February 8, 2019

ADDENDUM 1 TO BID 19-24

Wilber Hall MDP and Motor Control Center

This addendum includes the specifications and drawings for the Wilber Hall MDP which were inadvertently left out of the original BID 19-24 Package.

Deidre Edwards

Deidre Edwards
Buyer, Procurement and Contract Services
SWITCHBOARDS

PART 1 PRODUCTS

1.01 MANUFACTURERS
A. Shall be Square D Company or approved equal.

1.02 SWITCHBOARD - GENERAL
A. Short Circuit Current Rating: Switchboards shall be rated with a minimum short circuit current rating of 100,000 rms symmetrical amperes at 208 VAC maximum.
B. Nominal AC system voltage shall be 208Y/120 volts. Main bus continuous bus shall be 1600amps.
C. Future Provisions: All unused spaces provided shall be fully equipped for future devices, including all appropriate connectors and mounting hardware.
D. Enclosure: Type 1 - General Purpose.
1. Sections shall be aligned front and rear.
2. Removable steel base channels (1.5 inch floor sills) shall be bolted to the frame to rigidly support the entire shipping section for moving on rollers and floor mounting.
3. The switchboard enclosure shall be painted on all exterior surfaces. The paint finish shall be a medium gray, ANSI #49, applied by the electro-deposition process over an iron phosphate pre-treatment. Paint color shall match that of Motor Control Center.
4. All front covers shall be screw removable with a single tool and all doors shall be hinged with removable hinge pins.
5. Top and bottom conduit areas shall be clearly indicated on shop drawings.
E. Nameplates: Provide 1 inch high x 3 inches engraved laminated (Gravoply) nameplates for each device. Furnish black letters on a white background for all voltages.
F. Bus Composition: Shall be plated copper. Plating shall be applied continuously to all bus work. The switchboard bussing shall be of sufficient cross-sectional area to meet UL Standard 891 temperature rise requirements. The phase and neutral through-bus shall have an ampacity as shown in the plans. For 4-wire systems, the neutral shall be of equivalent ampacity as the phase bus bar. Tapered bus is not acceptable. Full provisions for the addition of future sections shall be provided. Bussing shall include all necessary hardware to accommodate splicing for future additions.
G. Ground Bus: Sized per NFPA70 and UL 891 Tables 25.1 and 25.2 and shall extend the entire length of the switchboard. Provisions for the addition of future sections shall be provided.
H. Switchboard shall be UL Service Entrance Rated.
I. Switchboard shall meet the requirements of UL891 with front only access required.

1.02A SWITCHBOARD - INCOMING MAIN SECTION DEVICES
A. Main circuit breaker shall be individually fixed mounted electronic trip LSI.
B. Incoming overhead connection shall be cable.

1.02B SWITCHBOARD - DISTRIBUTION SECTION DEVICES
A. Group mounted circuit breakers through 1200A
1. Circuit breaker(s) shall be group mounted plug-on with mechanical restraint on a common pan or rail assembly.
2. The interior shall have three flat bus bars stacked and aligned vertically with glass reinforced polyester insulators laminated between phases. The molded polyester insulators shall support and provide phase isolation to the entire length of bus.
3. Circuit breaker(s) equipped with line terminal jaws shall not require additional external mounting hardware. Circuit breaker(s) shall be held in mounted position by a self-contained bracket secured to the mounting pan by fasteners. Circuit breaker(s) of different frame sizes shall be capable of being mounted across from each other.
4. Line-side circuit breaker connections are to be jaw type.
5. All remaining available space shall be fully equipped for future devices, including all appropriate connectors and mounting hardware.
6. Thermal magnetic molded case circuit breakers
   a. Molded case circuit breakers shall have integral thermal and instantaneous magnetic trip in each pole.
   b. Circuit protective devices shall be Square D molded case circuit breaker(s). Circuit breaker(s) shall be rated 100,000 rms symmetrical amperes at 208 VAC maximum. Series ratings are not allowed. Ampere ratings shall be as shown on the drawings.

