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SMC SERIES

Modular AC Contactor

Instruction Manual

Safety warning:

- 1, product installation, should not be charged, to prevent electric shock;
- 2, the wiring screws should be tightened, so that the wire shall not be loose, so as not to cause Poor contact, damage to the product;
- 3, the product can not be personal electric shock, line overload and equipment leakage protection Protection function.

Main Technical Parameters

Table 1 - Use category and relevant code

Use category	Typical use
AC-7a	Household appliances and other low-inductive loads with similar use.
AC-7b	Household motor load

Table 2 - Basic parameters of a contactor

Parameter		Specification						
Rated Current In(A)	AC-7a	16	20	25	40	63	100	
	AC-7b	6	7	8.5	15	20	30	
	Conventional Free Air Thermal Current Ith(A)	25	25	25	63	63	100	
Rated Insulation Voltage Ui(V)		500						
Rated Voltage Ue(V)		250V(2P) 400V(4P)						
Ambient Temperature		-5°C ~ 40°C						
Making and Breaking Capacity (AC-7a)		1.5Ie						
Main Contacts		2P	1NO+1NC, 2NO, 2NC					
		4P	2NO+2NC, 3NO+1NC, 4NO, 4NC					
Controlled Power	AC-7a	230V	3.5	4.5	5.5	9	14	22
		400V	6.5	8	10	16	25	38
	AC-7b	230V	1.4	1.6	2	3.5	4.5	6.5
		400V	2.4	2.8	3.4	6	8	11
Electrical Durability (Times)		10 x 10 ⁴						
Mechanical Durability (Times)		100 x 10 ⁴						
Operation Frequency (cyc/h)		100						
Coil Voltage (V)		AC 230V 50/60HZ						
Wiring Ability (mm ²)	Control Circuit	Rigid Wire	1.5~2.5 mm ²			2 x 1.5 mm ²		
		Flexible Wire	1.5~2.5 mm ²			2 x 2.5 mm ²		
	Main Circuit	Rigid Wire	1.5~6 mm ²			6~25 mm ²		
		Flexible Wire	1~4 mm ²			6~16 mm ²		
Fastening Torque (N·m)	Main Circuit Terminal		0.8			3.5		
	Control Circuit Terminal		0.8					

Installation, Use and Maintenance

- Installation
 - Before installation, please check that the intended usage complies with the application scope and conditions of normal operation and installation of the contactor.
 - For installation, pull down the retainer of the contactor, place the contactor on the mounting rail and push up the retainer to fasten the contactor to the rail. Pull down the retainer to remove the contactor.
- - When wiring a cable into the contactor terminal securely tighten the screw. The bare copper wire or crimp connector should not be exposed outside the terminal.
- Use the correct screwdriver to tighten and unscrew the fixing screws on the contactor.
- After wiring is confirmed, energise and de-energise the coil several times with the main contacts unloaded to check normal function before operation.
- Maintenance
 - Regularly check the fixing screws for tightness and remove any dust frequently. In case of loud noise or failed insulation, or the product reaches/approaches the end of its service life, (based on its operating frequency and service time) please replace with a new product.
 - The contactor should not be exposed to rain, moisture or dust during use, storage or transportation.

Warranty

- All goods are guaranteed for 12 months from the date of purchase. This does not affect the statutory rights of the user.
- Rated Duty

a) Eight hour duty

The conventional free air thermal current ITH of a contactor is determined by this basic duty.

b) Intermittent periodic duty.

Under this duty, the rated operations frequency will be 30 times/h and load factor shall be 40% for a contactor.

