

# ABB BALDOR RELIANCE III

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## Customer information packet

### EFM4103T

25HP, 1775RPM, 3PH, 60HZ, 284T, 1054M, TEFC, F2

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                           |
| <b>Frame</b>                          | 284T                                                           |
| <b>Frame Material</b>                 | Iron                                                           |
| <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>             | 25.000 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                              |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                               |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 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>              | 62.000 A @ 230.0 V<br>64.000 A @ 208.0 V<br>31.000 A @ 460.0 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 Face Code</b>                | Standard                                                       |
| <b>Front Shaft Indicator</b>          | None                                                           |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | N          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 10C156     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 10WGZ651   |
| <b>Layout</b>       | 10LYC156   |
| <b>Eff. date</b>    | 09-10-2025 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#10       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 10-19-2017 |

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Heater Indicator</b>              | No Heater             |
| <b>High Voltage Full Load Amps</b>   | 31.0 a                |
| <b>Insulation Class</b>              | F                     |
| <b>Inverter Code</b>                 | Inverter Ready        |
| <b>KVA Code</b>                      | J                     |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>      | Locked Bearing        |
| <b>Motor Lead Exit</b>               | Ko Box                |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 10 AWG            |
| <b>Motor Lead Termination</b>        | Flying Leads          |
| <b>Motor Standards</b>               | NEMA                  |
| <b>Motor Type</b>                    | 1054M                 |
| <b>Mounting Arrangement</b>          | F2                    |
| <b>Number of Poles</b>               | 4                     |
| <b>Overall Length</b>                | 27.81 IN              |
| <b>Power Factor</b>                  | 81                    |
| <b>Product Family</b>                | General Purpose       |
| <b>Pulley End Bearing Type</b>       | Ball                  |
| <b>Pulley Face Code</b>              | Standard              |
| <b>Pulley Shaft Indicator</b>        | Standard              |
| <b>Rodent Screen</b>                 | None                  |
| <b>Service Factor</b>                | 1.15                  |
| <b>Shaft Diameter</b>                | 1.875 IN              |
| <b>Shaft Extension Location</b>      | Pulley End            |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding    |
| <b>Shaft Rotation</b>                | Reversible            |
| <b>Shaft Slinger Indicator</b>       | Shaft Slinger         |
| <b>Speed</b>                         | 1775 rpm              |
| <b>Speed Code</b>                    | Single Speed          |
| <b>Starting Method</b>               | Direct on line        |
| <b>Thermal Device - Bearing</b>      | None                  |
| <b>Thermal Device - Winding</b>      | None                  |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor   |
| <b>Winding Thermal 1</b>             | None                  |

Winding Thermal 2

None

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**Nameplate**

| NP3443L   |              |        |           |                |                     |      |    |         |      |        |            |  |      |
|-----------|--------------|--------|-----------|----------------|---------------------|------|----|---------|------|--------|------------|--|------|
| CAT.NO.   | EFM4103T     |        |           |                | CUST. P/N           |      |    |         | ENCL |        |            |  | TEFC |
| SPEC.     | 10C156Z651G1 |        | CC        | 010A           | FRAME               | 284T |    | SER.NO. |      |        |            |  |      |
| HP        | 25           |        |           | CLASS          | F                   | HZ   | 60 |         |      |        |            |  |      |
| R.P.M.    | 1775         |        |           | PH             | 3                   | DES  | A  |         |      |        |            |  |      |
| VOLTS     | 230/460      |        |           |                | CODE                | J    |    | ODE BRG | 6309 | DE BRG | 6311       |  |      |
| AMPS      | 62/31        |        |           |                |                     |      |    |         |      |        |            |  |      |
| RATING    | 40C AMB-CONT |        |           | NEMA NOM. EFF. |                     |      |    | 93.6    |      | GREASE | POLYREX EM |  |      |
| P.F.      | 81           | SER.F. | 1.15      |                | VPWM INVERTER READY |      |    |         |      |        |            |  |      |
|           | SFA 69/34.5  |        |           |                |                     |      |    |         |      |        |            |  |      |
| HTR-VOLTS | HTR-AMPS     |        | HTR-WATTS |                |                     |      |    |         |      |        |            |  |      |

