

Industrial Electrical Controls



ELECTRICAL CONTACTORS & STARTERS



SOFT START & SOLID STATE CONTACTORS

- 1 & 3 phase Soft Start & Torque Limiters
- 1, 2 & 3 phase Electronic Contactors
- 3 phase Reversing Contactors

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Springer Controls Company carries a full line of solid-state contactors manufactured by ELTWIN (IC ELECTRONICS A/S.) The product line includes single phase electronic contactors, dual contactors, lamp & transformer controls, three phase contactors, soft-starters (1, 2 & 3-phase), reversing contactors, and starting torque limiters. The controllers are also available with internal by-pass as well as with coil controlled external by-pass.

SOFT STARTERS;

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1 or 3 PHASE

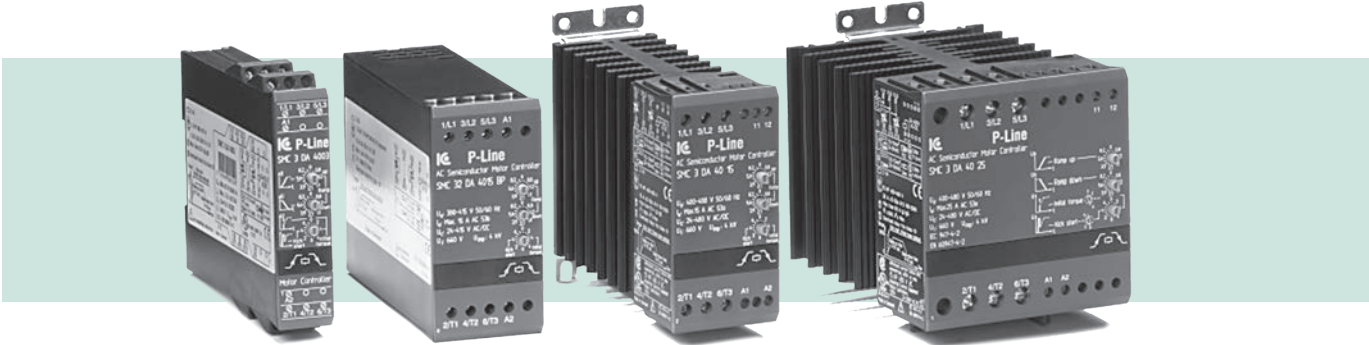
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ELECTRONIC CONTACTORS;

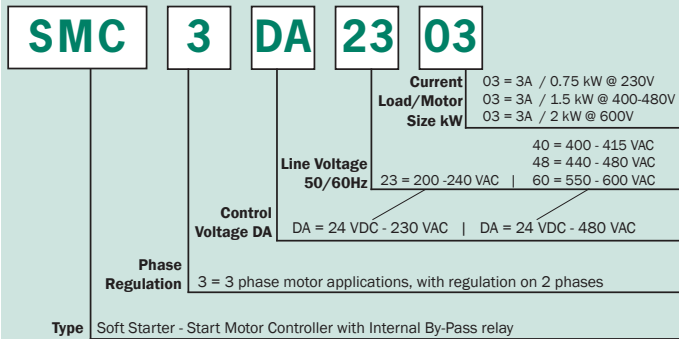
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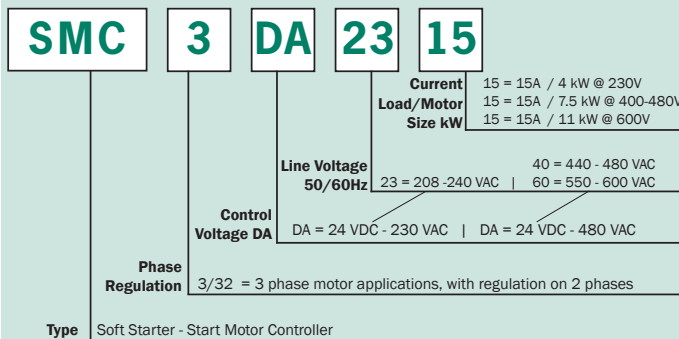


Part Number Nomenclature



- Soft Starters w. internal by pass for 3 phase motor applications
- Motor loads up to 3A (0.25 kW - 2 kW @ 208 - 600V)
- Adjustable ramp up/down time (0.5/0.10 seconds)
- Initial torque adjustment up 85% with selectable kick start
- Universal Control voltage 24 - 230/480V AC/DC

