Dual AC Semiconductor Contactor



- * Rated operational voltage up to 600VAC 50/60 Hz
- * Rated operational current up to 30 or 50 A AC-1 (accumulated)
- * Compact modular design 45 or 90 mm
- * Control voltage range: 5-24 V DC or 24-230 V AC/DC
- * LED Status indication
- * IP-20 Protection
- * Meets IEC 947-4-3 / EN 60947-4-3 requirements
- * Requires no additional components
- * Built-in varistor protection





Product Description and Item Selection

Two independent single semi-
conductor contactors designed
to switch various industrial
loads, heating elements, motors
and lamps in 1 or 3 phase
applications. Unique electronic
and thermal design ensures
high switching capacity and
long lifetime. Zero Voltage
turn-On reduces RFI

Line Voltage	Control Voltage	Item No. 30 A	Item No. 50 A
24 - 240 VAC 50/60 Hz	5 - 24 V DC	SC 2 DD 2330	SC 2 DD 2350
24 - 240 VAC 50/60 Hz	24 - 230 V AC/DC	SC 2 DA 2330	SC 2 DA 2350
24 - 480 VAC 50/60 Hz	5 - 24 V DC	SC 2 DD 4030	SC 2 DD 4050
24 - 480 VAC 50/60 Hz	24 - 230 V AC/DC	SC 2 DA 4030	SC 2 DA 4050
48 - 600 VAC 50/60 Hz	5 - 24 V DC	SC 2 DD 6030	SC 2 DD 6050
48 - 600 VAC 50/60 Hz	24 - 230 V AC/DC	SC 2 DA 6030	SC 2 DA 6050

Output Specifications	SC2DX / 30 A	SC2DX / 50 A
Operational current AC-1 (e.g. 1 x30 A or 50 A or 2 x 15 A or 25 A)	30 A max. (accumulated)	50 A max. (accumulated)
Operational current AC-3 (e.g. 2 x 15 A)	15 A max. (accumulated)	15 A max. (accumulated)
Leakage current	1 mA AC max.	1 mA AC max.
Minimum operational current	10 mA AC	10 mA AC
Duty cycle	Continuous operation	

Current Derating	Amb. Temperature	SC2DX / 30 A	SC2DX / 50 A
Current derating in high temperature applications	40°C	30.0 A	50.0 A
For operation in ambient temperatures exceeding 40°C	50°C	25.0 A	40.0 A
at the AC-1 Load the current must be derated as shown	60°C	20.0 A	30.0 A
in the table			

The manufacturer of the cabinets can normally provide the necessary data for the cabinet and guidelines for calculating the max. acceptable internal power dissipation.

Control Specifications	SC2 DD XXXX	SC2 DA XXXX
Control Voltage range	5 - 24 V DC	24 - 230 V AC/DC
Pick-up voltage max.	4.25 V DC	20.4 V AC/DC
Drop out voltage min.	1.5 V DC	7.2 V AC/DC
Control current / power max.	15 mA @ 4 V DC	1.5VA/6mA @ 24 V DC
Max. control voltage	32 V DC	253 V AC/DC
Response time max.	1/2 cycle	1 cycle

Specifications are subject to change without notice



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Wiring Diagram

Main terminal 1/L1-2/T1 & 3/L2-4/T2. Control terminals A1-A4. Terminal 11 and 12 have no connection with the internal circuit but are intended for connection to the optional thermal overload protection. See application information for further details page 49

Thermal Specifications

Power dissipation for continuous operation PDmax.	1.2 W/A (accumulated)
Power dissipation for intermittent operation PD	1.2 W/ A dutycycle
Cooling method.	Natural convection
Mounting	Vertical +/-30°
Operating temperature range IEC 158-2	-5C° to 40°C
Storage temperature IEC 158-2	-20C° to 80°C
Max. operating temperature with AC-1 current derating according to table	60°C

Thermal overload protection



Optional thermal overload protection is possible by inserting a thermostat in the slot on the right hand side of the Soft starter.

Type number UP62-100

See application hints for further details page 49

Insulation Specifications

Rated insulation voltage	Ui 660 V
Rated impulse withstand voltage	Uimp. 4 kV
Installation category	III

EMC

This component meets the requirements of the product standard IEC 158-2/HD419.2-S1 / IEC 947-4-3 / EN 60947-4-3 and is CE marked according to this standard.

Short-circuit co-ordination According to IEC 947-4-3

See page 49

Contactor Type	Co-ordination Type 1	Co-ordinat	ion Type 2
	Max fuse / Operating Class	Ferraz	Siemens
SC2DX 2330 / 4030 / 6030	50 A gL / gG	660 RB 10-30	5SD4 50 500 V Max.
SC2DX 2350 / 4050 / 6050	50 A gL / gG	6.621CPURGA 22x58/50	5SD4 60 500 V Max.

Environment		Cable Wiring Information
Degree of protection / Pollution degree	IP 20 / 3	See page 57

Approvals CAN/CSA-C22.2 / UL Std No. 508 See page 57 See page 57

Applications Information	Overload Protection
See page 49	See page 49

^{*} This product has been designed for class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods.