

# ABB BALDOR RELIANCE III

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## Customer information packet

### CPX28266T

20HP, 1180//980RPM, 3PH, 60HZ, 286TY, XPFC, F1

Class - CLI GP C,D; CLII GP E,F,G

Division - Division I

**Specifications**

|                                       |                                                                                                            |
|---------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Enclosure</b>                      | XPFC                                                                                                       |
| <b>Frame</b>                          | 286TY                                                                                                      |
| <b>Frame Material</b>                 | Iron                                                                                                       |
| <b>Frequency</b>                      | 50.00 Hz<br>60.00 Hz                                                                                       |
| <b>Haz Area Class and Group</b>       | CLI GP C,D; CLII GP E,F,G                                                                                  |
| <b>Haz Area Division</b>              | Division I                                                                                                 |
| <b>Motor Letter Type</b>              | Three Phase                                                                                                |
| <b>Output @ Frequency</b>             | 15.000 HP @ 50 HZ<br>20.000 HP @ 60 HZ                                                                     |
| <b>Phase</b>                          | 3                                                                                                          |
| <b>Synchronous Speed @ Frequency</b>  | 1200 RPM @ 60 HZ                                                                                           |
| <b>Voltage @ Frequency</b>            | 380.0 V @ 50 HZ<br>230.0 V @ 60 HZ<br>460.0 V @ 60 HZ<br>190.0 V @ 50 HZ                                   |
| <b>Agency Approvals</b>               | CSA EEV<br>UL                                                                                              |
| <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>    | 6                                                                                                          |
| <b>Current @ Voltage</b>              | 54.000 A @ 208.0 V<br>50.000 A @ 230.0 V<br>46.000 A @ 190.0 V<br>25.000 A @ 460.0 V<br>23.000 A @ 380.0 V |
| <b>Design Code</b>                    | B                                                                                                          |
| <b>Drip Cover</b>                     | No Drip Cover                                                                                              |

**Part Detail**

|                     |              |
|---------------------|--------------|
| <b>Revision</b>     | J            |
| <b>Type</b>         | AC           |
| <b>Mech. spec.</b>  |              |
| <b>Base</b>         |              |
| <b>Status</b>       | PRD/A        |
| <b>Elec. spec.</b>  | 10WGZ033     |
| <b>Layout</b>       | 10LY-000-121 |
| <b>Eff. date</b>    | 11-22-2024   |
| <b>CD Diagram</b>   | CD0180       |
| <b>Poles</b>        | 06           |
| <b>Leads</b>        | 9#10         |
| <b>Proprietary</b>  | False        |
| <b>Created date</b> | 04-25-2019   |

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>Duty Rating</b>                   | CONT                      |
| <b>Efficiency @ 100% Load</b>        | 91.7 %                    |
| <b>Electrically Isolated Bearing</b> | Not Electrically Isolated |
| <b>Enclosure Modification</b>        | Severe Duty Features      |
| <b>Feedback Device</b>               | NO FEEDBACK               |
| <b>Haz Area Temp Code</b>            | T3C                       |
| <b>Heater Indicator</b>              | No Heater                 |
| <b>High Voltage Full Load Amps</b>   | 23.0 a                    |
| <b>Insulation Class</b>              | F                         |
| <b>Inverter Code</b>                 | Inverter Duty             |
| <b>IP Rating</b>                     | IP55                      |
| <b>KVA Code</b>                      | G                         |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | Locked Bearing            |
| <b>Max Speed</b>                     | 1800 rpm                  |
| <b>Motor Lead Termination</b>        | Flying Leads              |
| <b>Motor Standards</b>               | NEMA                      |
| <b>Motor Type</b>                    | 1056M                     |
| <b>Mounting Arrangement</b>          | F1                        |
| <b>Number of Poles</b>               | 6                         |
| <b>Overall Length</b>                | 28.74 IN                  |
| <b>Power Factor</b>                  | 78                        |
| <b>Product Family</b>                | Chemical Process Features |
| <b>Pulley Face Code</b>              | Standard                  |
| <b>Rodent Screen</b>                 | None                      |
| <b>RoHS Status</b>                   | ROHS NON-COMPLIANT        |
| <b>Service Factor</b>                | 1.00                      |
| <b>Shaft Diameter</b>                | 1.875 IN                  |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding        |
| <b>Shaft Rotation</b>                | Reversible                |
| <b>Speed</b>                         | 1180 rpm                  |
| <b>Speed Code</b>                    | Single Speed              |
| <b>Starting Method</b>               | Direct on line            |
| <b>Thermal Device - Bearing</b>      | None                      |

|                            |                            |
|----------------------------|----------------------------|
| Thermal Device - Winding   | Normally Closed Thermostat |
| Vibration Sensor Indicator | No Vibration Sensor        |
| Winding Thermal 1          | None                       |
| Winding Thermal 2          | None                       |

