

# ABB BALDOR RELIANCE III

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## Customer information packet EM2548T

60HP, 1185RPM, 3PH, 60HZ, 404T, 4476M, OPSB, F1

**Specifications**

|                                       |                                                                  |
|---------------------------------------|------------------------------------------------------------------|
| <b>Enclosure</b>                      | OPSB                                                             |
| <b>Frame</b>                          | 404T                                                             |
| <b>Frame Material</b>                 | Steel                                                            |
| <b>Frequency</b>                      | 60.00 Hz                                                         |
| <b>Motor Letter Type</b>              | Three Phase                                                      |
| <b>Output @ Frequency</b>             | 60.000 HP @ 60 HZ                                                |
| <b>Phase</b>                          | 3                                                                |
| <b>Synchronous Speed @ Frequency</b>  | 1200 RPM @ 60 HZ                                                 |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                               |
| <b>Agency Approvals</b>               | CURUSEEV<br>NEMA PREMIUM<br>NEMA PREMIUM (OLD LOGO)              |
| <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>              | 160.000 A @ 208.0 V<br>76.000 A @ 460.0 V<br>152.000 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>         | 94.5 %                                                           |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                        |
| <b>Feedback Device</b>                | NO FEEDBACK                                                      |
| <b>Front Face Code</b>                | Standard                                                         |
| <b>Front Shaft Indicator</b>          | None                                                             |
| <b>Heater Indicator</b>               | No Heater                                                        |
| <b>High Voltage Full Load Amps</b>    | 76.0 a                                                           |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | T          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 44E057     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 44WGW300   |
| <b>Layout</b>       | 44LYE057   |
| <b>Eff. date</b>    | 10-31-2024 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#6        |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 05-07-2010 |

|                                      |                              |
|--------------------------------------|------------------------------|
| <b>Insulation Class</b>              | <b>F</b>                     |
| <b>Inverter Code</b>                 | <b>Inverter Ready</b>        |
| <b>KVA Code</b>                      | <b>H</b>                     |
| <b>Lifting Lugs</b>                  | <b>Standard Lifting Lugs</b> |
| <b>Locked Bearing Indicator</b>      | <b>Locked Bearing</b>        |
| <b>Motor Lead Exit</b>               | <b>Ko Box</b>                |
| <b>Motor Lead Quantity/Wire Size</b> | <b>9 @ 6 AWG</b>             |
| <b>Motor Lead Termination</b>        | <b>Flying Leads</b>          |
| <b>Motor Standards</b>               | <b>NEMA</b>                  |
| <b>Motor Type</b>                    | <b>4480M</b>                 |
| <b>Mounting Arrangement</b>          | <b>F1</b>                    |
| <b>Number of Poles</b>               | <b>6</b>                     |
| <b>Overall Length</b>                | <b>34.47 IN</b>              |
| <b>Power Factor</b>                  | <b>79</b>                    |
| <b>Product Family</b>                | <b>General Purpose</b>       |
| <b>Pulley End Bearing Type</b>       | <b>Ball</b>                  |
| <b>Pulley Face Code</b>              | <b>Standard</b>              |
| <b>Pulley Shaft Indicator</b>        | <b>Standard</b>              |
| <b>Rodent Screen</b>                 | <b>None</b>                  |
| <b>Service Factor</b>                | <b>1.15</b>                  |
| <b>Shaft Diameter</b>                | <b>2.875 IN</b>              |
| <b>Shaft Extension Location</b>      | <b>Pulley End</b>            |
| <b>Shaft Ground Indicator</b>        | <b>No Shaft Grounding</b>    |
| <b>Shaft Rotation</b>                | <b>Reversible</b>            |
| <b>Shaft Slinger Indicator</b>       | <b>No Slinger</b>            |
| <b>Speed</b>                         | <b>1185 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**