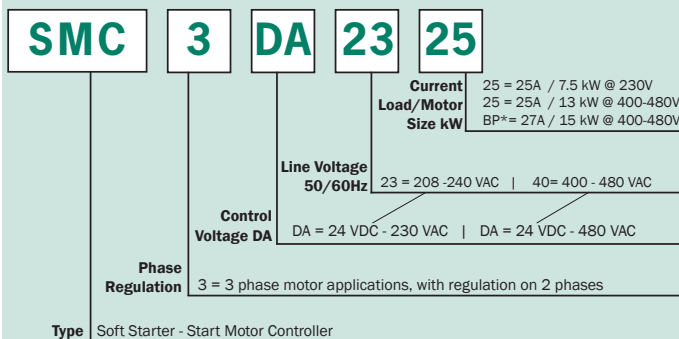
Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
24 - 480 VAC	200 - 240 VAC	3	SMC3DA2303
	400 - 415 VAC		SMC3DA4003
	440 - 480 VAC		SMC3DA4803
	550 - 600 VAC		SMC3DA6003



- Soft Starters for 3-phase motor applications
- Motor loads up to 15A (2.2 kW - 11 kW @ 208 - 600V)
- Adjustable ramp up/down time (0.5/0.10 seconds)
- Initial torque adjustment up 85% with selectable kick start
- Universal Control voltage 24 - 230/480V AC/DC

Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
24 - 480 VAC	208 - 240 VAC	15	SMC3DA2315
	400 - 480 VAC		SMC3DA4015
	550 - 600 VAC		SMC3DA6015
	400 - 415 VAC		SMC32DA4015BP*

*SMC32DA4015BP - has built in bypass relay, Line Voltage = 400 - 415 VAC (Not UL approved)



- Soft Starters for 3-phase motor applications
- Motor loads up to 25A (2 kW - 11 kW @ 208 - 600V)
- Adjustable ramp up/down time (0.5/0.10 seconds)
- Initial torque adjustment up 85% with selectable kick start
- Universal Control voltage 24 - 230/480V AC/DC

Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
24 - 480 VAC	208 - 240 VAC	25	SMC3DA2325
	400 - 480 VAC	25	SMC3DA4025
	400 - 480 VAC	27	SMC3DA4025BP*

*25BP series has Output terminals available for mounting of external by-pass contactor

3 PHASE SOFT STARTER

Part Number Nomenclature



SMBC	3	DA	23	25
Current Load/Motor Size kW				
25 = 25A / 7.5 kW @ 230V 25 = 25A / 11 kW @ 400-480V 25 = 27A / 15 kW @ 400V w. by-pass*				
Line Voltage 50/60Hz				
23 = 208 -240 VAC 40 = 400 - 480 VAC				
Control Voltage DA				
DA = 24 VDC - 230 VAC DA = 24 VDC - 480 VAC				
Phase Regulation				
3 = 3 phase motor applications, with regulation on 2 phases				
Type Soft Starter with Dynamic Brake - Start Brake Motor Controller				

- **Soft Starters w. integrated dynamic brake for 3 phase motor applications**
- **Motor loads up to 25A (2kW - 11 kW @ 208 - 600V)**
- Suitable for external by-pass contactor
- Adjustable ramp up/down time (0.5/0.10 seconds)
- Adjustable brake current, torque and selectable kick start
- Universal Control voltage 24 - 230/480V AC/DC

Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
24 - 480 VAC	208 - 240 VAC	25	SMBC3DA2325
	400 - 480 VAC		SMBC3DA4025

*SMBC - Output terminals available for mounting of external by-pass contactor.

SMC	33	DA	40	15	BP
Current Load/Motor Size kW					
15 = 15A / 7.5 kW - no by-pass 25 = 27A / 11 kW - with by-pass 50 = 35A / 15 kW (no by-pass)* 50 = 50A / 30 kW (with by-pass)*					
Line Voltage					
23 = 208 -240 VAC 40 = 208 - 480 VAC					
Control Voltage DA					
DA = 24 VDC - 230 VAC DA = 24 VDC - 480 VAC					
Phase Regulation					
33 = 3 phase motor applications, with regulation on all 3 phases					
Type Soft Starter Start Motor Controller					

- **Soft Starters for 3 phase motor applications**
- **Motor loads up to 15A (7.5 kW - 30 kW @ 208 - 480V)**
- 3 phase regulation allows for adjustable ramp up/down time (0.5/60 seconds) - Can be bypassed with external contactor
- Initial torque adjustment up 85% with selectable kick start
- Universal Control voltage 24-230/480V AC/DC

Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
24 - 480 VAC	208 - 480 VAC	15	SMC33DA4015
	208 - 480 VAC	27	SMC33DA4025BP
	208 - 240 VAC	50	SMC33DA2350BP*
	208 - 480 VAC	50	SMC33DA4050BP*

*Not UL Approved

SMC	33	DA	40	40	DBP
Current Load/Motor Size kW					
40 = 25A / 15 kW (without by-pass) 40 = 43A / 22 kW (with by-pass) 85 = 60A / 30 kW (without by-pass)* 85 = 86A / 45 kW (with by-pass)*					
Line Voltage					
23 = 208 -240 VAC 40 = 208 - 480 VAC					
Control Voltage DA					
DA = 24 VDC - 230 VAC DA = 24 VDC - 480 VAC					
Phase Regulation					
33 = 3 phase motor applications, with regulation on all 3 phases					
Type Soft Starter Start Motor Controller					

- **Soft Starters for 3 phase motor applications**
- **Motor loads up to 15A (15kW - 45kW@208-480V)**
- Inside delta, 3 phase regulation allows for adjustable ramp up/down time (0.5/60 seconds). Can be bypassed with external contactor
- Initial torque adjustment up 85% with selectable kick start
- Universal Control voltage 24-230/480V AC/DC

Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
24 - 480 VAC	208 - 480 VAC	43	SMC33DA4040DBP
	208 - 240 VAC	86	SMC33DA2385DBP*
	208 - 480 VAC	86	SMC33DA4085DBP*

*Not UL Approved

SMC	33	DA	48	30	BPI
Current Load/Motor Size kW					
30 = 30A / 18 kW 50 = 50A / 28 kW 100 = 100A / 66 kW 175 = 175A / 90 kW					
Line Voltage					
48 = 200 - 480 VAC					
Control Voltage DA					
DA = 230 VAC					
Phase Regulation					
33 = 3 phase motor applications, with regulation on all 3 phases					
Type Soft Starter Start Motor Controller					

- **Soft Starters w. internal by-pass for 3 phase motor applications**
- **Motor loads up to 175A (18 kW - 90 kW + @ 200 - 480V)**
- 3 phase regulation allows for adjustable ramp up/down time (0.5/60 seconds). Can be bypassed with external contactor
- Initial torque adjustment up 85% with selectable kick start
- Control voltage 230 VAC

Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
230 VAC	200 - 480 VAC	30	SMC33DA4830BPi
		50	SMC33DA4850BPi
		100	SMC33DA48100BPi
		175	SMC33DA48175BPi

Suitable for inside delta wiring: SMC33DA4830 = 51A Inside Delta
SMC33DA4850 = 86A Inside Delta
SMC33DA48100 = 173A Inside Delta

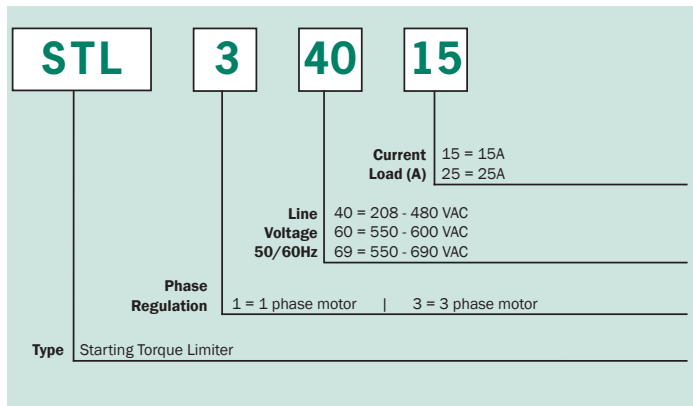
1 OR 3 PHASE SOFT STARTERS



SCL33DA4025BP

STARTING TORQUE LIMITER (SOFT STARTER - RAMP UP ONLY)

