their small size, low cost and ruggedness, a major advantage of using IEC contactors, is the ability to very closely match the contactor to the application. This eliminates buying “oversized” devices that are more than you really need. Even though Sprecher + Schuh IEC contactors are designed for superior performance in a

wide variety of applications, by giving consideration to the specific load, utilization category and required electrical life, you can purchase exactly the type and size of contactor required. This assures reliable operation and high value.

Follow these four easy steps to determine a contactor’s electrical life:

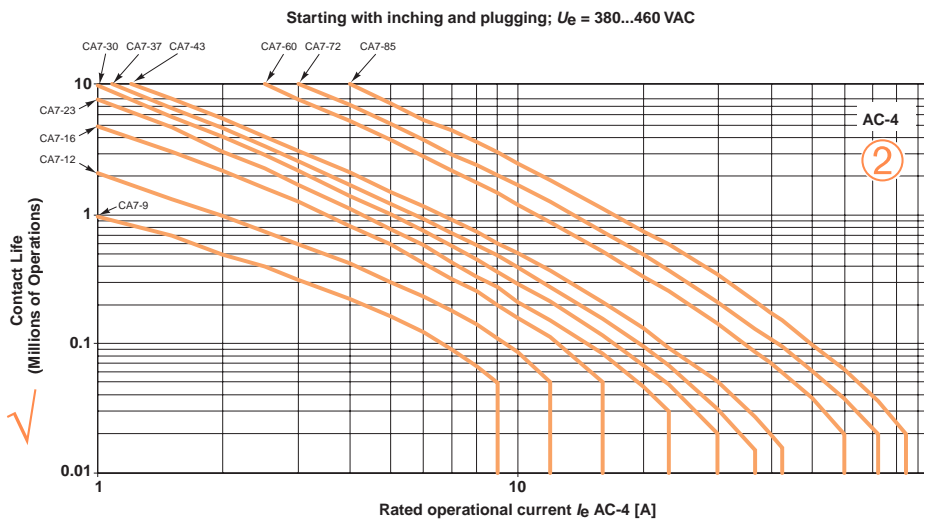
① Identify the appropriate utilization category. For this example, we will determine CA7 contact life for inching and plugging squirrel-cage motors. ❶

Utilization Category	Definition	
AC-1	Resistance Furnaces	Non inductive or slightly inductive loads, Resistive Furnaces
AC-2	Slip-ring motors	Starting and stopping of running motors
AC-3	Squirrel-cage motors	Starting and stopping of running motors
AC-4 ①	Squirrel-cage motors	Starting, plugging and inching (Plugging is understood as stopping or reversing the motor rapidly by reversing the motor primary connections while the motor is running. Inching [or jogging] is understood as energizing a motor once or repeatedly for short periods to obtain small movements of the driven mechanism.)
AC-15	Electromagnets	Electromagnets for contactors, valves, solenoid actuators

② Choose the graph for the utilization category selected. (a graph pertaining to most Utilization Categories can be found in each contactor section.)

③ Locate the Rated Operational Current (I_e) along the bottom of the chart and follow the graph lines up to the intersection of the appropriate contactor’s life-load curve.

✓ Read the estimated contact life along the vertical axis. ❷



③

- ❶ A comprehensive list of Utilization Categories can be found in each contactor section, however, these are the primary categories used in most industrial motor applications.
- ❷ The life-load curves shown here are based on Sprecher+Schuh tests according to the requirements defined in IEC 947-4-1. Since contact life in a given application is dependent on environmental conditions and duty cycle, actual application contact life may vary from that indicated by the curves shown here.

Series CA7 Contactors

NEW

A
Contactors
CA7

Rugged, space saving and modular...
Sprecher+Schuh's newest contactor for applications up to 60HP

Over 95 years of design experience has produced Sprecher+Schuh's seventh generation contactor line. The CA7 represents the most modern and flexible IEC power contactor available today, fulfilling the highest worldwide requirements.

Big performance in a small package

A wide selection of ten contactors in four frame sizes covers the entire CA7 horsepower range (up to 60HP @ 460/575V). Six of the contactors are only 45mm wide, an extremely small footprint for such rugged performance. A number of design features account for this efficiency, including high contact pressure and "bounce-free" contacts, allowing the devices to handle the high starting currents typical of modern motors.



Type 1 and Type 2 Coordination

Whether you are designing motor circuits for use in North America, Europe or any other part of the world, all CA7 contactors have been designed and tested with respect to Type 1 and Type 2 short circuit coordination. This information can be found in the Technical Information section on page A29.

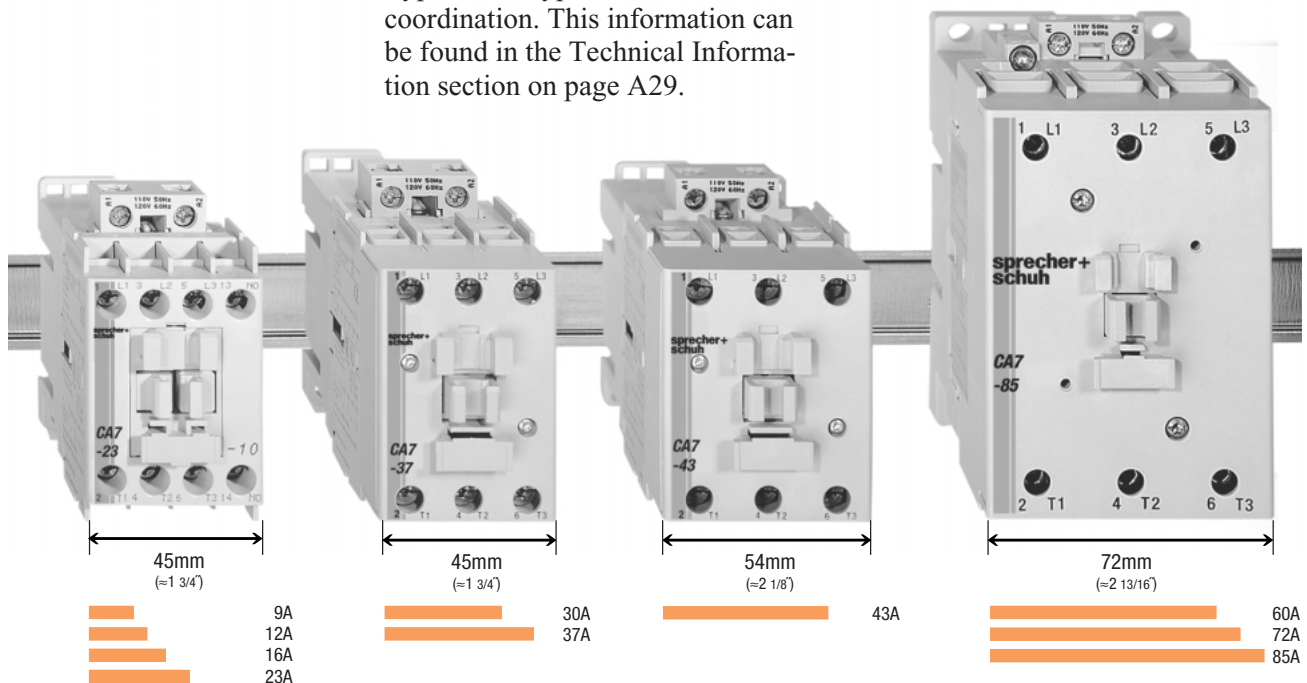
Advanced safety and reliability features

The entire CA7 line features positively guided contacts, such that 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.

Reliability is further assured by "cross-stamped" auxiliary contacts, which provide multi-point reliability in low current, low voltage applications.

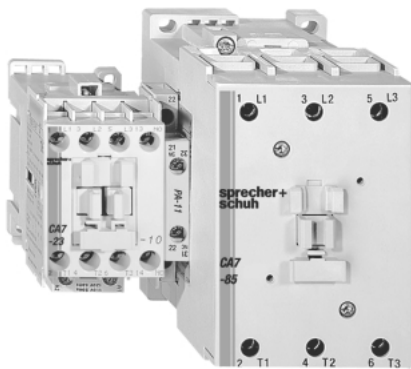
DC coils have reduced wattage requirement

CA7-9C through 43C contactors are available with true two wire coils that have a unique "V-shaped" armature that decreases wattage consumption during pull-in. Larger CA7 contactors utilize a two winding DC coil with built-in coil suppression and an internal contact that bypasses the pull-in coil to the hold-in coil. In addition to reducing wattage requirements, this feature eliminates the need for an add-on auxiliary contact.



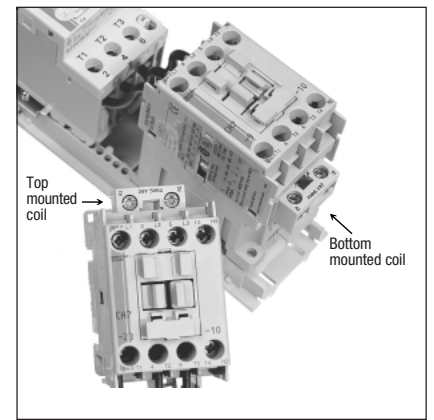
Modular accessories are common to all devices

All accessories are interchangeable among all CA7 contactors and CS7 control relays. This minimizes inventory requirements and maximizes flexibility. Top and side mount auxiliary contacts are available depending on your application. 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.



Reversible coil provides total flexibility

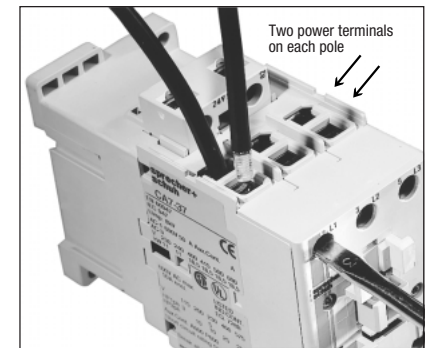
When shipped, both coil connections are normally located at the top of the contactor in preparation for mounting an overload relay at the bottom. For multi-starter panels, however, the coil can be reversed, which provides space to close-couple a KTA3 Motor Circuit Controller on the top of the contactor. CA7 contactors can either be ordered with the coil reversed or may be easily reversed in the field.



Reversible coils are standard on all CA7 contactors

Dual power terminals speed wiring

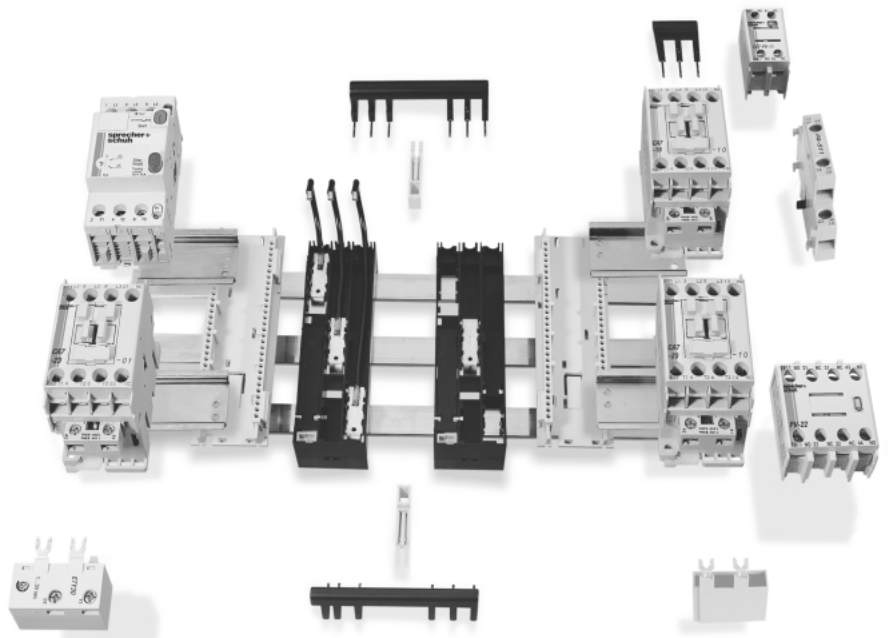
CA7-30 through 85 contactors are designed with two power terminals for all three poles. This simplifies power wiring of interconnected contactors in reversing, reduced voltage and two-speed applications. Preformed power wiring connectors are also available for virtually instantaneous wiring in these labor intensive applications. Simplified wiring means less labor and less cost.



Dual power terminals assure hassle-free wiring in complex control schemes

The Millennium⁷ System - Modular control for today and tomorrow

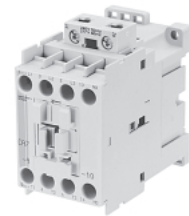
CA7 contactors are at the heart of Sprecher+Schuh's new Millennium⁷ modular control system, a coordinated group of motor control components that are both mechanically and electrically compatible. This integrated "building block" system can be configured to meet your exact specifications without purchasing and stocking various dedicated components and accessories. See the Millennium⁷ catalog (Pub No: M7-2) for more information.



CA7 contactors are at the heart of the new Millennium⁷ Modular Control System which includes CEP7 solid state overload relays, KTA3 Motor Circuit Controllers and the KA2 Bus Bar system

Non-Reversing, Three Pole Contactors With AC Coil, Series CA7 (Open type only)

I_e [A]		Ratings for Switching AC Motors (AC2 / AC3 / AC4)										Auxiliary Contacts per Contactor		Open Type		Price	
		kW (50 Hz)				UL/CSA HP (60 Hz)											Catalog Number
		230V	415V 400V	500V	690V	1 Ø		3 Ø									
AC-3	AC-1	115V	230V	200V	230V	460V	575V	NO	NC								
9	32	3	4	4	4	1/3	1	2	2	5	7 1/2	1	0	CA7-9-10-*	72		
12	32	4	5.5	5.5	5.5	1/2	2	3	3	7 1/2	10	1	0	CA7-12-10-*	92		
16	32	5.5	7.5	7.5	7.5	1	3	5	5	10	15	1	0	CA7-16-10-*	104		
23	32	7.5	11	11	10	2	3	5	7 1/2	15	15	1	0	CA7-23-10-*	116		
30	50	10	15	15	15	2	5	7 1/2	10	20	25	0	0	CA7-30-00-*	131		
												1	0	CA7-30-10-*	143		
												0	1	CA7-30-01-*	143		
37	50	11	18.5	18.5	18.5	3	5	10	10	25	30	0	0	CA7-37-00-*	156		
												1	0	CA7-37-10-*	168		
												0	1	CA7-37-01-*	168		
43	85	13	22	22	22	3	7 1/2	10	15	30	30	0	0	CA7-43-00-*	168		
												1	0	CA7-43-10-*	180		
												0	1	CA7-43-01-*	180		
60	100	18.5	30	30	30	5	10	15	20	40	50	0	0	CA7-60-00-*	204		
												1	0	CA7-60-10-*	215		
												0	1	CA7-60-01-*	215		
72	100	22	37	37	37	5	15	20	25	50	60	0	0	CA7-72-00-*	236		
												1	0	CA7-72-10-*	248		
												0	1	CA7-72-01-*	248		
85	100	25	45	45	45	7 1/2	15	25	30	60	60	0	0	CA7-85-00-*	270		
												1	0	CA7-85-10-*	282		
												0	1	CA7-85-01-*	282		



CA7-9-10-120 contactor



CA7-43-00-120 contactor



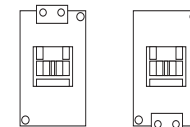
CA7-85-00-120 contactor

Coil Codes ①

A.C. Coil Code	Voltage Range	
	50 Hz	60 Hz
24Z	24V	24V
120	110V	120V
208	~	208V
220W	~	208V-240V
240	220V	240V
277	240V	277V
380	380V-400V	440V
480	440V	480V
600	550V	600V

Coil Terminal Position

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. When the contactor is used with the KTA3 Motor Circuit Controller, the coil must be reversed, so that the coil terminals are located at the load side (bottom) of the contactor. CA7 coils can easily be reversed in the field, however, they are also available for order with the coils reversed from the factory. Contact your Sprecher+Schuh representative for more information about ordering CA7 contactors with reversed coils.



