

# ABB BALDOR RELIANCE III

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## Customer information packet

### XM32542T

50//40HP, 1775//1470RPM, 3PH, 60//50HZ, 326T

Class - CLI GP D; CLII GP F,G

Division - Division I

**Specifications**

|                                       |                                                                                        |
|---------------------------------------|----------------------------------------------------------------------------------------|
| <b>Enclosure</b>                      | XPFC                                                                                   |
| <b>Frame</b>                          | 326T                                                                                   |
| <b>Frame Material</b>                 | Iron                                                                                   |
| <b>Frequency</b>                      | 50.00 Hz<br>60.00 Hz                                                                   |
| <b>Haz Area Class and Group</b>       | CLI GP D; CLII GP F,G                                                                  |
| <b>Haz Area Division</b>              | Division I                                                                             |
| <b>Motor Letter Type</b>              | Three Phase                                                                            |
| <b>Output @ Frequency</b>             | 50.000 HP @ 60 HZ<br>40.000 HP @ 50 HZ                                                 |
| <b>Phase</b>                          | 3                                                                                      |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                                                       |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>190.0 V @ 50 HZ<br>230.0 V @ 60 HZ<br>380.0 V @ 50 HZ               |
| <b>Agency Approvals</b>               | UL<br>CSA EEV                                                                          |
| <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>Constant Torque Speed Range</b>    | 20                                                                                     |
| <b>Current @ Voltage</b>              | 112.000 A @ 190.0 V<br>116.000 A @ 230.0 V<br>56.000 A @ 380.0 V<br>58.000 A @ 460.0 V |
| <b>Design Code</b>                    | A                                                                                      |
| <b>Drip Cover</b>                     | No Drip Cover                                                                          |
| <b>Duty Rating</b>                    | CONT                                                                                   |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 12WGY141   |
| <b>Layout</b>       | 12LYL018   |
| <b>Eff. date</b>    | 12-04-2024 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#8 Y      |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 05-12-2021 |

|                               |                            |
|-------------------------------|----------------------------|
| Efficiency @ 100% Load        | 94.5 %                     |
| Electrically Isolated Bearing | Not Electrically Isolated  |
| Feedback Device               | NO FEEDBACK                |
| Haz Area Temp Code            | T3C                        |
| Heater Indicator              | No Heater                  |
| High Voltage Full Load Amps   | 56.0 a                     |
| Insulation Class              | F                          |
| Inverter Code                 | Inverter Duty              |
| IP Rating                     | NONE                       |
| KVA Code                      | H                          |
| Lifting Lugs                  | Standard Lifting Lugs      |
| Locked Bearing Indicator      | Locked Bearing             |
| Max Speed                     | 2700 rpm                   |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 1272M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 4                          |
| Overall Length                | 32.00 IN                   |
| Power Factor                  | 85                         |
| Product Family                | General Purpose            |
| Pulley Face Code              | Standard                   |
| Rodent Screen                 | None                       |
| Service Factor                | 1.00                       |
| Shaft Diameter                | 2.125 IN                   |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Speed                         | 1775 rpm                   |
| Speed Code                    | Single Speed               |
| Starting Method               | Direct on line             |
| Thermal Device - Bearing      | None                       |
| Thermal Device - Winding      | Normally Closed Thermostat |
| Vibration Sensor Indicator    | No Vibration Sensor        |
| Winding Thermal 1             | None                       |