**Nameplate**

| NP2033XPSLEV |                             |        |   |              |         |          |                     |      |          |    |  |  |
|--------------|-----------------------------|--------|---|--------------|---------|----------|---------------------|------|----------|----|--|--|
| NO.          |                             |        |   |              |         |          | CC                  | 010A |          |    |  |  |
| S/N          |                             |        |   |              |         |          | TEMP CODE           | T3C  |          |    |  |  |
| SPEC.        | 10-0000-0753                |        |   |              |         |          | INV.TYPE            | PWM  |          |    |  |  |
| CAT.NO.      | CPX28266T                   |        |   |              |         |          | C HP FR             | 60   | C HP TO  | 90 |  |  |
| HP           | 20//15                      |        |   |              |         |          | CT HZ FROM          | 6    | CT HZ TO | 60 |  |  |
| VOLTS        | 230/460//190/380            |        |   |              |         |          | VT HZ FROM          | 6    | VT HZ TO | 60 |  |  |
| AMPS         | 50/25//46/23                |        |   |              | MAG CUR |          | 21.4/10.7           |      |          |    |  |  |
| RPM          | 1180//980                   |        |   |              | MX RPM  |          | 1800                |      |          |    |  |  |
| HZ           | 60//50                      | PH     | 3 | CL           | F       | NOM.EFF. | 91.7                |      |          |    |  |  |
| SER.F.       | 1.00                        | DES    | B | SL HZ        | 1       | WK2      | 6.86                |      |          |    |  |  |
| FRAME        | 286TY                       | RATING |   | 40C AMB-CONT |         |          |                     |      |          |    |  |  |
| BLANK        | 55C AMB @ 1.00 SF, 60C RISE |        |   |              |         |          |                     |      |          |    |  |  |
|              | 1.15SF ON SINEWAVE          |        |   |              |         |          | NEMA MG-1 PT.5,IP55 |      |          |    |  |  |

**AC Induction Motor Performance Data**

Record # 75701

Typical performance - not guaranteed values

| Winding: 10WGZ033-R002 |        |                  |              | Type: 1056M                              |                       | Enclosure: XPFC |         |
|------------------------|--------|------------------|--------------|------------------------------------------|-----------------------|-----------------|---------|
| Nameplate Data         |        |                  |              | 380 V, 50 Hz:<br>High Voltage Connection |                       |                 |         |
| Rated Output (HP)      |        | 20//15           |              | Full Load Torque                         |                       | 80.4 LB-FT      |         |
| Volts                  |        | 230/460//190/380 |              | Start Configuration                      |                       | direct on line  |         |
| Full Load Amps         |        | 50/25//46/23     |              | Breakdown Torque                         |                       | 234 LB-FT       |         |
| R.P.M.                 |        | 1180//980        |              | Pull-up Torque                           |                       | 97.19 LB-FT     |         |
| Hz                     | 60//50 | Phase            | 3            | Locked-rotor Torque                      |                       | 139 LB-FT       |         |
| NEMA Design Code       |        | B                | KVA Code     | G                                        | Starting Current      |                 | 142 A   |
| Service Factor (S.F.)  |        | 1                |              | No-load Current                          |                       | 10.54 A         |         |
| NEMA Nom. Eff.         |        | 91.7             | Power Factor | 78                                       | Line-line Res. @ 25°C |                 | 0.501 Ω |
| Rating - Duty          |        | 40C AMB-CONT     |              | Temp. Rise @ Rated Load                  |                       | 45°C            |         |
| S.F. Amps              |        |                  |              | Temp. Rise @ S.F. Load                   |                       | 56°C            |         |
|                        |        |                  |              | Locked-rotor Power Factor                |                       | 33.7            |         |
|                        |        |                  |              | Rotor inertia                            |                       | 6.86 LB-FT2     |         |

