

# SOLID -STATE CONTACTORS / STARTERS



**SPRINGER**  
controls company

Index  
**E**

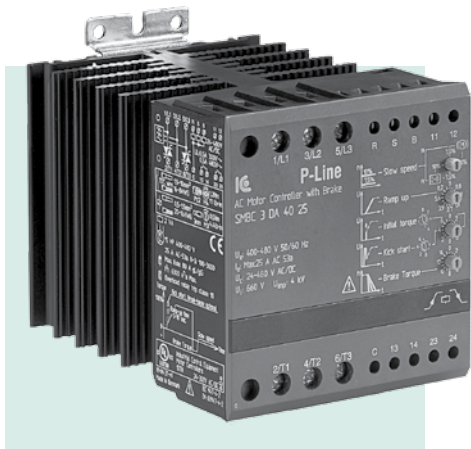
**Springer Controls Company** carries a full line of solid-state contactors manufactured by IC ELECTRONICS A/S. The product line includes single phase electronic contactors, dual contactors, lamp & transformer controls, three phase contactors, soft-starters (1, 2 & 3 phase), reversing contactors, and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

## SOLID-STATE CONTACTORS & STARTERS;

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## DESCRIPTION / FEATURES

E 2



### Description

**Springer Controls Company** carries a full line of solid-state contactors manufactured by 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.

**Springer Controls** also carries a full line of solid state overload relays manufactured by FANOX. Consult factory for pricing and availability.

### Applications

- Motor Controls
- Mercury Switch Replacement
- Heat Controllers
- Lamp Control
- Extreme Vibration
- High Frequency of Operation

### Key Features

- Contactors are UL and CSA certified as well as have the IEC international certification.
- Complete solid state SMT
- Top quality design for electrically harsh industrial applications.
- DIN rail mounting options
- Compact modular design; smallest soft-starter made (22.5 mm).
- Operational Voltage; 24V - 600V AC/DC
- Control Voltage; 24V - 600V AC/DC
- IP - 20 protection

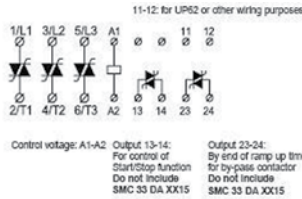


**SOFT STARTERS**

**E 3**

**Soft Starters - THREE CONTROLLED PHASES**

Control voltage: 24-230/480 VAC/DC. Ramp-Up 0.5-30 sec./Ramp-down time 0.5-60 sec. Initial torque adjustment with 200ms selectable kick start. BP= By-Passing the soft starter with an external mechanical contactor.



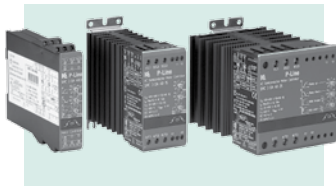
Line voltage 50/60 Hz	Motor Size HP / A without by-pass		Motor Size HP / A with by-pass (BP)		Modul width	Catalog No.	Price
208 - 240VAC	5	15A	---	---	90 mm	SMC 33 DA 2315	\$807.00
400 - 480VAC	10	15A	---	---	90 mm	SMC 33 DA 4015	\$855.00
208 - 240VAC	5	17A	10	25A	90 mm	SMC 33 DA 2325 BP	\$1058.00
400 - 480VAC	10	17A	15	25A	90 mm	SMC 33 DA 4025 BP	\$1191.00
208 - 240VAC	15	35A	20	50A	180 mm	SMC 33 DA 2350 BP	\$1588.00
400 - 480VAC	20	35A	30	50A	180 mm	SMC 33 DA 4050 BP	\$1714.00
550 - 600VAC	30	35A	50	50A	180 mm	SMC 33 DA 6050 BP	\$1856.00

**Items for Inside Delta Configuration**

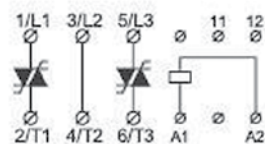
208 - 240VAC	10	29A	15	43A	90 mm	SMC 33 DA 2340 DBP	\$1150.00
400 - 480VAC	20	29A	20	43A	90 mm	SMC 33 DA 4040 DBP	\$1295.00
208 - 240VAC	25	60A	30	86A	180 mm	SMC 33 DA 2385 DBP	\$1906.00
400 - 480VAC	40	60A	60	86A	180 mm	SMC 33 DA 4085 DBP	\$2057.00
550 - 600VAC	40	60A	60	86A	180 mm	SMC 33 DA 6085 DBP	\$2227.00

**Soft Starters - TWO CONTROLLED PHASES**

Control voltage: 24-230/480 VAC/DC. Ramp-Up/Down time 0.5 - 10/20 sec. Initial torque adjustment with 200ms selectable kick start. BP = By-Passing the soft starter with an external mechanical contactor unless tested as internal.



