

# Semiconductor Motor Controller (Direct On Line)



- \* For Direct On Line start of 3 Phase motors
- \* Rated operational Voltage from 24 to 600 VAC
- \* Rated operational current up to 15 Amp AC-3
- \* Versatile control circuit: 24-480 VAC/24-60 VDC
- \* LED status indication
- \* Meets EN 60947-4-2 IEC 60947-4-2 requirements
- \* Unlimited number of start/stop operations pr. hour
- \* Compact modular design
- \* Requires only 45 mm DIN rail space
- \* True Solid State for long life
- \* IP-20 Protection



## Product Description and Item Selection

Motor Contactor intended for accurate control of 3 Ph motors in intermittent applications e.g. where inching, jogging and plugging occurs. A true Solid State design ensures extremely long lifetime in AC-3 and AC-4 applications.

Line Voltage	Control Voltage	Motor Load	Item No.
208 VAC 50/60Hz	24 - 480 V AC or 24 - 60 V DC	4 kW / 5.0 HP	SMC 3 DA 2315 DOL
220-240 VAC 50/60Hz		4 kW / 5.0 HP	SMC 3 DA 2315 DOL
380-415 VAC 50/60Hz		7.5 kW / 10 HP	SMC 3 DA 4015 DOL
440-480 VAC 50/60Hz		7.5 kW / 10 HP	SMC 3 DA 4015 DOL
550-600 VAC 50/60Hz		11 kW / 15 H	SMC 3 DA 6015 DOL

## Output Specifications

### SMC 3DA XX15

Operational current AC-3 max.	15 A
Leakage current	5 mA AC max.
Minimum operational current	10 mA AC
Duty cycle	Continuous operation

## Control specifications

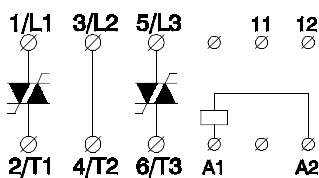
### SMC 3 DA XX15

Control Voltage range	24 - 480 V AC / 24 - 60 V DC
Pick-up voltage max.	20.4 V AC / DC
Drop out voltage min.	5 V AC / DC
Control current / power max.	1.5 VA / 6mA
Max. control voltage	510 V AC
Response time max.	1 cycle

Specifications are subject to change without notice

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## Wiring Diagram

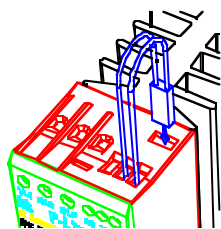


Main terminal 1/L1-2/T1 & 3/L2-4/T2 & 5/L3-6/T3.  
Control terminals A1-A2.  
Terminal 11 and 12 have no connection with the internal circuit, but are intended for connection to the optional thermal overload protection. See application information page 38

## Thermal Specifications

Power dissipation for continuous operation PD <sub>max</sub> .	2.0 W/A
Power dissipation for intermittent operation PD	2.0 W/A duty cycle
Cooling method.	Natural convection
Mounting	Vertical +/-30°
Operating temperature range IEC 947-4-2	-0C° to 40°C
Storage temperature	-20C° to 80°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

## Insulation Specifications

Rated insulation voltage	U <sub>i</sub> 660 V
Rated impulse withstand voltage	U <sub>imp</sub> 4 kV
Installation category	III

## EMC

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

## Short-circuit co-ordination According to IEC 947-4-2

See page 38

Contactor Type	Co-ordination Type 1	Co-ordination Type 2	
	Max. fuse / Operating Class	Ferraz	Siemens
SMC3 DA XX15 DOL	50 A gL / gG No time delay	6.621 CPURGA 22x58/50	5SD4 80

## Environment

Degree of protection / Pollution degree IP 20 / 3

## Cable Wiring Information

See page 57

## Approvals

CAN/CSA-C22.2 / UL Std No. 508

## Dimension and Mounting Instruction

See page 57

## Applications Information

See page 38

## Overload Protection with MCB

See page 38

\* 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.