

# HEATELESS DESICCANT AIR DRYER ELECTRICAL SCHEMATICS

**WIRING METHODS**  
 POWER 460V = BLACK THHN  
 120VAC = RED 16AWG  
 NEUTRAL = WHITE 16AWG  
 24VDC = BLUE 18AWG  
 24V COMMON = WHITE/BLUE 18AWG  
 GROUND = GREEN

**SCHEMATIC TYPICAL INDEX**  
 POWER DISTRIBUTION/BRANCH CIRCUITS  
 PLC BASE UNIT INPUT/OUTPUTS  
 PLC OUTPUT CARD  
 PLC THERMOCOUPLE CARD  
 TERMINAL LAYOUTS  
 ENCLOSURE

| Test Wire<br>Size Installed<br>In Connector<br>AWG or MCM (mm <sup>2</sup> ) |              | Tightening Torque, Pound-Inches (N.m)   |  |  |                     |
|--|--------------|---|--|--|---------------------|
|  |              | Slotted Head No. 10 and Larger <sup>1</sup>   |  | Hexagonal Head -<br>External Drive Socket Wrench |                     |
|  |              | Slot Width -<br>0.047 Inch (1.2 mm) or Less<br>and Slot Length<br>1/4 Inch (6.4 mm) or Less | Slot Width -<br>Over 0.047 Inch (1.2 mm) or<br>Slot Length -<br>Over 1/4 Inch (6.4 mm) | Split-Bolt<br>Connectors                         | Other<br>Connectors |
| 18-10  | (.082-5.3)   | 20 (2.3)  | 35 (4.0)   | 80 (9.0)   | 75 (8.5)            |
| 8  | (8.4)        | 25 (2.8)  | 40 (4.5)   | 80 (9.0)   | 75 (8.5)            |
| 6-4  | (13.3-21.2)  | 35 (4.0)  | 45 (5.1)   | 165 (18.6)                                       | 110 (12.4)          |
| 3  | (26.7)       | 35 (4.0)  | 50 (5.6)   | 275 (31.1)                                       | 150 (16.9)          |
| 2  | (33.6)       | 40 (4.5)  | 50 (5.6)   | 275 (31.1)                                       | 150 (16.9)          |
| 1  | (42.4)       | -   | 50 (5.6)   | 275 (31.1)                                       | 150 (16.9)          |
| 1/0-2/0  | (53.5-67.4)  | -   | 50 (5.6)   | 385 (43.5)                                       | 180 (20.3)          |
| 3/0-4/0  | (85.0-107.2) | -   | 50 (5.6)   | 500 (56.5)                                       | 250 (28.2)          |
| 250-350  | (127-177)    | -   | 50 (5.6)   | 650 (73.4)                                       | 325 (36.7)          |
| 400  | (203)        | -   | 50 (5.6)   | 825 (93.2)                                       | 325 (36.7)          |
| 500  | (253)        | -   | 50 (5.6)   | 825 (93.2)                                       | 375 (42.4)          |
| 600-750  | (304-380)    | -   | 50 (5.6)   | 1000 (113.0)                                     | 375 (42.4)          |
| 800-1000   | (406-508)    | -   | 50 (5.6)   | 1000 (124.3)                                     | 500 (56.5)          |
| 1250-2000  | (635-1010)   | -   | -  | 1100 (124.3)                                     | 600 (67.8)          |

**TABLE 7.4:**  
<sup>1</sup> For values of slot width or length not corresponding to those specified, select the largest torque value associated with the conductor size. Slot width is the nominal design value. Slot length is measured at the bottom of the slot.