SMC 3 DA XX15/25  
11-12: for UP62 or other wiring purposes



Line voltage 50/60 Hz	Motor Size HP / A without by-pass		Motor Size HP / A with by-pass (BP)		Modul width	Catalog No.	Price
208 - 240VAC	1	3A	Internal by-pass relay		22.5 mm	SMC 3 DA 2303	\$427.00
400 - 415VAC	2	3A	Internal by-pass relay		22.5 mm	SMC 3 DA 4003	\$427.00
440 - 480VAC	2	3A	Internal by-pass relay		22.5 mm	SMC 3 DA 4803	\$453.00
550 - 600VAC	2	3A	Internal by-pass relay		22.5 mm	SMC 3 DA 6003	\$462.00
208 - 240VAC	5	15A	Internal by-pass relay		45 mm	SMC 32 DA 2315 BP	\$587.00
400 - 415VAC	10	15A	Internal by-pass relay		45 mm	SMC 32 DA 4015 BP	\$587.00
440 - 480VAC	10	15A	Internal by-pass relay		45 mm	SMC 32 DA 4815 BP	\$623.00
208 - 240VAC	5	15A			45 mm	SMC 3 DA 2315	\$606.00
400 - 480VAC	10	15A			45 mm	SMC 3 DA 4015	\$635.00
550 - 600VAC	15	15A			45 mm	SMC 3 DA 6015	\$683.00
208 - 240VAC	10	25A			90 mm	SMC 3 DA 2325	\$913.00
400 - 480VAC	15	25A			90 mm	SMC 3 DA 4025	\$952.00
550 - 600VAC	25	25A			90 mm	SMC 3 DA 6025	\$1010.00
208 - 240VAC	10	25A	15	30A	90 mm	SMC 3 DA 2325 BP	\$1013.00
400 - 480VAC	15	25A	20	30A	90 mm	SMC 3 DA 4025 BP	\$1067.00
550 - 600VAC	25	25A	25	30A	90 mm	SMC 3 DA 6025 BP	\$1120.00

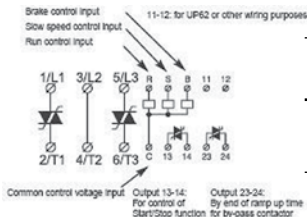
**Discount Schedule SC-30**

## TORQUE LIMITERS & REVERSING CONTACTORS

### Soft Starters for 3-Phase Motor Application With Integrated Dynamic Brake

Control voltage: 24-230/480 VAC/DC. Ramp-Up/Down time 0.5 - 10 sec. Initial torque adjustment with 200ms selectable kick start. BP = By-Passing the soft starter with an external mechanical contactor.

Brake



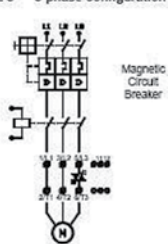
Line voltage 50/60 Hz	Motor Size HP / A without by-pass		Motor Size HP / A with by-pass (BP)		Modul width	Catalog No.	Price
208 - 240VAC	10	25A			90 mm	SMBC 3 DA 2325	\$1795.00
400 - 415VAC	15	25A	20	30A	90 mm	SMBC 3 DA 4025	\$1831.00

### Starting Torque Limiter for 3-Phase Motor Applications

Ramp-Up time 0.5 - 5 sec. with initial torque adjustment.

1-controlled phase

STL 3 3-phase configuration



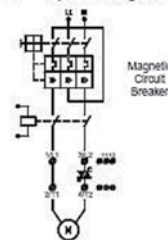
Line voltage 50/60 Hz	Motor Size HP / A without by-pass		Modul width	Catalog No.	Price
120 - 240VAC	5	15A	45 mm	STL 3 1215	\$302.00
208 - 480VAC	10	15A	45 mm	STL 3 4015	\$317.00
550 - 600VAC	10	15A	45 mm	STL 3 6015	\$375.00
120 - 240VAC	2.5	25A	45 mm	STL 3 1225	\$350.00
208 - 480VAC	15	25A	45 mm	STL 3 4025	\$365.00
550 - 600VAC	25	25A	45 mm	STL 3 6025	\$423.00

### Starting Torque Limiter for 1-Phase Motor Applications

Ramp-Up time 0.5 - 5 sec. with initial torque adjustment.

