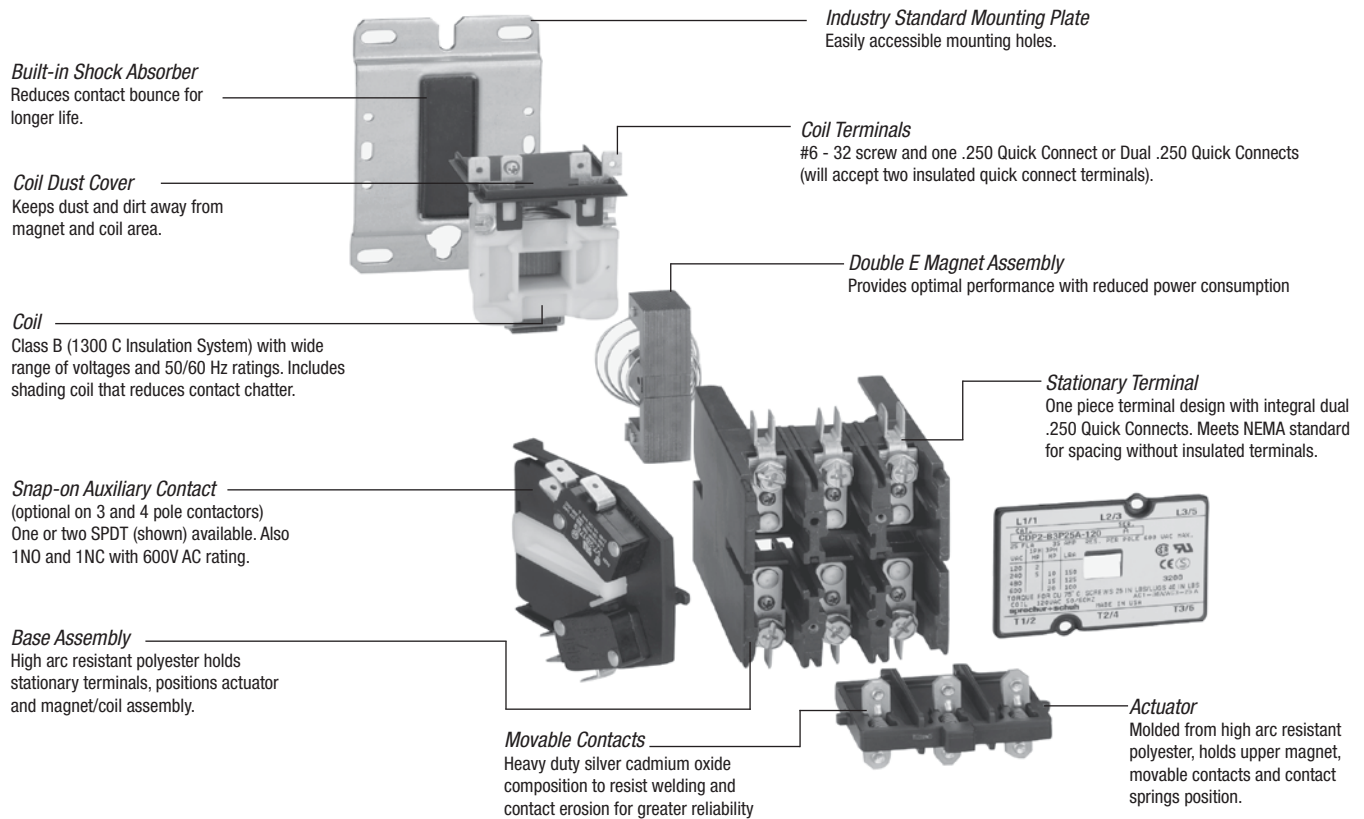


# Compare These Features



A

Contactors

CDP2

## Quick Selection Guide

One and Two Pole Definite Purpose Contactors with AC Coil - See page A152				
CDP2 ①	A	1P	30A	24
<b>Type</b>	<b>Frame Size</b>	<b>Poles</b>	<b>Amp Rating</b>	<b>Coil Voltage</b>
Definite Purpose	A = 30 & 40A	1P = 1 pole 2P = 2 pole	30A = 30 amps 40A = 40 amps	24 = 24 volts 120 = 120 volts 220W = 208-240 volts 277 = 277 volts

