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# Customer information packet

## EM4103T

25HP, 1775RPM, 3PH, 60HZ, 284T, 1054M, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |  |
|--------------------------------|--|
| Enclosure                      | TEFC   |
| Frame                          | 284T   |
| Frame Material                 | Iron   |
| Frequency                      | 60.00 Hz   |
| Motor Letter Type              | Three Phase  |
| Output @ Frequency             | 25.000 HP @ 60 HZ  |
| Phase                          | 3  |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ   |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                             |
| XP Class and Group             | None   |
| XP Division                    | Not Applicable   |
| Agency Approvals               | CSA EEV<br>CURUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR      |
| Ambient Temperature            | 40 °C  |
| Auxillary Box                  | No Auxillary Box   |
| Auxillary Box Lead Termination | None   |
| Base Indicator                 | Rigid  |
| Bearing Grease Type            | Polyrex EM (-20F +300F)  |
| Blower                         | None   |
| Current @ Voltage              | 62.000 A @ 230.0 V<br>64.000 A @ 208.0 V<br>31.000 A @ 460.0 V |
| Design Code                    | A  |
| Drip Cover                     | No Drip Cover  |
| Duty Rating                    | CONT   |
| Efficiency @ 100% Load         | 93.6 %   |
| Electrically Isolated Bearing  | Not Electrically Isolated                                      |
| Feedback Device                | NO FEEDBACK  |

## Part detail

|              |            |
|--------------|------------|
| Revision     | W          |
| Type         | AC         |
| Mech. spec.  | 10C151     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 10WGZ651   |
| Layout       | 10LYC151   |
| Eff. date    | 07-19-2023 |
| CD Diagram   | CD0180     |
| Poles        | 04         |
| Leads        | 9#10       |
| Proprietary  | False      |
| Created date | 06-08-2017 |

|                               |                       |
|-------------------------------|-----------------------|
| Front Face Code               | Standard              |
| Front Shaft Indicator         | None                  |
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 31.0 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| KVA Code                      | J                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Motor Lead Exit               | Ko Box                |
| Motor Lead Quantity/Wire Size | 9 @ 10 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 1054M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 27.76 IN              |
| Power Factor                  | 81                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | Standard              |
| Pulley Shaft Indicator        | Standard              |
| Rodent Screen                 | None                  |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.875 IN              |
| Shaft Extension Location      | Pulley End            |
| Shaft Ground Indicator        | No Shaft Grounding    |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | Shaft Slinger         |
| Speed                         | 1775 rpm              |
| Speed Code                    | Single Speed          |
| Starting Method               | Direct on line        |
| Thermal Device - Bearing      | None                  |
| Thermal Device - Winding      | None                  |

| <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**

**NP3443LUA**

|                  |                           |                                |        |                                   |               |                |             |
|------------------|---------------------------|--------------------------------|--------|-----------------------------------|---------------|----------------|-------------|
| <b>CAT.NO.</b>   | EM4103T                   | <b>CUST. P/N</b>               |        |                                   |               | <b>ENCL</b>    | <b>TEFC</b> |
| <b>SPEC.</b>     | 10C151Z651G1              | <b>CC</b>                      | 010A   | <b>FRAME</b>                      | 284T          | <b>SER.NO.</b> |             |
| <b>HP</b>        | 25                        | <b>CLASS</b>                   | F      | <b>HZ</b>                         | 60            |                |             |
| <b>R.P.M.</b>    | 1775                      | <b>PH.</b>                     | 3      | <b>DES.</b>                       | A             |                |             |
| <b>VOLTS</b>     | 230/460                   | <b>CODE</b>                    | J      | <b>ODE BRG</b>                    | 6309          | <b>DE BRG</b>  | 6311        |
| <b>AMPS</b>      | 62/31                     | <b>USABLE AT 208V</b>          |        | N/A                               |               |                |             |
| <b>RATING</b>    | 40C AMB-CONT              | <b>NEMA NOM. EFF.</b>          |        | 93.6                              | <b>GREASE</b> | POLYREX EM     |             |
| <b>P.F.</b>      | 81                        | <b>SER.F.</b>                  | 1.15   | <b>CT6-60H(10:1)VT3-60H(20:1)</b> |               |                |             |
| <b>USABLE AT</b> | 50Hz 25HP 190/380V 72/36A |                                | SF 1.0 |                                   |               |                |             |
| <b>VOLTS</b>     | <b>AMPS</b>               | <b>MAX. SPACE HEATER TEMP.</b> |        |                                   |               |                |             |

**Accessories**

| <b>Part number</b> | <b>Description</b> | <b>Multiplier</b> |
|--------------------|--------------------|-------------------|
| 10-1305            | C FACE KIT         | A8                |
| 10EP1502A01SP      | D-FLANGE KIT       | A8                |