1-controlled phase

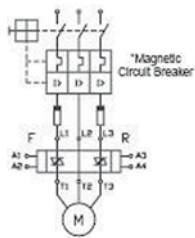
STL 1 1-phase configuration



Line voltage 50/60 Hz	Motor Size HP / A without by-pass		Modul width	Catalog No.	Price
120 - 240VAC	3	15A	45 mm	STL 1 1215	\$302.00
208 - 480VAC	5	15A	45 mm	STL 1 4015	\$315.00
550 - 600VAC	5	15A	45 mm	STL 1 6015	\$371.00
120 - 240VAC	5	25A	45 mm	STL 1 1225	\$350.00
208 - 480VAC	10	25A	45 mm	STL 1 4025	\$363.00
550 - 600VAC	10	25A	45 mm	STL 1 6025	\$419.00

### Electronic Reversing Contactor for 3-Phase Motor Applications

Reversing



Line voltage 50/60 Hz	Motor Size HP / A		Control Voltage	Modul width	Catalog No.	Price
24 - 480VAC	5	10A	5 - 24VDC	45 mm	SRC 3 DD 4010	\$585.00
24 - 480VAC	5	10A	24-230VAC/DC	45 mm	SRC 3 DA 4010	\$606.00

### Electronic Reversing Contactor (DOL) for 3-Phase Motor Applications

Reversing



Line voltage 50/60 Hz	Motor Size HP / A		Control Voltage	Modul width	Catalog No.	Price
208 - 240VAC	5	15A	5 - 60VDC	45 mm	SMC 3 DA 2315 DOL	\$365.00
400 - 480VAC	10	15A	&	45 mm	SMC 3 DA 4015 DOL	\$397.00
550 - 600VAC	15	15A	24 - 480VAC	45 mm	SMC 3 DA 6015 DOL	\$413.00

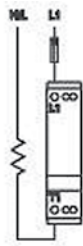
Discount Schedule SC-30

**ONE PHASE ELECTRONIC CONTACTORS**

**E 5**

**1-Phase Electronic Contactors**

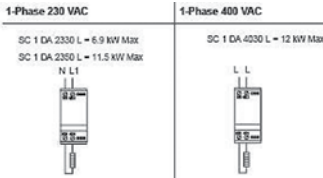
**Load 15A / 30A / 50A / 63A**



Line voltage 50/60 Hz	Current Load		Control Voltage	Modul width	Catalog No.	Price
	AC-1/51	AC-3/53				
12 - 240VAC	15A	15A	5 - 24VDC	22.5 mm	SC 1 DD 2315	\$169.00
24 - 480VAC	15A	15A	5 - 24VDC	22.5 mm	SC 1 DD 4015	\$189.00
48 - 600VAC	15A	15A	5 - 24VDC	22.5 mm	SC 1 DD 6015	\$238.00
12 - 240VAC	15A	15A	24 - 230VAC/DC	22.5 mm	SC 1 DA 2315	\$198.00
24 - 480VAC	15A	15A	24 - 230VAC/DC	22.5 mm	SC 1 DA 4015	\$217.00
48 - 600VAC	15A	10A	24 - 230VAC/DC	22.5 mm	SC 1 DA 6015	\$266.00
12 - 240VAC	30A	15A	5 - 24VDC	45 mm	SC 1 DD 2330	\$210.00
24 - 480VAC	30A	15A	5 - 24VDC	45 mm	SC 1 DD 4030	\$227.00
48 - 600VAC	30A	15A	5 - 24VDC	45 mm	SC 1 DD 6030	\$278.00
12 - 240VAC	30A	15A	24 - 230VAC/DC	45 mm	SC 1 DA 2330	\$226.00
24 - 480VAC	30A	15A	24 - 230VAC/DC	45 mm	SC 1 DA 4030	\$243.00
48 - 600VAC	30A	15A	24 - 230VAC/DC	45 mm	SC 1 DA 6030	\$300.00
12 - 240VAC	50A	15A	5 - 24VDC	90 mm	SC 1 DD 2350	\$259.00
24 - 480VAC	50A	15A	5 - 24VDC	90 mm	SC 1 DD 4050	\$276.00
48 - 600VAC	50A	15A	5 - 24VDC	90 mm	SC 1 DD 6050	\$279.00
12 - 240VAC	50A	15A	24 - 230VAC/DC	90 mm	SC 1 DA 2350	\$275.00
24 - 480VAC	50A	15A	24 - 230VAC/DC	90 mm	SC 1 DA 4050	\$292.00
48 - 600VAC	50A	15A	24 - 230VAC/DC	90 mm	SC 1 DA 6050	\$313.00
12 - 240VAC	63A	30A	5 - 24VDC	90 mm	SC 1 DD 2363	\$302.00
24 - 480VAC	63A	30A	5 - 24VDC	90 mm	SC 1 DD 4063	\$318.00
48 - 600VAC	63A	30A	5 - 24VDC	90 mm	SC 1 DD 6063	\$356.00
12 - 240VAC	63A	30A	24 - 230VAC/DC	90 mm	SC 1 DA 2363	\$320.00
24 - 480VAC	63A	30A	24 - 230VAC/DC	90 mm	SC 1 DA 4063	\$333.00
48 - 600VAC	63A	30A	24 - 230VAC/DC	90 mm	SC 1 DA 6063	\$373.00