**Accessories**

| Part number   | Description  | Multiplier |
|---------------|--------------|------------|
| 10-1305       | C FACE KIT   | A8         |
| 10EP1502A01SP | D-FLANGE KIT | A8         |

**AC Induction Motor Performance Data**

Record # 66703

Typical performance - not guaranteed values

| Winding: 10WGZ651-R001 |    |              | Type: 1054M  |                                          | Enclosure: TEFC |                       |          |
|------------------------|----|--------------|--------------|------------------------------------------|-----------------|-----------------------|----------|
|                        |    |              |              |                                          |                 |                       |          |
| Nameplate Data         |    |              |              | 460 V, 60 Hz:<br>High Voltage Connection |                 |                       |          |
| Rated Output (HP)      |    | 25           |              | Full Load Torque                         |                 | 74.02 LB-FT           |          |
| Volts                  |    | 230/460      |              | Start Configuration                      |                 | direct on line        |          |
| Full Load Amps         |    | 62/31        |              | Breakdown Torque                         |                 | 262 LB-FT             |          |
| R.P.M.                 |    | 1775         |              | Pull-up Torque                           |                 | 118 LB-FT             |          |
| Hz                     | 60 | Phase        | 3            | Locked-rotor Torque                      |                 | 142 LB-FT             |          |
| NEMA Design Code       |    | A            | KVA Code     | J                                        |                 | Starting Current      | 223 A    |
| Service Factor (S.F.)  |    | 1.15         |              | No-load Current                          |                 | 13.6 A                |          |
| NEMA Nom. Eff.         |    | 93.6         | Power Factor | 81                                       |                 | Line-line Res. @ 25°C | 0.2345 Ω |
| Rating - Duty          |    | 40C AMB-CONT |              | Temp. Rise @ Rated Load                  |                 | 51°C                  |          |
| S.F. Amps              |    |              |              | Temp. Rise @ S.F. Load                   |                 | 61°C                  |          |
|                        |    |              |              | Locked-rotor Power Factor                |                 | 30.6                  |          |

**Load Characteristics 460 V, 60 Hz, 25 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 43     | 65     | 76     | 81     | 84     | 85     | 83   |
| Efficiency      | 88.3   | 92.8   | 93.9   | 94     | 93.7   | 93.1   | 93.8 |
| Speed           | 1794.1 | 1789.3 | 1783.5 | 1777.8 | 1770.8 | 1763.8 | 1774 |
| Line amperes    | 15.3   | 19.3   | 24.6   | 30.6   | 37.2   | 44.5   | 34.6 |

