

# ABB BALDOR RELIANCE III

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## Customer information packet

### SPJMM2513T-G

15HP, 1770RPM, 3PH, 60HZ, 254JM, 3958M, OPSB, F

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| <b>Enclosure</b>                      | OPSB                                     |
| <b>Frame</b>                          | 254JM                                    |
| <b>Frame Material</b>                 | Steel                                    |
| <b>Frequency</b>                      | 60.00 Hz                                 |
| <b>Haz Area Class and Group</b>       | None                                     |
| <b>Haz Area Division</b>              | Not Applicable                           |
| <b>Motor Letter Type</b>              | Three Phase                              |
| <b>Output @ Frequency</b>             | 15.000 HP @ 60 HZ                        |
| <b>Phase</b>                          | 3                                        |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                         |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ       |
| <b>Agency Approvals</b>               | WEEE                                     |
| <b>Ambient Temperature</b>            | 40 °C                                    |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                         |
| <b>Auxiliary Box Lead Termination</b> | None                                     |
| <b>Base Indicator</b>                 | Rigid                                    |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                  |
| <b>Blower</b>                         | None                                     |
| <b>Current @ Voltage</b>              | 18.300 A @ 460.0 V<br>36.600 A @ 230.0 V |
| <b>Design Code</b>                    | A                                        |
| <b>Drip Cover</b>                     | No Drip Cover                            |
| <b>Duty Rating</b>                    | CONT                                     |
| <b>Efficiency @ 100% Load</b>         | 93.6 %                                   |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                |
| <b>Feedback Device</b>                | NO FEEDBACK                              |
| <b>Front Shaft Indicator</b>          | None                                     |
| <b>Heater Indicator</b>               | No Heater                                |
| <b>High Voltage Full Load Amps</b>    | 18.3 a                                   |
| <b>Insulation Class</b>               | H                                        |
| <b>Inverter Code</b>                  | Inverter Duty                            |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | A          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 39E780     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 39WGY450   |
| <b>Layout</b>       | 39LYE780   |
| <b>Eff. date</b>    | 11-19-2025 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#12       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 08-14-2025 |

|                                      |                              |
|--------------------------------------|------------------------------|
| <b>KVA Code</b>                      | <b>J</b>                     |
| <b>Lifting Lugs</b>                  | <b>Standard Lifting Lugs</b> |
| <b>Locked Bearing Indicator</b>      | <b>Locked Bearing</b>        |
| <b>Max Speed</b>                     | <b>2700 rpm</b>              |
| <b>Motor Lead Quantity/Wire Size</b> | <b>9 @ 12 AWG</b>            |
| <b>Motor Lead Termination</b>        | <b>Flying Leads</b>          |
| <b>Motor Standards</b>               | <b>NEMA</b>                  |
| <b>Motor Type</b>                    | <b>3958M</b>                 |
| <b>Mounting Arrangement</b>          | <b>F1</b>                    |
| <b>Number of Poles</b>               | <b>4</b>                     |
| <b>Overall Length</b>                | <b>24.69 IN</b>              |
| <b>Power Factor</b>                  | <b>82</b>                    |
| <b>Product Family</b>                | <b>General Purpose</b>       |
| <b>Pulley End Bearing Type</b>       | <b>Ball</b>                  |
| <b>Pulley Face Code</b>              | <b>C-Face</b>                |
| <b>Pulley Shaft Indicator</b>        | <b>Tapped &amp; Key</b>      |
| <b>Rodent Screen</b>                 | <b>Included</b>              |
| <b>RoHS Status</b>                   | <b>ROHS COMPLIANT</b>        |
| <b>Service Factor</b>                | <b>1.25</b>                  |
| <b>Shaft Diameter</b>                | <b>1.375 IN</b>              |
| <b>Shaft Ground Indicator</b>        | <b>Shaft Grounding</b>       |
| <b>Shaft Rotation</b>                | <b>Reversible</b>            |
| <b>Shaft Slinger Indicator</b>       | <b>Shaft Slinger</b>         |
| <b>Speed</b>                         | <b>1770 rpm</b>              |
| <b>Speed Code</b>                    | <b>Single Speed</b>          |
| <b>Starting Method</b>               | <b>Direct on line</b>        |
| <b>Thermal Device - Bearing</b>      | <b>None</b>                  |
| <b>Thermal Device - Winding</b>      | <b>None</b>                  |
| <b>Vibration Sensor Indicator</b>    | <b>No Vibration Sensor</b>   |
| <b>Winding Thermal 1</b>             | <b>None</b>                  |
| <b>Winding Thermal 2</b>             | <b>None</b>                  |