All CA7 contactors come with reversible coils.

Ordering Instructions

- Specify Catalog Number
- Replace (*) With Coil Code

See Coil Code table on this page for codes

① Other voltages available, see page A22. Non-standard coil voltages not listed here must be ordered and installed separately as renewal parts.

Non-Reversing, Four Pole Contactors With AC Coil, Series CA7 (Open type only)

I_e [A]		Ratings for Switching AC Motors (AC2 / AC3 / AC4)										Contact Configuration, Main Pole		Open Type Catalog Number Price	
		kW (50 Hz)				UL/CSA HP (60 Hz)									
		230V	415V 400V	500V	690V	1 Ø		3 Ø							
AC-3	AC-1	115V	230V	200V	230V	460V	575V	NO	NC						
9	32	3	4	4	4	1/3	1	2	2	5	7 1/2	4	0	CA7-9-M40-*	72
												3	1	CA7-9-M31-*	80
												2	2	CA7-9-M22-*	80
12	32	4	5.5	5.5	5.5	1/2	2	3	3	7 1/2	10	4	0	CA7-12-M40-*	92
												3	1	CA7-12-M31-*	100
												2	2	CA7-12-M22-*	100
16	32	5.5	7.5	7.5	7.5	1	3	5	5	10	15	4	0	CA7-16-M40-*	104
												3	1	CA7-16-M31-*	111
												2	2	CA7-16-M22-*	111
23	32	7.5	11	11	11	2	3	5	7 1/2	15	15	4	0	CA7-23-M40-*	116
												3	1	CA7-23-M31-*	124
												2	2	CA7-23-M22-*	124



CA7-23-M22-120 contactor

Coil Codes ❶

A.C. Coil Code	Voltage Range	
	50 Hz	60 Hz
24Z	24V	24V
120	110V	120V
208	~	208V
220W	~	208V-240V
240	220V	240V
277	240V	277V
380	380V-400V	440V
480	440V	480V
600	550V	600V

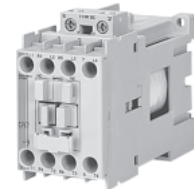
Ordering Instructions

<ul style="list-style-type: none"> Specify Catalog Number Replace (*) With Coil Code 	<p>See Coil Code table on this page for codes</p>
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❶ Other voltages available, see page A22. Non-standard coil voltages not listed here must be ordered and installed separately as renewal parts.

Non-Reversing, Three Pole Contactors With DC Coil, Series CA7 (Open type only)

I _e [A]		Ratings for Switching AC Motors (AC2 / AC3 / AC4)										Auxiliary Contacts per Contactor		Open Type Catalog Number		Price
		kW (50 Hz)				UL/CSA HP (60 Hz)										
		AC-3	AC-1	230V	380V 415V	500V	690V	1 Ø		3 Ø						
400V	115V				230V			200V	230V	460V	575V					
9	32	3	4	4	4	1/3	1	2	2	5	7 1/2	1	0	CA7-9C-10-*	89	
												0	1	CA7-9C-01-*		
12	32	4	5.5	5.5	5.5	1/2	2	3	3	7 1/2	10	1	0	CA7-12C-10-*	115	
												0	1	CA7-12C-01-*		
16	32	5.5	7.5	7.5	7.5	1	3	5	5	10	15	1	0	CA7-16C-10-*	129	
												0	1	CA7-16C-01-*		
23	32	7.5	11	11	10	2	3	5	7 1/2	15	15	1	0	CA7-23C-10-*	145	
												0	1	CA7-23C-01-*		
30	50	10	15	15	15	2	5	7 1/2	10	20	25	0	0	CA7-30C-00-*	169	
												1	0	CA7-30C-10-*		
												0	1	CA7-30C-01-*		
37	50	11	18.5	18.5	18.5	3	5	10	10	25	30	0	0	CA7-37C-00-*	204	
												1	0	CA7-37C-10-*		
												0	1	CA7-37C-01-*		
43	85	13	22	22	22	3	7 1/2	10	15	30	30	0	0	CA7-43C-00-*	238	
												1	0	CA7-43C-10-*		
												0	1	CA7-43C-01-*		
60	100	18.5	30	30	30	5	10	15	20	40	50	0	0	CA7-60D-00-*	273	
												1	0	CA7-60D-10-*		
												0	1	CA7-60D-01-*		
72	100	22	37	37	37	5	15	20	25	50	60	0	0	CA7-72D-00-*	308	
												1	0	CA7-72D-10-*		
												0	1	CA7-72D-01-*		
85	100	25	45	45	45	7 1/2	15	25	30	60	60	0	0	CA7-85D-00-*	343	
												1	0	CA7-85D-10-*		
												0	1	CA7-85D-01-*		



CA7-9C contactor (typical)



CA7-43C-00-120 contactor



CA7-85D-00-120 contactor

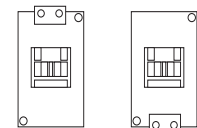
NOTE: DC and AC coils are not interchangeable. CA7-9C...43C contactors have increased dimensions to accommodate DC coils. CA7-60D...85D contactors have a two winding coil with built-in late break auxiliary contact and coil suppression. Refer to page A39 for dimensions.

Coil Codes ①②

CA7-9C...43C	CA7-60D...85D	Voltage
D.C. Coil Code	D.C. Coil Code	
12D	12DD	12V
24D ③	24DD	24V
48D	48DD	48V
110D	110DD	110V
220D	220DD	220V

Coil Terminal Position

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. When the contactor is used with the KTA3 Motor Circuit Controller, the coil must be reversed, so that the coil terminals are located at the load side (bottom) of the contactor. CA7 coils can easily be reversed in the field, however, they are also available for order with the coils reversed from the factory. Contact your Sprecher+Schuh representative for more information about ordering CA7 contactors with reversed coils.



All CA7 contactors come with reversible coils.

Ordering Instructions

- Specify Catalog Number
- Replace (★) With Coil Code

See Coil Code table on this page for codes

- ① Coils for CA7-60D...85D contactors include built-in diode surge suppressor.
- ② Other voltages available, see page A23. *Non-standard coil voltages not listed here must be ordered and installed separately as renewal parts.*
- ③ Diode surge suppressor coil available. Order coil code 24DD and add \$10 to list price.

Non-Reversing, Four Pole Contactors With DC Coil, Series CA7 (Open type only)

I _e [A]		Ratings for Switching AC Motors (AC2 / AC3 / AC4)										Contact Configuration, Main Pole		Open Type	
		kW (50 Hz)				UL/CSA HP (60 Hz)									
		AC-3	AC-1	230V	380V 415V 400V	500V	690V	1 Ø			3 Ø				
9	32							3	4	4	4	1/3	1	2	2
												3	1	CA7-9C-M31-*	97
												2	2	CA7-9C-M22-*	97
12	32	4	5.5	5.5	5.5	1/2	2	3	3	7 1/2	10	4	0	CA7-12C-M40-*	115
												3	1	CA7-12C-M31-*	123
												2	2	CA7-12C-M22-*	123
16	32	5.5	7.5	7.5	7.5	1	3	5	5	10	15	4	0	CA7-16C-M40-*	129
												3	1	CA7-16C-M31-*	137
												2	2	CA7-16C-M22-*	137
23	32	7.5	11	11	10	2	3	5	7 1/2	15	15	4	0	CA7-23C-M40-*	145
												3	1	CA7-23C-M31-*	152
												2	2	CA7-23C-M22-*	152



CA7-9C-M22-110D contactor

NOTE: DC and AC coils are not interchangeable. CA7-9C...43C contactors have increased dimensions to accommodate DC coils. CA7-60D...85D contactors have a two winding coil with built-in late break auxiliary contact and coil suppression. Refer to page A39 for dimensions.

Coil Codes ①

D.C. Coil Codes	Voltage
24D ②	24V
48D	48V
110D	110V
220D	220V

Ordering Instructions

<ul style="list-style-type: none"> Specify Catalog Number Replace (★) With Coil Code 	<p>See Coil Code table on this page for codes</p>
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① Other voltages available, see page A23. Non-standard coil voltages not listed here must be ordered and installed separately as renewal parts.

② Diode surge suppressor coil available. Order coil code 24DD and add \$10 to list price.

Reversing, Three Pole Contactors With AC Coil, Series CAU7 (Open type only)

I _e [A]		Ratings for Switching AC Motors (AC2 / AC3 / AC4)										Auxiliary Contacts per Contactor		Open Type	
		kW (50 Hz)				UL/CSA HP (60 Hz)									
		230V	415V 400V	500V	690V	1 Ø		3 Ø							
AC-3	AC-1	230V	400V	500V	690V	115V	230V	200V	230V	460V	575V	NO	NC ③	Catalog Number	Price
9	32	3	4	4	4	1/3	1	2	2	5	7 1/2	1	1	CAU7-9-22-*	202
12	32	4	5.5	5.5	5.5	1/2	2	3	3	7 1/2	10	1	1	CAU7-12-22-*	242
16	32	5.5	7.5	7.5	7.5	1	3	5	5	10	15	1	1	CAU7-16-22-*	266
23	32	7.5	11	11	10	2	3	5	7 1/2	15	15	1	1	CAU7-23-22-*	290
30	50	10	15	15	15	2	5	7 1/2	10	20	25	0 1 ④	1 1	CAU7-30-02-*	324
												1 ④	1	CAU7-30-22-*	344
37	50	11	18.5	18.5	18.5	3	5	10	10	25	30	0 1 ④	1 1	CAU7-37-02-*	375
												1 ④	1	CAU7-37-22-*	396
43	85	13	22	22	22	3	7 1/2	10	15	30	30	0 1 ④	1 1	CAU7-43-02-*	416
												1 ④	1	CAU7-43-22-*	436
60	100	18.5	30	30	30	5	10	15	20	40	50	0 1 ④	1 1	CAU7-60-02-*	518
												1 ④	1	CAU7-60-22-*	538
72	100	22	37	37	37	5	15	20	25	50	60	0 1 ④	1 1	CAU7-72-02-*	586
												1 ④	1	CAU7-72-22-*	606
85	100	25	45	45	45	7 1/2	15	25	30	60	60	0 1 ④	1 1	CAU7-85-02-*	654
												1 ④	1	CAU7-85-22-*	674

- Includes:**
- Line side coil terminations
 - Mechanical and electrical Interlock ③
 - Reversing power wiring ① (using Power Wiring Kit Cat.# CAU7-PW...)
 - Control wiring available; see footnote ②



CAU7-9-22-120 reversing contactor



CAU7-43-22-120 reversing contactor

Coil Codes ⑤

A.C. Coil Code	Voltage Range	
	50 Hz	60 Hz
24Z	24V	24V
120	110V	120V
208	~	208V
220W	~	208V-240V
240	220V	240V
277	240V	277V
380	380V-400V	440V
480	440V	480V
600	550V	600V

Ordering Instructions

- Specify Catalog Number
- Replace (*) With Coil Code

See Coil Code table on this page for codes

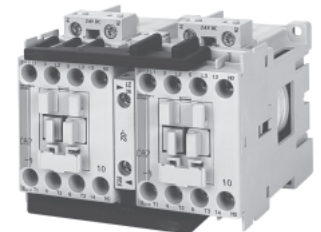
- ① For Reversing Contactors *without* power wiring add suffix “-LW” to catalog number and deduct the following amount:
 CAU7-9...23 deduct \$10
 CAU7-30...37 deduct \$12
 CAU7-43 deduct \$22
 CAU7-60...85 without power wiring not available
 Ex: CAU7-9-22-* becomes CAU7-9-22-*-LW.
- ② For control wiring, add suffix -CW to catalog number and add \$20.
 Example: CAU7-9-22-* becomes CAU7-9-22-*-CW.
- ③ The NC auxiliary contacts are supplied as part of the mechanical interlock (Cat.# CM7-02) and are used to electrically interlock the contactors.
- ④ The NO auxiliary contacts supplied are side mounted. Top mount NO auxiliary contacts must be special ordered. Contact your Sprecher+Schuh representative.
- ⑤ Other voltages available, see page A22. *Nonstandard coil voltages not listed here must be ordered and installed separately as renewal parts.*

Reversing, Three Pole Contactors With DC Coil, Series CAU7 (Open type only)

I _e [A]		Ratings for Switching AC Motors (AC2 / AC3 / AC4)										Auxiliary Contacts per Contactor		Open Type	
		kW (50 Hz)				UL/CSA HP (60 Hz)									
		AC-3	AC-1	230V	380V 415V 400V	500V	690V	1 Ø		3 Ø					
115V	230V							200V	230V	460V	575V	NO	NC ⑤	Catalog Number	Price
9	32	3	4	4	4	1/3	1	2	2	5	7 1/2	1	1	CAU7-9C-22-*	237
12	32	4	5.5	5.5	5.5	1/2	2	3	3	7 1/2	10	1	1	CAU7-12C-22-*	288
16	32	5.5	7.5	7.5	7.5	1	3	5	5	10	15	1	1	CAU7-16C-22-*	318
23	32	7.5	11	11	10	2	3	5	7 1/2	15	15	1	1	CAU7-23C-22-*	348
30	50	10	15	15	15	2	5	7 1/2	10	20	25	0	1	CAU7-30C-02-*	400
												1 ④	1	CAU7-30C-22-*	420
37	50	11	18.5	18.5	18.5	3	5	10	10	25	30	0	1	CAU7-37C-02-*	515
												1 ④	1	CAU7-37C-22-*	535
43	85	13	22	22	22	3	7 1/2	10	15	30	30	0	1	CAU7-43C-02-*	557
												1 ④	1	CAU7-43C-22-*	577
60	100	18.5	30	30	30	5	10	15	20	40	50	0	1	CAU7-60D-02-*	659
												1 ④	1	CAU7-60D-22-*	679
72	100	22	37	37	37	5	15	20	25	50	60	0	1	CAU7-72D-02-*	729
												1 ④	1	CAU7-72D-22-*	749
85	100	25	45	45	45	7 1/2	15	25	30	60	60	0	1	CAU7-85D-02-*	799
												1 ④	1	CAU7-85D-22-*	819

NOTE: DC and AC coils are not interchangeable. CA7-9C...43C contactors have increased dimensions to accommodate DC coils. CA7-60D...85D contactors have a two winding coil with built-in late break auxiliary contact and coil suppression. Refer to page A39 for dimensions.