**Load Characteristics 380 V, 50 Hz, 15 HP**

| % of Rated Load | 25    | 50    | 75   | 100  | 125   | 150   |
|-----------------|-------|-------|------|------|-------|-------|
| Power Factor    | 41    | 63    | 74   | 79   | 81    | 82    |
| Efficiency      | 87.9  | 91.8  | 92.6 | 92.3 | 90.8  | 90.9  |
| Speed           | 995   | 991   | 986  | 982  | 977   | 971   |
| Line amperes    | 11.71 | 14.83 | 18.7 | 23.4 | 28.65 | 34.75 |

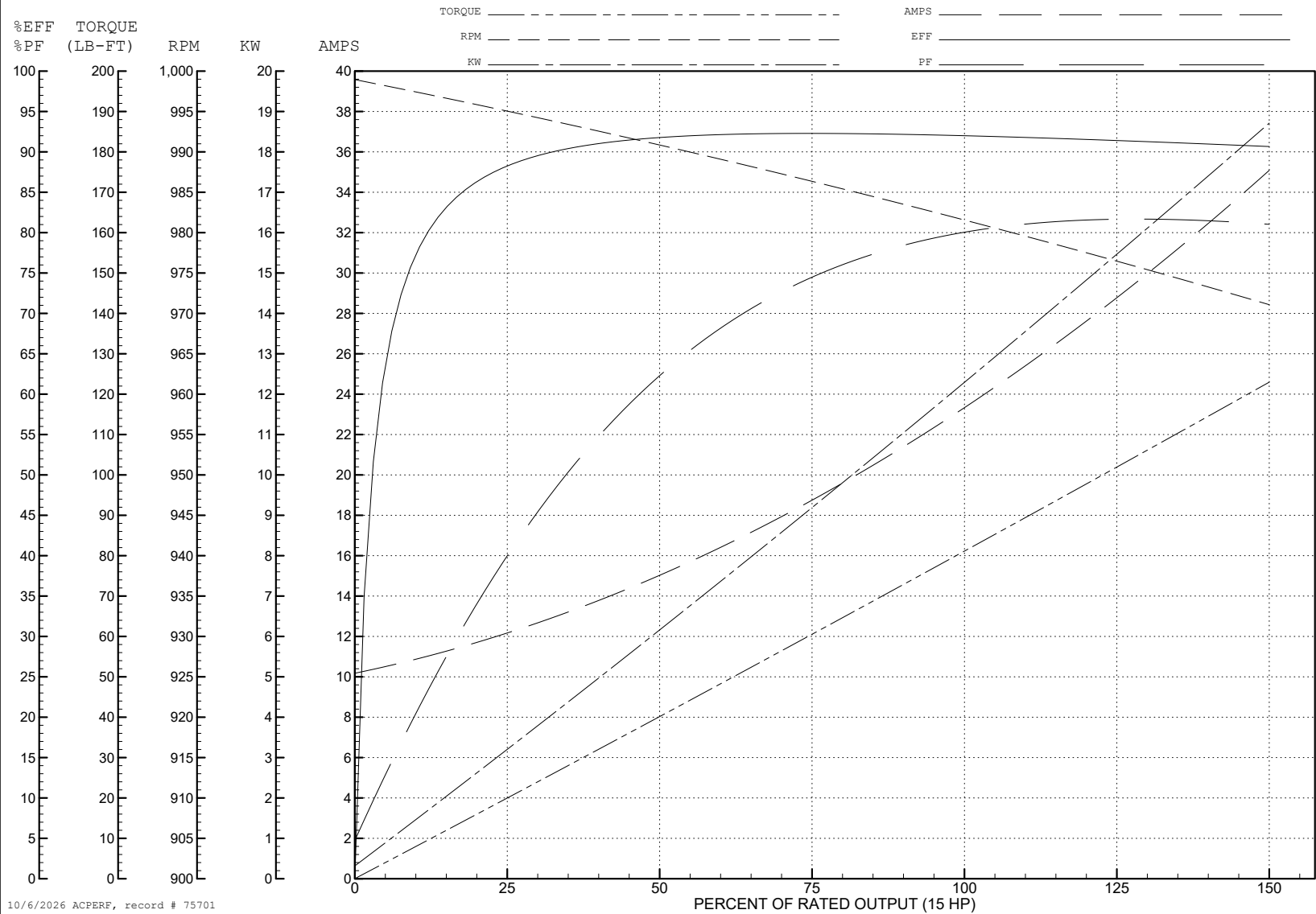
ABB Motors and Mechanical Inc.

