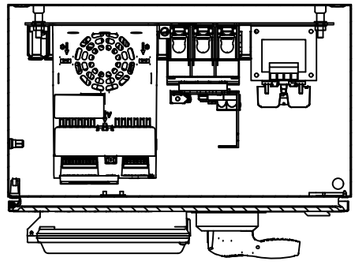
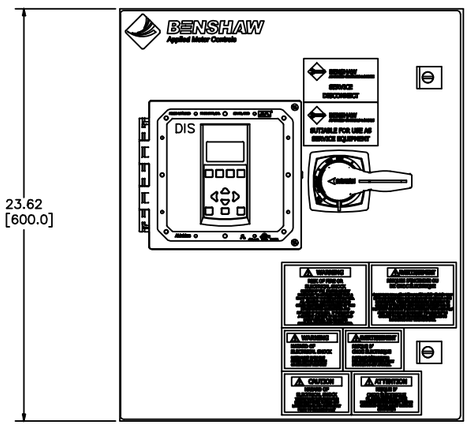
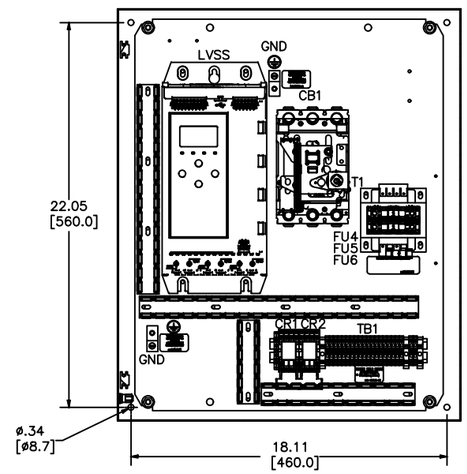
DWG NO. MX4PB-HD-015-2-4-HB

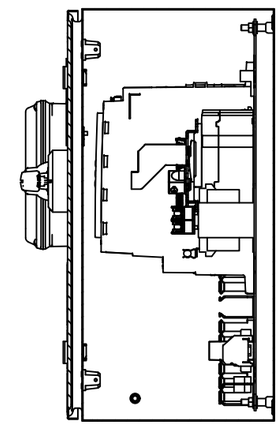


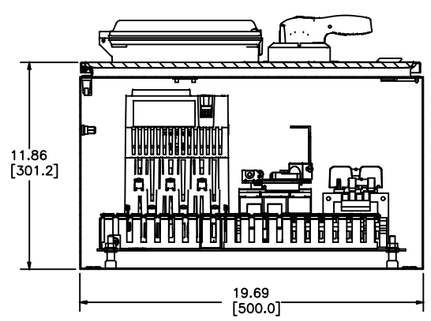
## LABEL LEGEND

| | |
|---|---|
| CB1: | CIRCUIT BREAKER |
| GND: | GROUND LUG |
| LVSS: | EMX4I SOFT START (W/INTEGRAL BYPASS) |
| TB1: | TERMINAL BLOCKS |
| CR1–2: | CONTROL RELAYS |
| T1: | CONTROL POWER TRANSFORMER |
| FU4–FU5: | PRIMARY FUSES (T1) |
| FU6: | SECONDARY FUSE (T1) |
| DIS: | EMX4I LCD DISPLAY/KEYPAD |






## NOTES:

1. MINIMUM WIRE BENDING SPACE SHALL BE 5.00" FROM TOP OF CIRCUIT BREAKER POWER CONNECTION TO TOP OF ENCLOSURE.
2. ENSURE THAT ALL RIBBON CABLES ARE ROUTED AWAY FROM POWER CONDUCTORS.
3. MINIMUM WIRE BENDING SPACE SHALL BE 5.00" FROM BOTTOM OF POWERSTACK POWER CONNECTION TO BOTTOM OF ENCLOSURE.