- Includes:**
- DC operating mechanism
 - Line side coil terminations
 - Mechanical and electrical Interlock ⑤
 - Reversing power wiring ① (using Power Wiring Kit Cat.# CAU7-PW...)
 - Control wiring available; see footnote ②



CAU7-9C-22 reversing contactor



CAU7-43C-02 reversing contactor

Coil Codes ⑤⑥

CAU7-9C...43C	CAU7-60D...85D	Voltage
D.C. Coil Code	D.C. Coil Code	
12D	12DD	12V
24D ⑦	24DD	24V
48D	48DD	48V
110D	110DD	110V
220D	220DD	220V

Ordering Instructions


















- Specify Catalog Number
 - Replace (*) With Coil Code
- See Coil Code table on this page for codes

- ① For Reversing Contactors *without* power wiring add suffix “-LW” to catalog number and deduct the following amount:
 CAU7-9C...23C deduct \$10
 CAU7-30C...37C deduct \$12
 CAU7-43C deduct \$22
 CAU7-60D...85D without power wiring not available
 Ex: CAU7-9-22-* becomes CAU7-9-22-*-LW.
- ② For control wiring, add suffix -CW to catalog number and add \$20.
 Example: CAU7-9-22-* becomes CAU7-9-22-*-CW.
- ③ The NC auxiliary contacts are supplied as part of the mechanical interlock (Cat.# CM7-02) and are used to electrically interlock the contactors.
- ④ The NO auxiliary contacts supplied are side mounted. Top mount NO auxiliary contacts must be special ordered. Contact your Sprecher+Schuh representative.
- ⑤ Other voltages available, see page A23. *Nonstandard coil voltages not listed here must be ordered and installed separately as renewal parts.*
- ⑥ Coils for CAU7-60D...85D reversing contactors include built-in diode surge suppressor.
- ⑦ Diode surge suppressor coil available. Order coil code 24DD and add \$10.

Top Mount Auxiliary Contact Blocks (2 & 4 Pole) ①



Contactors

CA7

Contact Block	Description	NO	NC	Contact Arrangement	For use with...	Catalog Number	Price
 <p>Top mount auxiliary contact blocks snap-on to the top (front) of any CA7 contactor</p>	<p>Auxiliary Contact Blocks for Top Mounting – ①</p> <ul style="list-style-type: none"> • 2 and 4 pole • Snap-on design - mounts without tools • Electronic compatible contacts down to 17V, 5mA • Mutual positive guidance to the main contactor poles (excluding L-types) • Several terminal numbering choices even for models with equal function • Late break / early make (L) available 	0	2		CA7 all	CS7-PV-02	16
					CA7-30...85-✱-00	CA7-PV-02	16
		1	1		CA7 all	CS7-PV-11	16
					CA7-30...85-✱-00	CA7-PV-11	16
					CA7-9...23-✱-10 CA7-9...23-✱-01	CA7-PV-S11	16
		2	0		CA7 all	CS7-PV-20	16
					CA7-30...85-✱-00	CA7-PV-20	16
		1L	1L		CA7-30...85-✱-00	CA7-PV-L11	22
		2	2		CA7 all	CS7-PV-22	32
					CA7-30...85-✱-00	CA7-PV-22	32
	CA7-9...23-✱-10 CA7-9...23-✱-01			CA7-PV-S22	32		
3	1		CA7 all	CS7-PV-31	32		
			CA7-9...23-✱-01	CA7-PV-S31	32		
4	0		CA7 all	CS7-PV-40	32		
0	4		CA7 all	CS7-PV-04	32		
1+1L	1+1L		CA7 all	CS7-PV-L22	38		





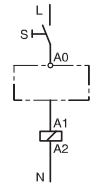


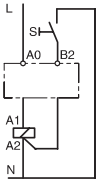

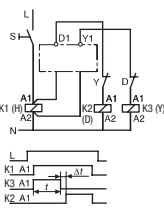



① Up to three auxiliary contact blocks (total of 8-poles) may be mounted on the CA7 contactor. One top mount (max. 4-poles) and one side mount (max. 2-poles) on each side.

Side Mount Auxiliary Contact Blocks (1 & 2 Pole) ❶


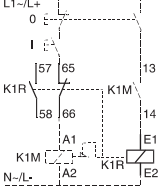
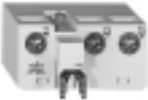
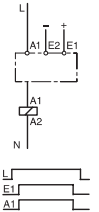

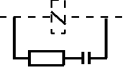
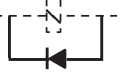
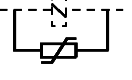
Contact Block	Description	NO	NC	Contact Arrangement	For use with...	Catalog Number	Price
 1-pole (typical)	<p>Auxiliary Contact Blocks for Side Mounting – ❶</p> <ul style="list-style-type: none"> • 1 and 2-pole • Two way numbering for right or left mounting on the contactor • Snap-on design - mounts without tools • Electronic compatible contacts down to 17V, 5mA • Late break / early make (L) available • Mutual positive guidance to the main contactor poles (excluding L-types) 	0	1		CA7 all	CA7-PA-01	10
		1	0		CA7 all ❷	CA7-PA-10	10
		0	2		CA7 all	CA7-PA-02	16
 2-pole (typical)		1	1		CA7 all ❷	CA7-PA-11	16
		2	0		CA7 all ❷	CA7-PA-20	16
		L1	L1		CA7 all	CA7-PA-L11	22

❶ Up to three auxiliary contact blocks (total of 8-poles) may be mounted on the CA7 contactor. One top mount (max. 4-poles) and one side mount (max. 2-poles) on each side.
 ❷ Left mounting only is recommended when using with CA7-9...CA7-23 contactors. These contactors have built-in auxiliaries, which will result in duplicate terminal markings if mounted on the right.

Control Modules

Module	Description	For use with...	Connection Diagrams	Function	Catalog Number	Price
	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. <ul style="list-style-type: none"> • Continuous adjustment range 	CA7 all		ON-Delay 0.3...30s 1.8...180s	CZE7-30 CZE7-180	96
		CA7 all		OFF-Delay 0.3...30s 1.8...180s	CZA7-30 CZA7-180	96
	Electronic Timing Module – ON-Delay The contactor is energized at the end of the delay time.	CA7 all		110...240V 50/60Hz 110...250VDC 0.1...3s 1...30s 10...180s	CRZE7-3-110/240 CRZE7-30-110/240 CRZE7-180-110/240	60
				24...48VDC 0.1...3s 1...30s 10...180s	CRZE7-3-24/48VDC CRZE7-30-24/48VDC CRZE7-180-24/48VDC	60
	Electronic Timing Module – OFF-Delay After interruption of the control signal, the contactor is de-energized at the end of the delay time.	CA7 all		110...240V 50/60Hz 0.3...3s 1...30s 10...180s	CRZA7-3 CRZA7-30 CRZA7-180	68
	Electronic Timing Module – Wye-Delta Transition Timer Contactor K3 (Y) is de-energized and contactor K2 (D) is energized after the end of the set transition time. Switching delay at 90ms. <ul style="list-style-type: none"> • Continuous adjustment range • High repeat accuracy 	CA7 all		110...240V 50/60Hz 1...30s	CRZY7-30	68
	Mechanical/Electrical Interlocks – <ul style="list-style-type: none"> • Common to all CA7 contactors; interlocks different contactor sizes • Mechanical and electrical interlocking possible in one module by means of integrated auxiliary contacts • Dovetail connector included (9mm) 	CA7 all		Mechanical Without auxiliaries	CM7	20
				Mechanical/Electrical Two NC aux contacts	CM7-02	24

Control Modules (continued)

Module	Description	For use with...	Connection Diagrams	Function	Catalog Number	Price
	<p>Mechanical Latch – Following contactor latching, the contactor coil is immediately de-energized by the NC auxiliary contact (65-66).</p> <ul style="list-style-type: none"> • Electrical or manual release • 1 NO + 1 NC auxiliary switch • Suitable for all CA7 contactors 	CA7 all			CV7-11-* Replace * with coil code below	56
	<p>Electronic Interface – Interface between the DC control signal from a PLC and the AC operating mechanism of the contactor.</p> <ul style="list-style-type: none"> • Requires no additional surge suppression for the coils • Suitable for all CA7 contactors 	CA7 all		<p>Control signal: 18...30VDC (24VDC nominal)</p> <p>For coil voltages of: 110...240VAC 24...48VDC</p>	CR17E	44
	<p>Surge Suppressors - Limits coil switching transients.</p> <ul style="list-style-type: none"> • Plug-in, coil mounted • Suitable for all CA7 contactors 	CA7 all		<p>RC Module - AC Control (50/60Hz)</p> <p>24...48V 110...280V 380...480V</p>	CR7-48 CR7-280 CR7-480	20
				<p>Diode Module - DC Control</p> <p>12-250VDC</p>	CRD7-250	20
				<p>Varistor Module - AC/DC Control</p> <p>12...55VAC/ 12...77VDC 56...136VAC/ 78...180VDC 137...277VAC/ 181...350VDC 278...575VAC</p>	CRV7-55 CRV7-136 CRV7-277 CRV7-575	13

CV7 Mechanical Latch Coil Codes ①②

Coil Code	Voltage Range		
	50 Hz	60 Hz	VDC
12A	12V	~	12V
12B	~	12V	~
24A	24V	~	~
24B	~	24V	~
36A	~	~	24V
48A	~	~	36V & 48V
110	~	~	60V
120	110V	120V	~
127	~	~	110V







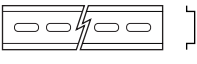
Coil Code	Voltage Range		
	50 Hz	60 Hz	VDC
208	~	208V	~
220	~	~	125V
220W	~	208V-240V	~
240	220V	240V	~
277	240V	277V	~
380	380V-400V	440V	~
380B	~	~	220V
480	440V	480V	~
600	550V	600V	~

NOTE: For DC supply, the CV7 utilizes an AC coil. Coils for CV7 are not interchangeable with contactor coils. If latch coil fails, order replacement CV7 latch.




① Other voltages available. Contact your Sprecher + Schuh representative.

② CV7 must be wired for momentary operation only.

Assembly Components

Component	Description	For Use With...	Pkg. Qty.	Catalog Number	Price Each
	Dovetail Connectors – Connects multiple contactor and starter assemblies together.	CA7 all	10 ①	CA7-S9	1
	Reversing Power Wiring Kit - Provides a solid “wireless” connection for reversing applications. May be used with both solid state and thermal O/L relays.	CA7-9...12	1	CAUT7-PW23	10
		CA7-30...37	1	CAUT7-PW37	12
		CA7-43	1	CAUT7-PW43	22
		CA7-60...85	1	CAUT7-PW85	56
	Wye-Delta Power Wiring Kit - Provides a solid “wireless” connection for wye-delta applications. May be used with both solid state and thermal O/L relays.	CA7-9...12	1	CAYT7-PW23	13
		CA7-30...37	1	CAYT7-PW37	16
		CA7-43	1	CAYT7-PW43	26
		CA7-60...85	1	CAYT7-PW85	63
	Connecting Module - Provides a solid “wireless” connection between a CA7 contactor and a KTA3 Motor Circuit Controller.	KTA3-25 with CA7-9...23	1	KT3-NW23	12
	Protective Covers - Protects against unintended manual operation of contactors, front mounted auxiliary contacts, pneumatic timers and latches.	CA7-9...85	10 ①	CA7-SCC	2
		CS7-PV, CA7-PV, CZE7, CZA7, CV7	1	CA7-SCF	1
	Device Support - For mounting one KTA3 Motor Circuit Controller and one CA7-9...30 contactor. Device Support is DIN-rail mounted or base mounted with three screws.	CA7-9...30		See Section G	
	DIN-Rail - Top Hat (2 types) and G-rail - 2 meter lengths	CA7 all		See Section G	




Marking Systems

Component	Description	Pkg. Qty.	Catalog Number	Price Each
	Label Sheet – 1 sheet with 105 self-adhesive paper labels each, 6 x 17mm	1	CA7-FMS	1
	Marking Tag Sheet - 1 sheet with 160 perforated paper labels each, 6 x 17mm. To be used with transparent cover.	1	CA7-FMP	1
	Transparent Cover - To be used with Marking Tag Sheets.	100 ②	CA7-FMC	.10
	Tag Carrier - For marking with Clip-on Tags. See Terminals Section for complete listing of Clip-on Tags.	100 ②	CA7-FMA1	.10





① Minimum order quantity is one package of 10.
Price each x 10 = total price.

② Minimum order quantity is one package of 100.
Price each x 100 = total price.

M1 Enclosures ❶

Enclosure	Description	For Use With...	Catalog Number	Price
	Sheet metal enclosure (“A” box) - ❶ - Includes installed Reset Kit	CA(T)7-9...37	M1-100645/3 ❶	30
	Sheet metal enclosure (“B” box) - ❶ - Includes Reset Kit - Includes special offset attachment for resetting CEP7 solid state overload relays (only necessary with CAT7-60...85 starters) ❷	CA(T)7-60...85 <i>Backpan not used</i> CA(T)7-43 CAU(T)7-9...43 CA(T)7-9...43 w/ CPT <i>Backpan required</i>	M1-130706-7 ❶❷	62
	“B box” enclosure backpan <i>Required when mounting all contactor/starter configurations noted here.</i>	CA(T)7-43 CAU(T)7-9...43 CA(T)7-9...43 w/ CPT	TI-2.11.1	10

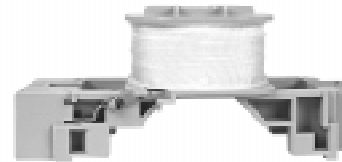
M1 Enclosure Pilot Device Kits

Enclosure	Description	For Use With M1 Enclosure...	Catalog Number	Price
	START-STOP pushbutton assembly - includes mounting bracket and wiring	M1-100645/3 M1-130706-7	SS3-NA ❸ SS3-NB ❹	40
	HAND-OFF-AUTO selector switch assembly - includes mounting bracket and wiring	M1-100645/3 M1-130706-7	SS2-NA ❸ SS2-NB ❹	40
	ON-OFF selector switch assembly - with mounting bracket and wiring	M1-100645/3 M1-130706-7	SS4-NA ❸ SS4-NB ❹	40
	Pilot light (neon type) assembly - includes mounting bracket, wiring and resistors for all standard voltages between 115V and 575V	M1-100645/3 M1-130706-7	PL-NA ❸ PL-NB ❹	75

- ❶ Not designed for use with CT7 thermal overload relays or CA7-9C...CA7-43C contactors (with DC coils).
- ❷ Special offset attachment (Cat.# TI-12-18) may be purchased separately. List price \$2.
- ❸ Pilot device kit also for use with all enclosed contactors or starters listed in this catalog with enclosure dimension “A”.
- ❹ Pilot device kit also for use with all enclosed contactors or starters listed in this catalog with enclosure dimension “B”.