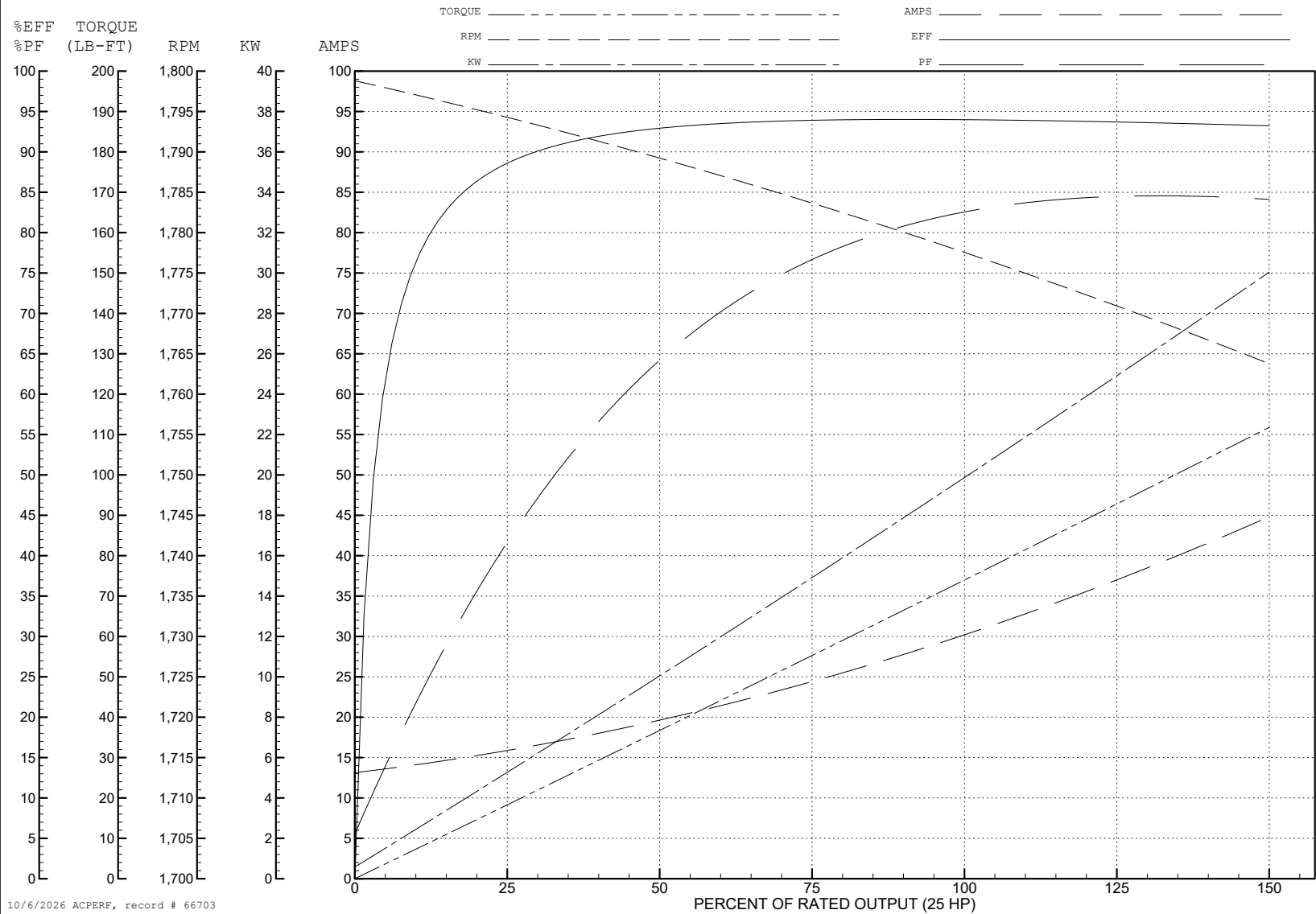
ABB Motors and Mechanical Inc.