**AC Induction Motor Performance Data**

Record # 66703

Typical performance - not guaranteed values

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

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

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

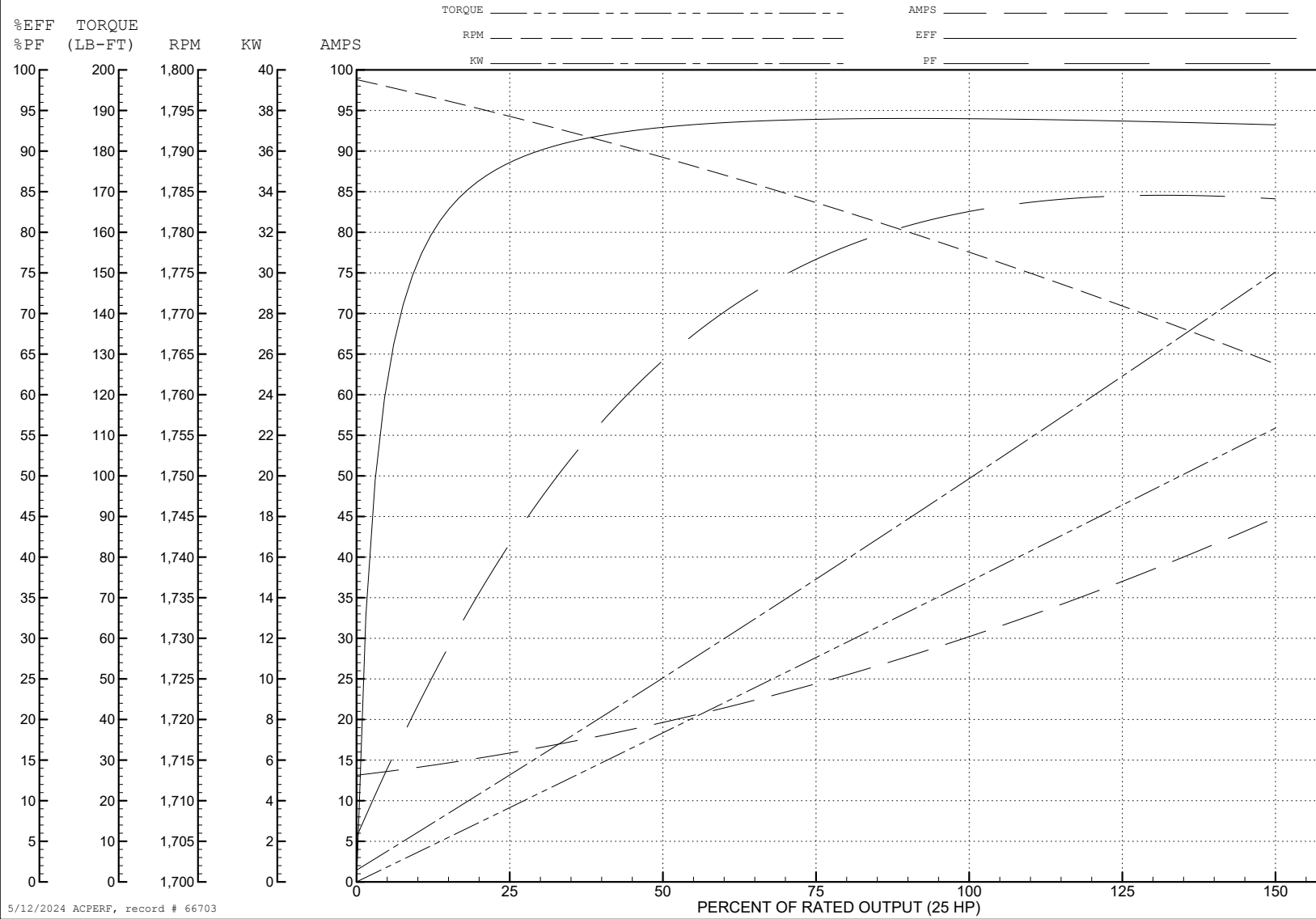
ABB Motors and Mechanical Inc.

WINDING # 10WGZ651

Typical performance - not guaranteed values.