Part Number Nomenclature

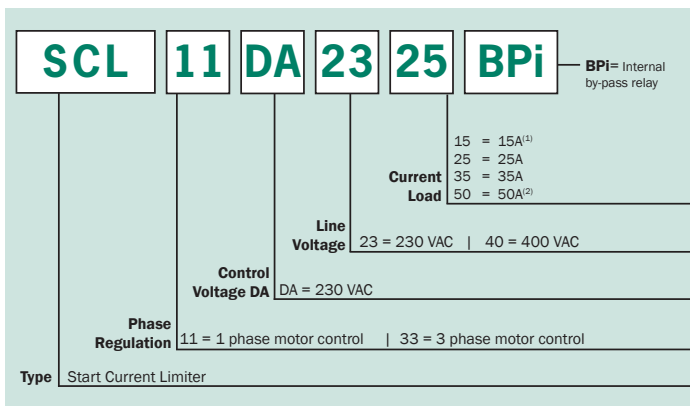


- **Starting Torque Limiter (soft starter for 1 or 3 phase motor applications)**
- **Motor loads up to 25A (0.37 kW - 22 kW @ 208 - 690V)**
- Adjustable Ramp-Up time 0.5 - 5 seconds
- Adjustable torque settings 0-85%



Phase	Line Voltage	Current Load (amps)	Catalog No.
1	208 - 480 VAC	15	STL1-4015
		25	STL1-4025
3	208 - 480 VAC	15	STL3-4015
		25	STL3-4025
	550 - 600 VAC	15	STL3-6015
		25	STL3-6025
550 - 690 VAC	25	STL3-6925*	

*690V version not UL approved



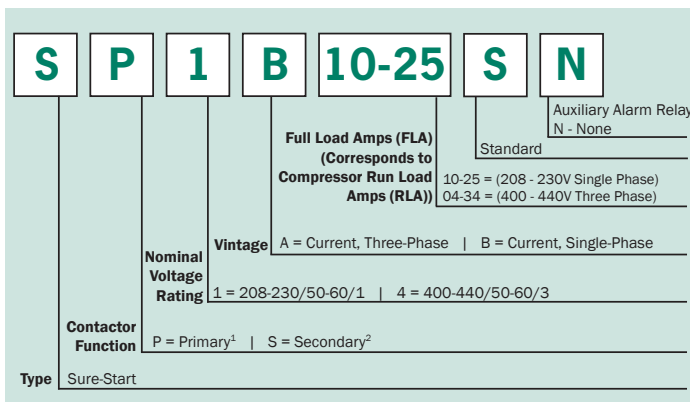
- **Soft Starter - current limiter for starting and running 1 and 3 phase compressor motors**
- Integrated by-pass and electronic motor protection
- Motor current is measured continuously preventing against stalling, current imbalance or overload



Phase	Line Voltage	Current Load (amps)	Catalog No.
1	230 VAC	25	SCL11DA2325BP
		35	SCL11DA2335BP
3	400 VAC	15	SCL33DA4015BP
		25	SCL33DA4025BP
		35	SCL33DA4035BP

UL Approval in progress

- (1) 15A only available for 3 phase motor control version
(2) 50A only available for 1 phase motor control version



- **SureStart single & three phase soft starters designed for compressor motors.**
- Self adjusting of the starting current to match compressor size and supply voltage.



Phase	Nominal Voltage	Full Load (amps)	Catalog No.
1	208-230V	208-230V	SP1B10-25SN
3	400-440V	400-440V	SS4A04-34SN

1 - Not available in the United States

2 - Primary includes a contactor. Secondary operates in series with contactor.

1 PHASE ELECTRONIC CONTACTOR



- SC series - Semiconductor contactors, 1 phase.
- General applications; resistive or inductive loads, heating elements / lamps / motors / transformers
- From 10-63 Amp supply, up to 690 VAC



1 Pole

SC	1	DA	23	15
<p>AC-1/51 / AC-3/53 15 = 15A / 15A 30 = 30A / 15A 50 = 50A / 15A 63 = 63A / 30A</p>				
<p>Line Voltage 50/60Hz 23 = 12-240 VAC 40 = 24-480 VAC</p>				
<p>Control Voltage DA/DD DA = 24-230V (AC) DD = 5-24V (DC)</p>				
<p>Phase Regulation 1 = 1 Phase Electronic Contactor</p>				
<p>Type Semiconductor Contactor</p>				

Control Voltage	Line Voltage	Current Load (Amps)		Catalog No.
		AC1	AC3	
24 - 230 VAC	24 - 480 VAC	15	15	SC1DA2315
		30	15	SC1DA2330
		50	15	SC1DA2350
		63	30	SC1DA2363*
24 - 480 VAC	24 - 480 VAC	15	15	SC1DA4015
		30	15	SC1DA4030
		50	15	SC1DA4050
		63	30	SC1DA4063*