Renewal Coils - A.C. ①②

A.C. Control Voltages			A.C. Coil ↓ Codes ↓ ②	For use with contactor...			
50 Hz	60 Hz	50/60 Hz		CA7-9...16 Cat. No.	CA7-23...37 Cat. No.	CA7-43 Cat. No.	CA7-60...85 Cat. No.
	12V		12B	TA006	TC006	TD006	TE006
12V			12A	TA404	TC404	TD404	TE404
	24V		24B	TA013	TC013	TD013	TE013
24V			24A	TA407	TC407	TD407	TE407
		24V	24Z	TA855	TC855	TD855	TE855
32V	36V		36	TA481	TC481	TD481	TE481
36V			36A	TA410	TC410	TD410	TE410
42V	48V		48	TA482	TC482	TD482	TE482
48V			48A	TA414	TC414	TD414	TE414
		48V	48Z	TA860	TC860	TD860	TE860
100V	100...110V		110	TA861	TC861	TD861	TE861
110V	120V		120	TA473	TC473	TD473	TE473
		110V	110Z	TA856	TC856	TD856	TE856
120V			120A	TA425	TC425	TD425	TE425
127V			127	TA428	TC428	TD428	TE428
200V	200...220V	200V	220	TA862	TC862	TD862	TE862
	208V		208	TA049	TC049	TD049	TE049
	208V...240V		220W	TA296	TC296	TD296	TE296
220V	240V		240	TA474	TC474	TD474	TE474
220V...230V			230A	TA441	TC441	TD441	TE441
		230V	230Z	TA851	TC851	TD851	TE851
230V...240V			240A	TA440	TC440	TD440	TE440
240V	277V		277	TA480	TC480	TD480	TE480
		240V	240Z	TA858	TC858	TD858	TE858
	347V		347	TA065	TC065	TD065	TE065
	380V		380B	TA067	TC067	TD067	TE067
380V...400V	440V		380	TA071	TC071	TD071	TE071
		400V	400Z	TA863	TC863	TD863	TE863
400V...415V			415	TA457	TC457	TD457	TE457
440V	480V		480	TA475	TC475	TD475	TE475
		440V	440Z	TA859	TC859	TD859	TE859
500V			500	TA479	TC479	TD479	TE479
550V	600V		600	TA476	TC476	TD476	TE476
Price				36	52	62	72



CA7 A.C. coil (typical) - side view



top view

① Other coil voltages available. Contact your Sprecher + Schuh representative for information.

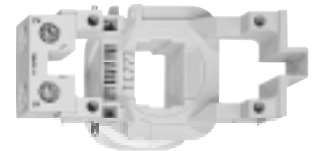
② A.C. Codes in large, bold letters indicate coils that are standard stocked items.

Renewal Coils - D.C. ①②⑤

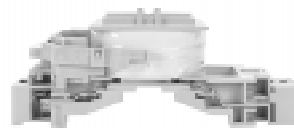
D.C. Control Voltages	D.C. Coil Codes ↓	For use with contactor...			
		CA7-9C...16C Cat. No.	CA7-23C...37C Cat. No.	CA7-43C Cat. No.	CA7-60D...85D Cat. No.
VDC	Ⓜ				
9V Ⓜ	9D	TA766	TC766	TD766	~
9V Diode Ⓜ	9DD	~	~	~	TE766M
12V	12D	TA708	TC708	TD708	~
12V Diode	12DD	~	~	~	TE708M
24V Ⓜ	24D	TA714	TC714	TD714	~
24V Diode Ⓜ	24DD	TA714M	TC714M	TD714M	TE714M
36V	36D	TA719	TC719	TD719	~
36V Diode	36DD	~	~	~	TE719M
48V	48D	TA724	TC724	TD724	~
48V Diode	48DD	~	~	~	TE724M
60V	60D	TA774	TC774	TD774	~
60V Diode	60DD	~	~	~	TE774M
64V	64D	TA727	TC727	TD727	~
64V Diode	64DD	~	~	~	TE727
72V	72D	TA728	TC728	TD728	~
72V Diode	72DD	~	~	~	TE728M
80V	80D	TA729	TC729	TD729	~
80V Diode	80DD	~	~	~	TE729M
110V	110D	TA733	TC733	TD733	~
110V Diode	110DD	~	~	~	TE733M
115V	115D	TA734	TC734	TD734	~
115V Diode	115DD	~	~	~	TE734M
125V	125D	TA737	TC737	TD737	~
125V Diode	125DD	~	~	~	TE737M
220V	220D	TA747	TC747	TD747	~
220V Diode	220DD	~	~	~	TE747M
230V	230D	TA749	TC749	TD749	~
230V Suppres.	230DS	~	~	~	TE749F
250V	250D	TA751	TC751	TD751	~
250V Suppres.	250DS	~	~	~	TE751F
Price		55	55	76	96



D.C. coil for CA7-9C...43C contactors (typical) - side view



top view



D.C. coil for CA7-60D...85D contactors (typical) - side view ⑤



top view

- ① Other coil voltages available. Contact your Sprecher + Schuh representative for information.
- ② D.C. Codes in large, bold letters indicate coils that are standard stocked items.
- ③ Voltage operating range: $0.65 \dots 1.3 \times U_N$.
- ④ Voltage operating range: $0.7 \dots 1.25 \times U_N$.
- ⑤ CA7-60D...85D contactors have a two winding coil with built-in late break auxiliary contact and coil suppression.

Electrical Data

		CA7-9	CA7-12	CA7-16	CA7-23	CA7-30	CA7-37	CA7-43	CA7-60	CA7-72	CA7-85	
Rated Insulation Voltage U_i	IEC, AS, BS, SEV, VDE 0660						690V					
	UL; CSA						600V					
Rated Impulse Voltage U_{imp}	[kV]						8 kV					
Rated Voltage U_e – Main Contacts	AC 50/60Hz			115, 200, 208, 230, 240, 380, 400, 415, 460, 500, 575, 690V								
	DC			24, 48, 110, 115, 220, 230, 300, 440V								
	Operating Frequency for AC Loads	[Hz]	50...60Hz									

Switching Motor Loads

Standard IEC Ratings

AC-2, AC-3, AC-4	230V	[A]	11.5	14.5	20	26.5	34	37	42	62	72	85
DOL & Reversing	240V	[A]	11	14	19	25.5	32.5	36	41	60	70	82
50Hz/60° C	380V	[A]	9	12	16	23	30	37	43	62	72	85
	400V	[A]	9	12	16	23	30	37	43	62	72	85
	415V	[A]	9	12	15	22	29	36	41	58	69	82
	500V	[A]	7	10	13	18	24	30	34	50	56	68
	690V	[A]	5	7	9.3	12	17	20	25	34	42	49
	230V	[kW]	3	4	5.5	7.5	10	11	13	18.5	22	25
	240V	[kW]	3	4	5.5	7.5	10	11	13	18.5	22	25
	380V	[kW]	4	5.5	7.5	11	15	18.5	22	30	37	45
	400V	[kW]	4	5.5	7.5	11	15	18.5	22	30	37	45
	415V	[kW]	4	5.5	7.5	11	15	18.5	22	30	37	45
	500V	[kW]	4	5.5	7.5	11	15	18.5	22	30	37	45
	690V	[kW]	4	5.5	7.5	11	15	18.5	22	30	37	45

UL/CSA

DOL & Reversing	1Ø	115 V	[HP]	1/3	0.5	1	2	2	3	3	5	5	7-1/2
		230 V	[HP]	1	2	3	3	5	5	7-1/2	10	15	15
	3Ø	200 V	[HP]	2	3	5	7	7-1/2	10	10	15	20	25
		230 V	[HP]	2	3	5	7-1/2	10	10	15	20	25	30
		460 V	[HP]	5	7-1/2	10	15	20	25	30	40	50	60
		575 V	[HP]	7-1/2	10	15	15	25	30	30	50	60	60
Maximum Operating Rate	AC2	[ops/hr]	500	500	500	400	400	400	400	300	250	200	
	AC3	[ops/hr]	700	700	700	600	600	600	600	500	500	500	
	AC4	[ops/hr]	200	150	120	80	80	70	70	70	60	50	

Electrical Data

			CA7-9	CA7-12	CA7-16	CA7-23	CA7-30	CA7-37	CA7-43	CA7-60	CA7-72	CA7-85		
Switching Motor Loads <i>(continued)</i>														
AC4 (200,000 Op. Cycles)	50Hz	230V [A]	5.5	7	10	12	15	17	19	28	34	41		
		240V [A]	5.5	7	10	12	15	17	19	28	34	41		
		380V [A]	4.3	6.6	9	10.2	12.2	14.1	16.1	25.5	31	38		
		400V [A]	4.3	6.6	9	10.2	12.2	14.1	16.6	25.5	31.1	38		
		415V [A]	4.3	6.6	9	10.2	12.2	14.1	16.6	25.5	31.1	38		
		230V [kW]	1.6	2	2.8	3.7	4.6	5.2	6.1	8.6	11	13.6		
	240V [kW]	1.5	1.9	2.7	3.5	4.4	5	5.8	8.2	10.5	13			
	380V [kW]	2	3	4	5	6	7	8.5	12.5	16	20			
	400V [kW]	2	3	4	5	6	7	8.5	12.5	16	20			
	415V [kW]	1.9	2.9	3.9	4.8	5.8	6.7	8.2	12	15.4	19.3			
	60Hz	1∅	115 V [HP]	1/6	1/4	1/3	1/2	1/2	3/4	1	2	2	3	
			230 V [HP]	1/2	3/4	1	1-1/2	2	2	3	5	5	7-1/2	
		3∅	200 V [HP]	3/4	1	2	2	3	3	3	7-1/2	7-1/2	10	
			230 V [HP]	1	1-1/2	2	3	3	3	5	7-1/2	10	10	
			460 V [HP]	2	3	5	5	7-1/2	10	10	15	20	25	
575 V [HP]			2	3	5	5	7-1/2	10	10	15	20	25		
Max. Operating Rate		[ops/hour]	400	300	240	160	160	140	140	140	120	110		
Wye-Delta (Star Delta)	50 Hz	230V [kW]	5.5	7.5	10	14	18	19	23	33	39	47		
		240V [kW]	5.5	7.5	10	14	18	20	23	34	39	47		
		380V [kW]	8	11	14	21	28	35	40	58	69	82		
		400V [kW]	8	11	14	21	28	35	40	58	69	82		
		415V [kW]	8	11	14	21	28	35	40	58	69	82		
		500V [kW]	8	11	15	21	28	35	40	60	67	82		
	60 Hz	200V [HP]	5	5	7-1/2	7-1/2	10	15	20	30	40	50		
		230V [HP]	5	7-1/2	10	10	15	20	25	40	50	60		
		460V [HP]	10	15	20	25	30	40	50	75	100	125		
		575V [HP]	10	15	20	25	30	40	50	75	100	125		
		CSA Elevator Duty		Max FLC [A]	8.0	11.0	16.0	21.0	27.0	31.0	37.0	43.0	54.0	62.0
		(Pending)	200V [A]	7.8	11.0	11.0	17.5	25.3	25.3	32.2	32.2	48.3	62.1	
230V [A]	6.8		9.6	15.2	15.2	22.0	28.0	28.0	42.0	54.0	68.0			
460V [A]	7.6		11.0	14.0	21.0	27.0	27.0	34.0	40.0	52.0	65.0			
575V [A]	6.1		9.0	11.0	17.0	22.0	27.0	32.0	41.0	52.0	62.0			
200V [HP]	2		3	3	5	7-1/2	7-1/2	10	10	15	20			
230V [HP]	2		2	5	5	7-1/2	10	10	15	20	25			
460V [HP]	5		7-1/2	10	15	20	20	25	30	40	50			
575V [HP]	5		7-1/2	10	15	20	25	30	40	50	60			

Electrical Data

Contactors

CA7

			CA7-9	CA7-12	CA7-16	CA7-23	CA7-30	CA7-37	CA7-43	CA7-60	CA7-72	CA7-85	
AC-1 Load, 3Ø Switching	I_{th}	[A]	32	32	32	32	50	50	85	100	100	100	
	Ambient Temperature 40°C	230V	[kW]	13	13	13	13	20	20	34	40	40	40
		240V	[kW]	13	13	13	13	21	21	35	42	42	42
		380V	[kW]	22	22	22	22	35	35	59	69	69	69
		400V	[kW]	22	22	22	22	35	35	59	69	69	69
		415V	[kW]	23	23	23	23	36	36	61	72	72	72
		500V	[kW]	28	28	28	28	43	43	74	82	87	87
		690V	[kW]	38	38	38	38	60	60	102	120	120	120
	I_{th}	[A]	32	32	32	32	45	45	63	100	100	100	
	Ambient Temperature 60°C	230V	[kW]	13	13	13	13	18	18	25	40	40	40
		240V	[kW]	13	13	13	13	19	19	26	42	42	42
		380V	[kW]	22	22	22	22	31	31	44	69	69	69
		400V	[kW]	22	22	22	22	31	31	44	69	69	69
		415V	[kW]	23	23	23	23	32	32	45	72	72	72
500V		[kW]	28	28	28	28	39	39	55	87	87	87	
690V		[kW]	38	38	38	38	54	54	75	120	120	120	
Max Operating Rate	[ops/hour]	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	800	800	600	
Continuous Current (UL/CSA)													
General Purpose Rating (40°C)	Open	[A]	25	25	30	30	45	50	63	90	90	100	
	Enclosed	[A]	25	25	30	30	45	50	63	90	90	100	
Max. Operating Rate	[ops/hour]	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	800	800	600	
Lighting Loads													
Elec. Dischrg. Lamps-AC-5a, single compensated	Open	[A]	29	29	29	29	45	45	77	90	90	90	
	Enclosed	[A]	29	29	29	29	41	41	57	90	90	90	
Max. capacitance at prospective short circuit current available at the contactor.	10kA	[µF]	1,000	1,000	1,000	1,000	2,700	2,700	3,200	4,000	4,000	4,700	
	20kA	[µF]	500	500	500	500	1,350	1,350	1,600	2,000	2,000	2,350	
	50kA	[µF]	200	200	200	200	540	540	640	800	800	940	
Incandescent Lamps - AC-5b, Electrical endurance ~100,000 operations			[A]	22	22	22	22	40	40	46	82	82	82
Switching power transformers AC-6a													
50Hz													
Inrush	= n												
Rated transformer current	[A]	15.4	15.4	15.4	15.4	28.3	28.3	32.5	57.7	57.7	57.7		
n = 30	230 VAC	[kVA]	6.1	6.1	6.1	6.1	11.3	11.0	13.0	23	23	23	
	240 VAC	[kVA]	6.4	6.4	6.4	6.4	11.8	12.0	14.0	24	24	24	
	380 VAC	[kVA]	10.1	10.1	10.1	10.0	19	19	21	38	38	38	
	400 VAC	[kVA]	10.6	10.6	10.6	11.0	20	20	23	40	40	40	
	415 VAC	[kVA]	11.0	11.0	11.0	11.0	20	20	23	42	42	42	
	500 VAC	[kVA]	13.3	13.3	13.3	13.0	24	24	28	50	50	50	
	690 VAC	[kVA]	18.4	18	18	18	34	34	39	69	69	69	
n = 20	[A]	23.1	23.1	23.1	23.1	42.4	42.4	48.8	86.6	86.6	86.6		
	230 VAC	[kVA]	9.2	9.2	9.2	9.2	16.9	16.9	19.4	34.5	34.5	34.5	
	240 VAC	[kVA]	9.6	9.6	9.6	9.6	17.6	17.6	20.3	36	36	36	
	380 VAC	[kVA]	15.2	15.2	15.2	15.2	27.9	27.9	32.1	57	57	57	
	400 VAC	[kVA]	16	16	16	16	29.4	29.4	33.8	60	60	60	
	415 VAC	[kVA]	16.6	16.6	16.6	16.6	30.5	30.5	35.1	62.3	62.3	62.3	
	500 VAC	[kVA]	20	20	20	20	36.7	36.7	42.3	75	75	75	
690 VAC	[kVA]	27.5	27.5	27.5	27.5	50.7	50.7	58.3	103.5	103.5	103.5		
n = 15	[A]	30.7	30.7	30.7	30.7	45	45	63	100	100	100		
	230 VAC	[kVA]	12.2	12.2	12.2	12.2	17.9	17.9	25.1	39.8	39.8	39.8	
	240 VAC	[kVA]	12.8	12.8	12.8	12.8	18.7	18.7	26.2	41.6	41.6	41.6	
	380 VAC	[kVA]	20.2	20.2	20.2	20.2	29.6	29.6	41.5	65.8	65.8	65.8	
	400 VAC	[kVA]	21.3	21.3	21.3	21.3	31.2	31.2	43.6	69.3	69.3	69.3	
	415 VAC	[kVA]	22.1	22.1	22.1	22.1	32.3	32.3	45.3	71.9	71.9	71.9	
	500 VAC	[kVA]	26.6	26.6	26.6	26.6	39	39	54.6	86.6	86.6	86.6	
690 VAC	[kVA]	36.7	36.7	36.7	36.7	53.8	53.8	75.3	119.5	119.5	119.5		