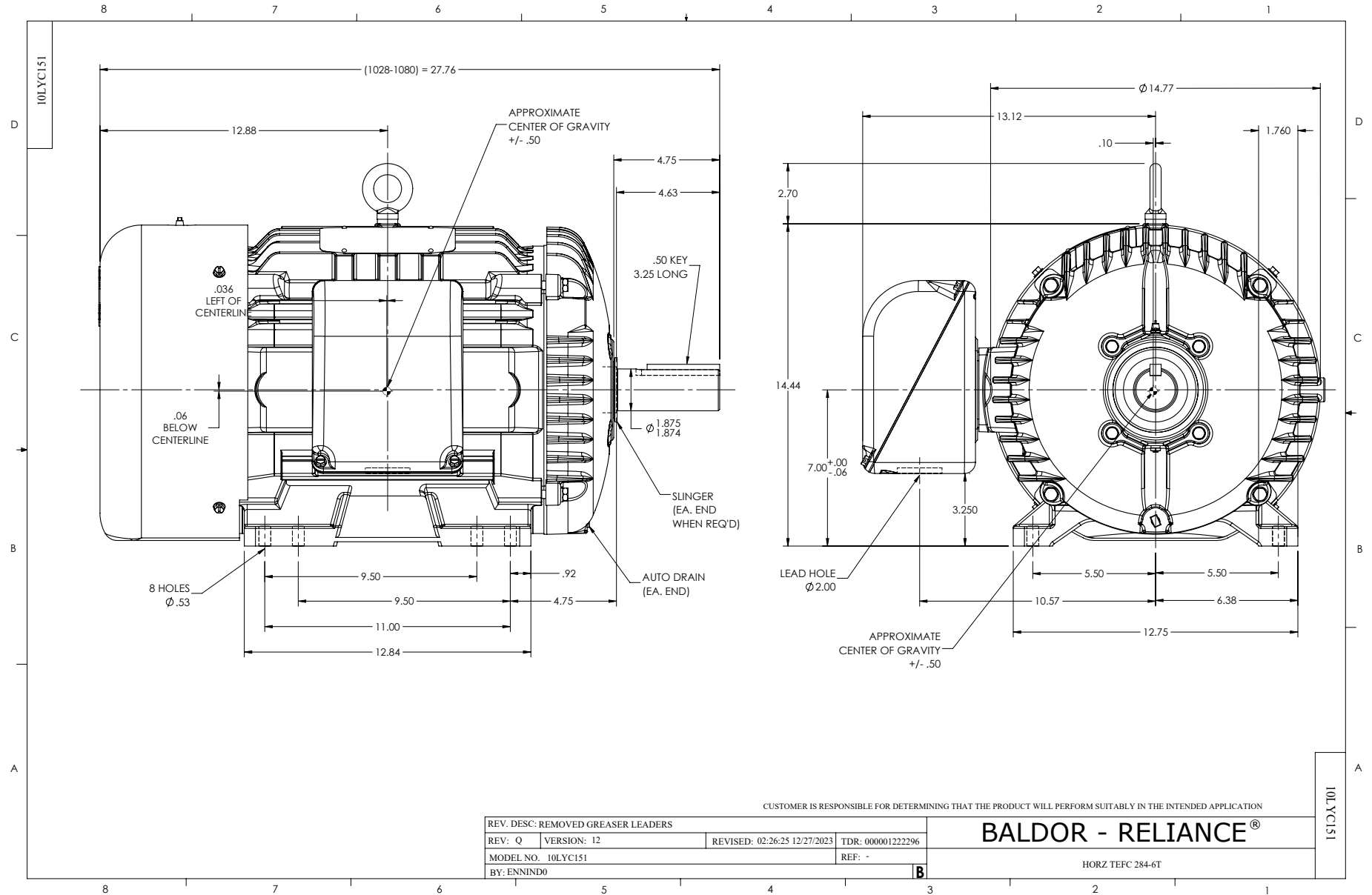
25 HP 3 PH 60 HZ 1775 RPM 460 V 1054M

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

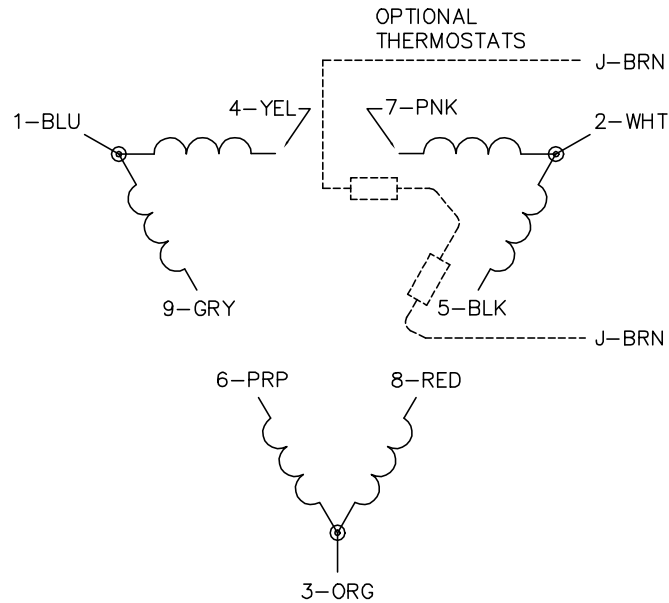


5/12/2024 ACPERF, record # 66703

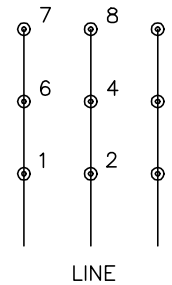




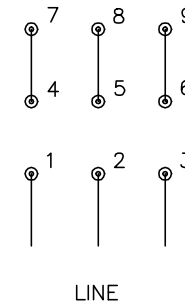
CD0180



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