MAX VOLTAGE\_\_\_\_\_115\_\_\_\_\_

TOTAL MCA\_\_\_\_\_1.6 AMP\_\_\_\_\_

LARGEST MOTOR FLA\_\_\_\_N/A\_\_\_\_

NUMBER OF PHASES\_\_\_\_\_1\_\_\_\_\_

FREQUENCY\_\_\_\_\_60HZ\_\_\_\_\_

CUSTOMER SERIAL

NO.\_\_\_\_\_

UNDERWRITERS LAB SERIAL

NO.\_\_\_\_

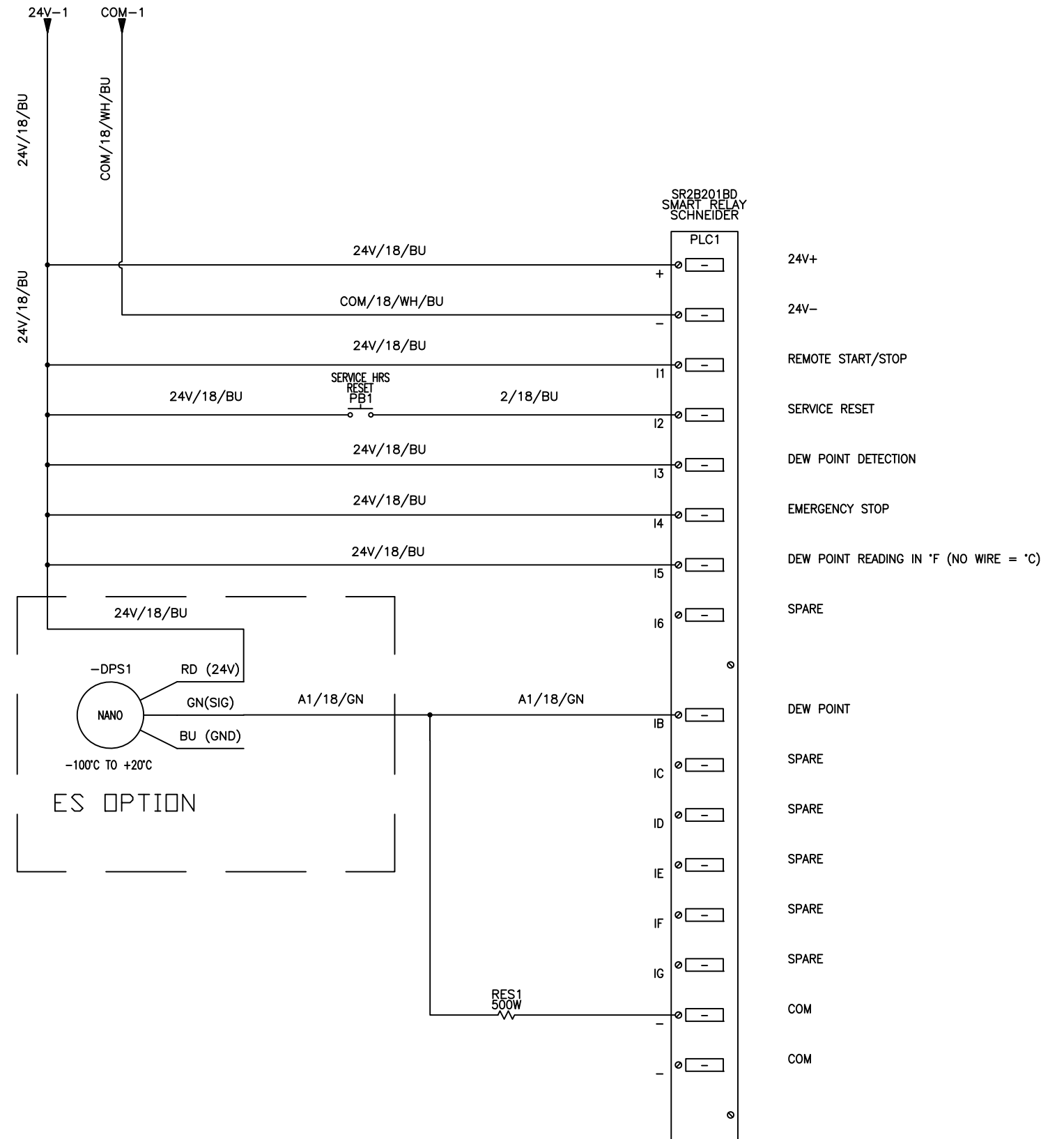
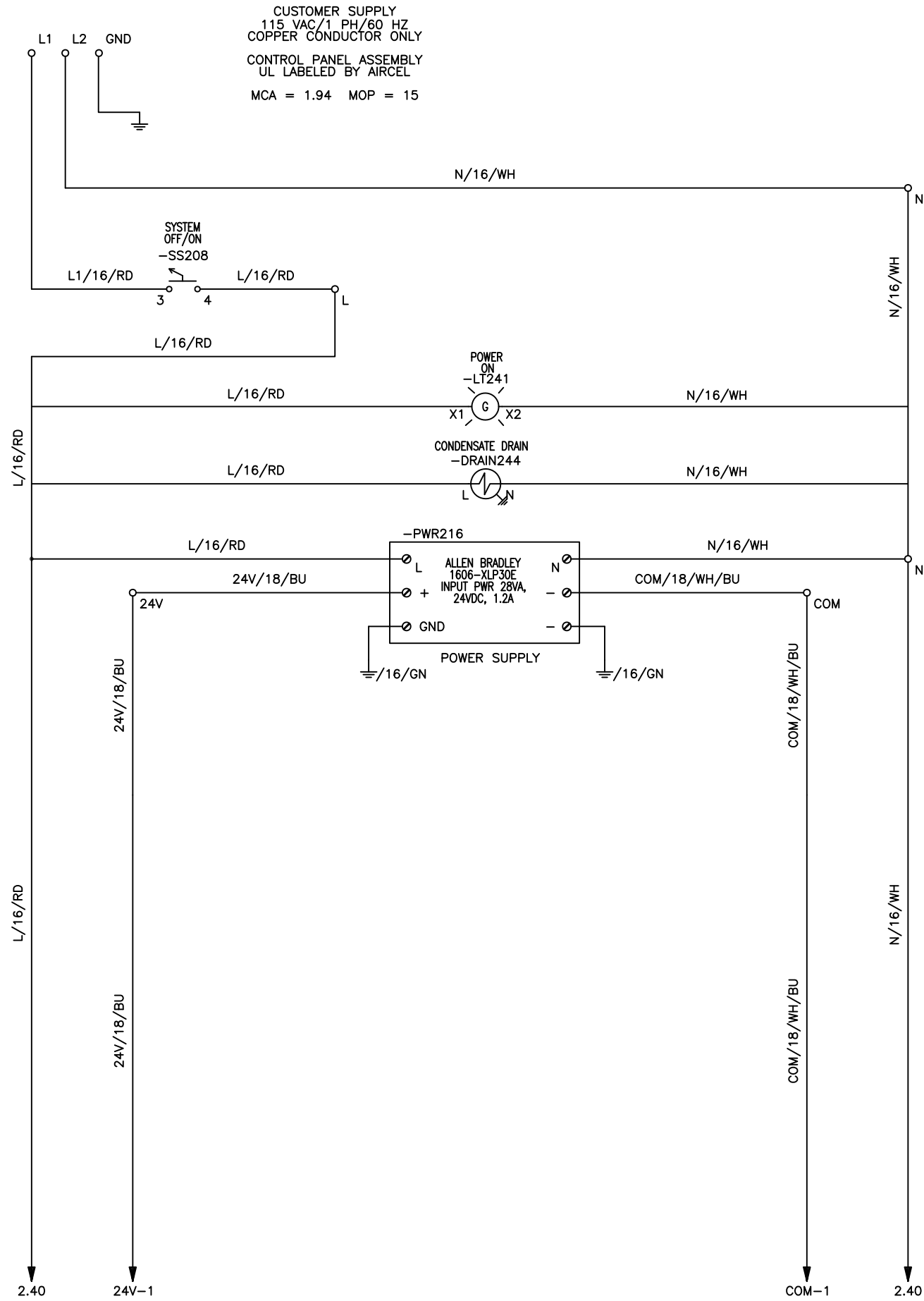