* SC1DXXX63 not UL approved

1 Pole

SC	1	DA	69	15
<p>AC-1/51 / AC-3/53 15 = 15A / 15A 30 = 30A / 15A 50 = 50A / 15A 63 = 63A / 30A</p>				
<p>Line Voltage 50/60Hz 60 = 48-600 VAC 69 = 24-690 VAC</p>				
<p>Control Voltage DA/DD DA = 24-230V (AC) DD = 5-24V (DC)</p>				
<p>Phase Regulation 1 = 1 Phase Electronic Contactor</p>				
<p>Type Semiconductor Contactor</p>				

Control Voltage	Line Voltage	Current Load (Amps)		Catalog No.	
		AC1	AC3		
24 - 230 VAC	48- 600 VAC	15	15	SC1DA6015	
		30	15	SC1DA6030	
		50	15	SC1DA6050	
		63	30	SC1DA6063*	
	24 - 690 VAC	24 - 690 VAC	15	15	SC1DA6915
			30	15	SC1DA6930
		50	15	SC1DA6950	
		63	30	SC1DA6963*	

* SC1DX69XX / SC1DXXX63 not UL approved

1 Pole

SC	1	DA	23	15
<p>AC-1/51 / AC-3/53 10 = 10A / 10A 15 = 15A / 15A 30 = 30A / 15A 50 = 50A / 15A 63 = 63A / 30A</p>				
<p>Line Voltage 50/60Hz 23 = 12-240 VAC 40 = 24-480 VAC</p>				
<p>Control Voltage DA/DD DA = 24-230V (AC) DD = 5-24V (DC)</p>				
<p>Phase Regulation 1 = 1 Phase Electronic Contactor</p>				
<p>Type Semiconductor Contactor - Ohmic and inductive loads</p>				

Control Voltage	Line Voltage	Current Load (Amps)		Catalog No.	
		AC1	AC3		
5 - 24 VDC	12-240 VAC	10	10	SC1DD2310	
		15	15	SC1DD2315	
		30	15	SC1DD2330	
		50	15	SC1DD2350	
		63	30	SC1DD2363*	
	24-480 VAC	24-480 VAC	15	15	SC1DD4015
			30	15	SC1DD4030
			50	15	SC1DD4050
			63	30	SC1DD4063*

* SC1DXXX63 not UL approved

1 PHASE ELECTRONIC CONTACTOR

1 Pole

SC	1	DA	69	15
<p>AC-1/51 / AC-3/53 15 = 15A / 15A 30 = 30A / 15A 50 = 50A / 15A 63 = 63A / 30A</p>				
<p>Line Voltage 50/60Hz 60 = 48 - 600 VAC 69 = 24 - 690 VAC</p>				
<p>Control Voltage DA/DD DA = 24 - 230V (AC) DD = 5 - 24V (DC)</p>				
<p>Phase Regulation 1 = 1 Phase Electronic Contactor</p>				
<p>Type Semiconductor Contactor - Ohmic and inductive loads</p>				

Control Voltage	Line Voltage	Current Load (Amps)		Catalog No.
		AC1	AC3	
5 - 24 VDC	48 - 600 VAC	15	15	SC1DD6015
		30	15	SC1DD6030
		50	15	SC1DD6050
		63	30	SC1DD6063*
	24 - 690 VAC	15	15	SC1DD6915*
		30	15	SC1DD6930*
		50	15	SC1DD6950*
		63	30	SC1DD6963*

* SC1DX69XX / SC1DXXX63 not UL approved

2 & 3 PHASE ELECTRONIC CONTACTOR

- SC series - Semiconductor contactors, 2 and 3 phase.
- General applications; resistive or inductive loads, heating elements / lamps / motors / transformers, etc.
- 15 - 50A supply, up to 480 VAC



2 Pole

SC	2	DA	23	30
<p>AC-1/51 / AC-3/53 30 = 30A / 15A 50 = 50A / 15A</p>				
<p>Line Voltage 50/60Hz 23 = 12 - 240 VAC 40 = 24 - 480 VAC</p>				
<p>Control Voltage DA/DD DA = 24 - 230V (AC) DD = 5 - 24V (DC)</p>				
<p>Phase Regulation 2 = 1 Phase Dual Pole Electronic Contactor (Accumulated, two independent controlled phases)</p>				
<p>Type Semiconductor Contactor</p>				