Electrical Data

			CA7-9	CA7-12	CA7-16	CA7-23	CA7-30	CA7-37	CA7-43	CA7-60	CA7-72	CA7-85
Switching power transformers AC-6a												
60Hz												
Inrush			= n									
Rated transformer current												
n = 30	200 VAC	[A]	15.4	15.4	15.4	15.4	28.3	28.3	32.5	57.7	57.7	57.7
		[kVA]	5.3	5.3	5.3	5.3	9.8	9.8	11.3	20	20	20
	208 VAC	[kVA]	5.5	5.5	5.5	5.5	10.2	10.2	11.7	20.8	20.8	20.8
	240 VAC	[kVA]	6.4	6.4	6.4	6.4	11.8	11.8	13.5	24	24	24
	480 VAC	[kVA]	12.8	12.8	12.8	12.8	23.5	23.5	27	48	48	48
	600 VAC	[kVA]	16	16	16	16	29.4	29.4	33.8	60	60	60
	660 VAC	[kVA]	17.6	17.6	17.6	17.6	32.3	32.3	37.2	66	66	66
n = 20		[A]	23.1	23.1	23.1	23.1	42.4	42.4	48.8	86.6	86.6	86.6
	200 VAC	[kVA]	8	8	8	8	14.7	14.7	16.9	30	30	30
	208 VAC	[kVA]	8.3	8.3	8.3	8.3	15.3	15.3	17.6	31.2	31.2	31.2
	240 VAC	[kVA]	9.6	9.6	9.6	9.6	17.6	17.6	20.3	36	36	36
	480 VAC	[kVA]	19.2	19.2	19.2	19.2	35.3	35.3	40.6	72	72	72
	600 VAC	[kVA]	24	24	24	24	44.1	44.1	50.7	90	90	90
	660 VAC	[kVA]	26.4	26.4	26.4	26.4	48.5	48.5	55.8	99	99	99
n = 15		[A]	30.7	30.7	30.7	30.7	45	45	63	100	100	100
	200 VAC	[kVA]	10.6	10.6	10.6	10.6	15.6	15.6	21.8	34.6	34.6	34.6
	208 VAC	[kVA]	11.1	11.1	11.1	11.1	16.2	16.2	22.7	36	36	36
	240 VAC	[kVA]	12.8	12.8	12.8	12.8	18.7	18.7	26.2	41.6	41.6	41.6
	480 VAC	[kVA]	25.6	25.6	25.6	25.6	37.4	37.4	52.4	83.1	83.1	83.1
	600 VAC	[kVA]	31.9	31.9	31.9	31.9	46.8	46.8	65.5	103.9	103.9	103.9
	660 VAC	[kVA]	35.1	35.1	35.1	35.1	51.4	51.4	72	114.3	114.3	114.3
DC-1 Switching - 60°C												
1 Pole	24VDC	[A]	32	32	32	32	45	45	50	70	80	80
	48VDC	[A]	20	20	20	20	25	25	30	40	40	40
	60VDC	[A]	20	20	20	20	25	25	30	40	40	40
	110VDC	[A]	8	8	8	8	10	10	10	11	11	11
	220VDC	[A]	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8	1.8
	440VDC	[A]	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
2 Poles in Series	24VDC	[A]	32	32	32	32	45	45	50	70	80	80
	48VDC	[A]	32	32	32	32	45	45	50	70	80	80
	60VDC	[A]	32	32	32	32	45	45	50	70	80	80
	110VDC	[A]	32	32	32	32	45	45	50	70	80	80
	220VDC	[A]	8	8	8	10	10	10	10	15	15	15
	440VDC	[A]	1	1	1	1	1	1	1	1.5	1.5	1.5
3 Poles in Series	24VDC	[A]	32	32	32	32	45	45	63	100	100	100
	48VDC	[A]	32	32	32	32	45	45	63	100	100	100
	60VDC	[A]	32	32	32	32	45	45	63	100	100	100
	110VDC	[A]	32	32	32	32	45	45	63	100	100	100
	220VDC	[A]	32	32	32	32	45	45	50	70	80	80
	440VDC	[A]	3	3	3	3	3.5	3.5	4	5	5	5
DC-2, 3, 5 Switching - 60°C												
3 Poles in Series	24VDC	[A]	32	32	32	32	45	45	63	100	100	100
	48VDC	[A]	32	32	32	32	45	45	50	70	70	80
	60VDC	[A]	32	32	32	32	45	45	50	70	70	80
	110VDC	[A]	20	20	25	25	30	30	35	70	70	80
	220VDC	[A]	6	6	6	10	15	15	20	25	25	30
	440VDC	[A]	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

Electrical Data

Contactors

CA7

		CA7-9	CA7-12	CA7-16	CA7-23	CA7-30	CA7-37	CA7-43	CA7-60	CA7-72	CA7-85	
Capacitor Ratings												
Capacitor Switching - 50Hz												
Single Capacitor - 40°C		230 V [kVar]	5	5	8	10	12.5	19.9	25	39.8	39.8	39.8
		240 V [kVar]	5	5	8	10	12.5	20	25	40	41.6	41.6
		380 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		400 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		415 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		500 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		690 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
Single Capacitor - 60°C		230 V [kVar]	5	5	8	10	12.5	17.9	25	39.8	39.8	39.8
		240 V [kVar]	5	5	8	10	12.5	18.7	25	40	41.6	41.6
		380 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		400 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		415 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		500 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		690 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
Capacitor Bank - 40°C ①		230 V [kVar]	5	5	8	10	12.5	19.9	25	39.8	39.8	39.8
		240 V [kVar]	5	5	8	10	12.5	20	25	40	41.6	41.6
		380 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		400 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		415 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		500 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		690 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
Capacitor Bank - 60°C ①		230 V [kVar]	5	5	8	10	12.5	17.9	25	39.8	39.8	39.8
		240 V [kVar]	5	5	8	10	12.5	18.7	25	40	41.6	41.6
		380 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		400 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		415 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		500 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		690 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
Capacitor Switching - 60Hz												
Single Capacitor - 40°C		200 V [kVar]	5	5	8	10	12.5	17.3	21.8	31.2	31.2	34.6
		230 V [kVar]	5	5	8	10	12.5	17.9	25	39.8	39.8	39.8
		460 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		600 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
Capacitor Bank - 40°C ①		200 V [kVar]	5	5	8	10	12.5	17.3	21.8	31.2	31.2	34.6
		230 V [kVar]	5	5	8	10	12.5	17.9	25	39.8	39.8	39.8
		460 V [kVar]	5	5	8	10	12.5	20	25	40	50	60
		600 V [kVar]	5	5	8	10	12.5	20	25	40	50	60












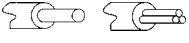
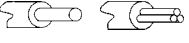










① CA7-9...CA7-30 = L min. 30 µH; CA7-37...CA7-85 = L min. 8 µH

Electrical Data

			CA7-9	CA7-12	CA7-16	CA7-23	CA7-30	CA7-37	CA7-43	CA7-60	CA7-72	CA7-85
Short-Circuit Coordination												
Contactors or Contactors with Solid-State and Bimetallic Overload Relays												
DIN Fuses - gG, gL												
Available Fault Current	[A]						100,000					
Type "1"	[A]	50	50	50	63	100	125	160	200	250	250	
Type "2" (380/400/415V)	[A]	20	25	25	35	50	80	100	125	126	160	
Type "2" (690V)	[A]	20	25	25	35	50	80	100	125	125	160	
BS88 Fuses												
Available Fault Current	[A]					80,000						
Type "1"	[A]	25	32	35	50	63	80	100	100	125	160	
Type "2" (690V)	[A]	25	32	35	50	63	80	100	100	125	160	
UL Class CC Fuses												
CSA HRCI-MISC Fuses												
Available Fault Current	[A]					100,000						
Type "1" (600V)	[A]	15	20	30	30	~	~	~	~	~	~	
Type "2" (600V)	[A]	15	20	30	30	~	~	~	~	~	~	
UL Class J Fuses												
UL Class K1, RK1 Fuses												
CSA HRCI- J Fuses												
Available Fault Current	[A]					100,000						
Type "1" (600V)	[A]	15	20	25	30	40	50	50	80	100	100	
Type "2" (600V)	[A]	15	20	20	30	40	50	50	80	100	100	
UL Class K5 Fuses												
Available Fault Current	[A]	5000	5000	5000	5000	5000	5000	5000	5000	5000	10000	10000
Max. Fuse (600V)	[A]	35	40	70	90	110	125	150	200	250	300	
UL Circuit Breaker, inverse time ①												
Available Fault Current	[A]	5000	5000	5000	5000	5000	5000	5000	5000	5000	10000	10000
Max. Breaker (480V)												
with CEP7 overload	[A]	25	30	50	50	~	~	~	~	~	~	~
with CT7 overload	[A]	25	50	50	50	~	~	~	~	~	~	~
Max. Breaker (600V)												
with CEP7 overload	[A]	~	~	~	~	70	90	125	150	175	250	
with CT7 overload	[A]	~	~	~	~	70	125	125	150	175	250	
Short Time Current Withstand Ratings												
I_{sw} 60° C												
1 s	[A]	210	210	290	380	480	525	650	1,110	1,150	1,250	
4 s	[A]	140	150	220	280	360	390	480	820	860	910	
10 s	[A]	100	120	175	220	290	310	375	640	680	710	
15 s	[A]	90	100	150	200	250	270	325	560	600	620	
60 s	[A]	60	60	90	125	170	175	200	350	370	380	
240 s	[A]	40	40	50	60	100	100	120	190	190	200	
900 s	[A]	30	30	38	38	524	60	75	108	108	120	
Off Time Between Operations	[Min.]	20	20	20	20	20	20	20	20	20	20	
Resistance and Watt Loss I_e AC3												
Resistance per power pole	[mΩ]	2.7	2.7	2.7	2.0	2.0	2.0	1.5	0.9	0.9	0.9	
Watt Loss - 3 power poles	[W]	0.7	1.2	2.1	3.2	5.4	8.2	8.3	9.7	14.0	19.5	
Coil and 3 power poles												
AC	[W]	3.3	3.8	4.7	6.2	8.4	11.2	11.5	14.2	18.5	24	
DC	[W]	6.7	7.2	8.1	12.4	14.6	17.4	18.4	14.6	18.9	24.4	
Coil Only												
AC	[W]	2.6	2.6	2.6	3.0	3.0	3.0	3.2	4.5	4.5	4.5	
DC	[W]	6.0	6.0	6.0	9.2	9.2	9.2	10.0	4.9	4.9	4.9	

① When used as a Branch Circuit Protection device, NEC 430-152 defines the maximum rating of an Inverse-time circuit breaker to be sized at 250% of the motor nameplate FLA for most applications.