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| TITLE DESCRIPTION |                       | CHK'D BY: |             | DATE:           |                  |
| PAGE DESCRIPTION  | ELECTRICAL SCHEMATICS | JOB NO.   |             | DRAWING NUMBER: | AG3956010-1 OF 6 |
| PAGE DESCRIPTION  | TORQUE TABLE          |           |             |                 |                  |



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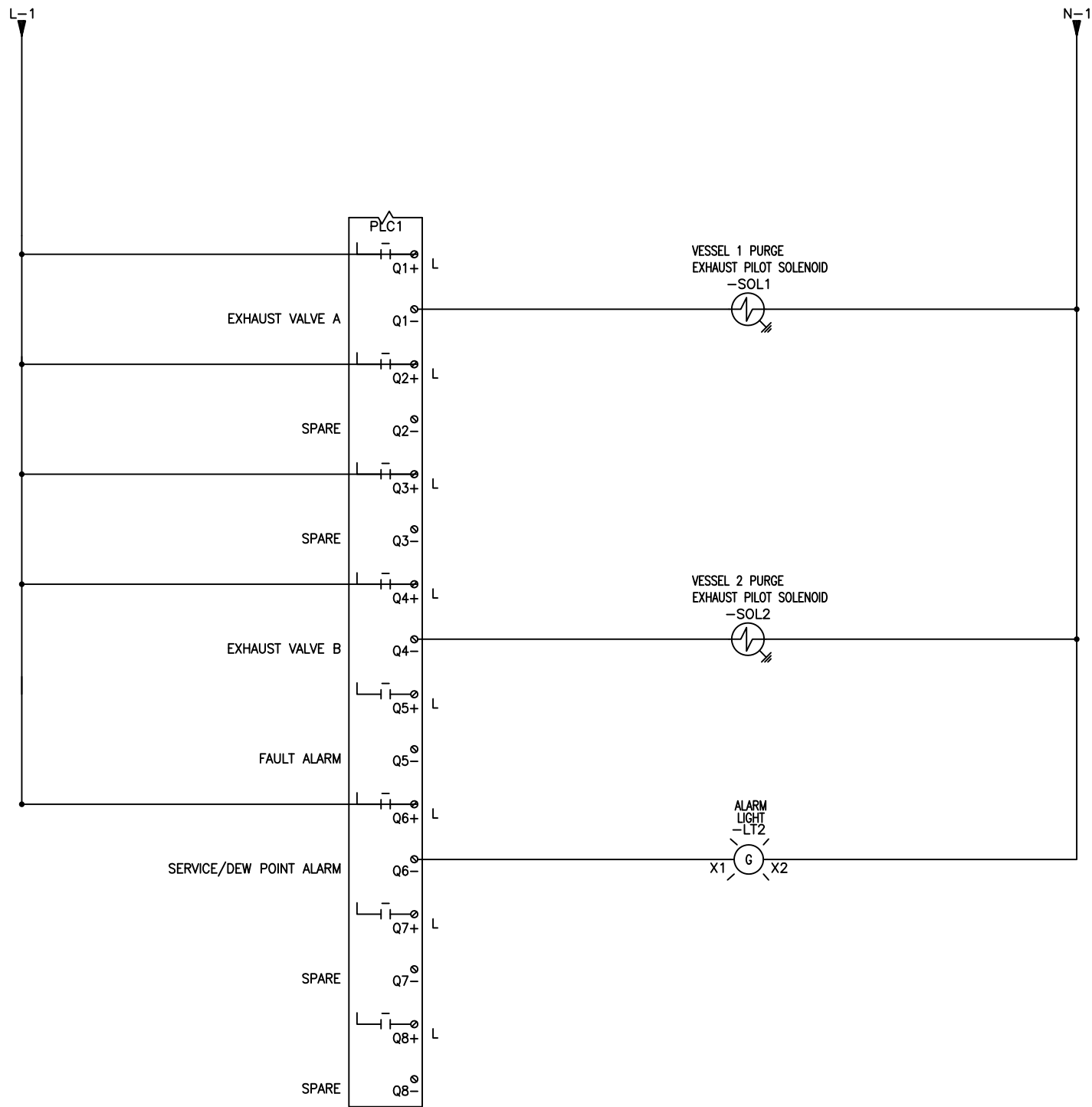
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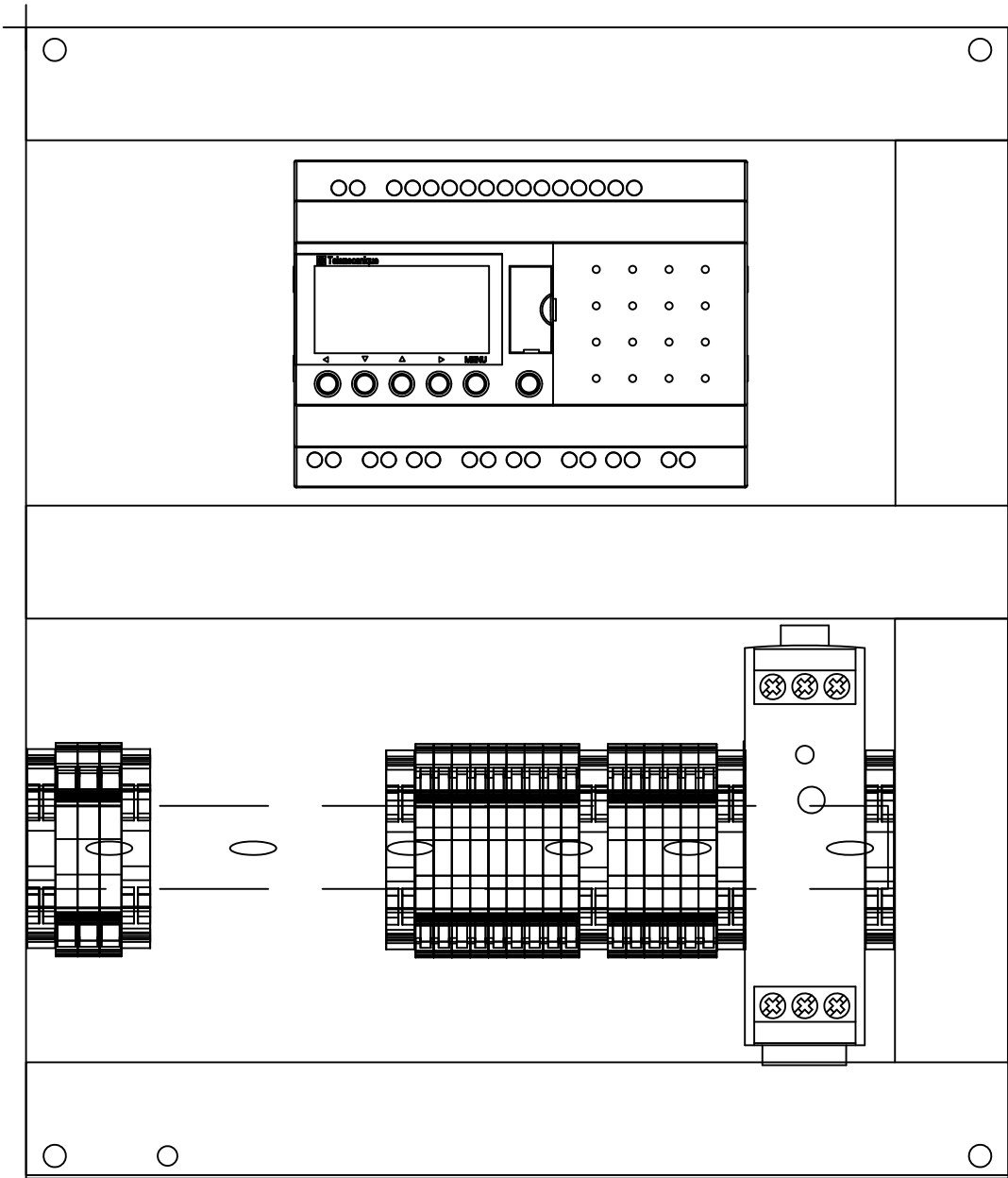
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| PAGE DESCRIPTION  | ELECTRICAL SCHEMATICS | JOB NO.   |             | DRAWING NUMBER: | AG3956010-3 OF 6 |
| PAGE DESCRIPTION  | PLC OUTPUTS           |           |             |                 |                  |