WINDING # 10WGZ033

Typical performance - not guaranteed values.

15 HP 3 PH 50 HZ 982 RPM 380 V 1056M

TORQUES (LB-FT): PO=234 PU=97.19 LR=139 LRA=142



10/6/2026 ACPERF, record # 75701

**AC Induction Motor Performance Data**

Record # 75702

Typical performance - not guaranteed values

| Winding: 10WGZ033-R002 |        |                  |              | Type: 1056M                              |                       | Enclosure: XPFC |         |
|------------------------|--------|------------------|--------------|------------------------------------------|-----------------------|-----------------|---------|
| Nameplate Data         |        |                  |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                 |         |
| Rated Output (HP)      |        | 20//15           |              | Full Load Torque                         |                       | 89.2 LB-FT      |         |
| Volts                  |        | 230/460//190/380 |              | Start Configuration                      |                       | direct on line  |         |
| Full Load Amps         |        | 50/25//46/23     |              | Breakdown Torque                         |                       | 243 LB-FT       |         |
| R.P.M.                 |        | 1180//980        |              | Pull-up Torque                           |                       | 94 LB-FT        |         |
| Hz                     | 60//50 | Phase            | 3            | Locked-rotor Torque                      |                       | 134 LB-FT       |         |
| NEMA Design Code       |        | B                | KVA Code     | G                                        | Starting Current      |                 | 146 A   |
| Service Factor (S.F.)  |        | 1                |              | No-load Current                          |                       | 10.7 A          |         |
| NEMA Nom. Eff.         |        | 91.7             | Power Factor | 78                                       | Line-line Res. @ 25°C |                 | 0.501 Ω |
| Rating - Duty          |        | 40C AMB-CONT     |              | Temp. Rise @ Rated Load                  |                       | 51°C            |         |
| S.F. Amps              |        |                  |              | Temp. Rise @ S.F. Load                   |                       | 63°C            |         |
|                        |        |                  |              | Locked-rotor Power Factor                |                       | 30.3            |         |
|                        |        |                  |              | Rotor inertia                            |                       | 6.86 LB-FT2     |         |

**Load Characteristics 460 V, 60 Hz, 20 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 44   | 66   | 76   | 80   | 81   | 81   |
| Efficiency      | 88.4 | 92.2 | 93.1 | 92.7 | 91.3 | 91.2 |
| Speed           | 1194 | 1190 | 1185 | 1180 | 1174 | 1168 |
| Line amperes    | 12.1 | 15.7 | 20.1 | 25.4 | 31.3 | 38.2 |

