

# ABB BALDOR RELIANCE III

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## Customer information packet

### CDRX28324T-5

30HP, 3520RPM, 3PH, 60HZ, 286TSC, XPFC, F1

Class - CLI GP C,D

Division - Division I

**Specifications**

|                                |                           |
|--------------------------------|---------------------------|
| Enclosure                      | XPFC                      |
| Frame                          | 286TSC                    |
| Frame Material                 | Iron                      |
| Frequency                      | 60.00 Hz                  |
| Haz Area Class and Group       | CLI GP C,D                |
| Haz Area Division              | Division I                |
| Motor Letter Type              | Three Phase               |
| Output @ Frequency             | 30.000 HP @ 60 HZ         |
| Phase                          | 3                         |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ          |
| Voltage @ Frequency            | 575.0 V @ 60 HZ           |
| Agency Approvals               | CSA EEV<br>UL             |
| Ambient Temperature            | 40 °C                     |
| Auxiliary Box                  | NO AUXILLARY BOX          |
| Auxiliary Box Lead Termination | None                      |
| Base Indicator                 | Rigid                     |
| Bearing Grease Type            | Polyrex EM (-20F +300F)   |
| Blower                         | None                      |
| Constant Torque Speed Range    | 6                         |
| Current @ Voltage              | 26.000 A @ 575.0 V        |
| Design Code                    | B                         |
| Drip Cover                     | No Drip Cover             |
| Duty Rating                    | CONT                      |
| Efficiency @ 100% Load         | 91.7 %                    |
| Electrically Isolated Bearing  | Not Electrically Isolated |
| Feedback Device                | NO FEEDBACK               |
| Haz Area Temp Code             | T3C                       |
| Heater Indicator               | No Heater                 |
| High Voltage Full Load Amps    | 26.0 a                    |
| Insulation Class               | F                         |
| Inverter Code                  | Inverter Duty             |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | J          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 10WGZ218   |
| Layout       | 10LYG898   |
| Eff. date    | 06-11-2025 |
| CD Diagram   | CD0006     |
| Poles        | 02         |
| Leads        | 3#10       |
| Proprietary  | False      |
| Created date | 07-19-2019 |

|                                   |                            |
|-----------------------------------|----------------------------|
| <b>IP Rating</b>                  | NONE                       |
| <b>KVA Code</b>                   | G                          |
| <b>Lifting Lugs</b>               | Standard Lifting Lugs      |
| <b>Locked Bearing Indicator</b>   | Locked Bearing             |
| <b>Max Speed</b>                  | 5400 rpm                   |
| <b>Motor Lead Termination</b>     | Flying Leads               |
| <b>Motor Standards</b>            | NEMA                       |
| <b>Motor Type</b>                 | 1046M                      |
| <b>Mounting Arrangement</b>       | F1                         |
| <b>Number of Poles</b>            | 2                          |
| <b>Overall Length</b>             | 27.23 IN                   |
| <b>Power Factor</b>               | 90                         |
| <b>Product Family</b>             | Hazardous Location Motor   |
| <b>Pulley Face Code</b>           | C-Face                     |
| <b>Rodent Screen</b>              | None                       |
| <b>RoHS Status</b>                | ROHS NON-COMPLIANT         |
| <b>Service Factor</b>             | 1.00                       |
| <b>Shaft Diameter</b>             | 1.625 IN                   |
| <b>Shaft Ground Indicator</b>     | No Shaft Grounding         |
| <b>Shaft Rotation</b>             | Reversible                 |
| <b>Speed</b>                      | 3520 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>   | Normally Closed Thermostat |
| <b>Vibration Sensor Indicator</b> | No Vibration Sensor        |
| <b>Winding Thermal 1</b>          | None                       |
| <b>Winding Thermal 2</b>          | None                       |

