

# Equipment Information

## General Notes

- Nameplate - White background with black letters
  - Minimum 1/4" high etched letters
  - Attach with silicone and stainless steel machine screws, washer, and nuts on inside

| Tag     | Inscription | Color  |
|---------|-------------|--------|
| ON      | ON          | Green  |
| OFF     | OFF         | Red    |
| OPEN    | OPEN        | Green  |
| CLOSED  | CLOSED      | Red    |
| LOW     | LOW         | Amber  |
| FAIL    | FAIL        | Amber  |
| HIGH    | HIGH        | Amber  |
| AUTO    | AUTO        | White  |
| MANUAL  | MANUAL      | Yellow |
| LOCAL   | LOCAL       | White  |
| REMOTE  | REMOTE      | Yellow |
| FORWARD | FORWARD     | Red    |
| REVERSE | REVERSE     | Blue   |

| Tag Function | Inscription | Color |
|--------------|-------------|-------|
| HOA          | HAND        | Black |
|              | OFF         | Black |
|              | AUTO        | Black |

- Wire labels - White background with black letters
  - Permanent letters on tags, write on tags not permitted

## RVSS

### Spec Section 16421

- Square D (Equivalent to Cutler-Hammer Type S801)
  - Something like ATS480D17Y
    - Ended up going with this same part number, no regular starter
  - Keypad: VW3A1113
    - **This is included in the RVSS part number**
  - Keypad Mounting Kit: VW3A1114
  - Keypad Cable: VW3A1104R30
- Soft start-stop
- SCR based power section
  - 6 back-to-back SCRs with peak inverse voltage rating of 1500 volts PIV

- NO TRIACS OR SCR/DIODE COMBOS
- Logic board and paralleling bypass contactor
- Electronic overload relay
- Keypad adjustable overload protection

## Power Meter (Motor Management Relay)

### Spec Section 16421-2.01W

- Spec shows: Socomec 48250501 but spec also calls for DIN rail mounting.
- Takeoff shows Socomec 48290000
  - Looks like this is the meter which can connect to the device in spec. **But we don't need the digital display. Not show on contact I-4.**
- Required Accessories:
  - Diris 0-ioa module: 48290031
  - TR Split-Core Sensors: 48290556
  - Sensor cables: (estimate that we'll use the 6.5 ft cable: 48290584)
  - 3-phase fuse holder: Mersen 3023R
    - Should accomodate typical CC fuses used by transformer, for example

## Control Systems Hardware

### Spec Section 17441

- Outdoor panels - NEMA 4X
  - Hoffmann or approved equal → let's do Saginaw
  - Min 24" H x 20" W x 10" D
  - Rubber Gasketed Continuous Hinge Door?
- Heater for condensation control
  - 40-80° fahrenheit
  - N.C. thermostat control
  - dedicated circuit breaker protection
  - 120VAC operating voltage
- Lighting
  - 1 door controlled if enclosure >12ft<sup>3</sup>
- Surge Suppressor
  - Think I'm only going to need it for 480V
    - Citel DS43S-480
- **Motor protection relay by others**
- Circuit Breakers
  - Typical Weidmuller circuit breakers should be fine
- Relays
  - General Relays - Harmony RXM Series

| Voltage | DPDT             | 3PDT             | 4PDT             |
|---------|------------------|------------------|------------------|
| 24VDC   | <u>RXM2AB2BD</u> | <u>RXM3AB2BD</u> | <u>RXM4AB2BD</u> |
| 120VAC  | <u>RXM2AB2F7</u> | <u>RXM3AB2F7</u> | <u>RXM4AB2F7</u> |

- Timing Relay - 9050 JCK Plug-in Timers
  - 0-60 second adjustable time delay

| Voltage | On-Delay                            | Off-Delay                           |
|---------|-------------------------------------|-------------------------------------|
| 120VAC  | <a href="#"><u>9050JCK13V20</u></a> | <a href="#"><u>9050JCK23V20</u></a> |

- Pilot Lights

| Color | Model                                 |
|-------|---------------------------------------|
| Green | <a href="#"><u>9001SKT38LGG31</u></a> |
| Red   | <a href="#"><u>9001SKT38LRR31</u></a> |
| Amber | <a href="#"><u>9001SKT38LYA31</u></a> |

- Pushbutton

| Component       | Model                            |
|-----------------|----------------------------------|
| Pushbutton Head | <a href="#"><u>9001SKR1B</u></a> |
| NO Contact      | <a href="#"><u>9001KA2</u></a>   |
| NC Contact      | <a href="#"><u>9001KA3</u></a>   |

- Selector Switch
  - [9001SKS43BH2](#)
- Elapsed Time Meter
  - TRUMETER [722-001](#) with gasket [5003-010](#)
- Disconnect
  - Square D to spec with flange mounted disconnect switch
- Fuses
  - Typical Mersen fuses

## Spare Parts

### Section 17441-3.02

- 5 spare control relays for each type used
- 5 fuses of each type and rating