Mechanical Data

			CA7-9	CA7-12	CA7-16	CA7-23	CA7-30	CA7-37	CA7-43	CA7-60	CA7-72	CA7-85
Service Life												
Mechanical	AC	[Mil.]	13	13	13	13	13	13	13	10	10	10
	DC	[Mil.]	13	13	13	13	13	13	13	10	10	10
Electrical	AC-3 (400V)	[Mil.]	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1	1	1
Shipping Weights												
AC - CA7		[kg]	0.39	0.39	0.39	0.39	0.48	0.49	0.51	1.45	1.45	1.45
		[Lbs]	0.86	0.86	0.86	0.86	1.06	1.08	1.12	3.20	3.20	3.20
AC - CAU7		[kg]	0.85	0.85	0.85	0.85	1.08	1.08	1.15	3.14	3.14	3.14
		[Lbs]	1.89	1.89	1.89	1.89	2.39	2.39	2.54	6.92	6.92	6.92
DC - CA7		[kg]	0.60	0.60	0.60	0.73	0.85	0.85	1.00	1.47	1.47	1.47
		[Lbs]	1.32	1.32	1.32	1.61	1.87	1.87	2.20	3.24	3.24	3.24
DC - CAU7		[kg]	1.27	1.27	1.27	1.53	1.81	1.81	2.13	3.22	3.22	3.22
		[Lbs]	2.81	2.81	2.81	3.39	4.00	4.00	4.70	7.10	7.10	7.10
Terminations - Power												
Description												
			Combination Screw Head: Cross, Slotted, Pozidrive							Allen Head: 4mm, 5/32		
	1 Wire	[mm ²]	1..4	1..4	1..4	1..4	2.5...10	2.5...10	2.5...16	2.5...35	2.5...35	2.5...35
	2 Wires	[mm ²]	1..4	1..4	1..4	1..4	2.5...10	2.5...10	2.5...10	2.5...25	2.5...25	2.5...25
	1 Wire	[mm ²]	1.5...6	1.5...6	1.5...6	1.5...6	2.5...16	2.5...16	2.5...25	2.5...50	2.5...50	2.5...50
	2 Wires	[mm ²]	1.5...6	1.5...6	1.5...6	1.5...6	2.5...16	2.5...16	2.5...16	2.5...35	2.5...35	2.5...35
	1 Wire	[AWG]	16...10	16...10	16...10	16...10	14...6	14.6	14...6	14...2	14...2	14...2
	2 Wires	[AWG]	16...10	16...10	16...10	16...10	14...6	14.6	14...6	14...2	14...2	14...2
Torque Requirement		[Nm]	1...2.5	1...2.5	1...2.5	1...2.5	1.5...3.5	1.5...5	1.5...3.5	2..6	2..6	2..6
		[Lb-in]	8.9...22	8.9...22	8.9...22	8.9...22	13...31	13...31	13...31	18...52	18...52	18...52
Terminations - Control												
Description												
			Combination Screw Head: Cross, Slotted, Pozidrive									
Coils	1 or 2	[mm ²]						1.5...6				
Wires		[AWG]						16...10				
Control Modules	1 or 2	[mm ²]						1.5...6				
Wires		[AWG]						16...10				
Torque Requirement		[Nm]						1...2.5				
		[Lb-in]						8.9...22				
Degree of Protection - contactor			IP 2LX per IEC 529 and DIN 40 050 (with wires installed)									
Protection Against Accidental Contact			Safe from touch by fingers and back-of-hand per VDE 0106; Part 100									
Environmental and General Specifications												
Ambient Temperature												
Storage			-55...+80° C (-67...176° F)									
Operation			-25...+60° C (-13...140° F)									
Conditioned 15% current reduction after AC-1 at >60° C			-25...+70° C (-13...158° F)									
Altitude at installed site			2000 meters above sea level per IEC 947-4									
Resistance to Corrosion / Humidity			Damp-alternating climate: cyclic to IEC 68-2, 56 cycles. Dry heat: IEC 68-2, +100° C (212° F), relative humidity <50%, 7 days. Damp tropical: IEC 68-2, +40° C (104° F), relative humidity <92%, 56 days.									
Shock Resistance			IEC 68-2: Half sinusoidal shock 11ms, 30g (in all three directions)									
Vibration Resistance			IEC 68-2: Static >2g, in normal position no malfunction <5g									
Pollution Degree			3									
Operating Position			Refer to Dimension Pages									
Standards			IEC947-1/4, EN 60947; UL 508; CSA 22.2, No. 14									
Approvals			CE, UL, CSA									

Coil Data

			CA7-9	CA7-12	CA7-16	CA7-23	CA7-30	CA7-37	CA7-43	CA7-60	CA7-72	CA7-85
Voltage Range												
AC: 50Hz, 60Hz, 50/60 Hz	Pickup	[x U_s]	0.85...1.1									
	Dropout	[x U_s]	0.3...0.6									
DC	Pickup	[x U_s]	0.8...1.1 (9V coils = 0.65...1.3; 24V coils = 0.7...1.25)									
	Dropout	[x U_s]	0.1...0.6									
Coil Consumption												
AC: 50Hz, 60Hz, 50/60 Hz	Pickup	[VA/W]	70/50	70/50	70/50	70/50	70/50	80/60	130/90	200/110	200/110	200/110
	Hold-in	[VA/W]	8/2.6	8/2.7	8/2.8	9/3	9/3	9/3	10/3.2	16/4.5	16/4.5	16/4.5
DC	Pickup	[W]	6.0	6.0	6.0	9.2	9.2	9.2	10.1	20.0	20.0	20.0
	Hold-in	[W]	6.0	6.0	6.0	9.2	9.2	9.2	10.1	4.5	4.5	4.5
Operating Times												
AC: 50Hz, 60Hz, 50/60 Hz	Pickup	[ms]	15...30	15...30	15...30	15...30	15...30	15...30	15...30	18.5...30	18.5...30	18.5...30
	Dropout	[ms]	10...60	10...60	10...60	10...60	10...60	10...60	10...60	10...60	10...60	10...60
with RC Suppressor	Dropout	[ms]	10...60	10...60	10...60	10...60	10...60	10...60	10...60	10...60	10...60	10...60
DC	Pickup	[ms]	40...70	40...70	40...70	40...70	50...80	50...80	50...80	20...40	20...40	20...40
	Dropout	[ms]	7...15	7...15	7...15	7...15	7...15	7...15	7...15	—	—	—
with Integ. Suppression	Dropout	[ms]	14...20	14...20	14...20	17...23	17...23	17...23	17...23	20...35	20...35	20...35
with Diode Suppression	Dropout	[ms]	70...95	70...95	70...95	80...125	80...125	80...125	80...125	80...125	80...125	80...125

Auxiliary Contacts

			Built-in Auxiliary Contacts in Contactor CA7-9...CA7-23							Auxiliary Contacts in Accessories CS7-PV, CA7-PA/PV, CZE/A7, CV7, CM7								
Current Switching																		
AC-1 lth	at 40°C	[A]	25							10								
	at 60°C	[A]	20							6								
AC-15, switching electromagnetic loads at:		[V]	24	48	120	240	400	500	600	690	24	48	120	240	400	500	600	690
		[A]	16	16	14	10	5	2.5	1.8	1	6	6	6	3	2	1.5	1.2	0.7
DC-13, switching DC electromagnets at:		[V]	24 48 110 220 440							24 48 110 220 440								
		[A]	5 2 0.7 0.25 0.12							(5) 3 (2) 1.5 (0.7) 0.6 (0.25) 0.3 (0.12) 0.2								
			(CS7-PV, CA7-PV)															
Short-Circuit Protection - gG Fuse																		
Type 2 Coordination		[A]	10							10								
Rated Impulse Voltage U_{imp}		[kV]	8							6								
Insulation Voltage (between control and load circuit) per DIN, VDE 0106, Part 101 (NAMUR recommendation)			[V]	400							Between auxiliary circuits: 250 V, Between load and direct-connected aux. circuits: 690 V							
Contact Reliability (per DIN19240 without contamination, normal industrial atmosphere)			17V, 5 mA, >10 ⁸ operations per error							17V, 5 mA, >10 ⁸ operations per error								
Positively Guided Contacts			Yes, N.O. and N.C. mutually unrestricted							Yes, N.O. and N.C. mutually unrestricted, including N.C. in relation to N.O. Main contacts of contactor do not provide positive guidance with Cat. Nos. CV7 & CZE/A7								
Load carrying capacity per UL/CSA																		
Rated Voltage	AC	[V]	600 max.							600 max.								
Continuous Rating	40°C	[A]	25 general purpose							10 general purpose								
Switching Capacity	AC		Heavy pilot duty (A600)							Heavy pilot duty (A600)								
Rated Voltage	DC	[V]	600 max.							600 max.								
Switching Capacity	DC		Standard pilot duty (P600)							Standard pilot duty (Q600)								
Terminals																		
Terminal Type																		
Maximum Wire Size per IEC 947-1			2 x A4							2 x A4								
	Flexible with Wire-End Ferrule	1 Conductor	[mm ²]	1...4			0.5...2.5				0.5...2.5							
		2 Conductor	[mm ²]	1...4			0.75...2.5				0.75...2.5							
	Solid/Stranded-Conductor	1 Conductor	[mm ²]	1.5...6			0.5...2.5				0.5...2.5							
		2 Conductor	[mm ²]	1.5...6			0.75...2.5				0.75...2.5							
Recommended Tightening Torque			[Nm]	1...2.5							1...1.5							
Max. Wire Size per UL/CSA			[AWG]	16...10							18...14							
Recommended Tightening Torque			[lb-in]	8.9...22							8.9...13.3							

Determining Contact Life

To determine the contactor's estimated electrical life, follow these guidelines:

1. Identify the appropriate Utilization Category from Table A.
2. On the following pages, choose the graph for the Utilization Category selected.

3. Locate the Rated Operational Current (I_e) along the bottom of the chart and follow the graph lines up to the intersection of the appropriate contactor's life-load curve.
4. Read the estimated contact life along the vertical axis.

Table A – IEC Special Utilization Categories (Number of operations under load) ❶

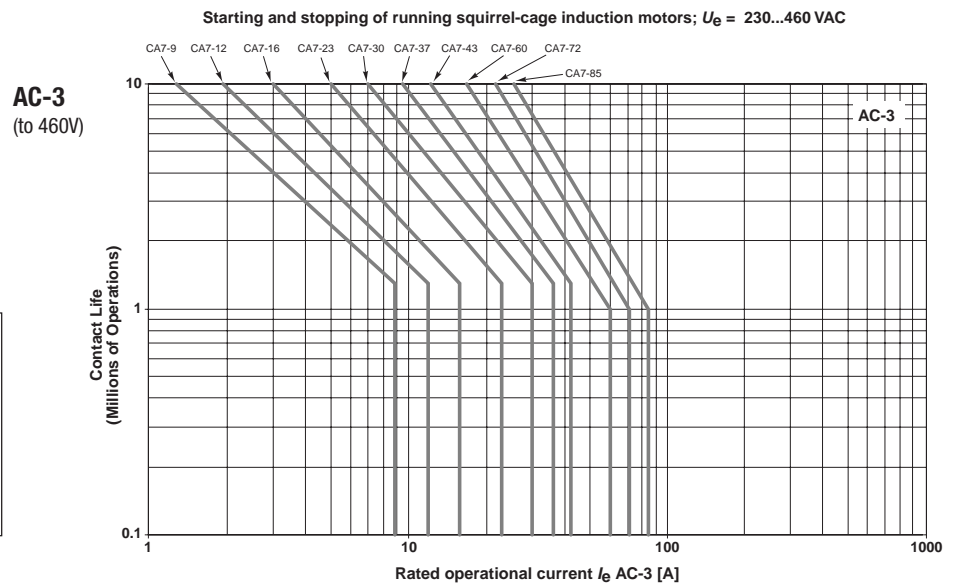
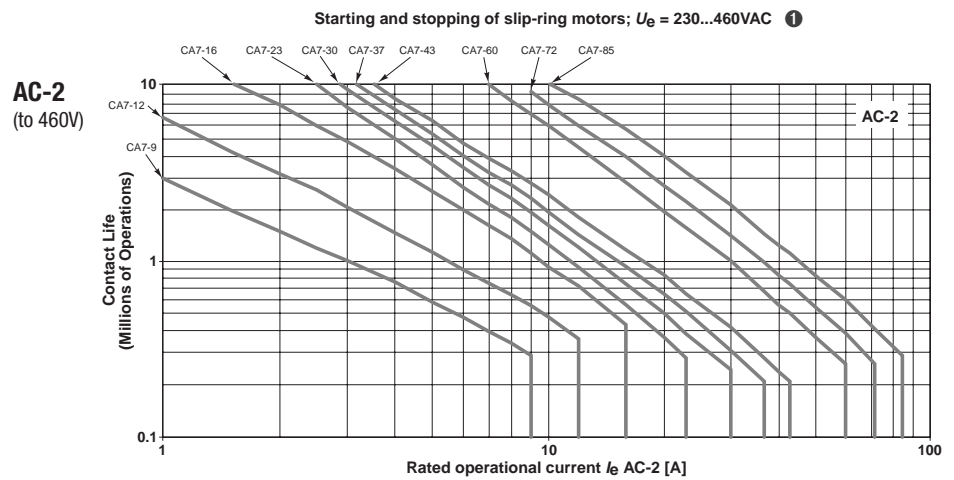
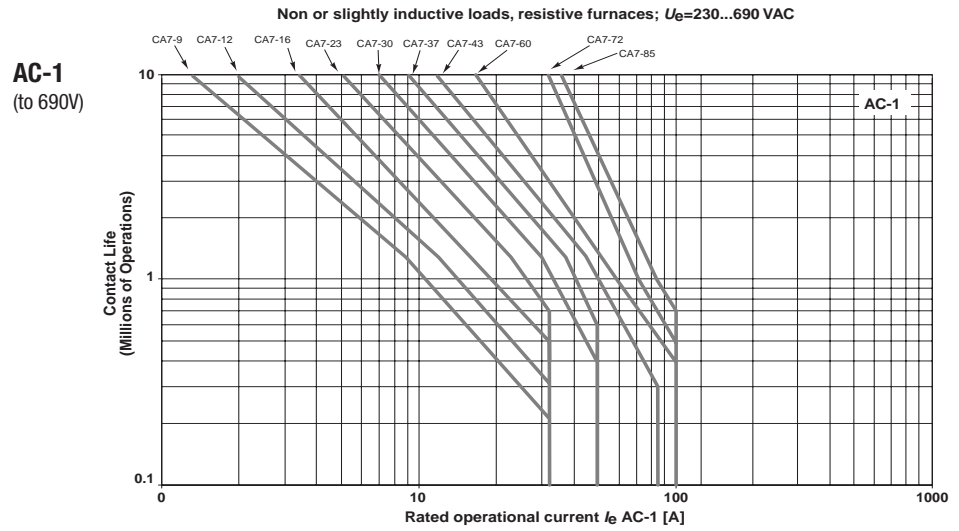
Category	Typical Applications	Rated Current	Conditions for testing electrical life						Conditions for testing making and breaking capacity					
			Make			Break			Make			Break		
			I/I _e	U/U _e	cos	I _c /I _e	U _r /U _e	cos	I/I _e	U/U _e	cos	I _c /I _e	U _r /U _e	cos
AC-1	Non-inductive or slightly inductive loads, resistance furnaces	All values	1	1	0.95	1	1	0.95	1.5	1.05	0.8	1.5	1.05	0.8
AC-2	Slip-ring motors: Starting, plugging	All values	2	1.05	0.65	2	1.05	0.65	4	1.05	0.65	4	1.05	0.65
AC-3	Squirrel-cage motors: Starting, switching off motors during running	I _e ≤ 17Amp 17Amp < I _e ≤ 100Amp I _e > 100Amp	6	1	0.65	1	0.17	0.65	10	1.1	0.65	8	1.1	0.65
			6	1	0.35	1	0.17	0.35	10	1.1	0.35	8	1.1	0.35
			6	1	0.35	1	0.17	0.35	8Ⓜ	1.1	0.35	6Ⓜ	1.1	0.35
AC-4	Squirrel-cage motors: Starting, plugging, inching ❸	I _e ≤ 17Amp 17Amp < I _e ≤ 100Amp I _e > 100Amp	6	1	0.65	6	1	0.65	12	1.1	0.65	10	1.1	0.65
			6	1	0.35	6	1	0.35	12	1.1	0.35	10	1.1	0.35
			6	1	0.35	6	1	0.35	10Ⓜ	1.1	0.35	8Ⓜ	1.1	0.35
AC-5a	Switching of electric discharge lamp control		2	1.05	0.45	2	1.05	0.45	3	1.05	0.45	3	1.05	0.45
AC-5b	Switching of incandescent lamps		1	1.05		1	1.05		1.5	1.05		1.5	1.05	
AC-13	Control of solid state loads with transformer isolation		2	1	0.65	1	1	0.65	10	1.1	0.65	1.1	1.1	0.65
AC-15	Electromagnets for contactors, valves, solenoid actuators		10	1	0.3	1	1	0.3	10	1.1	0.3	10	1.1	0.3
			Make			Break			Make			Break		
			I/I _e	U/U _e	L/R ❹ [ms]	I _c /I _e	U _r /U _e	L/R ❹ [ms]	I/I _e	U/U _e	L/R ❹ [ms]	I _c /I _e	U _r /U _e	L/R ❹ [ms]
DC-1	Non-inductive or slightly inductive loads, resistance furnaces	All values	1	1	1	1	1	1	1.5Ⓜ	1.1Ⓜ	1Ⓜ	1.5Ⓜ	1.1Ⓜ	1Ⓜ
DC-2	Shunt-motors: Starting, switching off motors during running	All values	2.5	1	2	1	0.1	7.5	4	1.1	2.5	4	1.1	2.5
DC-3	Shunt-motors: Starting, plugging, inching	All values	2.5	1	2	2.5	1	2	4	1.1	2.5	4	1.1	2.5
DC-4	Series-motors: Starting, switching off motors during running	All values	2.5	1	7.5	1	0.3	10	4	1.1	15	4	1.1	15
DC-5	Series-motors: Starting, plugging, inching	All values	2.5	1	7.5	2.5	1	7.5	4	1.1	15	4	1.1	15
DC-15	Electromagnets for contactors, valves, solenoid actuators		1	1	6 x P ❺	1	1	6 x P ❺	1.1	1.1	6 x P ❺	1.1	1.1	6 x P ❺

- ❶ Utilization categories and test conditions for AC & DC. For contactors according to IEC 158-1, starters according to IEC 292-1 ... 4 and control switches according to IEC 337-1 and IEC 337-1A.
- ❷ With a minimum value of 1000A for I or I_c.
- ❸ With a minimum value of 800A for I_c.
- ❹ With a minimum value of 1200A for I.
- ❺ T_{0.95} for DC-15: Time in milliseconds for reaching 95% of steady-state current I_e x T_{0.95} is 300% of the time constant T = L/R of the circuit.
- ❻ P = U_e x I_e rated power [W]. The value "6 x P" has been derived from an empiric relationship which covers most magnetic loads for DC up to an upper limit of P = 50W.
- ❼ Only according to VDE.