**Nameplate**

| NP1401XPSLEV |                            |     |        |       |              |          |                     |      |          |    |  |  |  |
|--------------|----------------------------|-----|--------|-------|--------------|----------|---------------------|------|----------|----|--|--|--|
| NO.          |                            |     |        |       |              |          | CC                  | 010A |          |    |  |  |  |
| S/N          |                            |     |        |       |              |          | TEMP CODE           | T3C  |          |    |  |  |  |
| SPEC.        | 10-0000-0935               |     |        |       |              |          | INV.TYPE            | PWM  |          |    |  |  |  |
| CAT.NO.      | CDRX28324T-5               |     |        |       |              |          | C HP FR             | 60   | C HP TO  | 90 |  |  |  |
| HP           | 30                         |     |        |       |              |          | CT HZ FROM          | 6    | CT HZ TO | 60 |  |  |  |
| VOLTS        | 575                        |     |        |       |              |          | VT HZ FROM          | 6    | VT HZ TO | 60 |  |  |  |
| AMPS         | 26                         |     |        |       |              |          | MAG CUR             | 6.9  |          |    |  |  |  |
| RPM          | 3520                       |     |        |       |              |          | MX RPM              | 5400 |          |    |  |  |  |
| HZ           | 60                         | PH  | 3      | CL    | F            | NOM.EFF. | 91.7                |      |          |    |  |  |  |
| SER.F.       | 1.00                       | DES | B      | SL HZ | 1.3          | WK2      | 1.98                |      |          |    |  |  |  |
| FRAME        | 286TSC                     |     | RATING |       | 40C AMB-CONT |          |                     |      |          |    |  |  |  |
|              | 55C AMB @ 1.0 SF, 60C RISE |     |        |       |              |          |                     |      |          |    |  |  |  |
|              | 1.15SF ON SINEWAVE         |     |        |       |              |          | NEMA MG-1 PT.5,IP55 |      |          |    |  |  |  |

**Parts List**

| Part number  | Description                              | Quantity |
|--------------|------------------------------------------|----------|
| SA372041     | SA 10-0000-0935                          | 1.000 ea |
| RA361764     | RA 10-0000-0935                          | 1.000 ea |
| LC0006       | CONNECTION LABEL                         | 1.000 ea |
| NP1401XPSLEV | SS XP INV UL CSA-EEV CC CL-I GP-C&D      | 1.000 ea |
| 85XU0407S04  | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| 85XU0407S04  | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 ea |
| MN416A01     | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| LB1081C      | ALUM XP CAUTION LABEL (COL PLANT ONLY-   | 1.000 ea |
| 14PA2000     | PKGP, CTN ID 42X34X25, STD BASE          | 1.000 ea |
| 10FH1008A05P | 310 FAN HOUSING X-PROOF MACH. W/EPOXY PR | 1.000 ea |
| HW1001A31    | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 3.000 ea |
| 10XN3118K12  | 5/16-18 X .75 GRADE 5, ZINC PLATED       | 3.000 ea |
| 37FN3002C03  | EXFN, PLASTIC, 6.00 OD, 1.690 ID         | 1.000 ea |
| HW2500A25    | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| 51XB1214A20  | 12-14X1.25 HXWSSLD SERTYB                | 1.000 ea |
| MJ1000A02    | GREASE, POLYREX EM EXXON                 | 0.130 lb |
| WD4100A03    | DE-750 HEYCO PLUG 62MP0750 MICRO PLASTIC | 1.000 ea |
| HA3050A03    | 3/8-16 X 2.25" GRADE 8 BOLT              | 4.000 ea |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HA2066A02    | ALUM SLINGER 309 BRG DRILL RIG MOTOR)    | 1.000 ea |
| 80XN1032J06  | 10-32 X 3/8 SET SCREW, HEX SOC, CUP PT   | 2.000 ea |
| HW5100A11    | W3917-042 WVY WSHR (WB)                  | 1.000 ea |
| HW4500A20    | 1/8NPT SL PIPE PLUG                      | 2.000 ea |
| HW4505A02    | BREATHER/DRAIN-EXP PROOF-.250-18 PTF AIS | 1.000 ea |
| HW3023E06    | .125 X .625 SPIRAL SPRING PIN            | 1.000 ea |
| 10EP1710A09P | FACE MTD. EP MACH XPFC W/HW4505A02 W/PRI | 1.000 ea |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HA3050A03    | 3/8-16 X 2.25" GRADE 8 BOLT              | 4.000 ea |
| HA2067A01    | ALUM SLINGER 311 BRG DRILL RIG MOTOR     | 1.000 ea |
| 80XN1032J06  | 10-32 X 3/8 SET SCREW, HEX SOC, CUP PT   | 2.000 ea |
| 10XN2520K40  | 1/4-20 X 2-1/2 HEX HD CAPSCREW,GRADE 5,Z | 4.000 ea |