| NP2138LUA    |                            |    |    |          |       |        |            |         |           |      |        |      |
|--------------|----------------------------|----|----|----------|-------|--------|------------|---------|-----------|------|--------|------|
| CAT.NO.      | EM2548T                    |    |    | P/N      |       |        |            |         | ENCLOSURE |      |        | OPSB |
| SPEC.        | 44E057W300G1               |    | CC | 010A     | FRAME |        | 404T       |         | S/N       |      |        |      |
| HP           | 60                         |    |    | CLASS    |       | F      | HZ         | 60      |           |      |        |      |
| RPM          | 1185                       |    |    | PH       | 3     | DES    |            | A       |           |      |        |      |
| VOLT         | 230/460                    |    |    | KVA-CODE |       |        | H          | ODE BRG |           | 6312 | DE BRG | 6316 |
| AMP          | 152/76                     |    |    |          |       |        |            |         |           |      |        |      |
| RATING       | 40C AMB-CONT               |    |    | GREASE   |       |        | POLYREX EM |         |           |      |        |      |
| NEMA-NOM-EFF | 94.5                       | PF | 79 | SER.F.   | 1.15  |        |            |         |           |      |        |      |
|              | 50Hz 60Hp 190/380V 178/89A |    |    |          |       | SF 1.0 |            |         |           |      |        |      |
| HTR-VOLTS    | HTR-AMPS                   |    |    |          |       |        |            |         |           |      |        |      |

**AC Induction Motor Performance Data**

Record # 32127

Typical performance - not guaranteed values

| Winding: 44WGW300-R001 |    |              | Type: 4480M  |                                          | Enclosure: OPSB |                |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------|----------------|
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                 |                |
| Rated Output (HP)      |    | 60           |              | Full Load Torque                         |                 | 266 LB-FT      |
| Volts                  |    | 230/460      |              | Start Configuration                      |                 | direct on line |
| Full Load Amps         |    | 152/76       |              | Breakdown Torque                         |                 | 843 LB-FT      |
| R.P.M.                 |    | 1185         |              | Pull-up Torque                           |                 | 384 LB-FT      |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                 | 526 LB-FT      |
| NEMA Design Code       |    | A            | KVA Code     | Starting Current                         |                 | 520 A          |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                 | 33.2 A         |
| NEMA Nom. Eff.         |    | 94.5         | Power Factor | Line-line Res. @ 25°C                    |                 | 0.084913 Ω     |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                 | 42°C           |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |                 | 50°C           |
|                        |    |              |              | Locked-rotor Power Factor                |                 | 29             |
|                        |    |              |              | Rotor inertia                            |                 | 22.8 LB-FT2    |

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

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150  | S.F. |
|-----------------|--------|--------|--------|--------|--------|------|------|
| Power Factor    | 42     | 63     | 74     | 79     | 81     | 82   | 80   |
| Efficiency      | 91.5   | 94.3   | 94.8   | 94.6   | 94.2   | 93.4 | 94.4 |
| Speed           | 1195.3 | 1192.1 | 1188.9 | 1184.8 | 1180.9 | 1176 | 1182 |
| Line amperes    | 37.6   | 47.6   | 60.7   | 75.5   | 92.2   | 110  | 85.5 |