| OPTIONS AND CODE NUMBERS | | | |
|---|---|---|---|
| OPTION | DISPLAY | HEATER | CONTROL |
| CODE NO. | YES | | |

| | | |
|---|---|---|
| 1 | APPRD: BDA 2/8/24 | CHG BY: RWS 2/8/24 | CHANGE: CHANGED TO BRANDED TERMINAL BLOCKS |

REVISIONS

DO NOT SCALE DWG

THIRD ANGLE PROJECTION

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UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS IN INCHES
INTERPRET DRAWING PER ASME Y14.5M–1994
TOLERANCES: .XX ± .03
.XXX ± .015
ANGLES ± 1°
MATERIAL:
FINISH:

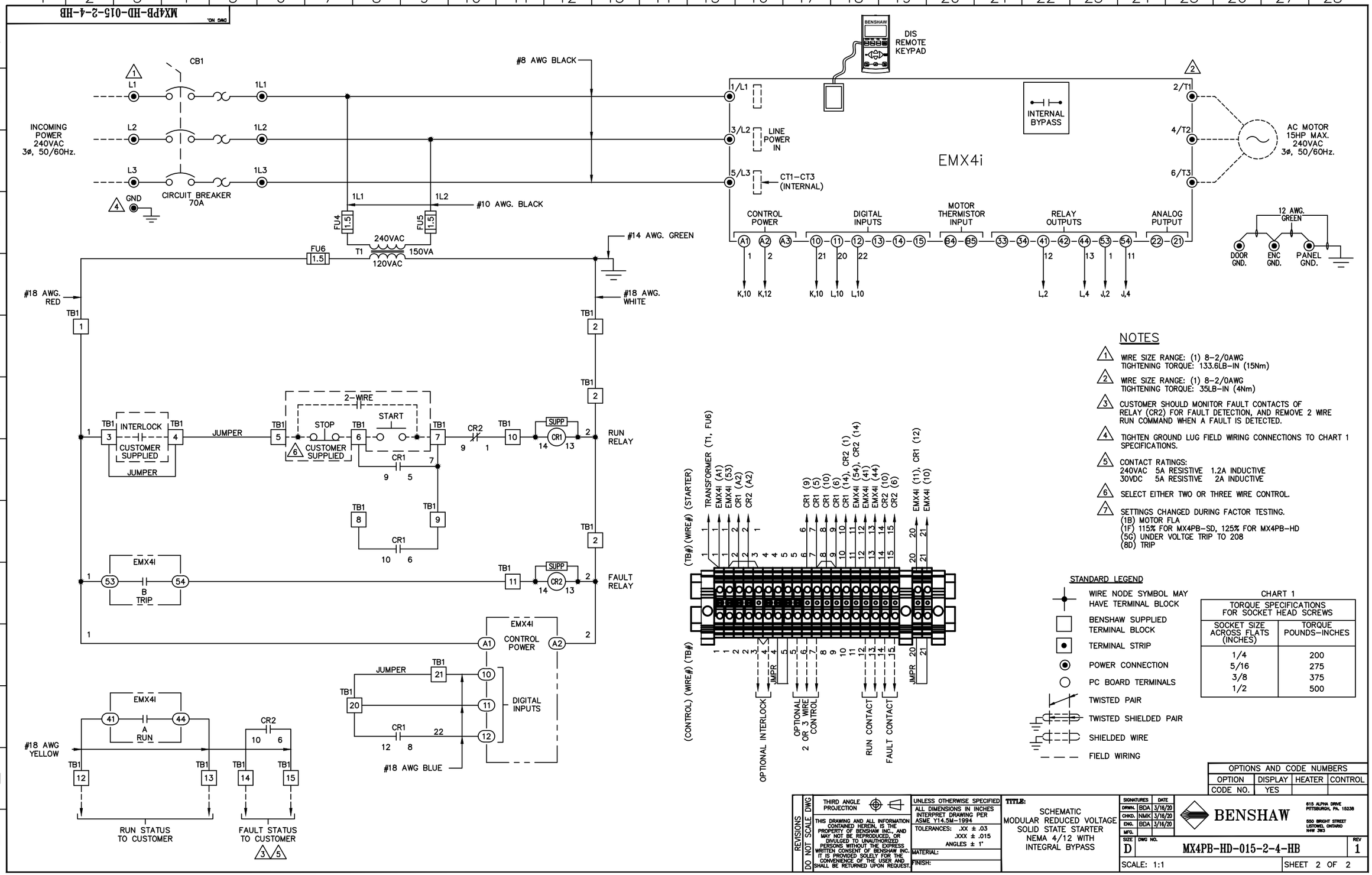
**TITLE:**
ENCLOSURE LAYOUT
MODULAR REDUCED VOLTAGE
SOLID STATE STARTER
NEMA 4/12 WITH
INTEGRAL BYPASS