|                |                                          |           |
|----------------|------------------------------------------|-----------|
| HW4500A20      | 1/8NPT SL PIPE PLUG                      | 2.000 ea  |
| HW4505A02      | BREATHER/DRAIN-EXP PROOF-.250-18 PTF AIS | 1.000 ea  |
| HW3023E06      | .125 X .625 SPIRAL SPRING PIN            | 1.000 ea  |
| 10EP1701A57LP5 | FR ENDPLATE, MACH PRIMED & PAINTED       | 1.000 ea  |
| 12CB1003A02P   | KOBX, MACH 1.50 NPT GROUP C MTRS ,EPOXY  | 1.000 ea  |
| 10XN3118K24    | 5/16-18 X 1.50" HEX HD, GRADE 5          | 4.000 ea  |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea  |
| WD1000B19      | TERMINAL BURNDY L250HP                   | 1.000 ea  |
| 10XN3816K08    | 3/8-16 X .50 HEX HD CAP SCREW GRADE 5    | 1.000 ea  |
| HW1001A38      | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 1.000 ea  |
| 12CB1502A01P   | CONDUIT BOX LID MACH. GROUP C MTRS       | 1.000 ea  |
| 84XN5013J32    | SOCKET HD.CAP SCR,1/2-13 X 2"LG,ALLOY ST | 10.000 ea |
| HW1001A50      | LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I | 10.000 ea |
| MG1025G29      | WILKOFAS, 789.229, DARK CHARCOAL GRAY    | 0.125 ga  |
| HW2501G17      | KEY, 3/8 SQ X 1.875                      | 1.000 ea  |
| MJ5001A27      | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.001 qt  |
| LB1624         | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea  |

**AC Induction Motor Performance Data**

Record # 77475

Typical performance - not guaranteed values

| Winding: 10WGZ218-R002 |      |              | Type: 1046M                           |                           | Enclosure: XPFC |                |
|------------------------|------|--------------|---------------------------------------|---------------------------|-----------------|----------------|
| Nameplate Data         |      |              | 575 V, 60 Hz:<br>Single Voltage Motor |                           |                 |                |
| Rated Output (HP)      |      | 30           | Full Load Torque                      |                           |                 | 44.4 LB-FT     |
| Volts                  |      | 575          | Start Configuration                   |                           |                 | direct on line |
| Full Load Amps         |      | 26           | Breakdown Torque                      |                           |                 | 165 LB-FT      |
| R.P.M.                 |      | 3520         | Pull-up Torque                        |                           |                 | 59.5 LB-FT     |
| Hz                     | 60   | Phase        | 3                                     | Locked-rotor Torque       |                 | 78.3 LB-FT     |
| NEMA Design Code       | B    | KVA Code     | G                                     | Starting Current          |                 | 175 A          |
| Service Factor (S.F.)  |      |              | 1                                     | No-load Current           |                 | 6.89 A         |
| NEMA Nom. Eff.         | 91.7 | Power Factor | 90                                    | Line-line Res. @ 25°C     |                 | 0.38 Ω         |
| Rating - Duty          |      | 40C AMB-CONT |                                       | Temp. Rise @ Rated Load   |                 | 58°C           |
| S.F. Amps              |      |              |                                       | Temp. Rise @ S.F. Load    |                 | 72°C           |
|                        |      |              |                                       | Locked-rotor Power Factor |                 | 23.5           |
|                        |      |              |                                       | Rotor inertia             |                 | 1.97 LB-FT2    |

**Load Characteristics 575 V, 60 Hz, 30 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 65   | 84   | 89   | 91   | 92   | 91   |
| Efficiency      | 89.7 | 92.9 | 93.4 | 92.7 | 92.3 | 91.3 |
| Speed           | 3580 | 3561 | 3543 | 3524 | 3502 | 3478 |
| Line amperes    | 9.46 | 14.5 | 20.1 | 26.4 | 33.2 | 40.5 |