Winding Thermal 2

None

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**Nameplate**

| NP0887XPSLEV |                        |        |   |              |         |             |      |         |          |    |  |
|--------------|------------------------|--------|---|--------------|---------|-------------|------|---------|----------|----|--|
| NO.          |                        |        |   |              |         | CC          | 010A |         |          |    |  |
| S/N          |                        |        |   |              |         | TEMP CODE   | T3C  |         |          |    |  |
| SPEC.        | 12-0000-2168           |        |   |              |         | INV.TYPE    | PWM  |         |          |    |  |
| CAT.NO.      | XM32542T               |        |   |              |         | C HP FR     | 60   | C HP TO | 90       |    |  |
| HP           | 50//40                 |        |   |              |         | CT HZ FROM  | 20   |         | CT HZ TO | 60 |  |
| VOLTS        | 230/460//190/380       |        |   |              |         | VT HZ FROM  | 6    |         | VT HZ TO | 60 |  |
| AMPS         | 116/58//112/56         |        |   |              | MAG CUR | 19.8//19.46 |      |         |          |    |  |
| RPM          | 1775//1470             |        |   |              | MX RPM  | 2700        |      |         |          |    |  |
| HZ           | 60//50                 | PH     | 3 | CL           | F       | NOM.EFF.    | 94.5 |         |          |    |  |
| SER.F.       | 1.00                   | DES    | A | SL HZ        | 0.8     | WK2         | 9.59 |         |          |    |  |
| FRAME        | 326T                   | RATING |   | 40C AMB-CONT |         |             |      |         |          |    |  |
|              | NEMA MG-1 PART 5, IP54 |        |   |              |         |             |      |         |          |    |  |
|              | 1.15 SF ON SINE WAVE   |        |   |              |         |             |      |         |          |    |  |

**AC Induction Motor Performance Data**

Record # 42428

Typical performance - not guaranteed values

| Winding: 12WGY141-R020 |  |                  |  | Type: 1272M                              |  | Enclosure: XPFC           |  |
|------------------------|--|------------------|--|------------------------------------------|--|---------------------------|--|
| Nameplate Data         |  |                  |  | 460 V, 60 Hz:<br>High Voltage Connection |  |                           |  |
| Rated Output (HP)      |  | 50//40           |  | Full Load Torque                         |  | 147 LB-FT                 |  |
| Volts                  |  | 230/460//190/380 |  | Start Configuration                      |  | direct on line            |  |
| Full Load Amps         |  | 116/58//112/56   |  | Breakdown Torque                         |  | 396 LB-FT                 |  |
| R.P.M.                 |  | 1775//1470       |  | Pull-up Torque                           |  | 183 LB-FT                 |  |
| Hz                     |  | 60//50           |  | Phase                                    |  | 3                         |  |
| NEMA Design Code       |  | A                |  | KVA Code                                 |  | G                         |  |
| Service Factor (S.F.)  |  | 1                |  | No-load Current                          |  | 19.8 A                    |  |
| NEMA Nom. Eff.         |  | 94.5             |  | Power Factor                             |  | 85                        |  |
| Rating - Duty          |  | 40C              |  | AMB-CONT                                 |  | Temp. Rise @ Rated Load   |  |
|                        |  |                  |  |                                          |  | Locked-rotor Power Factor |  |
|                        |  |                  |  |                                          |  | Rotor inertia             |  |

**Load Characteristics 460 V, 60 Hz, 50 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    |
|-----------------|--------|--------|--------|--------|--------|--------|
| Power Factor    | 53     | 74     | 83     | 86     | 87     | 87     |
| Efficiency      | 91.3   | 94.3   | 94.8   | 94.6   | 94     | 93.1   |
| Speed           | 1794.5 | 1789.3 | 1783.5 | 1777.5 | 1770.7 | 1761.5 |
| Line amperes    | 24.2   | 33.5   | 44.7   | 57.6   | 71.5   | 90     |