| SIGNATURES | | DATE |
|---|---|---|
| DRWN. | BDA | 3/16/20 |
| CHKD. | NMK | 3/16/20 |
| ENG. | BDA | 3/16/20 |
| MFG. | | |

BENSHAW
615 ALPHA DRIVE
PITTSBURGH, PA. 15238
550 BRIGHT STREET
LISTOWEL, ONTARIO
N4W 3W3

SIZE D | DWG NO. MX4PB-HD-015-2-4-HB | REV 1

SCALE: 1:4 | SHEET 1 OF 2




## NOTES

1. WIRE SIZE RANGE: (1) 8–2/0AWG
   TIGHTENING TORQUE: 133.6LB–IN (15Nm)
2. WIRE SIZE RANGE: (1) 8–2/0AWG
   TIGHTENING TORQUE: 35LB–IN (4Nm)
3. CUSTOMER SHOULD MONITOR FAULT CONTACTS OF RELAY (CR2) FOR FAULT DETECTION, AND REMOVE 2 WIRE RUN COMMAND WHEN A FAULT IS DETECTED.
4. TIGHTEN GROUND LUG FIELD WIRING CONNECTIONS TO CHART 1 SPECIFICATIONS.
5. CONTACT RATINGS:
   240VAC 5A RESISTIVE 1.2A INDUCTIVE
   30VDC 5A RESISTIVE 2A INDUCTIVE
6. SELECT EITHER TWO OR THREE WIRE CONTROL.
7. SETTINGS CHANGED DURING FACTOR TESTING.
   (1B) MOTOR FLA
   (1F) 115% FOR MX4PB–SD, 125% FOR MX4PB–HD
   (5G) UNDER VOLTGE TRIP TO 208
   (8D) TRIP

STANDARD LEGEND

- WIRE NODE SYMBOL MAY HAVE TERMINAL BLOCK
- BENSHAW SUPPLIED TERMINAL BLOCK
- TERMINAL STRIP
- POWER CONNECTION
- PC BOARD TERMINALS
- TWISTED PAIR
- TWISTED SHIELDED PAIR
- SHIELDED WIRE
- FIELD WIRING

CHART 1

| TORQUE SPECIFICATIONS FOR SOCKET HEAD SCREWS | |
|---|---|
| SOCKET SIZE ACROSS FLATS (INCHES) | TORQUE POUNDS–INCHES |
| 1/4 | 200 |
| 5/16 | 275 |
| 3/8 | 375 |
| 1/2 | 500 |

| OPTIONS AND CODE NUMBERS | | | |
|---|---|---|---|
| OPTION | DISPLAY | HEATER | CONTROL |
| CODE NO. | YES | | |

REVISIONS | DO NOT SCALE DWG

THIRD ANGLE PROJECTION

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ALL DIMENSIONS IN INCHES INTERPRET DRAWING PER ASME Y14.5M–1994
TOLERANCES: .XX ± .03
.XXX ± .015
ANGLES ± 1°
MATERIAL:
FINISH:

TITLE: SCHEMATIC MODULAR REDUCED VOLTAGE SOLID STATE STARTER NEMA 4/12 WITH INTEGRAL BYPASS

| SIGNATURES | | DATE |
|---|---|---|
| DRWN. | BDA | 3/16/20 |
| CHKD. | NMK | 3/16/20 |
| ENG. | BDA | 3/16/20 |
| MFG. | | |

BENSHAW
615 ALPHA DRIVE PITTSBURGH, PA. 15238
650 BRIGHT STREET LISTOWEL, ONTARIO N4W 3W3

SIZE D | DWG NO. MX4PB-HD-015-2-4-HB | REV 1
SCALE: 1:1 | SHEET 2 OF 2