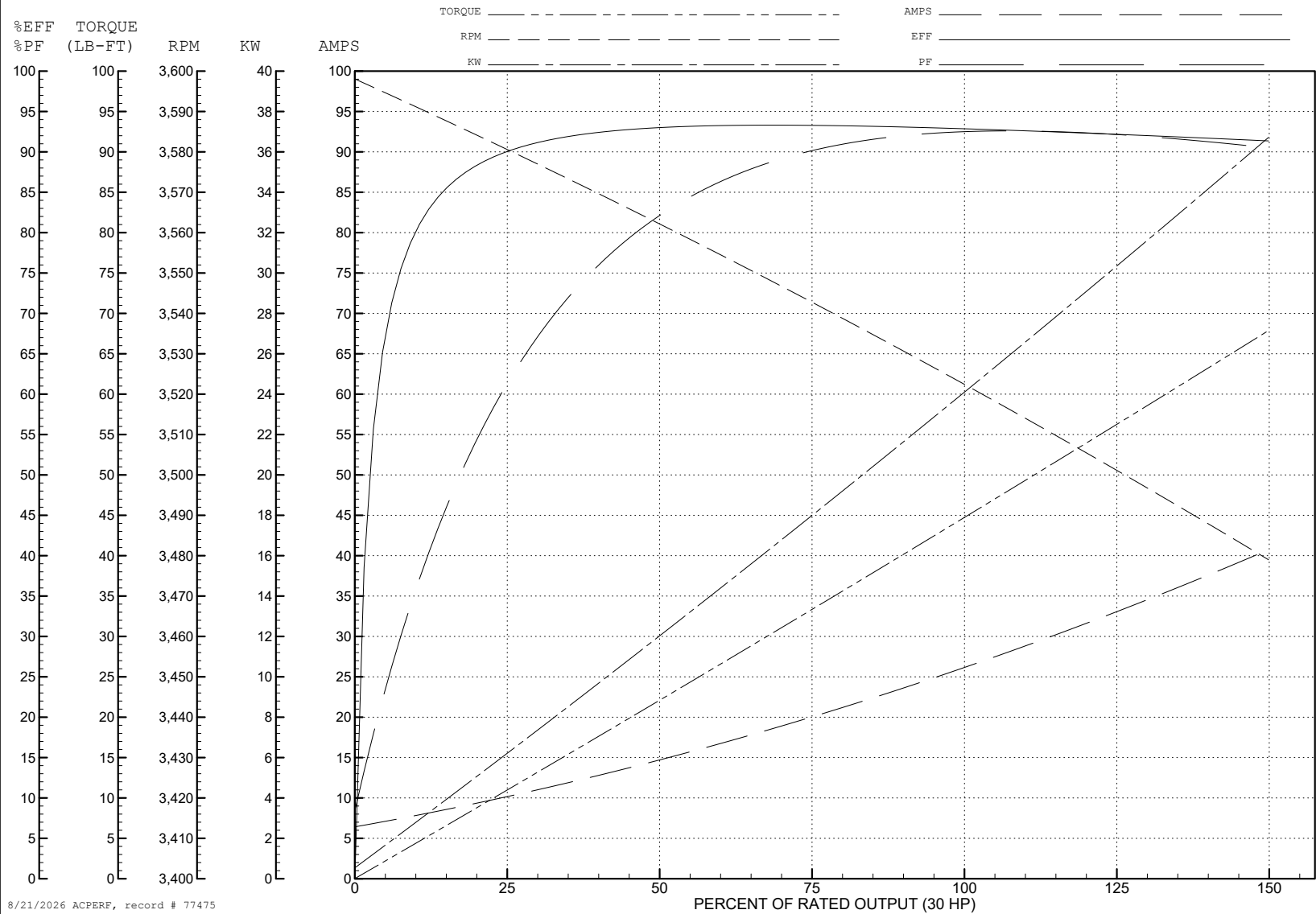
ABB Motors and Mechanical Inc.