**1-Phase Electronic Contactors with Neutral Connection**

**Load 30A / 50A**



Line voltage 50/60 Hz	Motor Size kW / A		Control Voltage	Modul width	Catalog No.	Price
	AC-1/51	AC-3/53				
110 - 230VAC	30A	15A	24 - 230VAC/DC	45 mm	SC 1 DA 2330 L	\$261.00
380 - 415VAC	30A	15A	24 - 230VAC/DC	45 mm	SC 1 DA 4030 L	\$299.00
110 - 230VAC	50A	15A	24 - 230VAC/DC	90 mm	SC 1 DA 2350 L	\$290.00

**1-Phase Electronic Analogue Power Controllers (phase angle or burst firing control mode)**

**Load 30A / 50A**



Line voltage 50/60 Hz	Current Load		Control Signal	Modul width	Catalog No.	Price
	AC-1/51	AC-3/53				
208 - 240VAC	30A	30A	0-20mA/20-0mA	45 mm	SPC 1 AD 2330	\$596.00
208 - 240VAC	50A	30A	4-20mA/20-4mA	90 mm	SPC 1 AD 2350	\$660.00
380 - 480VAC	30A	30A	0-10volt/10-0volt	45 mm	SPC 1 AD 4030	\$617.00
380 - 480VAC	50A	30A	0-10kohm/10-0kohm	90 mm	SPC 1 AD 4050	\$682.00

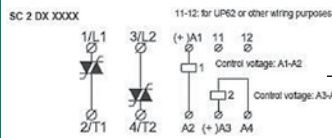
**Discount Schedule SC-30**

## ONE & THREE-PHASE ELECTRONIC CONTACTORS

### 1-Phase Dual Pole Electronic Contactors (accumulated, two independent controlled phases)

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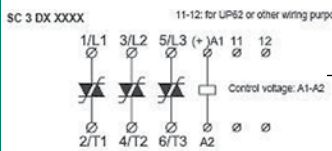
Load 30A / 50A accumulated



Line voltage 50/60 Hz	Current Load		Control Voltage	Modul width	Catalog No.	Price
	AC-1/51	AC-3/53				
12 - 240VAC	30A acc	15A acc	5 - 24VDC	45 mm	SC 2 DD 2330	\$303.00
24 - 480VAC	30A acc	15A acc	5 - 24VDC	45 mm	SC 2 DD 4030	\$337.00
48 - 600VAC	30A acc	15A acc	5 - 24VDC	45 mm	SC 2 DD 6030	\$365.00
12 - 240VAC	30A acc	15A acc	24 - 230VAC/DC	45 mm	SC 2 DA 2330	\$342.00
24 - 480VAC	30A acc	15A acc	24 - 230VAC/DC	45 mm	SC 2 DA 4030	\$377.00
48 - 600VAC	30A acc	15A acc	24 - 230VAC/DC	45 mm	SC 2 DA 6030	\$401.00
12 - 240VAC	50A acc	15A acc	5 - 24VDC	90 mm	SC 2 DD 2350	\$352.00
24 - 480VAC	50A acc	15A acc	5 - 24VDC	90 mm	SC 2 DD 4050	\$387.00
48 - 600VAC	50A acc	15A acc	5 - 24VDC	90 mm	SC 2 DD 6050	\$409.00
12 - 240VAC	50A acc	15A acc	24 - 230VAC/DC	90 mm	SC 2 DA 2350	\$392.00
24 - 480VAC	50A acc	15A acc	24 - 230VAC/DC	90 mm	SC 2 DA 4050	\$426.00
48 - 600VAC	50A acc	15A acc	24 - 230VAC/DC	90 mm	SC 2 DA 6050	\$445.00