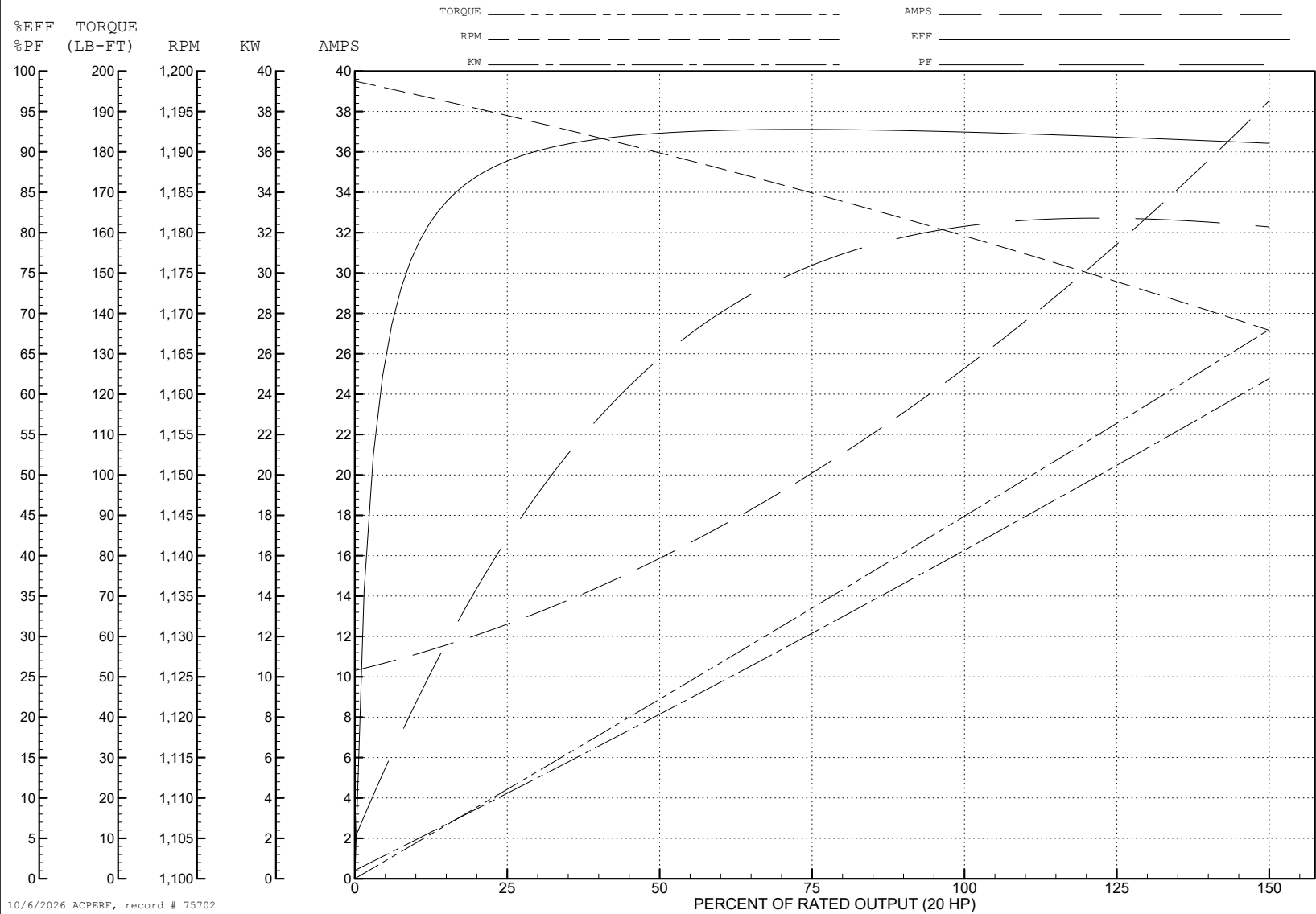
ABB Motors and Mechanical Inc.