**Nameplate**

| NP4423A01A05L |               |      |         |           |      |               |      |      |       |      |      |       |  |  |
|---------------|---------------|------|---------|-----------|------|---------------|------|------|-------|------|------|-------|--|--|
| CAT #         | SPJMM2513T-G  |      |         |           |      | WGT           | 289  |      | LBS   |      |      |       |  |  |
| SPEC          | 39E780Y450    |      |         |           |      | ENCL          | OPSB |      |       |      |      |       |  |  |
| SER #         |               |      |         |           |      | CC            | 010A |      | IP    | 23   |      |       |  |  |
| HP            | 15            |      | MAG CUR |           |      | 15.2/7.6      |      |      |       |      |      |       |  |  |
| VOLTS         | 230/460       |      |         |           |      | NEMA NOM. EFF |      |      |       |      | 93.6 |       |  |  |
| AMPS          | 36.6/18.3     |      |         |           |      |               | PF   | 82   |       |      |      |       |  |  |
| RATING        | 40C AMB-CONT  |      |         |           |      |               |      |      |       |      |      |       |  |  |
| RPM           | 1770          |      |         |           |      | MAX RPM       |      | 2700 |       |      |      |       |  |  |
| FRAME         | 254JM         |      | HZ      | 60        |      | CODE          | J    |      | CLASS | H    |      |       |  |  |
| SER.F.        | 1.25          |      | SF AMP  | 29.6/24.8 |      |               | PH   | 3    |       | DES  | A    |       |  |  |
| DE            | 6309          |      |         | ODE       | 6208 |               |      |      |       |      |      |       |  |  |
| LUBRICATION   | POLYREX EM    |      |         |           |      |               |      |      |       |      |      |       |  |  |
| ID LOGO       | INVERTER TYPE |      |         | VPWM      |      | CHP           | 60   |      | TO    | 90   |      | 1.5:1 |  |  |
| ID LOGO       | WK2           | 2.54 |         | CT        | 6    |               | TO   | 60   |       | 10:1 |      |       |  |  |
| ID LOGO       | SL HZ         | 1    |         | VT        | 3    |               | TO   | 60   |       | 20:1 |      |       |  |  |
|               |               |      |         |           |      |               |      |      |       |      |      |       |  |  |
|               |               |      |         |           |      |               |      |      |       |      |      |       |  |  |
|               |               |      |         |           |      |               |      |      |       |      |      |       |  |  |
|               |               |      |         |           |      |               | QR   |      |       |      |      |       |  |  |
| YR            |               |      |         |           |      |               |      |      |       |      |      |       |  |  |

**AC Induction Motor Performance Data**

Record # 114781

Typical performance - not guaranteed values

| Winding: 39WGY450-R005 |    |              |              | Type: 3958M                              |  | Enclosure: OPSB |  |
|------------------------|----|--------------|--------------|------------------------------------------|--|-----------------|--|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |    | 15           |              | Full Load Torque                         |  | 44.37 LB-FT     |  |
| Volts                  |    | 230/460      |              | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |    | 36.6/18.3    |              | Breakdown Torque                         |  | 216 LB-FT       |  |
| R.P.M.                 |    | 1770         |              | Pull-up Torque                           |  | 102 LB-FT       |  |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |  | 128 LB-FT       |  |
| NEMA Design Code       |    | A            | KVA Code     | Starting Current                         |  | 174 A           |  |
| Service Factor (S.F.)  |    | 1.25         |              | No-load Current                          |  | 9.46 A          |  |
| NEMA Nom. Eff.         |    | 93.6         | Power Factor | Line-line Res. @ 25°C                    |  | 0.41963 Ω       |  |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |  | 23°C            |  |
| S.F. Amps              |    | 29.6/24.8    |              | Temp. Rise @ S.F. Load                   |  | 30°C            |  |
|                        |    |              |              | Locked-rotor Power Factor                |  | 31.4            |  |
|                        |    |              |              | Rotor inertia                            |  | 2.54 lb-ft²     |  |

**Load Characteristics 460 V, 60 Hz, 15 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 39     | 61     | 73     | 79     | 83     | 85     | 83   |
| Efficiency      | 88.4   | 92.8   | 93.9   | 94.1   | 93.9   | 93.5   | 93.9 |
| Speed           | 1795.9 | 1790.9 | 1786.2 | 1781.1 | 1776.1 | 1770.5 | 1776 |
| Line amperes    | 10.4   | 12.6   | 15.4   | 18.8   | 22.5   | 26.4   | 22.5 |

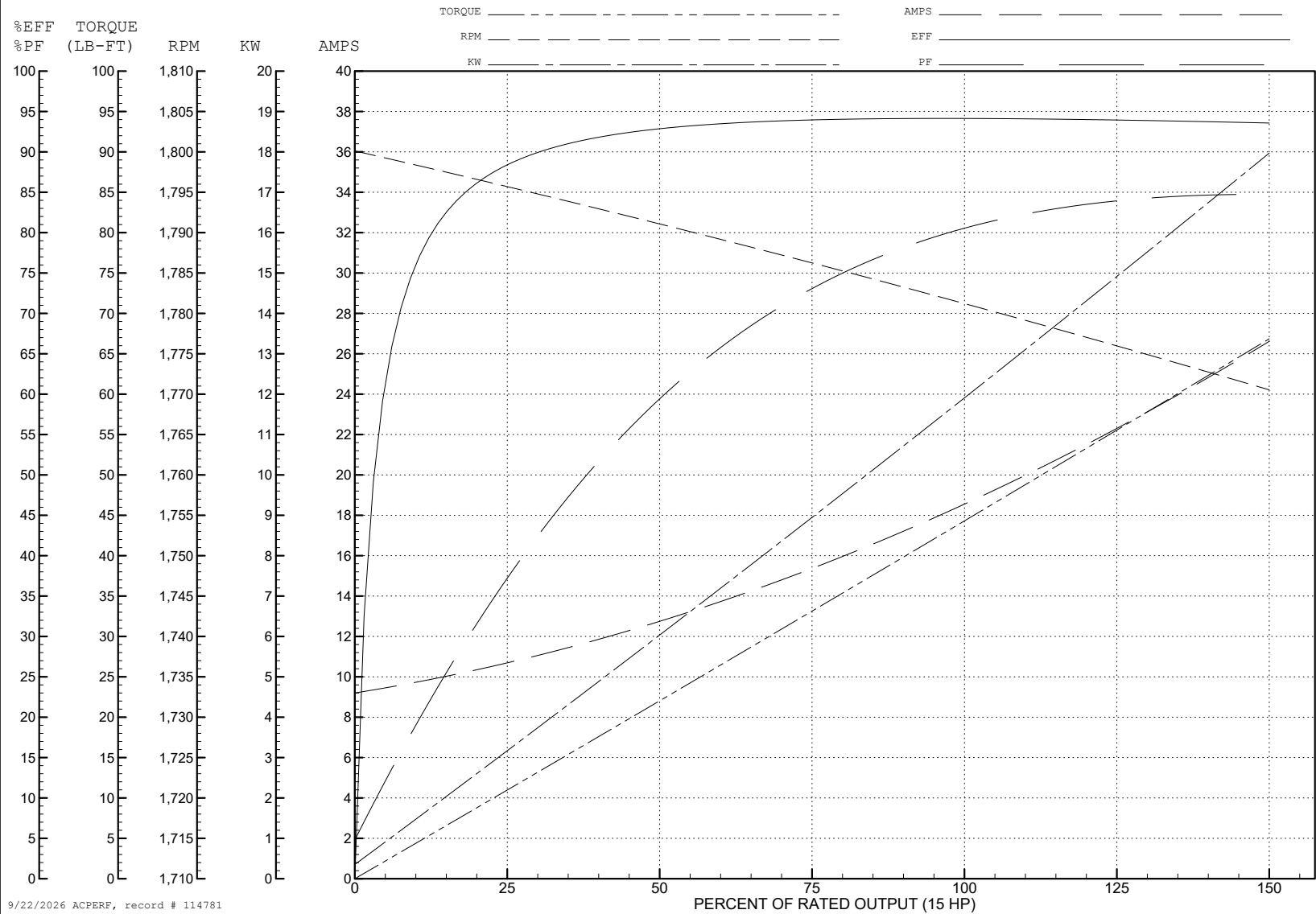
ABB Motors and Mechanical Inc.

