

Definite Purpose Contactor Type: 45.J1.,45.J2.,42.J3.,45.J4.

IEC 60947-4-1



Operating Instructions

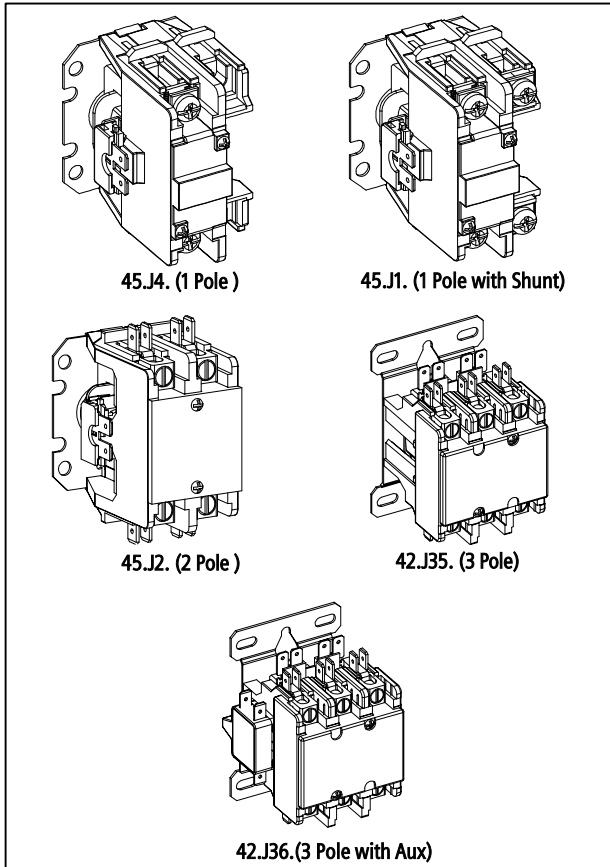


Warning:

Hazardous Voltage can cause Electric Shock and burns.
Disconnect Power before proceeding with any work on this equipment.



Avoid operation during under voltage conditions. Switch only onto discharged capacitors. Manual operation not permitted for function testing



2 Pole

| Contactors Type | FLA (A) (le AC8a) | Fuse Rating for Type 1 Coordination 'gG' (A) |
|-----------------|-------------------|--|
| 45BJ20A.. | 20 | 32 |
| 45DJ20A.. | 30 | 40 |
| 45EJ20A.. | 40 | 50 |

3 Pole

| Contactors Type | FLA (A) (le AC8a) | Fuse Rating for Type 1 Coordination 'gG' (A) |
|-----------------|-------------------|--|
| 42BJ3.A.. | 20 | 32 |
| 42CJ3.A.. | 25 | 35 |
| 42DJ3.A.. | 30 | 40 |
| 42EJ3.A.. | 40 | 50 |

Table 1.1

- **Switching frequency in Make/Break operation:**
180 operating cycles/hour for all the ratings

(ii) Aux Circuit:

Inbuilt Auxilliary Contacts
1NO + NC in case of 42.J36A

Auxilliary Contact Rating:
le AC-15= 2.4A at 415V
le DC- 13= 0.28A at 220V

(iii) Control Circuit:

- Control voltage is marked on the coil of the contactor.

Note:

- The voltage is to be maintained within allowable limits.
- Operation on under voltage conditions to the coil may cause damage to the coil/contactor.
- Maximum back-up fuse rating for control circuit= 10A

(iv) Internal connection diagram:

Connection Details

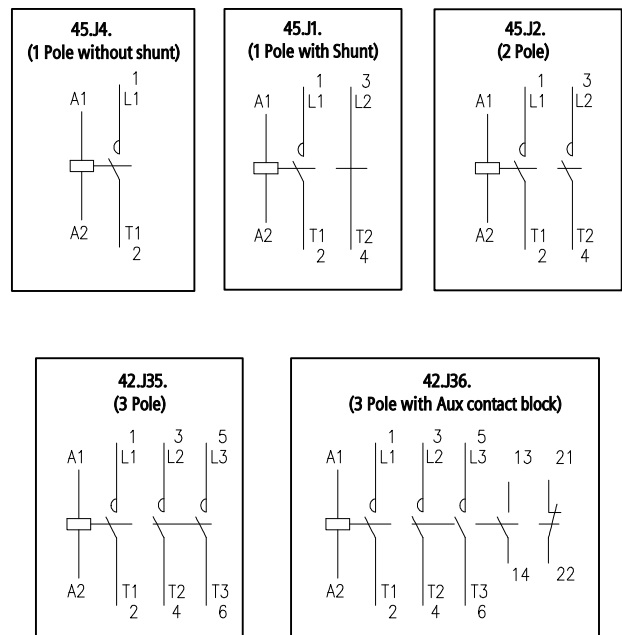


Fig.1

A. Technical Data

(i) Main Circuit:

These contactors are used for control of motors, Power supplies, Heating elements, Lighting & HVAC fans & compressors.