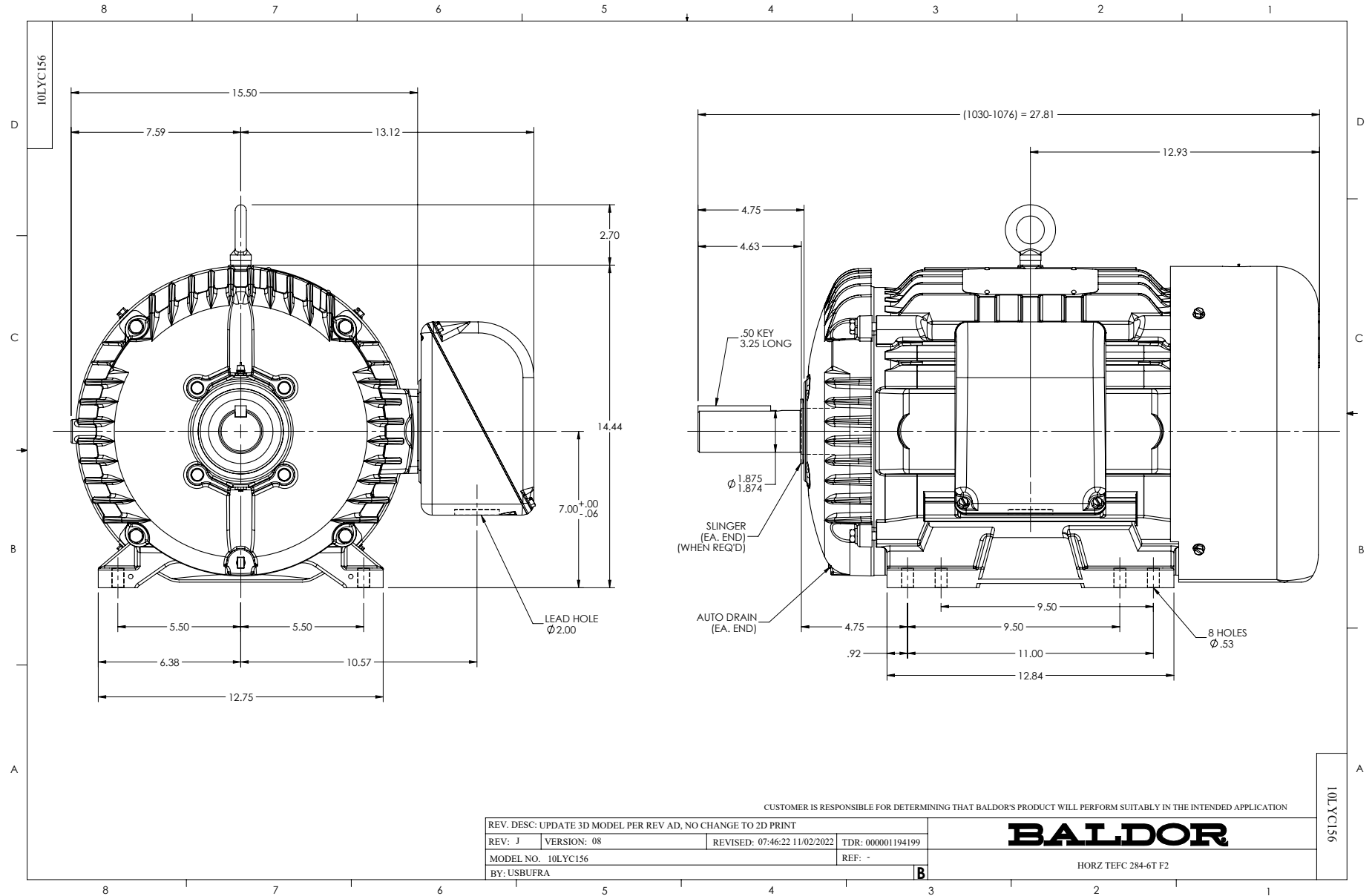
WINDING # 10WGZ651

Typical performance - not guaranteed values.

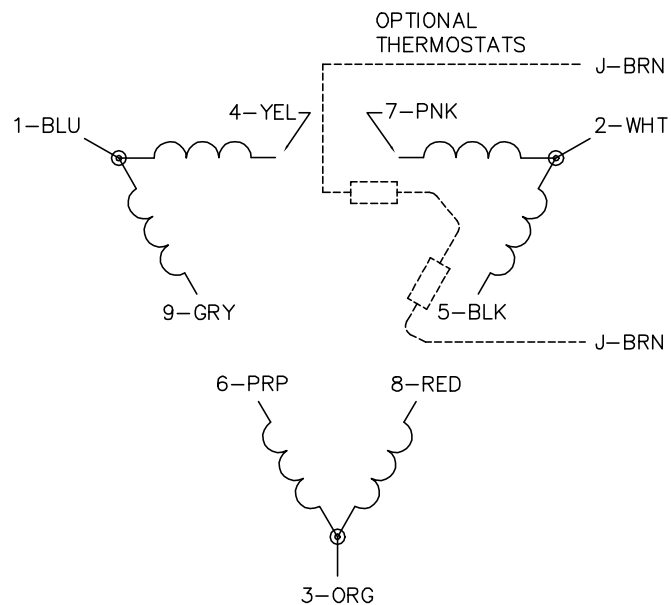
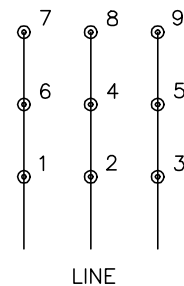
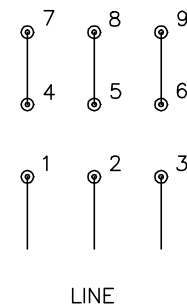
25 HP 3 PH 60 HZ 1775 RPM 460 V 1054M

TORQUES (LB-FT): PO=262 PU=118 LR=142 LRA=223





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.

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

CD0180