| Description for BOM              | Item Number/Stock Number | Quantity per Dryer |
|----------------------------------|--------------------------|--------------------|
| CONTROLLER, ZELIO SMART RELAY    | 32192                    | 1                  |
| POWER SUPPLY, 24 VDC, 15 WATTS   | AG3948924                | 1                  |
| TERMINAL BLOCK, GRAY, J4         | AG3253101                | 2                  |
| TERMINAL BLOCK GREEN/YELLOW, JG4 | AG3253001                | 1                  |
| TERMINAL BLOCK GRAY, J3          | AG3933345                | 13                 |
| TERMINAL BLOCK GREEN/YELLOW, JG3 | AG3933346                | 2                  |
| END ANCHOR                       | AG3251901                | 4                  |
| BACK PLATE, FITS A14128PHC       | AG3197201                | 1                  |
| PUSHBUTTON, SWITCH, MOMENTARY    | AG3956013                | 1                  |



|            |
|------------|
| END ANCHOR |
| L1 - J4    |
| L2 - J4    |
| GND - J4   |
| END ANCHOR |

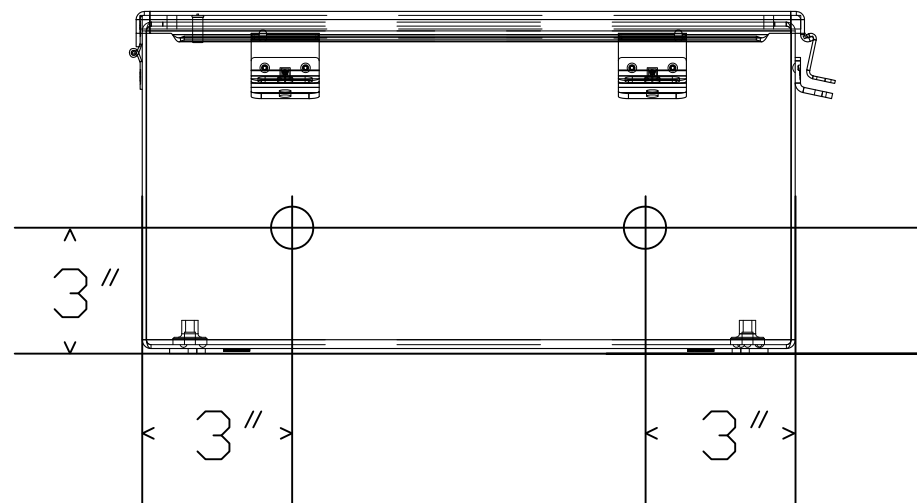
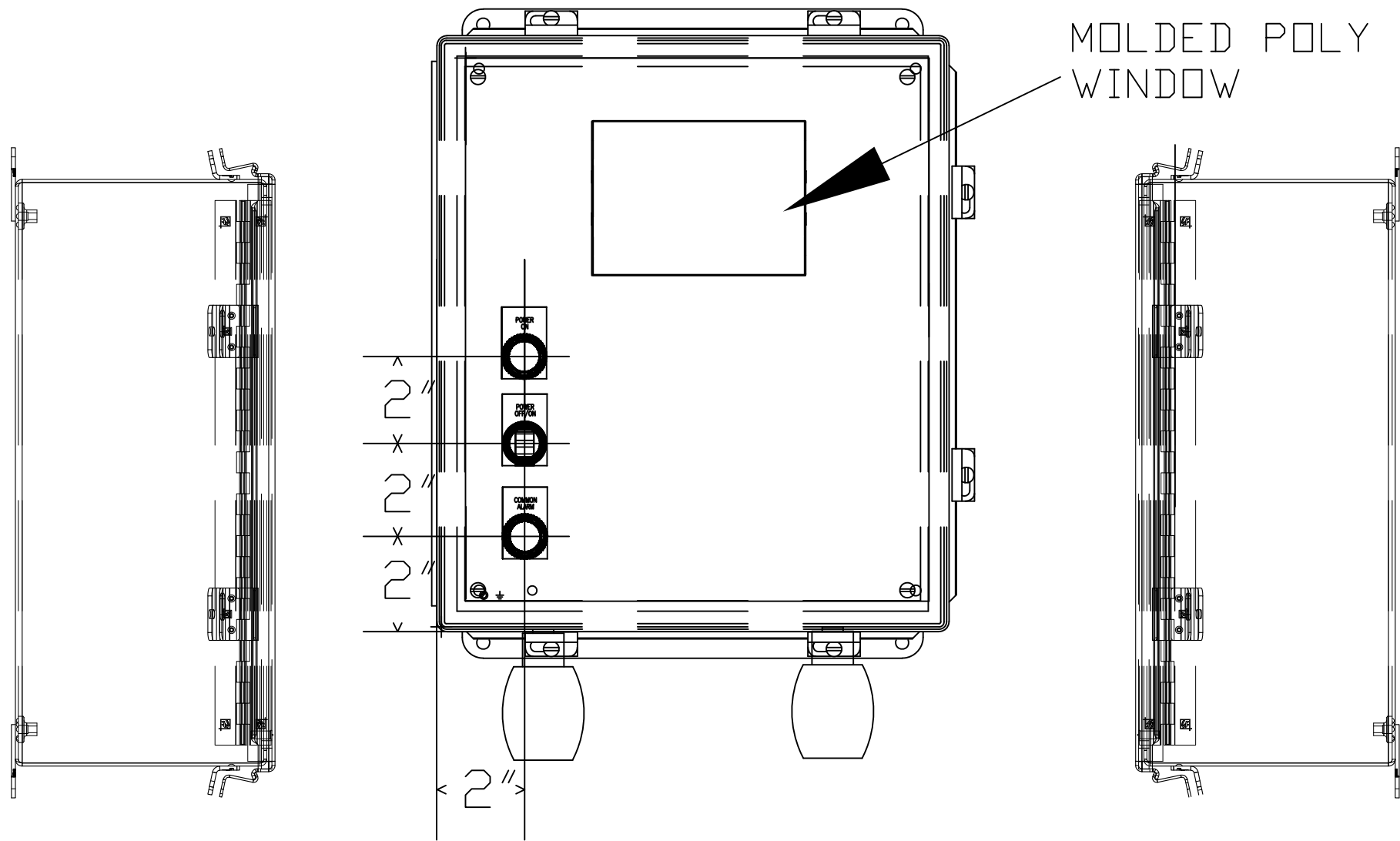
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|------------|
| END ANCHOR |
| N          |
| N          |
| N          |
| L          |
| L          |
| L          |
| 11         |
| 14         |
| 16         |
| END ANCHOR |
| 24V        |
| 24V        |
| COM        |
| COM        |
| GND        |
| GND        |
| END ANCHOR |
| PWR SPPLY  |
| END ANCHOR |