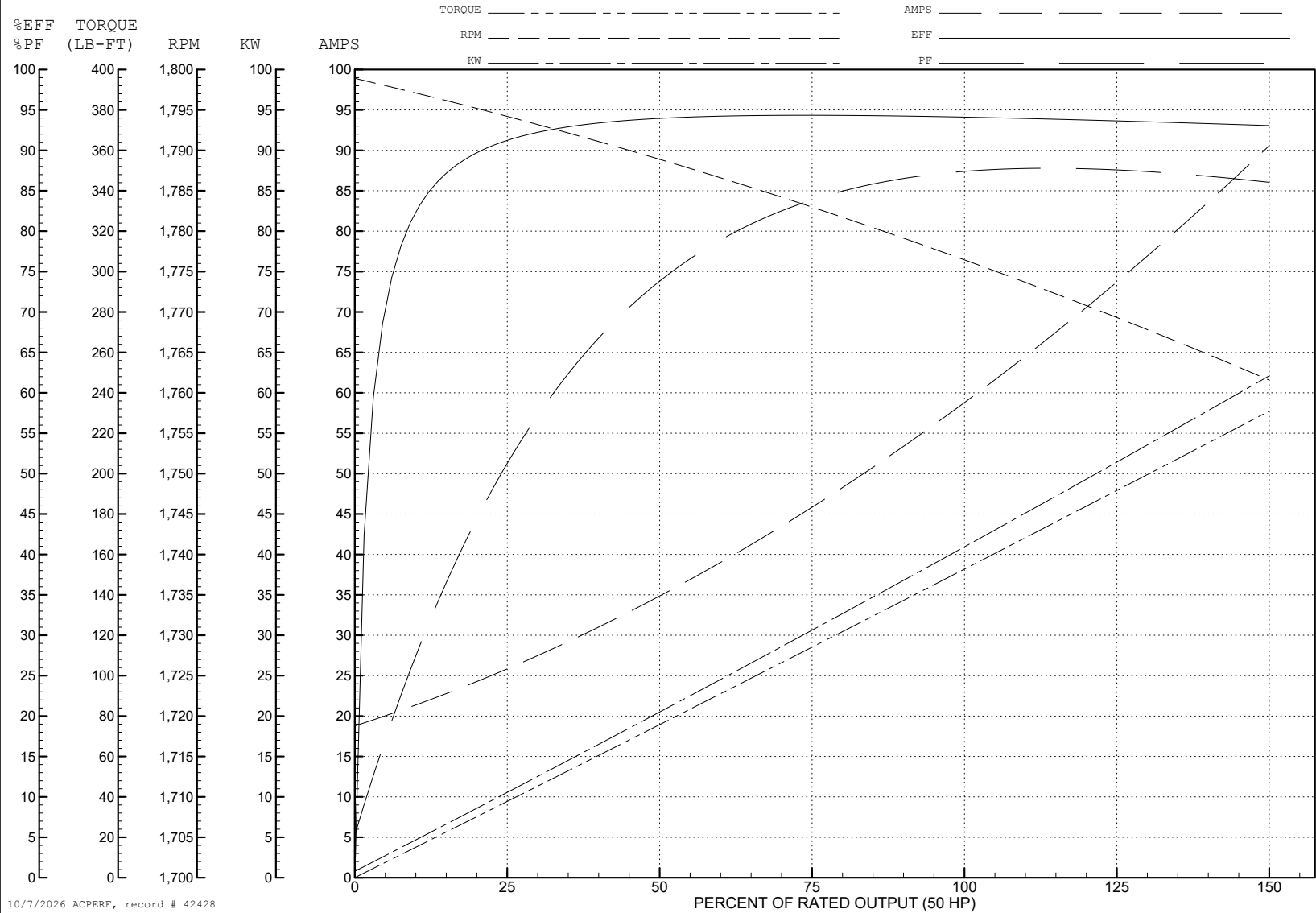
ABB Motors and Mechanical Inc.