Three Pole Definite Purpose Contactors with AC Coil- See page A153				
CDP2 ①②	B	3P	30A	24
<b>Type</b>	<b>Frame Size</b>	<b>Poles</b>	<b>Amp Rating</b>	<b>Coil Voltage</b>
Definite Purpose	B = 30 & 40A C = 50 & 60A D = 75 & 90A	3P = 3 poles	30A = 30 amps 40A = 40 amps 50A = 50 amps 60A = 60 amps 75A = 75 amps 90A = 90 amps	24 = 24 volts 120 = 120 volts 220W = 208-240 volts 277 = 277 volts 480 = 480 volts

Four Pole Definite Purpose Contactors with AC Coil - See page A154				
CDP2 ①②	E	4P	25A	24
<b>Type</b>	<b>Frame Size</b>	<b>Poles</b>	<b>Amp Rating</b>	<b>Coil Voltage</b>
Definite Purpose	E = 25...40A	4P = 4 poles	25A = 25 amps 30A = 30 amps 40A = 40 amps	24 = 24 volts 120 = 120 volts 220W = 208-240 volts 277 = 277 volts 480 = 480 volts

- ① Screw power terminals standard on 30A. Box lug power terminals standard for 40A and larger.
- ② Box lugs on 30A available with volume special order only.

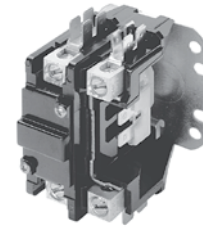
A

Contactors

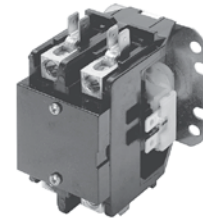
CDP2

### One and Two Pole Definite Purpose Contactors with AC Coil (Open type only) ④

Full Load Amps	Poles	Locked Rotor Amps			Resistive Amps ②	Maximum H.P.		Catalog Number	Price Each	Std. Pkg.
		240V ②	480V	600V		10				
						120V	240V ②			
30 ①	1 ⑥	150	75	50	40	1	2	CDP2-A1P30A-* ③	68	50
30 ①	2	150	125	100	40	2	3	CDP2-A2P30A-* ③	84	50
40	1 ⑥	200	150	120	50	2	3	CDP2-A1P40A-* ③	84	50
40	2	200	150	120	50	2	3	CDP2-A2P40A-* ③	99	50




Series CDP2 1-pole contactor



Series CDP2 2-pole contactor (with optional cover)

### Accessories

Accessory	Description	For use with...	Catalog Number	Price
	<b>Contactor Cover</b> - Prevents foreign particles from entering contactor. Covers current carrying parts.	CDP2-A1P30A... CDP2-A2P30A...	<b>CDP2-A1P-C</b> ⑦ <b>CDP2-A2P-C</b>	<b>8</b> <b>10</b>

### AC Coil Codes

AC Coil Code	Voltage Range
	60 Hz
24	24V
120	120V
220W	208-240V
277	277V

### Ordering Instructions

Specify Catalog Number	
Replace (*) with Coil Code	<b>See Coil Codes on this page</b>

- ① 25A contactors only available by special order. Contact your Sprecher +Schuh representative.
- ② 240V rating also applies to 277V applications.
- ③ Box Power Lugs are supplied as standard. Screw terminals are available on the power connections by special order only in quantity.
- ④ 1 and 2 Pole, 25 and 30A contactors supplied without cover. See Accessories for cover options.
- ⑤ Screw Power Terminals are supplied standard on 25 and 30A contactors. Box Lugs available by special order only in quantity.
- ⑥ 1-Pole (1-pole plus) contactors include a shunt for termination and feed-thru of neutral.
- ⑦ 40 Amp contactors are supplied with cover as standard.

### Three Pole Definite Purpose Contactors with AC Coil (Open Type only)

Full Load Amps	Locked Rotor Amps			Resistive Amps ②	Maximum Horsepower ②						Catalog Number	Price Each	Std. Pkg.	
					1Ø			3Ø						
	240V ②	480V	600V		120V	200	240V	200V	240V	480V				600V
30 ①	180	150	120	40	2	~	5	10	10	15	20	CDP2-B3P30A-* ④	107	25
40	240	200	160	50	3	~	7-1/2	10	10	20	25	CDP2-B3P40A-* ⑤	131	25
50	300	250	200	65	3	7-1/2	10	15	15	25	25	CDP2-C3P50A-*	239	15
60	360	300	240	75	5	7-1/2	10	25	25	30	30	CDP2-C3P60A-*	277	15
75	450	375	300	93	5	10	15	20	25	40	40	CDP2-D3P75A-*	362	1
90	540	450	360	120	7-1/2	15	20	25	30	50	50	CDP2-D3P90A-*	499	1




