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| 1-0630M-A0060 | HVAC CONTROL PANEL CP-M826, ANALOG OUTPUT RACK 0, MODULE 7 |
| 1-0630M-A0059 | HVAC CONTROL PANEL CP-M826, ANALOG INPUT RACK 0, MODULE 6 |
| 1-0630M-A0058 | HVAC CONTROL PANEL CP-M826, ANALOG INPUT RACK 0, MODULE 5 |
| 1-0630M-A0057 | HVAC CONTROL PANEL CP-M826, DISCRETE OUTPUT RACK 0, MODULE 4 |
| 1-0630M-A0056 | HVAC CONTROL PANEL CP-M826, DISCRETE INPUTS RACK 0, MODULE 3 |
| 1-0630M-A0055 | HVAC CONTROL PANEL CP-M826, DISCRETE INPUTS RACK 0, MODULE 2 |
| 1-0630M-A0054 | POWER DISTRIBUTION, HVAC CONTROL PANEL CP-M826 |
| DRAWING NUMBER | REFERENCE DRAWINGS |

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES
0.0 0.05 0.1 0.2 0.3
1:5

ENGINERS
GEOSCIENTISTS
MANITOBA
Certificate of Authorization
AtkinsRéalis Canada Inc.
No. 4489

BILL OF MATERIAL

| ITEM | QTY | DESCRIPTION | MANUFACTURER | CATALOG NUMBER |
|------|----------|--|--------------------|----------------------------|
| 1 | 1 | TYPE 12 FLOOR-MOUNT ENCLOSURE - 1800x1600x600mm WITH LARGE DATA POCKET C/W SUBPANEL MOUNTING PLATE | HOFFMAN | PP0D18126 |
| 2 | 2 | SIDE COVERS FOR ITEM 1 | HOFFMAN | P2CS186 |
| 3 | AS REQ'D | FUSED TERMINAL - UT 4 WITH FUSE PLUG-P-FU 5X20 | PHOENIX CONTACT | 3046142 3036806 |
| 4 | AS-REQ'D | FEED-THROUGH TERMINAL - UT 4-MTD | PHOENIX CONTACT | 3046184 |
| 5 | AS REQ'D | KNIFE DISCONNECT TERMINAL - UT 4-MT | PHOENIX CONTACT | 3046139 |
| 6 | AS REQ'D | POTENTIAL-EARTH TERMINAL - UT 4-MTD-PE/S | PHOENIX CONTACT | 3046207 |
| 7 | AS REQ'D | TERMINAL END PLATE - D-UT 2,5/4 TWIN | PHOENIX CONTACT | 3047141 |
| 8 | AS REQ'D | TERMINAL END CLAMP - CLIPFIX 35 | PHOENIX CONTACT | 3022218 |
| 9 | AS REQ'D | TERMINAL BLOCK MARKER - KLM-A | PHOENIX CONTACT | 1004348 |
| 10 | AS REQ'D | DOUBLE LEVEL FUSED TERMINAL - UTB 4 WITH FUSE PLUG-P-FU 5X20 | PHOENIX CONTACT | 3044720 3036806 |
| 11 | AS REQ'D | DOUBLE LEVEL TERMINAL END PLATE - D-UTB 2,5/4 | PHOENIX CONTACT | 3047293 |
| 12 | 1 | 200mm PLINTH BASE FOR ITEM 1 | HOFFMAN | P2BP2126 |
| 13 | AS REQ'D | NARROW SLOT WIRING DUCT AND COVER, 2.25"x3.12" | PANDUIT | F2X3LG6 |
| 14 | AS REQ'D | NARROW SLOT WIRING DUCT AND COVER, 3.25"x3.12" | PANDUIT | F3X3LG6 |
| 15 | AS REQ'D | LAMACOIDS | - | - |
| 16 | AS REQ'D | 35mm DIN RAIL | PHOENIX CONTACT | 0801733 |
| 17 | AS REQ'D | DIN RAIL INSULATED SUPPORT BRACKET | PHOENIX CONTACT | 1201141 |
| 18 | 2 | GROUND BAR, 14 TAPS | ILSCO | D167-14 |
| 19 | 2 | GROUND BAR ISOLATION STAND OFF | PANDUIT | UGB-IN-SO |
| 20 | 2 | LED PANEL LIGHT AND DOOR SWITCH | HOFFMAN | LF120V15 ALFSWD |
| 21 | 1 | M580 PLC RACK - AS PER DETAIL A | SCHNEIDER | - |
| 22 | - | NOT USED | MOORE INDUSTRIES | MIT/2XPRG/2X4-20mA/U [DIN] |
| 23 | 1 | 24VDC POWER SUPPLY/UPS, TRIO-UPS-2G/1AC/24DC/10 | PHOENIX CONTACT | 2907161 |
| 24 | 1 | ENERGY STORAGE, UPS-BAT/VRLA/24DC/3.4AH | PHOENIX CONTACT | 2320306 |
| 25 | AS REQ'D | NARROW SLOT WIRING DUCT, 1.75"x3.12" | PANDUIT | F1.5X3LG6 |
| 26 | 1 | SURGE ARRESTOR MODULE C/W BASE, 120V, PLT-SEC-T3-120-FM-UT | PHOENIX CONTACT | 2907918 |
| 27 | 1 | FOLDING SHELF, GREY | HOFFMAN | AASHLF1818 |
| 28 | 1 | MINIATURE CIRCUIT BREAKER, 10 AMP, DIN RAIL MOUNTED, FAZ TYPE, 120 VAC | EATON | FAZ-B10/1-NA-L |
| 29 | 1 | MINIATURE CIRCUIT BREAKER, 5 AMP, DIN RAIL MOUNTED, FAZ TYPE, 120 VAC | EATON | FAZ-B5/1-NA-L |
| 30 | 1 | RECEPTACLE, 125V, 15A, DIN RAIL MOUNTED, SD-US/SC/LA/GY | PHOENIX CONTACT | 2963860 |
| 31 | 1 | PLC RELAY MODULE, 24VDC | PHOENIX CONTACT | 2966171 |
| 32 | 1 | 12.1" HMI TOUCH SCREEN | SCHNEIDER ELECTRIC | HMICTO6310 |
| 33 | 1 | 5 PORT UNMANAGED ETHERNET SWITCH | MOXA | EDS-205 |