WINDING # 12WGY141

Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 1777.5 RPM 460 V 1272M

TORQUES (LB-FT): PO=396 PU=183 LR=254 LRA=397



**AC Induction Motor Performance Data**

Record # 42429

Typical performance - not guaranteed values

| Winding: 12WGY141-R020 |  |                  |  | Type: 1272M                              |  | Enclosure: XPFC     |  |                           |             |
|------------------------|--|------------------|--|------------------------------------------|--|---------------------|--|---------------------------|-------------|
| Nameplate Data         |  |                  |  | 380 V, 50 Hz:<br>High Voltage Connection |  |                     |  |                           |             |
| Rated Output (HP)      |  | 50//40           |  | Full Load Torque                         |  | 141 LB-FT           |  |                           |             |
| Volts                  |  | 230/460//190/380 |  | Start Configuration                      |  | direct on line      |  |                           |             |
| Full Load Amps         |  | 116/58//112/56   |  | Breakdown Torque                         |  | 383 LB-FT           |  |                           |             |
| R.P.M.                 |  | 1775//1470       |  | Pull-up Torque                           |  | 192 LB-FT           |  |                           |             |
| Hz                     |  | 60//50 Phase     |  | 3                                        |  | Locked-rotor Torque |  | 267 LB-FT                 |             |
| NEMA Design Code       |  | A                |  | KVA Code                                 |  | G                   |  | Starting Current          | 389 A       |
| Service Factor (S.F.)  |  | 1                |  |                                          |  |                     |  | No-load Current           | 19.5 A      |
| NEMA Nom. Eff.         |  | 94.5             |  | Power Factor                             |  | 85                  |  | Line-line Res. @ 25°C     | 0.107 Ω     |
| Rating - Duty          |  | 40C AMB-CONT     |  |                                          |  |                     |  | Temp. Rise @ Rated Load   | 60°C        |
| S.F. Amps              |  |                  |  |                                          |  |                     |  | Temp. Rise @ S.F. Load    | 74°C        |
|                        |  |                  |  |                                          |  |                     |  | Locked-rotor Power Factor | 29          |
|                        |  |                  |  |                                          |  |                     |  | Rotor inertia             | 9.59 LB-FT2 |

**Load Characteristics 380 V, 50 Hz, 40 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 52   | 74   | 83   | 86   | 87   | 87   |
| Efficiency      | 90   | 93.7 | 93.7 | 93.5 | 93.2 | 92.2 |
| Speed           | 1495 | 1490 | 1484 | 1479 | 1472 | 1464 |
| Line amperes    | 23.7 | 32.7 | 43.6 | 56.1 | 69.6 | 87.7 |