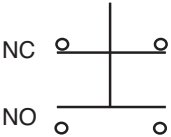

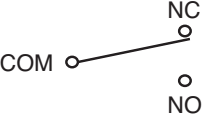
Series CDP2 3-pole contactor

A

Contactors

CDP2

### Auxiliary Contacts for 3 Pole Contactors

Auxiliary	Description	Circuit Diagram	Catalog Number	Price
	<b>Two pole Auxiliary Contact Block (1-NO / 1-NC)</b> - Side mount with quick connect stabs for 25...40A, 3 pole contactors for 50...90A, 3 pole contactors		CDP2-BE-11 ⑥	41
			CDP2-CD-11 ⑥	41
	<b>One pole Auxiliary Contact Block (SPDT)</b> - Side mount with quick connect stabs for 25...40A, 3 or 4 pole contactors		CDP2-BE-1SPDT ⑥	35

### AC Coil Codes

AC Coil Code	Voltage Range
	60 Hz
24	24V
120	120V
220W	208-240V
277	277V
480	480V

### Ordering Instructions

Specify Catalog Number	
Replace (*) with Coil Code	<b>See Coil Codes on this page</b>

- ① 25A contactors available by special order. Contact your Sprecher + Schuh representative.
- ② 240V rating also applies to 277V applications.
- ③ Box lugs are supplied as standard. Screw terminals are available on the power connections by special order only in quantity.
- ④ Screw power terminals are supplied standard on 25 and 30A contactors. Box Lugs available by special order only in quantity.
- ⑤ Meets NEMA Standard B600. See page A10 for technical details.
- ⑥ Meets NEMA Standard B600 EXCEPT has 10 A continuous current rating.


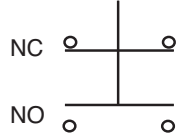
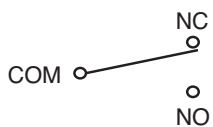
#### Four Pole Definite Purpose Contactors With AC Coil (Open Type only)

Full Load Amps	Locked Rotor Amps			Resistive Amps ②	Maximum Horsepower ②					Catalog Number	Price Each	Std. Pkg.
					10		30					
	240V ②	480V	600V		120V	240V	200V	240V	480V			
30 ①	180	150	120	40	2	5	10	10	15	CDP2-E4P30A-* ③	142	20
40	240	200	160	50	3	7-1/2	10	10	20	CDP2-E4P40A-* ③	164	20



Series CDP2 4-pole contactor

#### Auxiliary Contacts for 4 Pole Contactors

Auxiliary	Description	Circuit Diagram	Catalog Number	Price
	<b>Two pole Auxiliary Contact Block (1-NO / 1-NC)</b> - Side mount with quick connect stabs for all 4 pole contactors		CDP2-BE-11	41
	<b>One pole Auxiliary Contact Block (SPDT)</b> - Side mount with quick connect stabs for all 4 pole contactors		CDP2-BE-1SPDT	35

#### A.C. Coil Codes

AC Coil Code	Voltage Range
	60 Hz
24	24V
120	120V
220W	208-240V
277	277V
480	480V

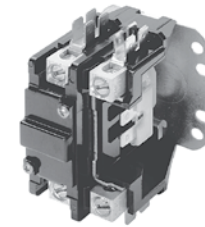
#### Ordering Instructions

Specify Catalog Number	
Replace (*) with Coil Code	See Coil Codes on this page

- ① 25A contactors available by special order. Contact your Sprecher + Schuh representative.
- ② 240V rating also applies to 277V applications.
- ③ Box Power Lugs are supplied as standard. Screw terminals are available on the power connections by special order only in quantity.
- ④ Screw per terminals are supplied standard on 25 and 30A contactors. Box Lugs available by special order only in quantity.