- ❼ Plugging is understood as stopping or reversing the motor rapidly by reversing the motor primary connections while the motor is running. Inching [or jogging] is understood as energizing a motor once or repeatedly for short periods to obtain small movements of the driven mechanism.

Legend	
U_e	Rated operational voltage
U	Voltage before make
U_r	Recovery voltage
I_e	Rated operational current
I	Making current
I_c	Breaking current
L	Inductance of test circuit
R	Resistance of test circuit

Life-Load Curves



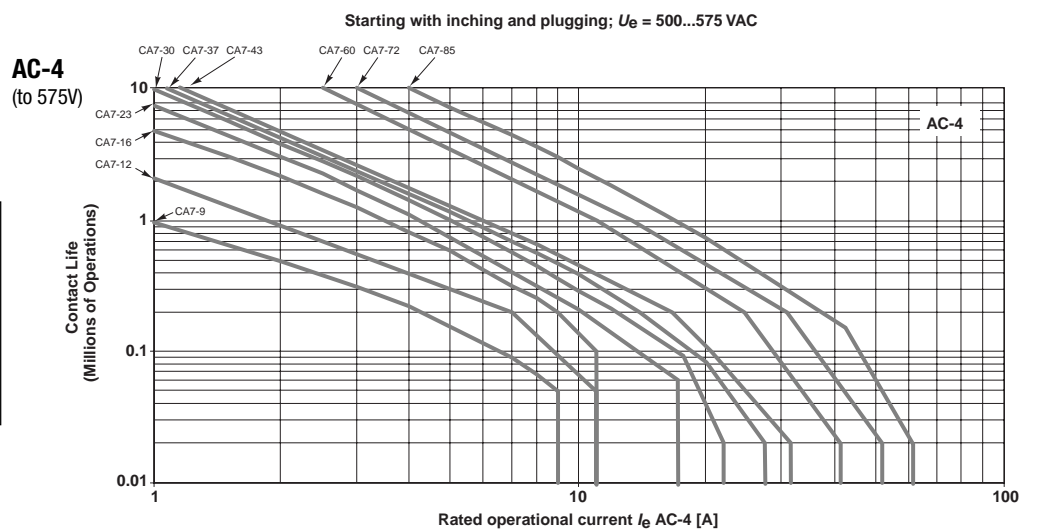
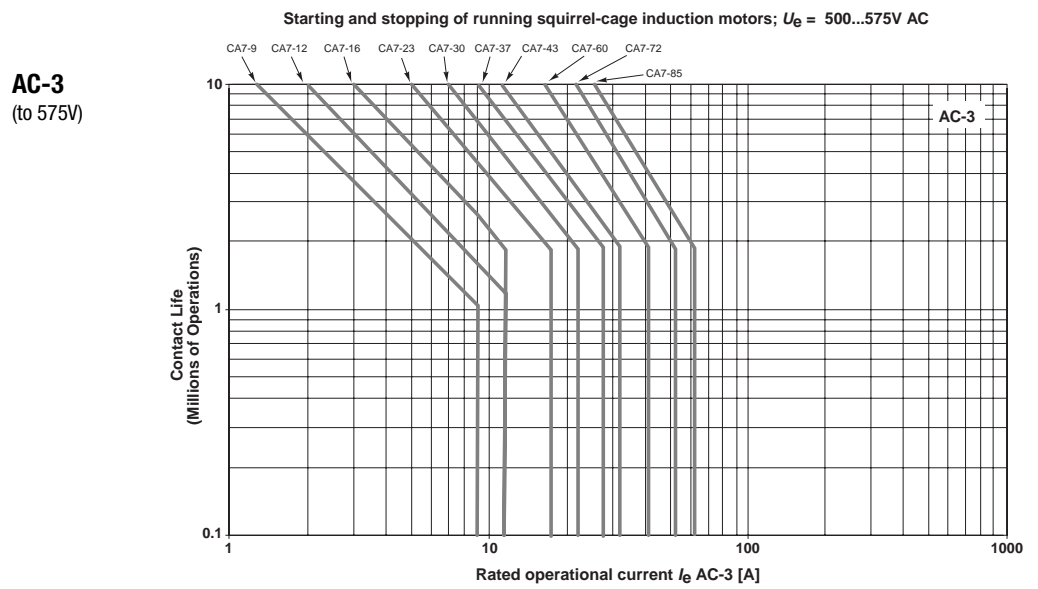
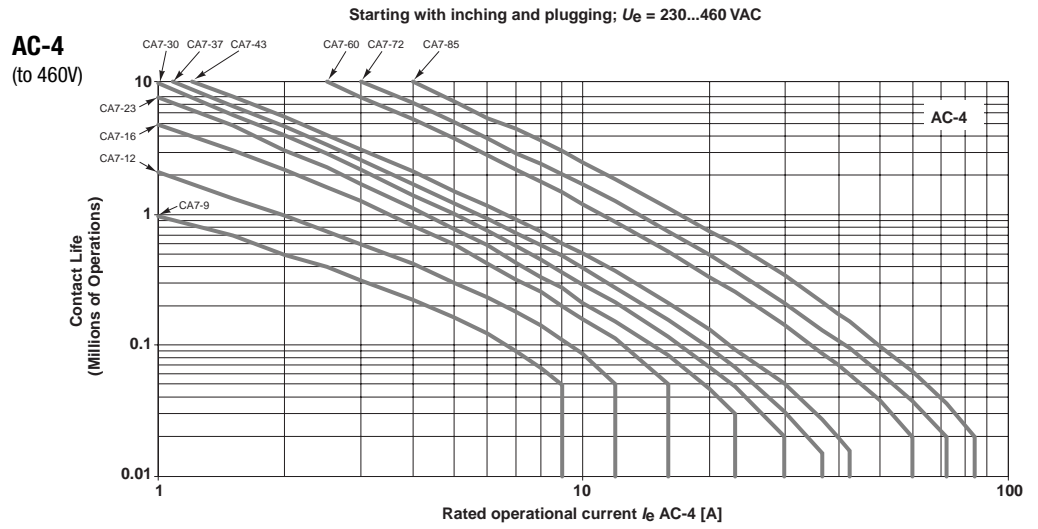
NOTE: The life-load curves shown here are based on Sprecher+Schuh tests according to the requirements defined in IEC 947-4-1. Since contact life in any given application is dependent on environmental conditions and duty cycle, actual application contact life may vary from that indicated by the curves shown here.

① 575V applications use 90% of curve value.

A Life-Load Curves

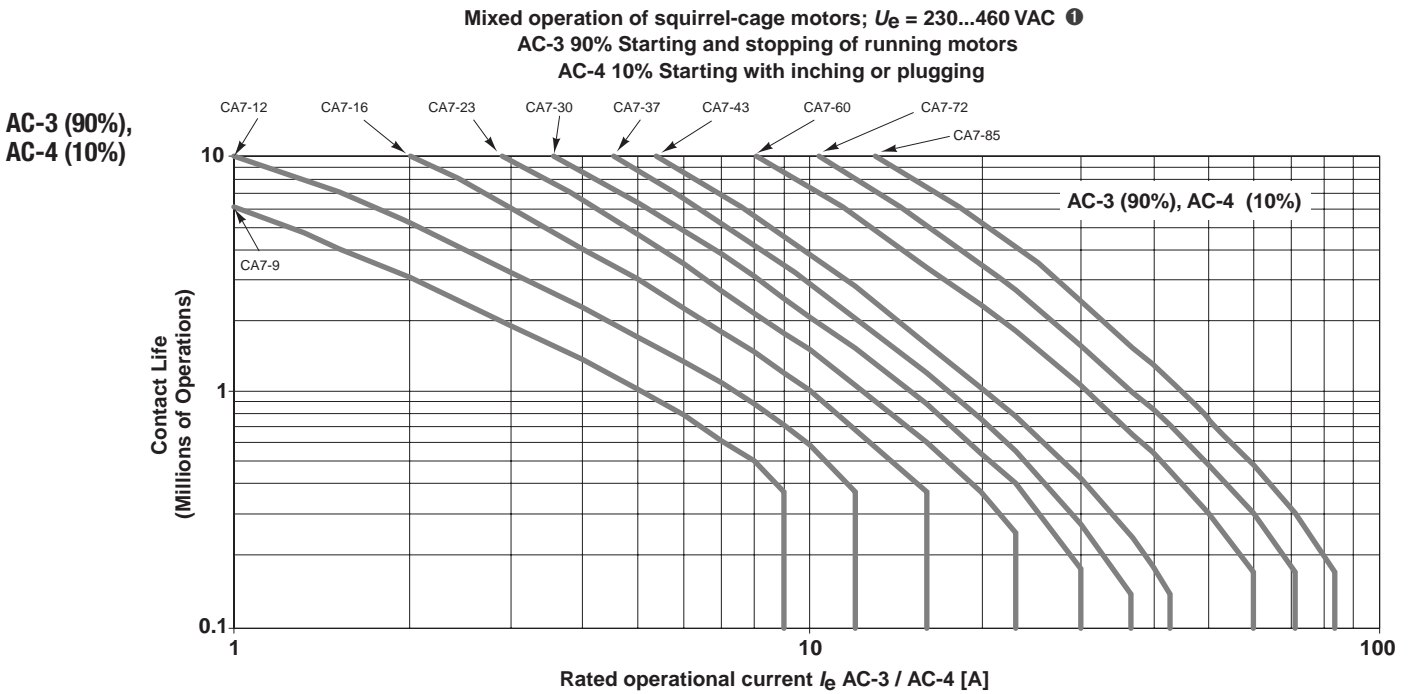
Contactors

CA7



NOTE: The life-load curves shown here are based on Sprecher+Schuh tests according to the requirements defined in IEC 947-4-1. Since contact life in any given application is dependent on environmental conditions and duty cycle, actual application contact life may vary from that indicated by the curves shown here.

Life-Load Curves



Contactor
CA7

**Contact Life for Mixed Utilization Categories
AC-3 and AC-4**

In many applications, the utilization category cannot be defined as either purely AC-3 or AC-4. In those applications, the electrical life of the contactor can be estimated with the following equation:

$$L_{\text{mixed}} = L_{\text{ac3}} / [1 + P_{\text{ac4}} \times (L_{\text{ac3}} / L_{\text{ac4}} - 1)], \text{ where:}$$

- L_{mixed} Approximate contact life in operations for a mixed AC-3/AC-4 utilization category application.
- L_{ac3} Approximate contact life in operations for a pure AC-3 utilization category (from the AC-3 life-load curve).
- L_{ac4} Approximate contact life in operations for a pure AC-4 utilization category (from the AC-4 life-load curve).
- P_{ac4} Percentage of AC-4 operations

NOTE: The life-load curves shown here are based on Sprecher+Schuh tests according to the requirements defined in IEC 947-4-1. Since contact life in any given application is dependent on environmental conditions and duty cycle, actual application contact life may vary from that indicated by the curves shown here.

① 575V applications use 85% of curve value.

Operating Rates

The estimated contact life shown in the life-load curves is based on the standard operating rates shown in Table B below. For applications requiring a higher operating frequency, the maximum operating power (Pn in kW or HP) for a given contactor must be reduced to maintain the same contact life.

To find a contactor’s maximum operating power, for an operating rate greater than shown in Table B, follow these guidelines:

1. Identify the appropriate curve for the contactor and utilization category from Table B.
2. Locate the appropriate Maximum Operating Rate curve on the following pages.
3. Locate the intersection of the curve with the application’s operating rate (ops/hr.) found on the vertical axis.

4. Read the percent of maximum operating power (Pn) of the contactor from the horizontal axis.

5. Multiply the % maximum power by the standard power rating.

Example: The contactor selected for an AC-4 utilization category application is a CA7-16 (10HP at 460V), however, the application requires an operating rate of 200 ops/hr., compared to the standard operating rate of 120 ops/hr. as shown in Table B.

1. Locate the AC-4 Maximum Operating Rate curve on the following pages.
2. Locate the intersection of 200 ops/hr on the CA7-16 curve. The data shows that the maximum operating power of the CA7-16 contactor in this application is 60%.
3. Therefore, the maximum horsepower that can be switched by the CA7-16 contactor in this application is 6 HP (0.60 x 10HP).