GENERAL NOTES:

- ALL POWER AND 120 VAC WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
- ALL 24 VDC CONTROL WIRING TO BE TEW/MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
- ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
- COMPONENTS ARE TO BE LABELED AS SHOWN ON THE DRAWINGS.
- TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY. DOCUMENT ALL TEST RESULTS.
- ALL MAJOR COMPONENTS INSIDE THE PANEL ARE TO BE LABELED WITH LAMACOIDS IN ACCORDANCE WITH MAJOR DESCRIPTIONS ON THE DRAWINGS.
- PROVIDE WIRE BARREL FERRULES FOR WIRING WHERE POSSIBLE.
- ALL TERMINAL BLOCKS SHALL BE NUMBERED AS SHOWN IN THE DRAWINGS, COMPLETE WITH GROUP LABELING.
- ALL WIRES SHALL BE MARKED AS INDICATED ON THE DRAWINGS.
- ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
- JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.

SPECIFIC NOTES:

- CONNECT ISOLATED DIN RAIL TO ISOLATED GND BAR.
- HEIGHT OF PLC PANEL CANNOT EXCEED 2000MM.

PLC-M806
RACK: BME XBP 1200

| PS | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|--------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------|-------|-------|-------|-------|
| BMX CPS 3020 | BMX P58 2040 | BMX DD 3202K S1 | BMX DD 3202K S1 | BMX AM 1602 S2 | BMX AM 0810 S3 | BMX AM 0810 S3 | BMX AM 0410 S3 | SPACE | SPACE | SPACE | SPACE | SPACE |

CONNECTOR LEGEND:

S1 BMX FCW 303
40-WAY CONNECTOR
WITH FLYING LEADS

S2 BMX FTB 2010
SCREW CLAMP TERMINAL BLOCK

S3 BMX FTW 308S
28-WAY REMOVABLE TERMINAL BLOCKS
WITH FLYING LEADS

DETAIL - PLC-M806 RACK CONFIGURATION

| | | | | | |
|---------------------------------------|--|---|-------------|-----------------|---|
| AtkinsRéalis | | 148 Nature Park Way, Winnipeg, Manitoba Canada R3P 0X7 204-786-8080 | | ENGINEER'S SEAL | THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT  |
| | | DESIGNED BY: | CHECKED BY: | | |
| J. GRAGASIN | | V. ELIMBAN | | | |
| DRAWN BY: | | APPROVED BY: | | | |
| J. GRAGASIN | | V. ELIMBAN | | | |
| SCALE: AS SHOWN | | ISSUED FOR CONSTRUCTION | | | |
| DATE: 2023/06/13 | | BY: M. SKINNER | | | |
| 00 ISSUED FOR TENDER AND CONSTRUCTION | | DATE: 2025/04/30 | | | |
| NO. REVISIONS | | DATE DESIGN CHECK | | CONSULTANT NO.: | |
| 1-0630M-A0053 | | 002 | | REV. 00 | SIZE A1 |