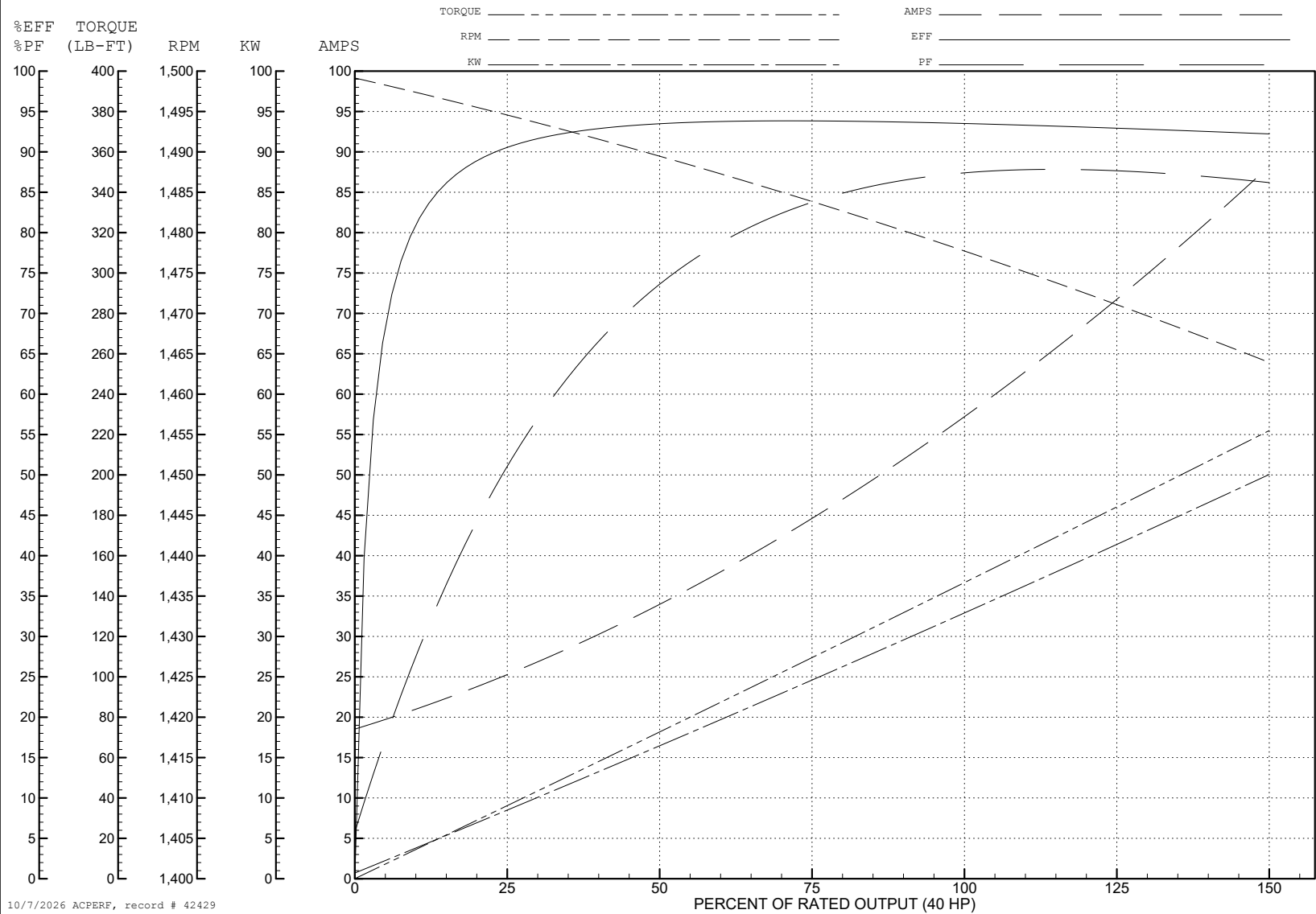
ABB Motors and Mechanical Inc.

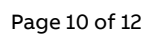
WINDING # 12WGY141

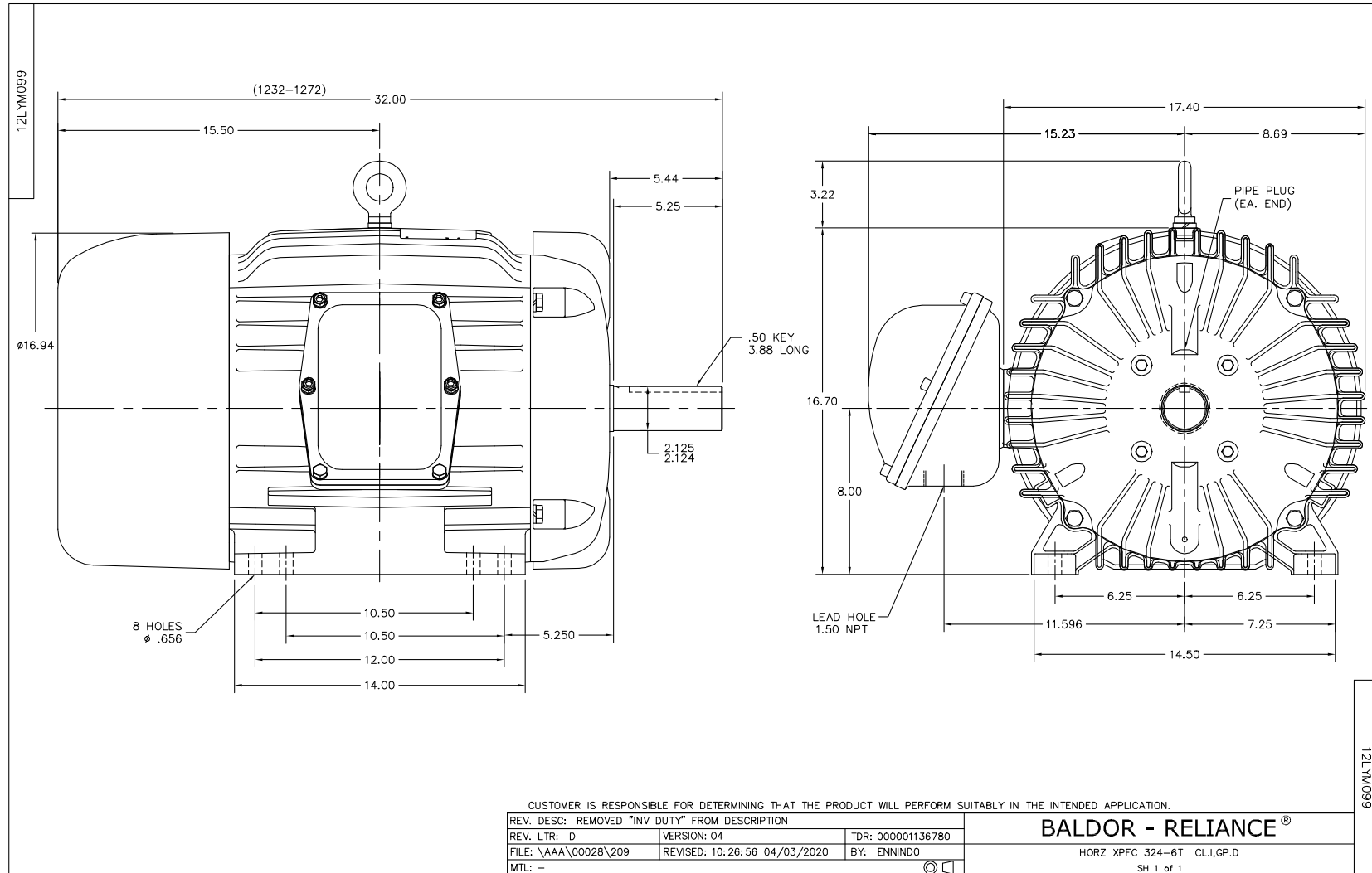
Typical performance - not guaranteed values.

40 HP 3 PH 50 HZ 1479 RPM 380 V 1272M

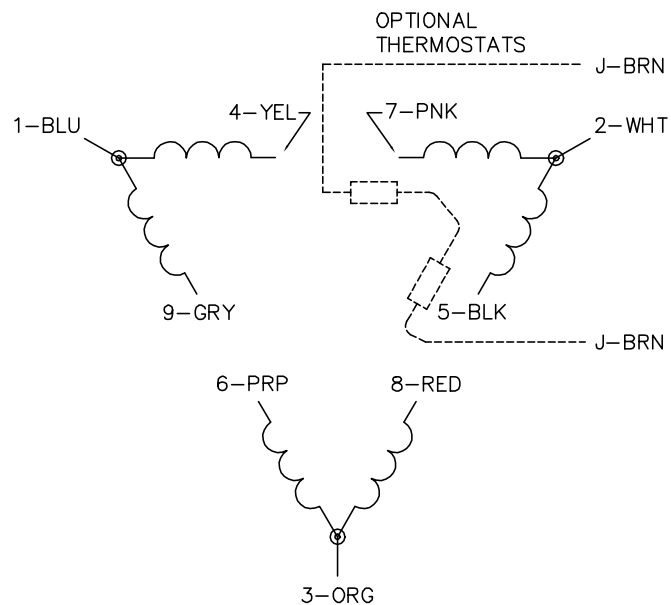
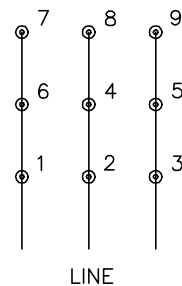
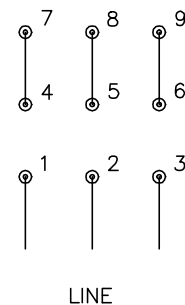
TORQUES (LB-FT): PO=383 PU=192 LR=267 LRA=389







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