### 3-Phase Electronic Contactors (three controlled phases)

Load 10A / 20A



Line voltage 50/60 Hz	Current Load		Control Voltage	Modul width	Catalog No.	Price
	AC-1/51	AC-3/53				
12 - 240VAC	10A	10A	5 - 24VDC	45 mm	SC 3 DD 2310	\$330.00
24 - 480VAC	10A	10A	5 - 24VDC	45 mm	SC 3 DD 4010	\$382.00
48 - 600VAC	10A	10A	5 - 24VDC	45 mm	SC 3 DD 6010	\$437.00
12 - 240VAC	10A	10A	24 - 230VAC/DC	45 mm	SC 3 DA 2310	\$344.00
24 - 480VAC	10A	10A	24 - 230VAC/DC	45 mm	SC 3 DA 4010	\$382.00
48 - 600VAC	10A	10A	24 - 230VAC/DC	45 mm	SC 3 DA 6010	\$450.00
12 - 240VAC	20A	10A	5 - 24VDC	90 mm	SC 3 DD 2320	\$379.00
24 - 480VAC	20A	10A	5 - 24VDC	90 mm	SC 3 DD 4020	\$431.00
48 - 600VAC	20A	10A	5 - 24VDC	90 mm	SC 3 DD 6020	\$481.00
12 - 240VAC	20A	10A	24 - 230VAC/DC	90 mm	SC 3 DA 2320	\$393.00
24 - 480VAC	20A	10A	24 - 230VAC/DC	90 mm	SC 3 DA 4020	\$446.00
48 - 600VAC	20A	10A	24 - 230VAC/DC	90 mm	SC 3 DA 6020	\$493.00

### AC Auxiliary Contact Module

Load 5A



Line voltage 50/60 Hz	Current Load		Control Voltage	Modul width	Catalog No.	Price
	AC-22	DC-22				
208 - 600VAC	5A	3A	208 - 600VAC	22.5 mm	MAUX 01 600	\$173.00

Discount Schedule SC-30

**CONTACTORS FOR RESISTIVE HEATER APPLICATION**

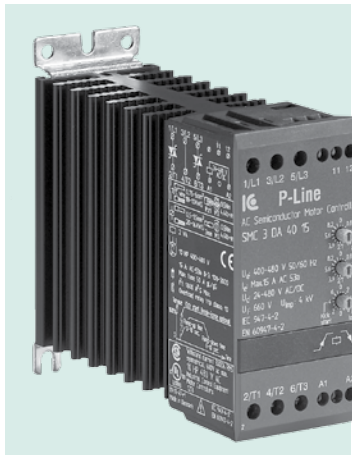
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**1-Pole Contactors**



Line Voltage	Load	Control Voltage	Catalog No.	Price
<b>Electronic Contactor 1-pole 10A 230V</b>				
230 VAC	10A	5 - 24 VDC	RC11DD2310	\$449.00
<b>Electronic Contactor 1-pole 15A 230V</b>				
230 VAC	15A	5 - 24 VDC	RC11DD2315	\$521.00
230 VAC	15A	24 - 230 VAC/DC	RC11DA2315	\$590.00
<b>Electronic Contactor 1-pole 15A 400V</b>				
400VAC	15A	5 - 24 VDC	RC11DD4015	\$535.00
400 VAC	15A	24 - 230 VAC/DC	RC11DA4015	\$625.00
<b>Electronic Contactor 1-pole 30A 230V</b>				
230 VAC	30A	5 - 24 VDC	RC11DD2330	\$611.00
230 VAC	30A	24 - 230 VAC/DC	RC11DA2330	\$666.00
<b>Electronic Contactor 1-pole 50A 230V</b>				
230 VAC	50A	5 - 24 VDC	RC11DD2350	\$784.00
230 VAC	50A	24 - 230 VAC/DC	RC11DA2350	\$881.00
<b>Electronic Contactor 1-pole 30A 400V</b>				
400 VAC	30A	5 - 24 VDC	RC11DD4030	\$625.00
400 VAC	30A	24 - 230 VAC/DC	RC11DA4030	\$680.00
<b>Electronic Contactor 1-pole 50A 400V</b>				
400 VAC	50A	5 - 24 VDC	RC11DD4050	\$798.00
400 VAC	50A	24 - 230 VAC/DC	RC11DA4050	\$867.00