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| TITLE DESCRIPTION                      | CHK'D BY:             | DATE:                            |
| PAGE DESCRIPTION ELECTRICAL SCHEMATICS | JOB NO.               | DRAWING NUMBER: AG3956010-4 OF 6 |
| PAGE DESCRIPTION PANEL LAYOUT          |                       |                                  |



| Description for BOM          | Item Number/Stock Number | Quantity per Dryer |
|------------------------------|--------------------------|--------------------|
| ENCLOSURE, 14X12 W/WINDOW    | AG3956012                | 1                  |
| SOLENOID, 3-WAY              | AG3101501                | 2                  |
| HUB, MYERS                   | AG3288701                | 2                  |
| NIPPLE, CONDUIT, 1/2"x CLOSE | AG3342801                | 2                  |
| SWITCH, 2-POSITION           | AG3956014                | 1                  |
| LIGHT, LED, GREEN, PILOT     | AG3956015                | 1                  |
| LIGHT, LED, RED, PILOT       | AG3956016                | 1                  |

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| PAGE DESCRIPTION ELECTRICAL SCHEMATICS | JOB NO.               | DRAWING NUMBER: AG3956010-5 OF 6 |
| PAGE DESCRIPTION DOOR LAYOUT           |                       |                                  |

| Description for BOM              | Item Number/Stock Number | Quantity per Dryer |
|----------------------------------|--------------------------|--------------------|
| ENCLOSURE, NO-WINDOW             | AG3956012                | 1                  |
| CONTROLLER, ZELIO SMART RELAY    | 32192                    | 1                  |
| POWER SUPPLY, 24 VDC, 15 WATTS   | AG3948924                | 1                  |
| TERMINAL BLOCK, GRAY, J4         | AG3253101                | 2                  |
| TERMINAL BLOCK GREEN/YELLOW, JG4 | AG3253001                | 1                  |
| TERMINAL BLOCK GRAY, J3          | AG3933345                | 13                 |
| TERMINAL BLOCK GREEN/YELLOW, JG3 | AG3933346                | 2                  |
| SOLENOID, 3-WAY                  | AG3101501                | 2                  |
| HUB, MYERS                       | AG3288701                | 2                  |
| NIPPLE, CONDUIT, 1/2"x CLOSE     | AG3342801                | 2                  |
| SWITCH, 2-POSITION               | AG3956014                | 1                  |
| PUSHBUTTON, SWITCH, MOMENTARY    | AG3956013                | 1                  |
| LIGHT, LED, GREEN, PILOT         | AG3956015                | 1                  |
| LIGHT, LED, RED, PILOT           | AG3956016                | 1                  |
| END ANCHOR                       | AG3251901                | 4                  |
| BACK PLATE, FITS A14128PHC       | AG3197201                | 1                  |
| WIRE #18, BLUE                   | AG3480463                | 20                 |
| WIRE #18, RED                    | AG3480947                | 15                 |
| WIRE #18, WHITE                  | AG3480948                | 10                 |
| WIRE #18, WHITE/BLUE             | AG3480991                | 15                 |
| WIRE #16, ORANGE                 | AG3373901                | 6                  |
| WIRE #16, GREEN                  | AG3372301                | 12                 |

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| △   |                      | /             |  | PAGE DESCRIPTION EBOM                  |                       | AG3956010-6 OF 6 |