### Definite Purpose Lighting Contactors with AC Coil (Open Type only)

Tungsten Rating (Amps)	Ballast Rating (Amps)	Number of Poles	Standard Auxiliary Contacts		Electrically Held	
			NO	NC	Open Type	Price
30	40	1	0	0	CDP2-A1P30A-*	68
40	40	1	0	0	CDP2-A1P40A-*	84
30	40	2	0	0	CDP2-A2P30A-*	84
40	40	2	0	0	CDP2-A2P40A-*	99
30	40	3	0	0	CDP2-B3P30A-*	107
40	40	3	0	0	CDP2-B3P40A-*	131
30	40	4	0	0	CDP2-E4P30A-*	142
40	40	4	0	0	CDP2-E4P40A-*	164



Series CDP2 1-pole contactor



Series CDP2 3-pole contactor

#### Description

Sprecher + Schuh Definite Purpose contactors can be used to control a mixture of lighting loads. These contactors are well suited to handle the high inrush currents typical of this application as well as other non-motor (resistive) loads.

Lamps can basically be divided into three categories:

- Tungsten Filament Lamps
  - General purpose incandescent
  - Special purpose incandescent
  - Infrared
  - Sodium Iodine
- Discharge Lamps (with Ballast)
  - Fluorescent lamps - Mercury vapor
  - High/low pressure sodium
  - Quartz
  - Halogen metal-vapor
- Mixed Light Lamps

#### In Application...

The tungsten filaments of incandescent lamps have a very low ohmic resistance when cold. As a result, the closing current is very high but also very short. The closing current of discharge lamps (lighting with ballast) is highly inductive (due to series-connected transformers or chokes), and its duration depends on the lamp type.

#### Electrically held contactors

Electrically held contactors are available for use where the control signal is activated by a timer or other maintained electrical signal. The coil is energized as long as the contactor is closed. This design is well suited for applications where lights are operated frequently or where the control panel is in a remote location.



#### AC Coil Codes

AC Coil Code	Voltage Range
	60 Hz
24	24V
120	120V
220W	208-240V
277	277V
480	480V

#### Ordering Instructions

Specify Catalog Number	
Replace (*) with Coil Code	See Coil Codes on this page

### Accessories

Auxiliary	Description	For use with...	Catalog Number	Price
	<b>DIN-rail Adaptor</b> - Attaches to the universal mounting plate of 1-, 2-, 3- and 4-pole contactors 25...40 Amps.	CDP2-A1P...B3P CDP2-E4P	<b>CDP2-DRA</b>	<b>13</b>
	<b>Mechanical Interlock</b> - Can be combined with electrical interlocks on 3-pole and 4-pole contactors as required.	CDP2-B3P CDP2-E4P	<b>CDP2-MK1</b>	<b>19</b>

### Technical Data

#### Short-Circuit Coordination

		25-30A 1+2-Pole	40A 1+2-Pole	25-30A 3-Pole	40A 3-Pole	50-90A 3-Pole	25-30A 4-Pole	40A 4-Pole
<b>Standard Short Circuit Rating</b>	[kA]	5	5	5	5	5	5	5
<b>High Current Short Circuit Rating</b>								
Class J-fuses								
Available fault current	[kA]	100	100	100	100	①	100	100
cUL Max. fuse (600V)	[A]	60	100	60	100	①	50	100
Enclosure Minimum	[in <sup>3</sup> ]	96	96	144	144	①	144	144
Molded Case Circuit Breaker								
Available fault current	[kA]	100	100	100	100	①	100	100
cUL Max. breaker (480V)	[A]	80	80	80	100	①	80	100
Enclosure Minimum	[in <sup>3</sup> ]	144	144	144	144	①	144	144

#### Service Life

	1,000,000	1,000,000	1,000,000	1,000,000	500,000	1,000,000	1,000,000
<b>Mechanical</b> (operations)							
<b>Electrical</b> (operations)							
Resistive Load (UL)	250,000	250,000	250,000	250,000	6,000 ③	250,000	250,000
Inductive Load (UL)	100,000	100,000	100,000	100,000	6,000 ④	100,000	100,000
Inductive Load (Self-certified)	200,000	200,000	200,000	200,000	200,000	200,000	200,000

#### Data for Surge Suppression Selection

120 VAC Coils	Resistor	Capacitor	Snubber ②
1 Pole	680 ohms	0.47 nf	RCS1M-6
2 Pole	330 ohms	0.47 nf	RCS1K-6
3P 30/40 Amp	220 ohms	0.47 nf	RCS1A-6
4P 30 Amp	220 ohms	0.47 nf	RCS1A-6
3P 50/60 Amp	150 ohms	0.47 nf	RCS1H-6
3P 75/90 Amp	68 ohms	0.47 uf	RCS1E-6

① UL testing not complete at the time of this printing.

