

Motor Starters

PART 1 General

1.1 RELATED WORK

- .1 Basic Electric Materials and Methods Section 26 05 01

1.2 SUBMITTALS

- .1 Submit shop drawings and product data in accordance with Section 26 05 01.
- .2 Indicate:
 - .1 Mounting method and dimensions.
 - .2 Starter size and type.
 - .3 Layout of identified internal and front panel components.
 - .4 Enclosure types.
 - .5 Wiring diagram for each type of starter.
 - .6 Interconnection diagrams.

1.3 OPERATIONS AND MAINTENANCE DATA

- .1 Provide data for incorporation into Maintenance Manual specified in Section 26 05 01.
- .2 Include operation and maintenance data for each type and style of starter.

1.4 MAINTENANCE MATERIALS

- .1 Provide maintenance materials in accordance with Section 26 05 01.
 - .1 4 contacts, stationary.
 - .2 4 contacts, movable.
 - .3 2 contacts, auxiliary.
 - .4 2 control transformers
 - .5 2 operating coils
 - .6 2 fuses
 - .7 10 indicating lamps
 - .8 1 HOA kit.

PART 2 Products

2.1 MATERIALS

- .1 Starters: to CSA C22.2 No. 14, EMAC E14-1.
 - .1 Starters smaller than EEMAC "1" are not acceptable.

2.2 FULL VOLTAGE MAGNETIC STARTERS

- .1 Magnetic of size, type, rating and EEMAC "1" enclosure with components as follows:

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- .1 Contactor solenoid operated, rapid-action type.
- .2 Motor overload protective device in each phase, manually reset from outside enclosure.
- .3 Power and control terminals.
- .4 Wiring and schematic diagram inside starter enclosure in visible location
- .5 Identify each wire and terminal for external connections, within starter, with permanent number marking identical to diagram.
- .6 Control transformer.

.2 Accessories

- .1 Pushbuttons and selector switches labeled as indicated.
- .2 Two indicating lights:
Red - "OFF", and Green - "ON"
- .3 Two N.O and two N.C spare auxiliary contacts, unless indicated otherwise.
- .4 HOA selector switch

2.3 CONTROL TRANSFORMERS

- .1 Single phase, dry type, control transformer with primary voltage, as indicated and 120V secondary, complete with secondary fuse, installed within starter enclosure.
- .2 Size control transformer for control circuit load plus 20% spare capacity.

2.4 EQUIPMENT IDENTIFICATION

- .1 Provide equipment identification in accordance with Section 26 05 01.
- .2 Identify manual starters with Size 2 nameplates, indicating motor number, description, horsepower, and voltage.
- .3 Identify magnetic starters with size 4 nameplates, indicating motor number, description, horsepower and voltage.

2.5 MANUFACTURERS

- .1 Allen Bradley, Eaton/Cutler Hammer, Square D, or equals in accordance with B6.

PART 3 Execution

3.1 INSTALLATION

- .1 Install starters, connect power and control as indicated.
- .2 Install correct fuses and overload devices.

3.2 TESTS

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- .1 Perform tests in accordance with Section 26 05 01 and manufacturer's instructions.
- .2 Operate switches and contactors to verify correct functioning.
- .3 Perform starting and stopping sequences of motors and controls
- .4 Check that sequence controls, interlocking with other separate related starters, equipment, control devices, operate as indicated
- .5 Ensure that motor rotation corresponds with the direction required by the driven equipment.