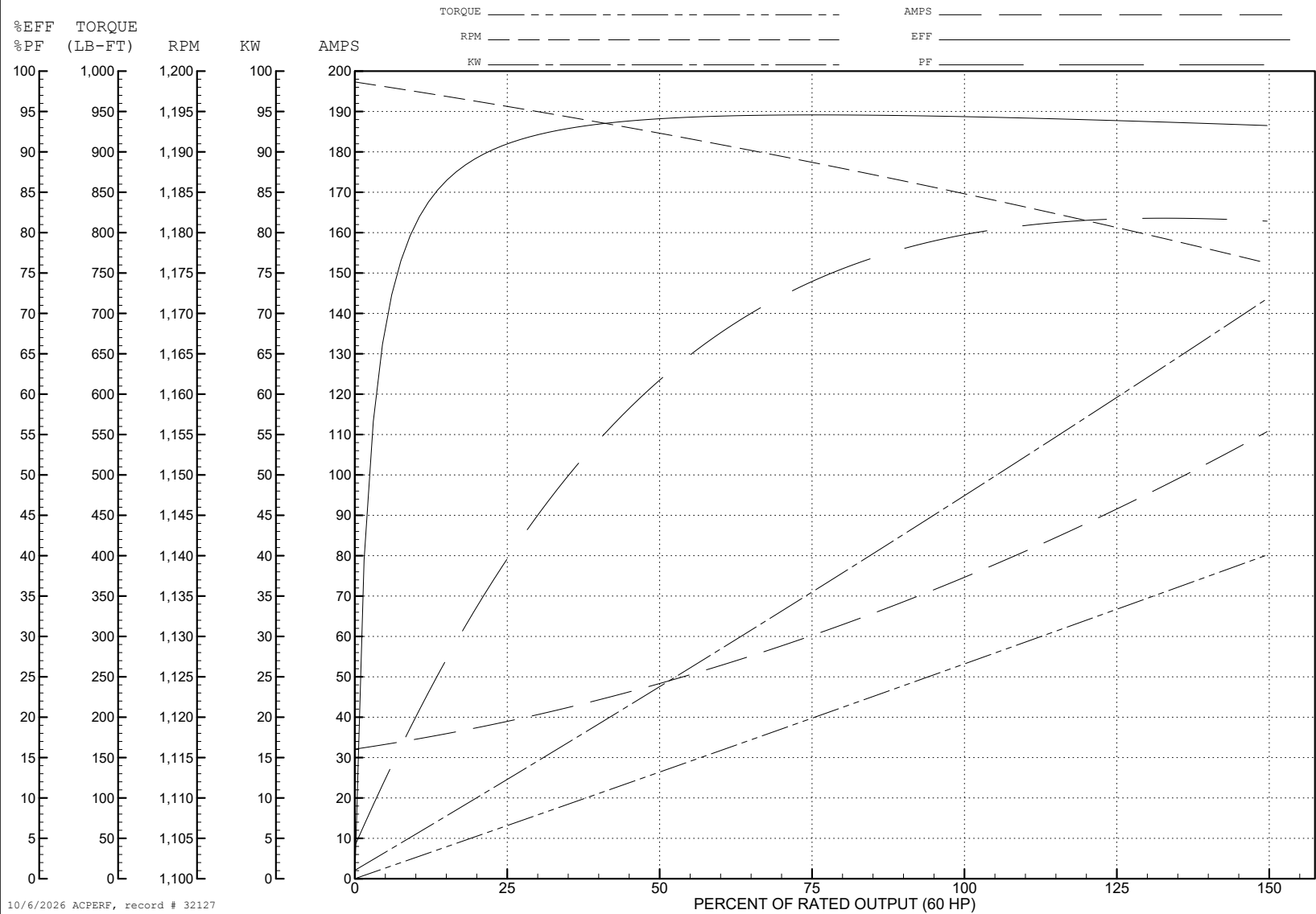
ABB Motors and Mechanical Inc.

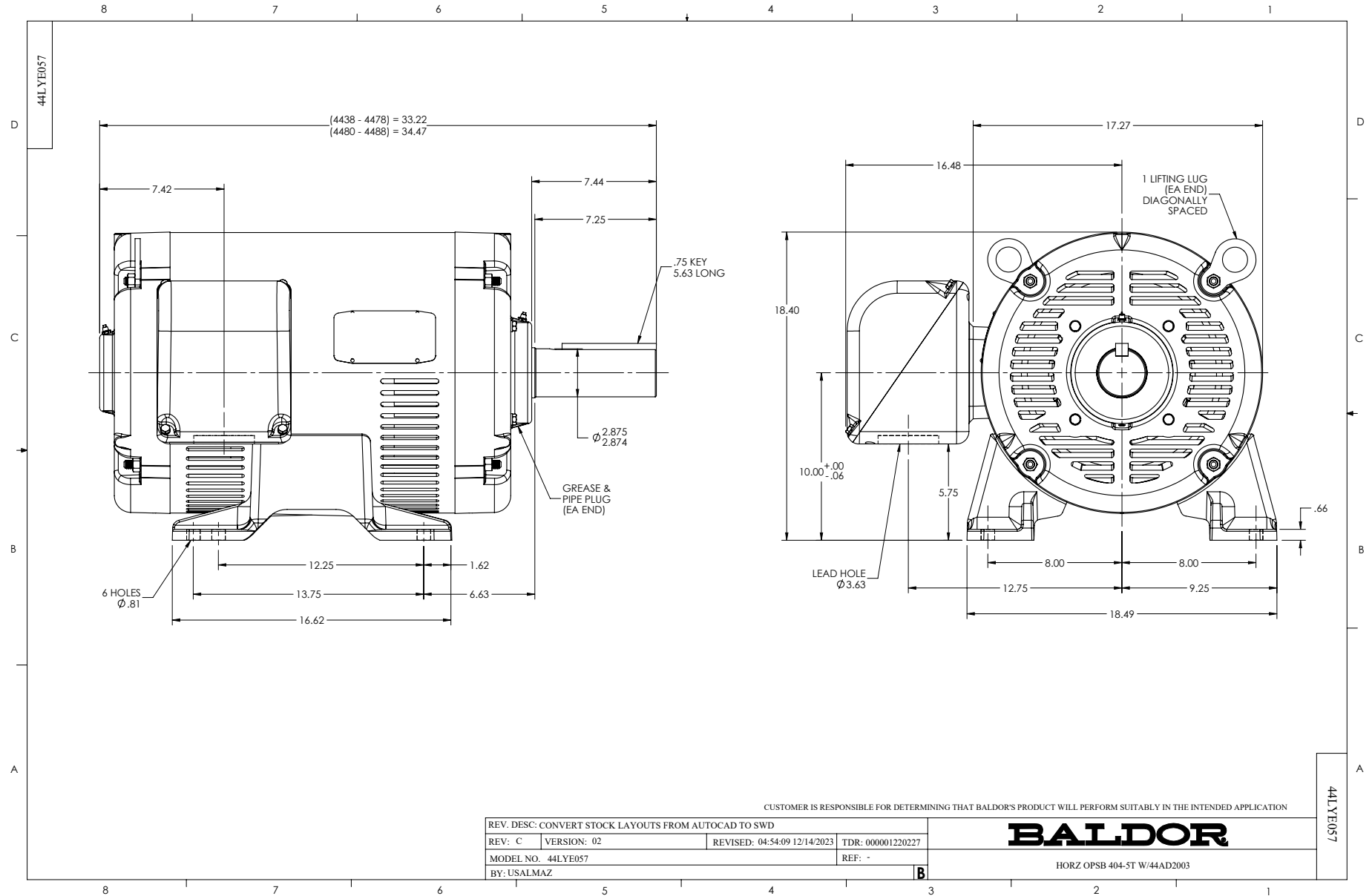
WINDING # 44WGW300

Typical performance - not guaranteed values.

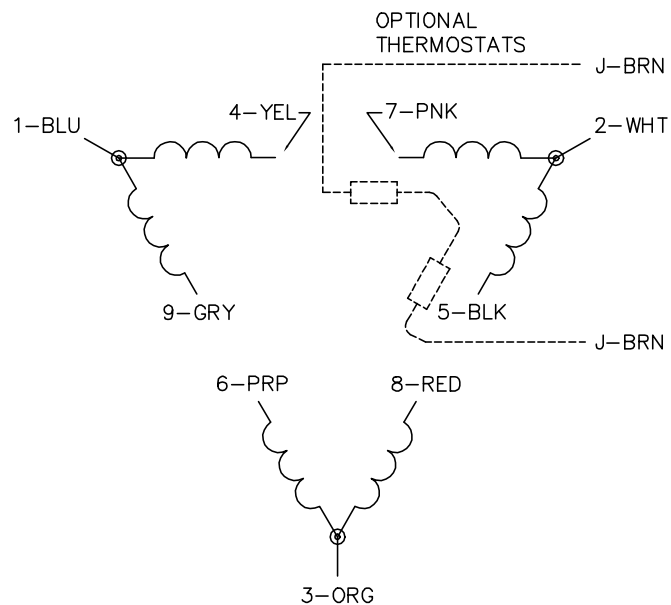
60 HP 3 PH 60 HZ 1185 RPM 460 V 4480M

TORQUES (LB-FT): PO=843 PU=384 LR=526 LRA=520

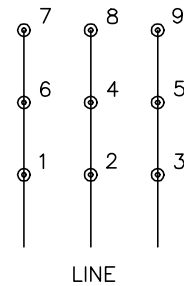




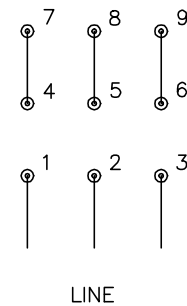
CD0180



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