- Insulation Voltage U_i : 600V AC
- Rated operational voltage (U_e):
240V, 50/60Hz for 1 Pole & 1 Pole with shunt
240/415V, 50/60Hz for 2 Pole & 3 Pole
- Impulse withstand voltage U_{imp} = 2.5kV (Overvoltage category II).
- Temperature : Storage -40 to + 65 °C
Service (without derating) - 5 to + 55 °C



1 Pole without shunt

| Contactors Type | FLA (A) (le AC8a) | Fuse Rating for Type 1 Coordination 'gG' (A) |
|-----------------|-------------------|--|
| 45CJ40A.. | 25 | 32 |
| 45DJ40A.. | 30 | 40 |
| 45EJ40A.. | 40 | 50 |

1 Pole with shunt

| Contactors Type | FLA (A) (le AC8a) | Fuse Rating for Type 1 Coordination 'gG' (A) |
|-----------------|-------------------|--|
| 45CJ10A.. | 25 | 32 |
| 45DJ10A.. | 30 | 40 |
| 45EJ10A.. | 40 | 50 |

Permissible Conductor Size: Termination Data of Contactor

| Terminal data | | 45.J1. | 45.J4. | 45.J2. | 45.J3. |
|---|-------------------------------------|-----------------------|--------|------------------|--------|
| Main Terminals Screw Type  | Solid / Stranded | 2.5 to 10 | | | |
| | Finely stranded with pin type lugs | 2.5 to 10 | | | |
| | Finely stranded with fork type lugs | 2.5 to 25 | | | |
| | AWG | 16-8* | | | |
| Main Terminals Box Type  | Solid / Stranded | - | - | 2.5 to 25 | |
| | Finely stranded with end sleeves | - | - | 2.5 to 10 | |
| | Finely stranded with pin type lugs | - | - | 2.5 to 25 | |
| | AWG cables | - | - | 14-4 | |
| Main Terminals | Quick connect | Dual & Quad . 250" QC | | Dual . 250" QC | |
| Aux Terminals | Quick connect | Single . 250" QC | | Single . 250" QC | |
| Coil Terminals | Quick connect | Dual . 250" QC | | Dual . 250" QC | |
| Main Terminals Screw Size | Pan, Hex screw | M5 | | | |
| | Box lug screw | M8 | | | |
| Tightening torque Screw type | (Lb.in / Nm) | 25 / 3 | | | |
| Tightening torque Box type | (Lb.in / Nm) | 40 / 4.5 | | | |

* Stranding must be split for 8 AWG wire.

B. Installation

1. Permitted mounting positions are indicated in Fig. 2
2. The unit is suitable for screw mounting on flat vertical surface with M5 screws applying 3 N-m torque. Always use plain and spring washers.

Note: Install the unit in housing if it is exposed to dust, dirt, contamination or aggressive atmosphere.

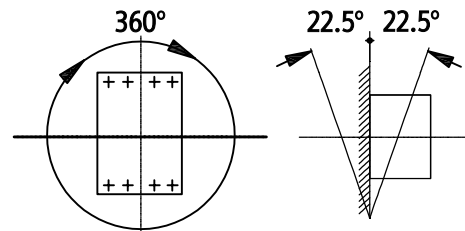
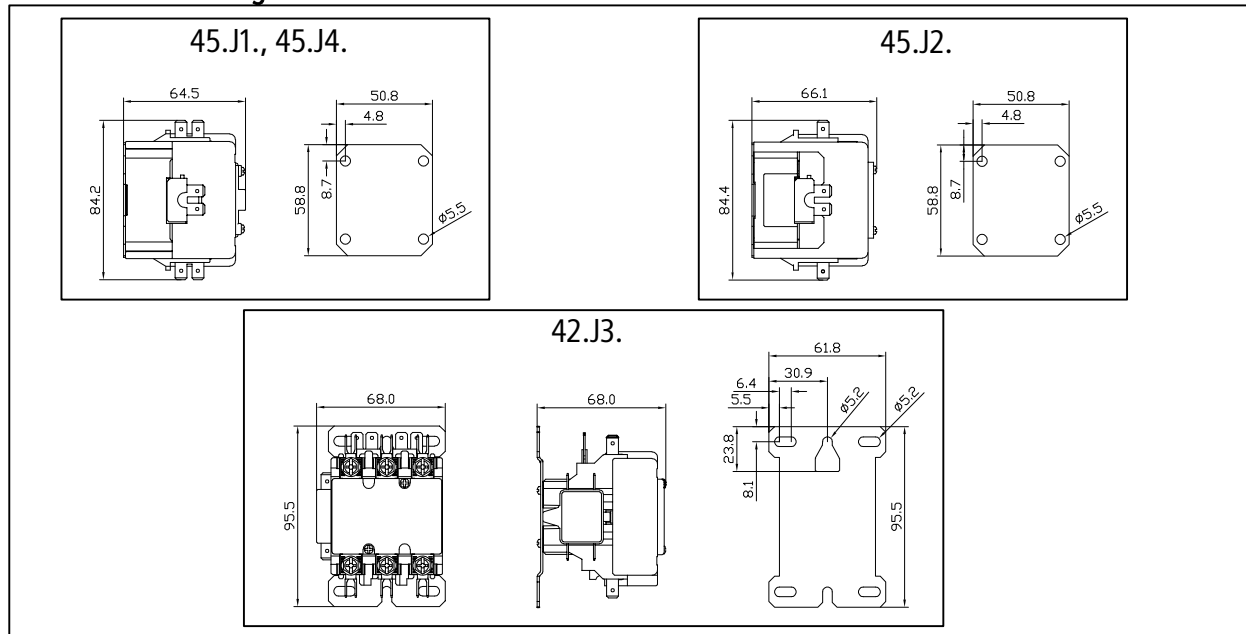


Fig.2

C. Overall Dimension

Dimensional drawing:



Disposal

Siemens products are environment friendly, which predominantly consist of recyclable materials

For disposal we recommend disassembling and separation into following materials:

METALS: Segregate into Ferrous & Non Ferrous types for recycling through authorised dealer.

PLASTICS: Segregate as per material type for recycling through authorised dealer. Because of the long lifetime of Siemens products the disposal guidelines may be replaced by other national regulations when taking the product out of service.

The local customer care service is available at any time to answer disposal-related questions.

Customer Care Toll free no. 1800 209 0987

Email: ics.india@siemens.com

Order No. MISC4566_A

Siemens Ltd.

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Last update: 18 March 2021