END OF SECTION
Designation: MDP

Product Details:

1. Switchboard

Designed and Tested in accordance with:
UL 891/NATIONAL ELECTRIC CODE/NEMA PB-2
System Voltage - 208Y/120V 3Ph 4W 60Hz
System Ampacity - 1600A
Source Description - Single Main
Bussing - Silver Plated Copper
Neutral Bus - 100%
Max Available Fault Current (RMS) - 100kA
Bus Bracing – 100ka
Enclosure - Type 1
Accessibility: Front Only
Equipment Nameplate White Surface/Black Letters, Adhesive (Field Installed)
Exterior Paint Color - ANSI 49
Ground Lug provided for each device
Copper Ground Bus

Dimensions

2 - 36" Wide Section(s)
2 - 24" Deep Enclosure(s)
Dimensions: 72.00" W X 24" D X 91.5" H
Approximate Weight: 1594.00 lbs / 723.04 kgs

Incoming Requirements

Suitable for Use As Service Entrance
Entry Point: Left of Lineup, Through the Top
Connection Type: Cable

Mains

1 - 1600AS/1600AT 208V 80% Rated 100 kA 3 Pole UL, Fixed Mounted Electronic Trip Circuit Breaker: Type RJ
Standard Trip Unit, Long Time, Short Time, Instantaneous

Feeders

4 - 100AT 208V 80% Rated 100 kA 3 Pole UL, Group Mounted Thermal Magnetic Circuit Breaker: Type BJ
3 - 400AS/400AT 208V 80% Rated 100 kA 3 Pole UL, Group Mounted Electronic Trip Circuit Breaker: Type LJ
Standard Trip Unit, Long Time, Instantaneous
1 - 800AT 208V 80% Rated 100 kA 3 Pole UL, Group Mounted Basic Electronic Trip Circuit Breaker: Type MJ
1 - 600AT 208V 80% Rated 100 kA 3 Pole UL, Group Mounted Basic Electronic Trip Circuit Breaker: Type MJ
1 - 225AT 208V 80% Rated 100 kA 3 Pole UL, Group Mounted Thermal Magnetic Circuit Breaker: Type JJ
SWITCHBOARD GENERAL NOTES – SERIES 2

PRODUCT DESCRIPTION & RATINGS

Power System Data
- 208Y/120V 3Ph 4W 60Hz / 3 Phase Wye
- Solidly Grounded
- System Short Circuit Current Rating: 100kA RMS
- Incoming Section 1 Cable Through the Top Left of Lineup

Bus System Data
- 1600A Silver-Plated Copper Main Bus
- (2) .25x2.00 IN/6x38 mm Cu Bus Bar Per Phase
- (2) .25x3.25IN/6x83 mm Cu Bus Bar Per Neutral
- (1) 25x.875 IN/6x22 mm Cu Ground Bus

Enclosure Data
- Type 1 Free Standing
- Exterior Paint Color: ANSI 49
- Front Accessibility Only Required
- Handling: Rollers & Lifting Assemblies
- Nameplate Mounting Type: Adhesive (Field Installed)
- Equipment Nameplate: White Surface/Block Letters

Estimated Shipping Weight
- Shipping Split 1 694.00 lbs / 314.80 kgs
- Shipping Split 2 900.00 lbs / 408.24 kgs
- Complete Lineup 1594.00 lbs / 723.04 kgs

Code Standards
- UL, Deadfront and suitable for use as Service Entrance when not more than six (6) disconnecting means are provided.

Rating Nameplates
- ST1 – Service Entrance – Section Bus 1600A
- ST2 – Deadfront – Section Bus 1600A

PRODUCT INFORMATION

Wiring
- All wiring to be Machine Tool Wire type

Instruction Bulletins
- Reference 80043–055 For Handling, Installation, Anchoring, Inspection And Maintenance Information

Product Accessories/Options
NOTE: ALL DEVICES REQUIRING DRILLING OR INSERTION IN MOUNTING PAD SUCH AS CONDUIT, ANCHORING STUDS, SLEEVE INSERTS, ETC. SHOULD BE INSTALLED BEFORE SETTING EQUIPMENT IN PLACE.
Ground Bus per UL591

3/0 - 750 kcmil
Al Mech Link Al/Cu Cable
S - PB Panel & Neutral

M1
1800A Trip
3P
BJ 1800A
Standard Trip Unit LS
Plug A

1800A Interior

BJ 100A 3P
LJ 400A 3P
MJ 800A 3P
BJ 100A 3P
LJ 400A 3P
MJ 600A 3P
LJ 225A 3P
BJ 100A 3P

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