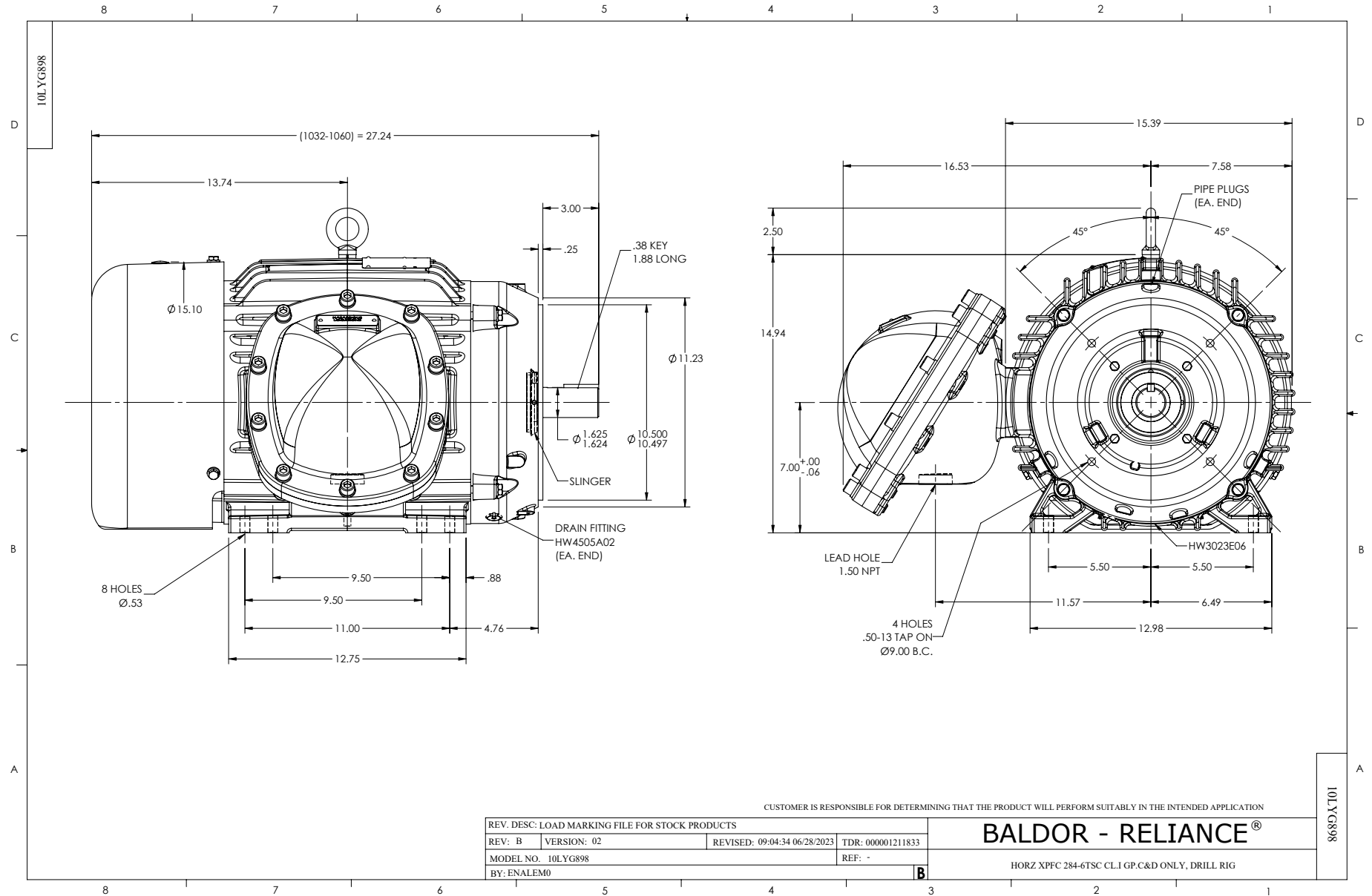
WINDING # 10WGZ218

Typical performance - not guaranteed values.

30 HP 3 PH 60 HZ 3520 RPM 575 V 1046M

TORQUES (LB-FT): PO=165 PU=59.5 LR=78.3 LRA=175





CD0006


**NOTES:**

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10:24:49 02/19/2019

BY: ENBRIRO

MTL: -


**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1