

PART 1 - General

1.1 RELATED SECTIONS

- .1 Section 26 05 01 - Common Work Results - Electrical.

1.2 SHOP DRAWINGS AND PRODUCT DATA

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .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 CLOSEOUT SUBMITTALS

- .1 Provide operation and maintenance data for motor starters for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.
- .2 Include operation and maintenance data for each type and style of starter.

1.4 EXTRA MATERIALS

- .1 Provide maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 19 - Construction/Demolition Waste Management And Disposal, and with the Waste Reduction Workplan.
- .2 Collect and separate plastic, paper packaging and corrugated cardboard in accordance with Waste Management Plan.
- .3 Fold up metal banding, flatten and place in designated area for recycling.

PART 2 - Products

2.1 MANUAL MOTOR STARTERS

- .1 Manual starters for single phase motors shall have toggle operating handle, quick make, quick break mechanism operating heavy sliding contacts. Overload

devices of either eutectic alloy or bimetal construction shall be supplied and installed based on the motor name plate data. Starters for surface mounting shall be in general purpose EEMAC I enclosures, those for flush mounting complete with stainless steel cover plates. Starters shall be complete with locking tabs. Starters shall be surface or flush mounted as indicated on the drawings, or as dictated by the room finish schedule. Pilot lights shall be of the LED type and shall be included on all manual starters, unless specifically noted otherwise.

- .2 Manual starters shall be complete with an adjustable knob that allows a 10%, plus or minus, adjustment of the nominal thermal overload rating.
- .3 Standard of Acceptance: Siemens 3VA Series.
- .4 Acceptable Alternate Manufacturers: Allen-Bradley, Furnas, Square 'D', Eaton.

2.2 FINISHES

- .1 Apply finishes to enclosure in accordance with Section 26 05 01 - Common Work Results - Electrical.

2.3 EQUIPMENT IDENTIFICATION

- .1 Provide equipment identification in accordance with Section 26 05 01 - Common Work Results - Electrical.
- .2 Manual starter designation label, white plate, black letters, size 1, engraved as indicated.

PART 3 - Execution

3.1 INSTALLATION

- .1 Manual starters shall be provided for all motors, unless specifically noted otherwise.
- .2 Mount all starters in a secure manner, easily accessible, and 1400mm to centre, above the floor unless indicated otherwise.
- .3 Obtain full load ampere (FLA) ratings of respective motors.
 - .1 For manual starters, install thermal overloads of appropriate size. Record both FLA and overload ratings and include in Operation and Maintenance manuals.
- .4 Adjust magnetic settings on circuit breakers to minimum setting consistent with normal motor starting requirements, in accordance with manufacturers recommendations.
- .5 Ensure correct fuses and overload devices elements installed.

3.2 FIELD QUALITY CONTROL

- .1 Perform tests in accordance with Section 26 05 01 - Common Work Results - Electrical and manufacturer's instructions.
- .2 Operate switches, contactors to verify correct functioning.
- .3 Perform starting and stopping sequences of contactors and relays.
- .4 Check that sequence controls, interlocking with other separate related starters, equipment, control devices, operate as indicated.

3.3 TESTS

- .1 Perform tests in accordance with manufacturer's recommendations and instructions.
- .2 Perform starting and stopping sequences of all contactors and relays.
- .3 Check that the sequence of controls, interlocks with other separate related starters, equipment, control devices, etc., all operate as indicated.

END OF SECTION