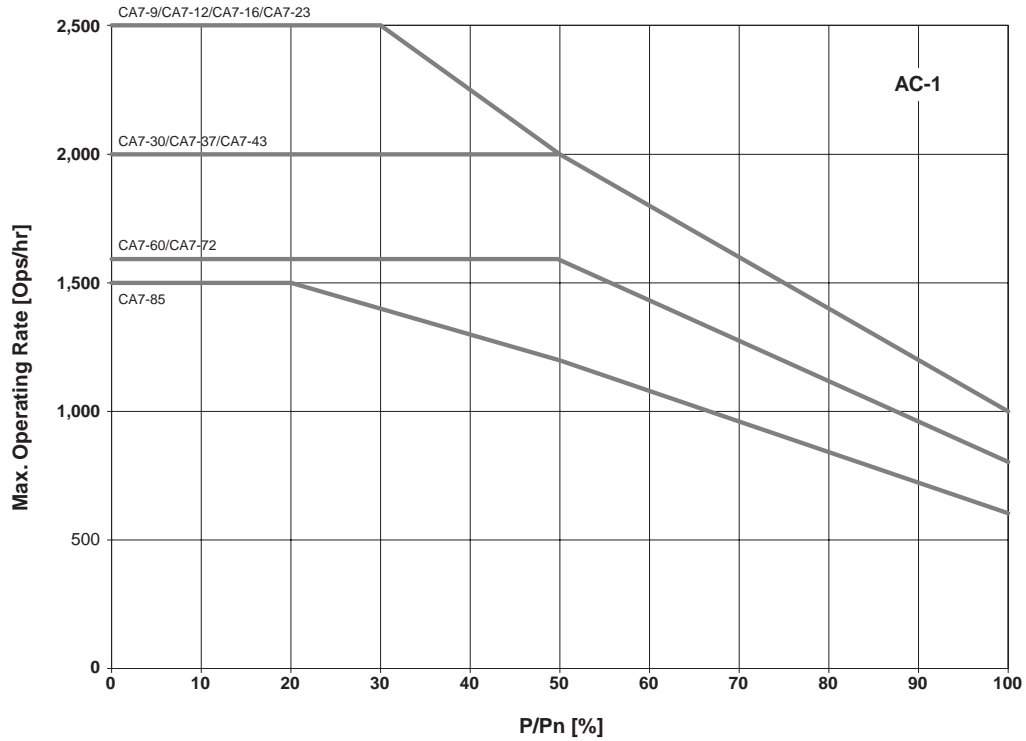
Table B – Standard Operating Rates by Contactor and Utilization Category

Contactor	AC-1	AC-2	AC-3	AC-4	AC-4 @ I _e for 200K ops.
	Max. ops/hr.	Max. ops/hr.	Max. ops/hr.	Max. ops/hr.	Max. ops/hr.
	Operating Parameters and Start Time				
			40% Duty Cycle 250ms	250ms	250ms
CA7-9	1000	500	700	200	400
CA7-12	1000	500	700	150	300
CA7-16	1000	500	700	120	240
CA7-23	1000	400	600	80	160
CA7-30	1000	400	600	80	160
CA7-37	1000	400	600	70	140
CA7-43	1000	400	600	70	140
CA7-60	800	300	500	70	140
CA7-72	800	250	500	60	120
CA7-85	600	200	500	50	140

Operating Rate Curves

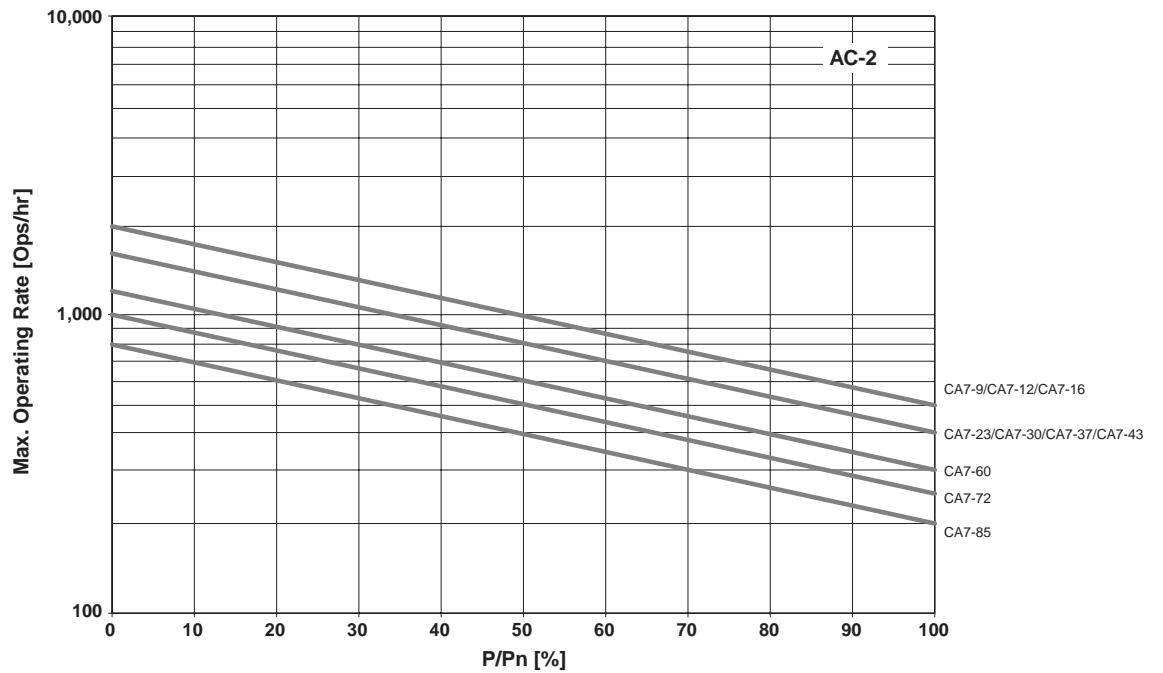
Non or slightly inductive loads, resistance furnaces; $U_e = 380...690$ VAC

AC-1



Slip-ring motors: starting, switching off; $U_e = 380...460$ VAC

AC-2



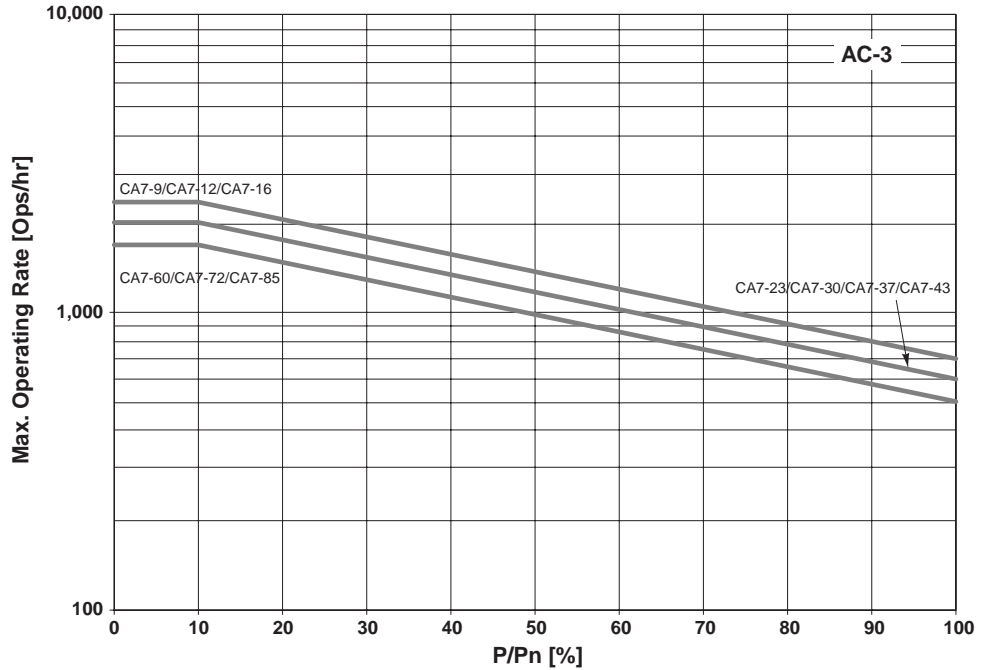
Operating Rate Curves

Contactors

CA7

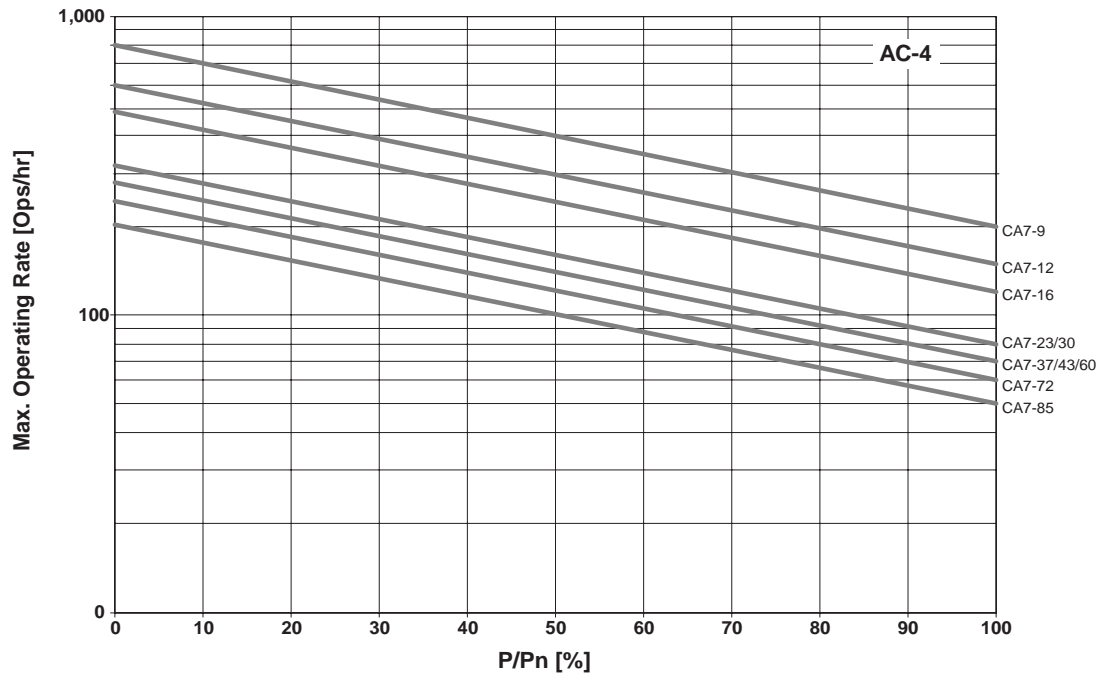
AC-3

Squirrel-cage motors: starting, switching off motors during running; $U_e = 380...460$ VAC
250ms Start time, 40% Duty Cycle

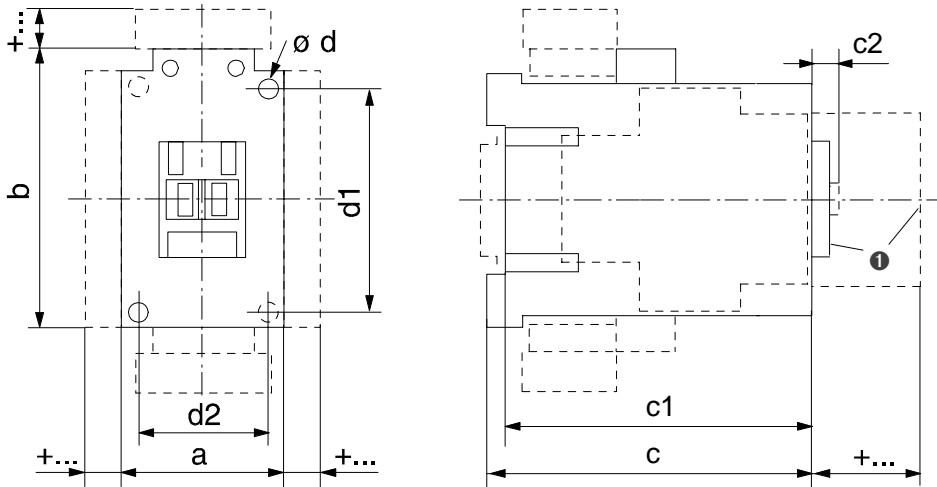


AC-4

Squirrel-cage motors: starting, plugging, inching; $U_e = 380...460$ VAC
250ms Start-up



Series CA7 & Series CAU7 (Contactors & Reversing Contactors)



- Dimensions are in millimeters (inches)
- Dimensions not intended for manufacturing purposes

	Catalog Number	a	b	c	c1	c2	$\varnothing d$	d1	d2
AC Contactors	CA7-9...CA7-23	45 (1-25/32)	81 (3-3/16)	80.5 (3-11/64)	75.5 (3-3/32)	6 (1/4)	2 - 4.5 (2-3/16)	60 (2-23/64)	35 (1-25/64)
	CA7-30, CA7-37	45 (1-25/32)	81 (3-3/16)	97.5 (4)	92.6 (3-49/64)	6.5 (17/64)	2 - 4.5 (2-3/16)	60 (2-23/64)	35 (1-25/64)
	CA7-43	54 (2-1/8)	81 (3-3/16)	100.5 (4-7/64)	95.6 (3-7/8)	6.5 (17/64)	2 - 4.5 (2-3/16)	60 (2-23/64)	45 (1-25/32)
	CA7-60...CA7-85	72 (2-53/64)	122 (4-51/64)	117 (4-49/64)	111.5 (4-35/64)	8.5 (21/64)	4 - 5.4 (4-7/32)	100 (3-15/16)	55 (2-11/64)
DC Contactors	CA7-9C...CA7-16C	45 (1-25/32)	81 (3-3/16)	106.5 (4-3/16)	101.5 (4)	6 (1/4)	2 - 4.5 (2-3/16)	60 (2-23/64)	35 (1-25/64)
	CA7-23C	45 (1-25/32)	81 (3-3/16)	123.5 (4-55/64)	119 (4-43/64)	6 (1/4)	2 - 4.5 (2-3/16)	60 (2-23/64)	35 (1-25/64)
	CA7-30C...CA7-37C	45 (1-25/32)	81 (3-3/16)	141.5 (5-37/64)	136.5 (5-3/8)	6.5 (17/64)	2 - 4.5 (2-3/16)	60 (2-23/64)	35 (1-25/64)
	CA7-43C	54 (2-1/8)	81 (3-3/16)	144.5 (5-11/16)	140 (5-33/64)	6.5 (17/64)	2 - 4.5 (2-3/16)	60 (2-23/64)	45 (1-25/32)
	CA7-60D...CA7-85D	72 (2-53/64)	122 (4-51/64)	117 (4-49/64)	111.5 (4-35/64)	8.5 (21/64)	4 - 5.4 (4-7/32)	100 (3-15/16)	55 (2-11/64)

Reversing Contactors & Accessories (+...)

Contactors with...		Dim. [mm]	Dim. [inches]
auxiliary contact block for front mounting	2-, or 4-pole	c/c1 + 39	c/c1 + 1-37/64
auxiliary contact block for side mounting	1-, or 2-pole	a + 9	a + 23/64
pneumatic timing module		c/c1 + 58	c/c1 + 2-23/64
electronic timing module	on coil terminal side	b + 24	b + 15/16
reversing contactor w/mech. interlock	on side of contactor	a+9+a	a + 23/64+a
mechanical latch		c/c1 + 61	c/c1 + 2-31/64
interface module	on coil terminal side	b + 9	b + 23/64
surge suppressor	on coil terminal side	b + 3	b + 1/8
Labeling with...	label sheet	+ 0	+ 0
	marking tag sheet with clear cover	+ 0	+ 0
	marking tag adapter for V4 / V5 Terminals	+ 5.5	+ 7/32

Mounting Position