WINDING # 39WGY450

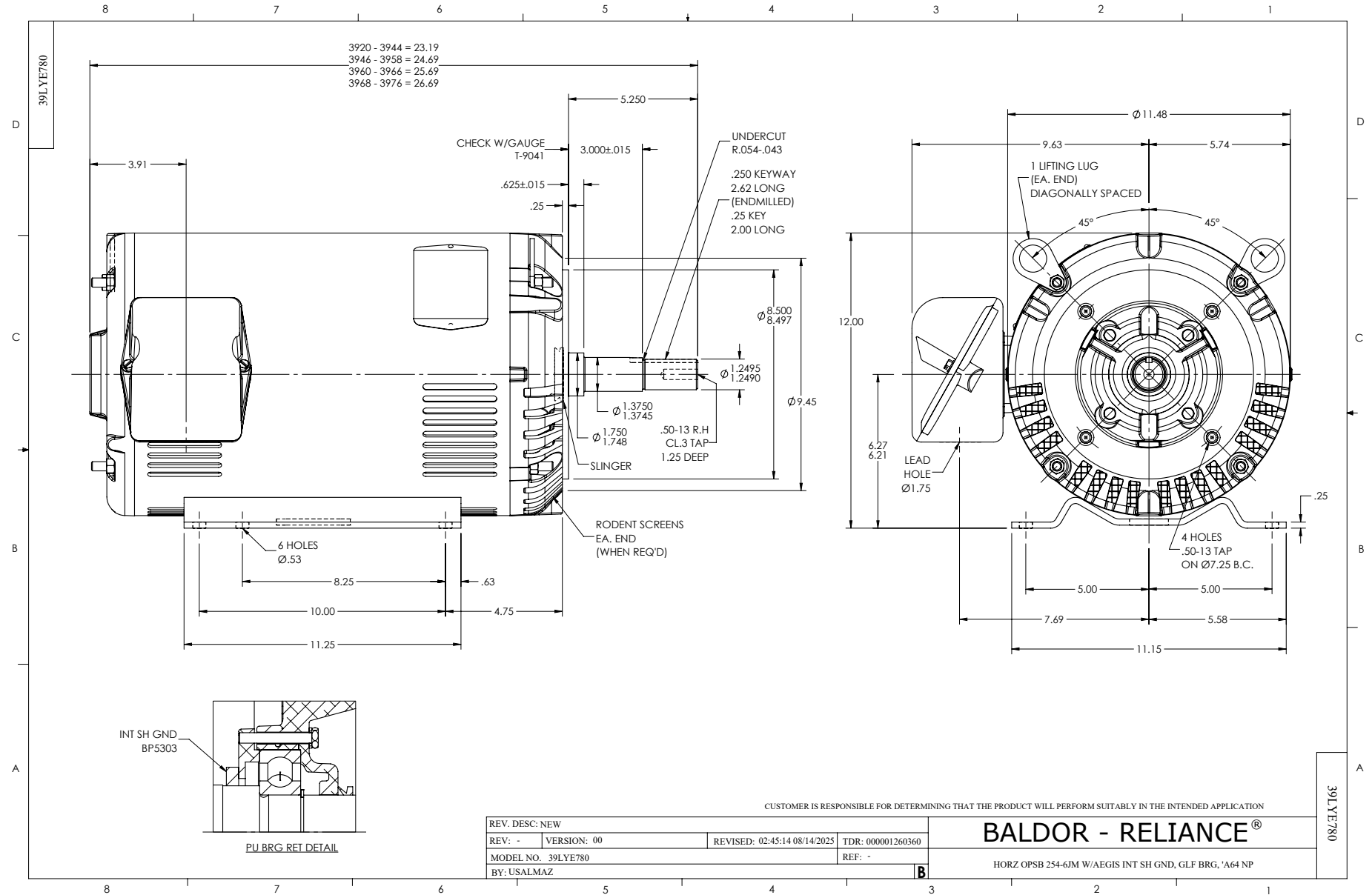
Typical performance - not guaranteed values.

15 HP 3 PH 60 HZ 1770 RPM 460 V 3958M

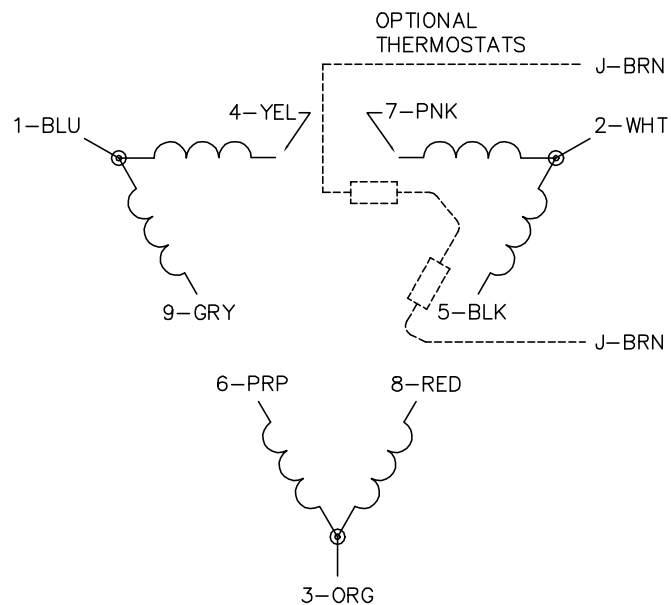
TORQUES (LB-FT): PO=216 PU=102 LR=128 LRA=174



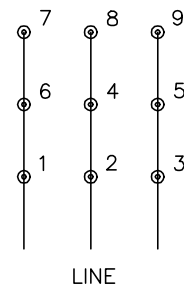
9/22/2026 ACPERF, record # 114781



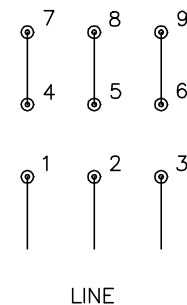
CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



**NOTES:**

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -



**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1