Control Voltage	Line Voltage	Current Load (Amps)		Catalog No.
		AC1	AC3	
24 - 230 VAC	12 - 240 VAC	30	15	SC2DA2330
		50	15	SC2DA2350
	24 - 480 VAC	30	15	SC2DA4030
		50	15	SC2DA4050
5 - 24 VDC	12 - 240 VAC	30	15	SC2DD2330
		50	15	SC2DD2350
	24 - 480 VAC	30	15	SC2DD4030
		50	15	SC2DD4050

3 Pole

SC	3	DA	40	10
<p>AC-1/51 / AC-3/53 10 = 10A / 10A 15 = 15A / 10A 20 = 20A / 10A</p>				
<p>Line Voltage 50/60Hz 23 = 12 - 240 VAC 40 = 24 - 480 VAC</p>				
<p>Control Voltage DA/DD DA = 24 - 230V (AC) DD = 5 - 24V (DC)</p>				
<p>Phase Regulation 3 = 3 Phase Electronic Contactor (Three controlled phases)</p>				
<p>Type Semiconductor Contactor</p>				

Control Voltage	Line Voltage	Current Load (Amps)		Catalog No.
		AC1	AC3	
24 - 230 VAC	12 - 240 VAC	10	10	SC3DA2310
		20	10	SC3DA2320
	24 - 480 VAC	10	10	SC3DA4010
		20	10	SC3DA4020
5 - 24 VDC	12 - 240 VAC	10	10	SC3DD2310
		20	10	SC3DD2320
	24 - 480 VAC	10	10	SC3DD4010
		20	10	SC3DD4020

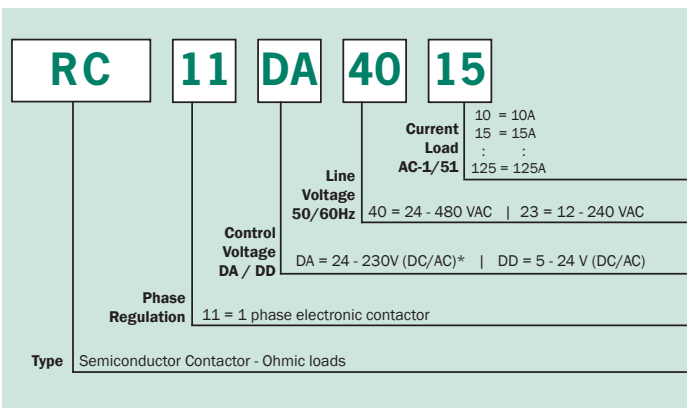
1 PHASE CONTACTORS - RESISTIVE LOADS



- RC Series - 1 phase contactors for resistive loads such as heating elements, lamps, etc. (Ohmic loads)
- Resistive Loads from 10 - 125A AC1
- Rated operational voltage up to 480 VAC
- Universal control voltage DC/DC or DC/AC



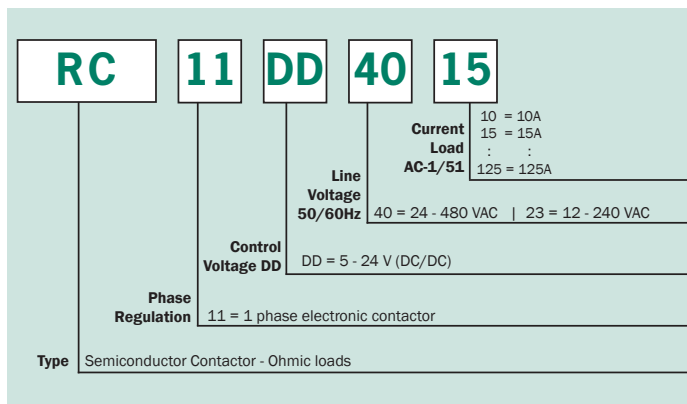
Part Number Nomenclature



Control Voltage	Line Voltage	Current Load (amps AC1)	Catalog No.
24 - 230V AC/DC	24 - 240 VAC	15	RC11DA2315
	24 - 480 VAC	15	RC11DA4015
		30	RC11DA4030
		50	RC11DA4050
		63	RC11DA4063
		80	RC11DA4080*
		125	RC11DA40125*

* RC11DA4080A Control voltage only 24 VDC or 230 VAC

* RC11DA40125A Control voltage only 24 VDC or 230 VAC



Control Voltage	Line Voltage	Current Load (amps AC1/51)	Catalog No.
5 - 24 VDC	12 - 240 VAC	10	RC11DD2310
		15	RC11DD2315
		30	RC11DD2330
		50	RC11DD2350
		63	RC11DD2363
	24 - 480 VAC	15	RC11DD4015
		30	RC11DD4030
		50	RC11DD4050
		63	RC11DD4063
		80	RC11DD4080
		125	RC11DD40125