② Recommended snubbers from RK Electric.

③ UL File update to 250,000 pending at the time of this printing. 250,000 Self-certified at this time.

④ UL File update to 100,000 pending at the time of this printing.

**General Specifications**

General Specifications			CDP2	CDP2	CDP2	CDP2	CDP2
			<b>25...40A, 1 &amp; 2 pole</b>	<b>25...40A, 3 pole</b>	<b>50...60A, 3 pole</b>	<b>75...90A, 3 pole</b>	<b>25...40A, 4 pole</b>
<b>Approvals</b>	UL508, Guide No. NLDX2-File No. E3125						
UL							
CSA	C22.2 No. 14, Class; 321104-File No. 210566 (75A, 3 pole / C22.2 No. 14, Class: 122201 - File No. 210566)						
CE / SEMKO	Certified EN60947-4-1: 2000 and A1: 1995 (Except 75A & 90A, 3 pole)						
IEC	IEC 947-4-1 (Except 50A...90A, 3 pole)						
CCC	Registration # 2005010304145109 (Except 50...90A, 3 pole)						
<b>Line and Load Terminals</b>		#10 - 32 screw or box lug	#10 - 32 screw or box lug	Box lug	Box lug	#10 - 32 screw or box lug	
<b>Wire Size (min/max)</b>							
#10 - 32 screw (all 25A & 30A)	[AWG]	16 - 8 ①	16 - 8 ①	~	~	16 - 8 ①	
Box Lug (≥40A)	[AWG]	14 - 4 Cu/Al	14 - 4 Cu/Al	14 - 2 Cu/Al	14 - 1/0 Cu/Al	14 - 4 Cu/Al	
<b>Recommended Tightening Torque</b>							
#10 - 32 screw (all 25A & 30A devices)		22 lbs-in	22 lbs-in	~	~	22 lbs-in	
Box Lug (40A devices only)		40 lbs-in	40 lbs-in	50 lbs-in	50 lbs-in	40 lbs-in	
<b>Quick Connects</b>							
Coil Terminals		Dual .250 QC (2)	Quad .250 QC (2)	#6-32 screw 7 .250 QC (2)	#6-32 screw 7 .250 QC (2)	Dual .250 QC (2)	
Power Terminals		1 pole: Quad .250 QC 2 pole: Quad .250 QC	Dual .250 QC (2)	Dual .250 QC (2)	Dual .250 QC (2)	Dual .250 QC (2)	
<b>Arc Cover</b>		Optional	Standard	Standard	Standard	Standard	
<b>Insulation System</b>				130°C Class B			
<b>Temperature Range</b>	[°C]			-40°C to +65°C			
	[°F]			-40°F to +150°F			
<b>Weight</b>		1 pole 0.5 lb 2 pole: 0.6 lb	1 lb	2 lbs	4 lbs	1.5 lbs.	
<b>UL/CSA Ratings for 25A special order contactors</b>		<b>1 Pole</b>	<b>2 Pole</b>	<b>3 Pole</b>			
Locked Rotor Amps	240/277 V	[A]	150	150	150		
	480V	[A]	125	125	125		
	600V	[A]	100	100	100		
Resistive Amps		[A]	35	35	35		
Max. HP	1∅	120 V	[HP]	2	2	2	
		240 V	[HP]	3	3	3	
		200 V	[HP]	~	~	7.5	
	3∅	230 V	[HP]	~	~	7.5	
		460 V	[HP]	~	~	10	
		575 V	[HP]	~	~	10	
<b>Coil Data</b>							
<b>1 Pole Contactors (25...40A)</b>			<b>24V Coils</b>	<b>120V Coils</b>	<b>220W Coils</b>	<b>277V Coils</b>	<b>480V Coils</b>
Normal Coil Voltage	[V]	24	120	208 / 240	277	~	
Pickup voltage (Max.)	[V]	18	88	177	221	~	
Drop-out/Voltage Range	[V]	6...15	20...70	40...140	50...165	~	
Nominal Inrush						~	
50 Hz	[VA]	22.5	22.5	22.5	22.5	~	
60Hz	[VA]	20	20	20	20	~	
Nominal Seal-in						~	
50 Hz	[VA]	7	7	7	7	~	
60 Hz	[VA]	5.25	5.25	5.25	5.25	~	
Nominal DC Resistance	[Ω]	16.5	420	1850	2650	~	
<b>2 Pole Contactors (25...40A)</b>							~
Normal Coil Voltage	[V]	24	120	208 / 240	277	~	
Pickup voltage (Max.)	[V]	18	88	177	221	~	
Drop-out Voltage Range	[V]	6...15	20...70	40...140	50...165	~	
Nominal Inrush						~	
50 Hz	[VA]	37	37	37	37	~	
60Hz	[VA]	35	35	35	35	~	
Nominal Seal-in						~	
50 Hz	[VA]	8	8	8	8	~	
60 Hz	[VA]	7	7	7	7	~	
Nominal DC Resistance	[Ω]	11	250	1000	1600	~	