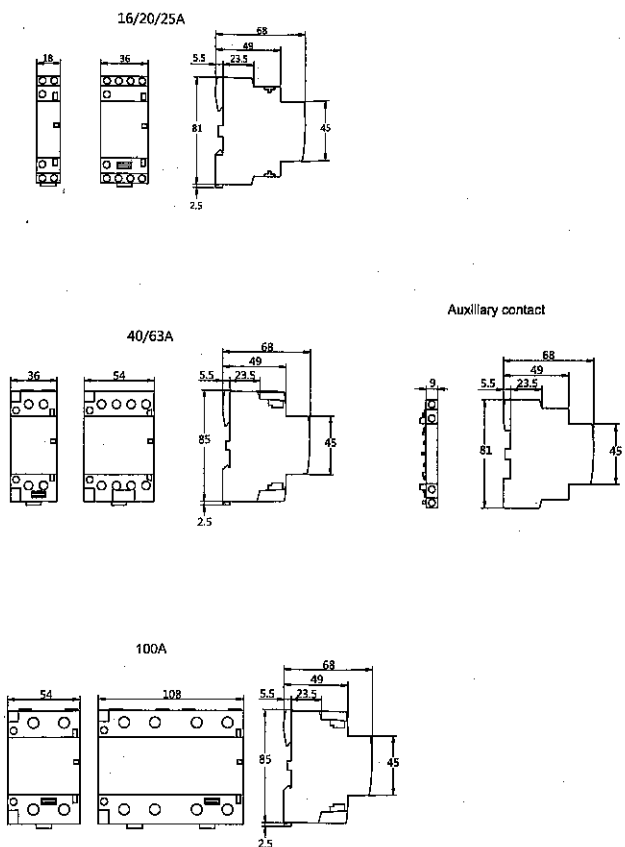
The ambient temperature ranges between -5°C and +60°C

The 230V AC contactor coil can be energised under any voltage, within 85%-110% Us with a release voltage of (20%-75%) Us.

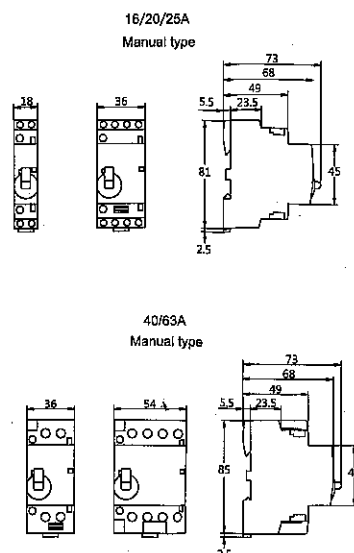
Dear customer:

Please help us to do one thing, when the product in the end of life. When, in order to protect our environment, please do the product or its parts Recovery of part material. For materials that cannot be recycled, please do Good deal. Thank you very much for your cooperation and support.

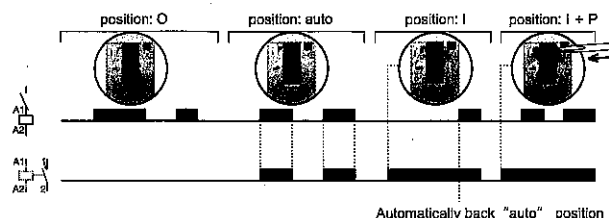
Product size



Product size



Manual operation contactor schematic



SMC Series Modular AC Contactor

Important

- This Leaflet carries important information in respect of Health and Safety at Work and should remain with the contactor at all times. Extra copies if required, are available from the address shown.

Safety

- All electrical equipment for operating on low voltages contain devices which are capable of causing serious or fatal injuries.

Any person who is involved in installation or maintenance of this equipment should be fully competent to carry out this work. Such persons should be familiar with the Health and Safety At Work Act 1974 and the Electricity At Work Regulations 1989. Persons responsible for installation should also have a working knowledge of the IEE Wiring Regulations.

! ATTENTION:

- Ensure that the product voltage, current, frequency and use category meet the requirements before use.
- Connect the control circuit first for no-load operation test and then connect the load.
- Regularly tighten the terminals and remove abnormal deposits
- **DO NOT USE** and contact the supplier in cases of damage or abnormality.

Use and Scope of Application

- **Use**
A SMC Series Modular AC Contactor (hereinafter referred to as 'contactor') is used for connecting and breaking non-inductive or low-inductive loads, resistance heaters, household appliances or similar.
- **Scope of application**
The contactor is mainly used on AC power systems at 50/60Hz. As the contactor is not used for breaking short-circuit current, a short-circuit protective device is required.

Conditions of Normal Use and Installation

- The ambient temperature ranges between -5°C and $+60^{\circ}\text{C}$. If the contactor is installed in a distribution box, spacing is required on both sides to help thermal dissipation.
- Altitude -2000m.
- The atmospheric relative humidity does not exceed 50% when the maximum ambient temperature is $+60^{\circ}\text{C}$. It is allowed to have relative higher humidity under lower temperature, eg. up to 90% for $+20^{\circ}\text{C}$. For occasional condensation due to changes of temperature, preventative measures should be taken.
- The installation should be vertical with inclination in all directions not exceeding $\pm 5^{\circ}$.
- Install in a place without shock or vibration
- Pollution class 2 / Installation category II
- Use of steel DIN Rail 35-7.5 for installation.