2 OR 3 PHASE CONTACTORS - RESISTIVE LOADS



- RC Series - 2 or 3 phase contactors for resistive loads such as heating elements, lamps, etc. (Ohmic loads)
- Resistive Loads from 10 - 50A AC1
- Rated operational voltage up to 480 VAC
- Universal control voltage DC/DC or DC/AC



RC	22	DA	40	30
		Line Voltage 50/60Hz		Current Load AC-1/51 30 = 30A 50 = 50A
Control Voltage DA/DD		40 = 24 - 480 VAC		
Phase Regulation		DA = 24 - 230V (DC/AC) DD = 5 - 24 V (DC/AC)		
Type		Semiconductor Contactor - Ohmic loads		

Control Voltage	Line Voltage	Current Load (amps AC1)	Catalog No.
24 - 230V AC/DC	24 - 480 VAC	30	RC22DA4030
		50	RC22DA4050
30		RC22DD4030	
50		RC22DD4050	
5 - 24 V DC	24 - 480 VAC	15	RC32DA4015
25		RC32DA4025	

RC	33	DA	40	15
		Line Voltage 50/60Hz		Current Load AC-1/51 15 = 15A 20 = 20A 25 = 25A
Control Voltage DA/DD		40 = 24 - 480 VAC 23 = 12 - 240 VAC		
Phase Regulation		DA = 24 - 230V (DC/AC) DD = 5 - 24 V (DC/DC)		
Type		Semiconductor Contactor - Ohmic loads		

Control Voltage	Line Voltage	Current Load (amps AC1/51)	Catalog No.
5 - 24 VDC	24 - 480 VAC	15	RC32DD4015
		25	RC32DD4025
		30	RC32DD4030
24 - 230V AC/DC	12 - 240 VAC	10	RC33DA2310
		20	RC33DA2320
24 - 230V AC/DC	24 - 480 VAC	10	RC33DA4010
		20	RC33DA4020
5 - 24 VDC	24 - 480 VAC	10	RC33DD4010
		20	RC33DD4010

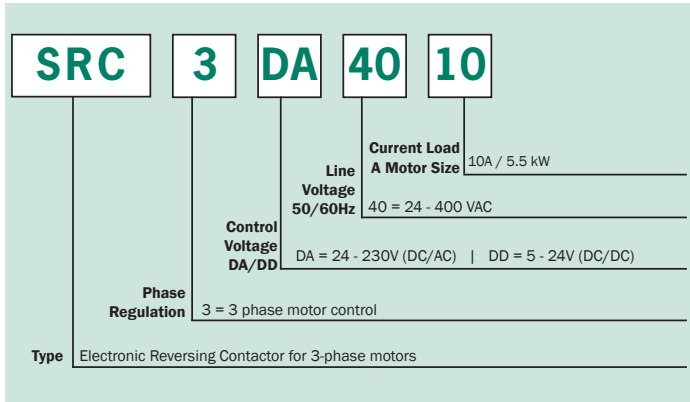
SPECIALTY PRODUCTS

3 PHASE - REVERSING CONTACTOR

- SRC series - reversing contactors for ClockWise / CCW control of 3-phase AC motors
- Loads up to 10A (0.37 kW - 5.5 kW @ 480V)
- Universal control voltage 5 - 24 VDC or 24 - 230 V AC/DC



Part Number Nomenclature



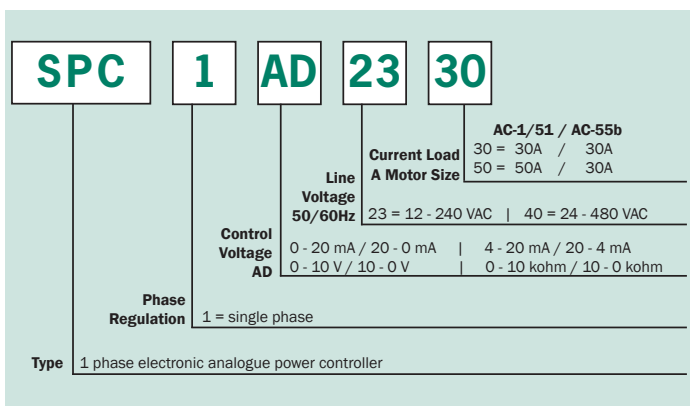
Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
24 - 230V (DC/AC)	24 - 400 VAC	10	SRC3DA4010
5 - 24V (DC/DC)			SRC3DD4010

ANALOGUE POWER CONTROLLERS

- SPC series - Analogue power controller for accurate process control
- Electronic phase angle or burst fire control of heating applications, lamps, trafos, heating elements, etc.



Part Number Nomenclature



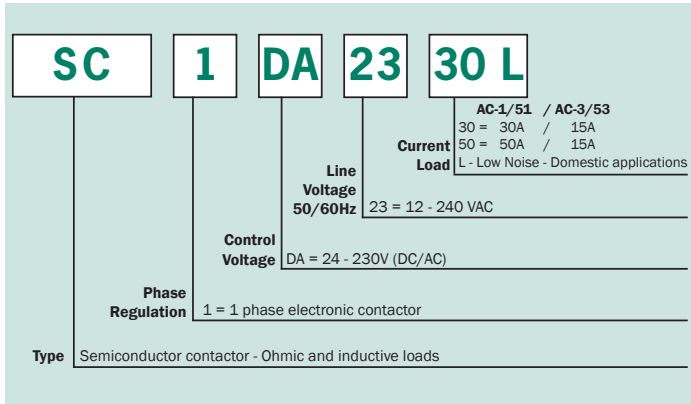
Control Voltage AD	Line Voltage	Current Load (amps)	Catalog No.
0 - 20 mA / 20 - 0 mA	12 - 240 VAC	30	SPC1AD2330
		50	SPC1AD2350
4 - 20 mA / 20 - 4 mA	24 - 480 VAC	30	SPC1AD4030
		50	SPC1AD4030

1 PHASE - LOW NOISE CONTACTORS

- SC Series - Low noise semiconductors contactors
- 1 phase for use in domestic applications with resistive or inductive loads
- Up to 50A - supply up to 690 VAC 50/60 Hz



Part Number Nomenclature



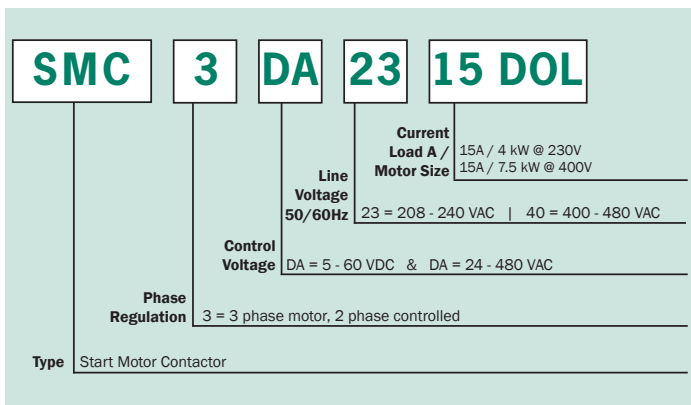
Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
24 - 230V (DC/AC)	12 - 240 VAC	30	SC1DA2330L
		50	SC1DA2350L

3 PHASE - META CONTACTORS (AOL)

- Electronic Motor Contactors (DOL) for 3 phase motor applications up to 15A
- Ideal for harsh applications where jogging and plugging is frequently used, where a high number of operating cycles are essential
- Fx: Cranes, material handling equipment, etc.
- Typical lifetime 25 million cycles



Part Number Nomenclature



Control Voltage	Line Voltage	Current Load (amps)	Catalog No.
24 - 480 VAC	400 - 480 VAC	15	SMC3DA4015DOL
	208 - 240 VAC		SMC3DA2315DOL

NOTES



Welcome to the new edition of the Springer Controls Company, Inc. **Product Guide to Soft Start and Solid-State Contactors.** This section reflects our continuing commitment to our customers to provide complete, up-to-date product information and technical data. We appreciate you choosing Springer Controls and we will continue to update this information as well as provide new products to meet today's demands for electrical control products.

Definite Purpose Contactors



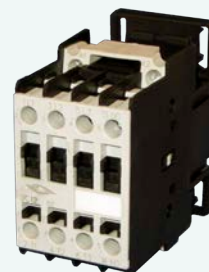
Assembled Starters



Manual Motor Starters



IEC Contactors



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96074 Chester Road --- Yulee, Florida, 32097
Phone: (904) 225-0575