**2-Pole Contactors**



Line Voltage	Load	Control Voltage	Catalog No.	Price
<b>Electronic Contactor 2-pole 30A 230V</b>				
230 VAC	30A	5 - 24 VDC	RC22DD2330	\$863.00
230 VAC	30A	24 - 230 VAC/DC	RC22DA2330	\$998.00
<b>Electronic Contactor 2-pole 50A 230V</b>				
230 VAC	50A	5 - 24 VDC	RC22DD2350	\$1,105.00
230 VAC	50A	24 - 230 VAC/DC	RC22DA2350	\$1,243.00
<b>Electronic Contactor 2-pole 30A 400V</b>				
400 VAC	30A	5 - 24 VDC	RC22DD4030	\$943.00
400 VAC	30A	24 - 230 VAC/DC	RC22DA4030	\$1,032.00
<b>Electronic Contactor 5-pole 50A 400V</b>				
400 VAC	50A	5 - 24 VDC	RC22DD4050	\$1,122.00
400 VAC	50A	24 - 230 VAC/DC	RC22DA4050	\$1,260.00

**Discount Schedule SC-30**

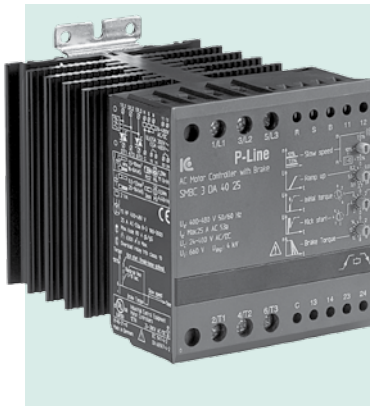
CONTACTORS FOR RESISTIVE HEAT APPLICATION

3-Pole Contactors -- 2 Phases Controlled



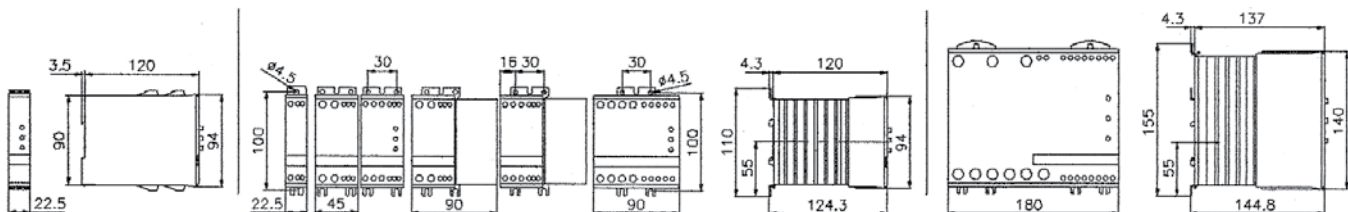
Line Voltage	Load	Control Voltage	Catalog No.	Price
<b>Electronic Contactor 3-pole 15A 400V</b>				
400 VAC	15A	5 - 24 VDC	RC32DD4015	\$881.00
400 VAC	15A	24 - 230 VAC/DC	RC32DA4015	\$932.00
<b>Electronic Contactor 3-pole 25A 400V</b>				
400 VAC	25A	5 - 24 VDC	RC32DD4025	\$1,019.00
400 VAC	25A	24 - 230 VAC/DC	RC32DA4025	\$1,053.00

3-Pole Contactors -- 3 Phases Controlled



Line Voltage	Load	Control Voltage	Catalog No.	Price
<b>Electronic Contactor 3-pole 10A 230V</b>				
230 VAC	10A	5 - 24 VDC	RC33DD2310	\$1,015.00
230 VAC	10A	24 - 230 VAC/DC	RC33DA2310	\$1,064.00
<b>Electronic Contactor 3-pole 20A 230V</b>				
230 VAC	20A	5 - 24 VDC	RC33DD2320	\$1,160.00
230 VAC	20A	24 - 230 VAC/DC	RC33DA2320	\$1,205.00
<b>Electronic Contactor 3-pole 10A 400V</b>				
400 VAC	10A	5 - 24 VDC	RC33DD4010	\$1,043.00
400 VAC	10A	24 - 230 VAC/DC	RC33DA4010	\$1,095.00
<b>Electronic Contactor 3-pole 20A 400V</b>				
400 VAC	20A	5 - 24 VDC	RC33DD4020	\$1,188.00
400 VAC	20A	24 - 230 VAC/DC	RC33DA4020	\$1,240.00

Dimensions



Discount Schedule SC-30