WINDING # 10WGZ033

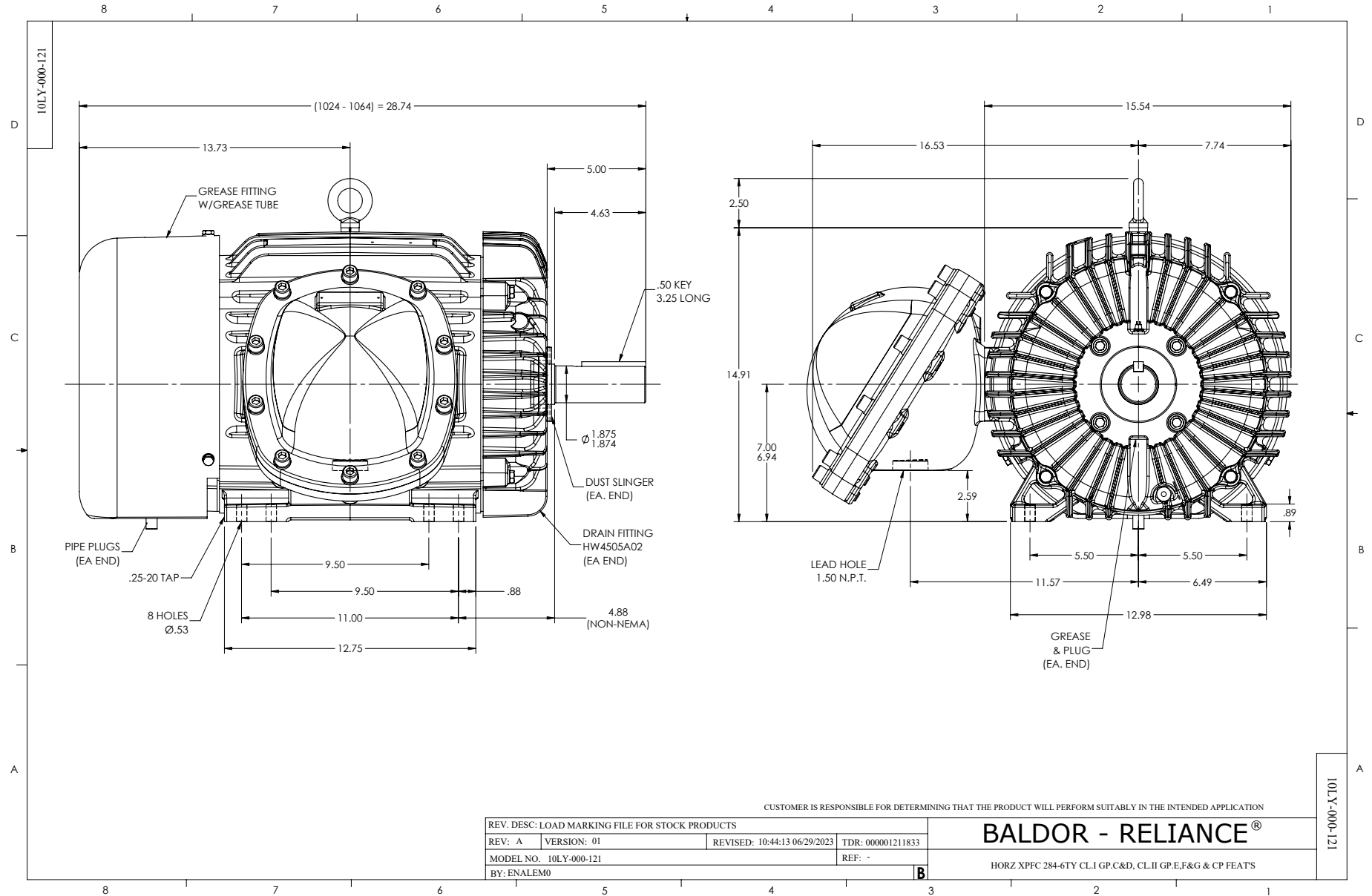
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1180 RPM 460 V 1056M

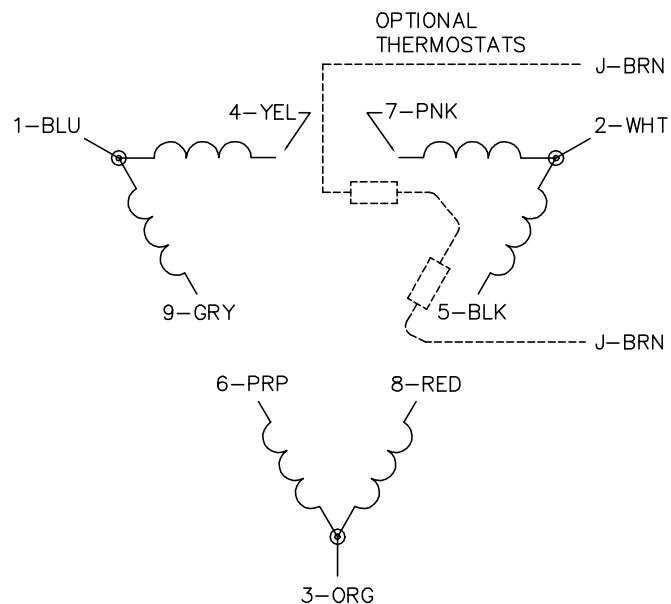
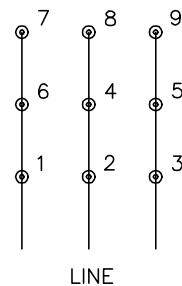
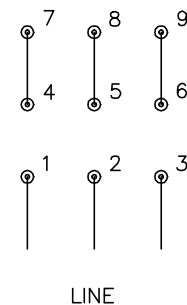
TORQUES (LB-FT): PO=243 PU=94 LR=134 LRA=146



10/6/2026 ACPERF, record # 75702



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