① Stranding must be split for #8 wire.



<b>Coil Data (continued)</b>		<b>50/60 Hz 24V Coils</b>	<b>110 - 50 Hz 120 - 60 Hz 120V Coils</b>	<b>220 - 50 Hz 208-240 - 60 Hz 220W Coils</b>	<b>277 - 60 Hz 277V Coils</b>	<b>440 - 50 Hz 480 - 60 Hz 480V Coils</b>
<b>3 Pole Contactors (25...40A)</b>						
Nominal Coil Voltage	[V]	24	120	208-240	277	480
Pickup Voltage (Max.)	[V]	18	88	177	220	384
Drop-out Voltage Range	[V]	6...15	20...70	40...140	60...185	150...270
Nominal Inrush						
50 Hz	[VA]	60	60	60	60	65
60Hz	[VA]	53	53	53	53	53
Nominal Seal-in						
50 Hz	[VA]	7.5	7.5	7.5	7.5	7.5
60 Hz	[VA]	6	6	6	6	6
Nominal DC Resistance	[Ω]	7	180	720	950	3100
<b>3 Pole Contactors (50...60A)</b>						
Nominal Coil Voltage	[V]	24	120	208-240	277	480
Pickup Voltage (Max.)	[V]	18	93	177	235	374
Drop-out Voltage Range	[V]	6...15	20...70	40...135	50...180	120...286
Nominal Inrush						
50 Hz	[VA]	104	102	114	~	98
60Hz	[VA]	96	112	125	108	108
Nominal Seal-in						
50 Hz	[VA]	12	10	12	~	10
60 Hz	[VA]	10	10	12	10	10
Nominal DC Resistance	[Ω]	4	52	282	453	1390
<b>3 Pole Contactors (75...90A)</b>						
Nominal Coil Voltage	[V]	24	120	208-240	277	480
Pickup Voltage (Max.)	[V]	18	88	177	220	384
Drop-out Voltage Range	[V]	6...15	20...70	40...110	65...185	150...270
Nominal Inrush						
50 Hz	[VA]	220	206	260	~	206
60Hz	[VA]	190	210	260	202	208
Nominal Seal-in						
50 Hz	[VA]	21	16	25	~	17
60 Hz	[VA]	16	16	25	17	17
Nominal DC Resistance	[Ω]	.66	15.8	50	93	258
<b>4 Pole Contactors (25...40A)</b>						
Nominal Coil Voltage	[V]	24	120	208-240	277	480
Pickup voltage (Max.)	[V]	19.2	93	177	220	384
Drop-out Voltage Range	[V]	6...15	20...70	40...140	50...185	15...270
Nominal Inrush						
50 Hz	[VA]	62	62	62	62	67
60 Hz	[VA]	59	59	59	59	60
Nominal Seal-in						
50 Hz	[VA]	9	9	9	9	9
60 Hz	[VA]	7	7	7	7	7
Nominal DC Resistance	[Ω]	6	150	600	750	2400
<b>Operating Times</b>						
AC: 50Hz, 60hz						
Pick-up [ms]		0...20	0...20	0...20	0...20	0...20
Drop-out [ms]		0...30	0...30	0...30	0...30	0...30

## Auxiliary Contacts

### 2 Pole (NO/NC) - Single Circuit Contact Rating

Voltage Rating	120	240	480	600	
	Break	3.0	1.5	0.75	0.6
Amperes	Make	30	15	7.5	6
	Continuous	10	10	10	10

### SPDT

10A, 1/3 HP, 125 or 250V AC; 1/2A, 125 V DC; 1/4A, 250V DC; 4A, 120V AC on Lamp Load