ABB BALDOR RELIANCE

# Customer information packet

## VDRX28344T

30HP, 1770//1470RPM, 3PH, 60/50HZ, 286TC, XPF
Class - CLI GP C,D
Division - Division I

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## Specifications

| | |
|---|---|
| **Enclosure** | XPFC |
| **Frame** | 286TC |
| **Frame Material** | Iron |
| **Frequency** | 50.00 Hz |
| | 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 |
| | 25.000 HP @ 50 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 50 HZ |
| **Voltage @ Frequency** | 460.0 V @ 60 HZ |
| | 190.0 V @ 50 HZ |
| | 230.0 V @ 60 HZ |
| | 380.0 V @ 50 HZ |
| **Agency Approvals** | UL |
| | CSA EEV |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | No Mounting |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Constant Torque Speed Range** | 6 |
| **Current @ Voltage** | 38.000 A @ 380.0 V |
| | 38.000 A @ 460.0 V |
| | 76.000 A @ 190.0 V |
| | 76.000 A @ 230.0 V |
| **Design Code** | A |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |

## Part Detail

| | |
|---|---|
| **Revision** | L |
| **Type** | AC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 10WGY538 |
| **Layout** | 10LYG292 |
| **Eff. date** | 06-05-2026 |
| **CD Diagram** | CD0180 |
| **Poles** | 04 |
| **Leads** | 9#8 |
| **Proprietary** | False |
| **Created date** | 06-06-2019 |

| | |
|---|---|
| **Efficiency @ 100% Load** | 93.6 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Haz Area Temp Code** | T3C |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 38.0 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Duty |
| **IP Rating** | NONE |
| **KVA Code** | J |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 2700 rpm |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 1056M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 28.67 IN |
| **Power Factor** | 80 |
| **Product Family** | Hazardous Location Motor |
| **Pulley Face Code** | C-Face |
| **Rodent Screen** | None |
| **RoHS Status** | ROHS NON-COMPLIANT |
| **Service Factor** | 1.00 |
| **Shaft Diameter** | 1.875 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Speed** | 1760 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 |

**Nameplate**

| NP1401XPSLEV | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NO.** | | | | **CC** | 010A | | | | | | |
| **S/N** | | | | **TEMP CODE** | T3C | | | | | | |
| **SPEC.** | 10-0000-0851 | | | **INV.TYPE** | PWM | | | | | | |
| **CAT.NO.** | VDRX28344T | | | **C HP FR** | 60 | **C HP TO** | 90 | | | | |
| **HP** | 30//25/30 | | | **CT HZ FROM** | 6 | | | **CT HZ TO** | 60 | | |
| **VOLTS** | 230/460//190/380 | | | **VT HZ FROM** | 6 | | | **VT HZ TO** | 60 | | |
| **AMPS** | 76/38//76/38 | | **MAG CUR** | 39.6/19.8 | | | | | | | |
| **RPM** | 1760//1475 | | **MX RPM** | 2700 | | | | | | | |
| **HZ** | 60//50/6 | **PH** | 3 | **CL** | F | **NOM.EFF.** | 93.6 | | | | |
| **SER.F.** | 1.00 | **DES** | A | **SL HZ** | 1.3 | **WK2** | 4.46 | | | | |
| **FRAME** | 286TC | **RATING** | 40C AMB-CONT | | | | | | | | |
| | 55C AMB @ 1.0 SF, 60C RISE | | | | | | | | | | |
| | 1.15SF ON SINEWAVE | | | NEMA MG-1 P5.5,IP55 | | | | | | | |

**AC Induction Motor Performance Data**
Record # 83882
Typical performance - not guaranteed values

| **Winding:** 10WGY538-R047 | **Type:** 1056M | **Enclosure:** XPFC |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 30//25 | **Full Load Torque** | 88.7 LB-FT |
| **Volts** | | | 230/460//190/380 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 76/38 | **Breakdown Torque** | 330 LB-FT |
| **R.P.M.** | | | 1760//1475 | **Pull-up Torque** | 142 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 178 LB-FT |
| **NEMA Design Code** | A | **KVA Code** | J | **Starting Current** | 270 A |
| **Service Factor (S.F.)** | | | 1 | **No-load Current** | 17.9 A |
| **NEMA Nom. Eff.** | 93.6 | **Power Factor** | 80 | **Line-line Res. @ 25ºC** | 0.19377 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 64°C |
| | | | | **Locked-rotor Power Factor** | 30.9 |
| | | | | **Rotor inertia** | 4.47 lb-ft² |

**Load Characteristics 460 V, 60 Hz, 30 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** |
|---|---|---|---|---|---|---|
| **Power Factor** | 41 | 63 | 73 | 80 | 82 | 85 |
| **Efficiency** | 87.6 | 92.3 | 93.5 | 93.7 | 93.4 | 92.9 |
| **Speed** | 1792.2 | 1787.6 | 1782.4 | 1776.5 | 1770.3 | 1762.1 |
| **Line amperes** | 19.8 | 24.3 | 30.7 | 37.6 | 45.6 | 55.2 |

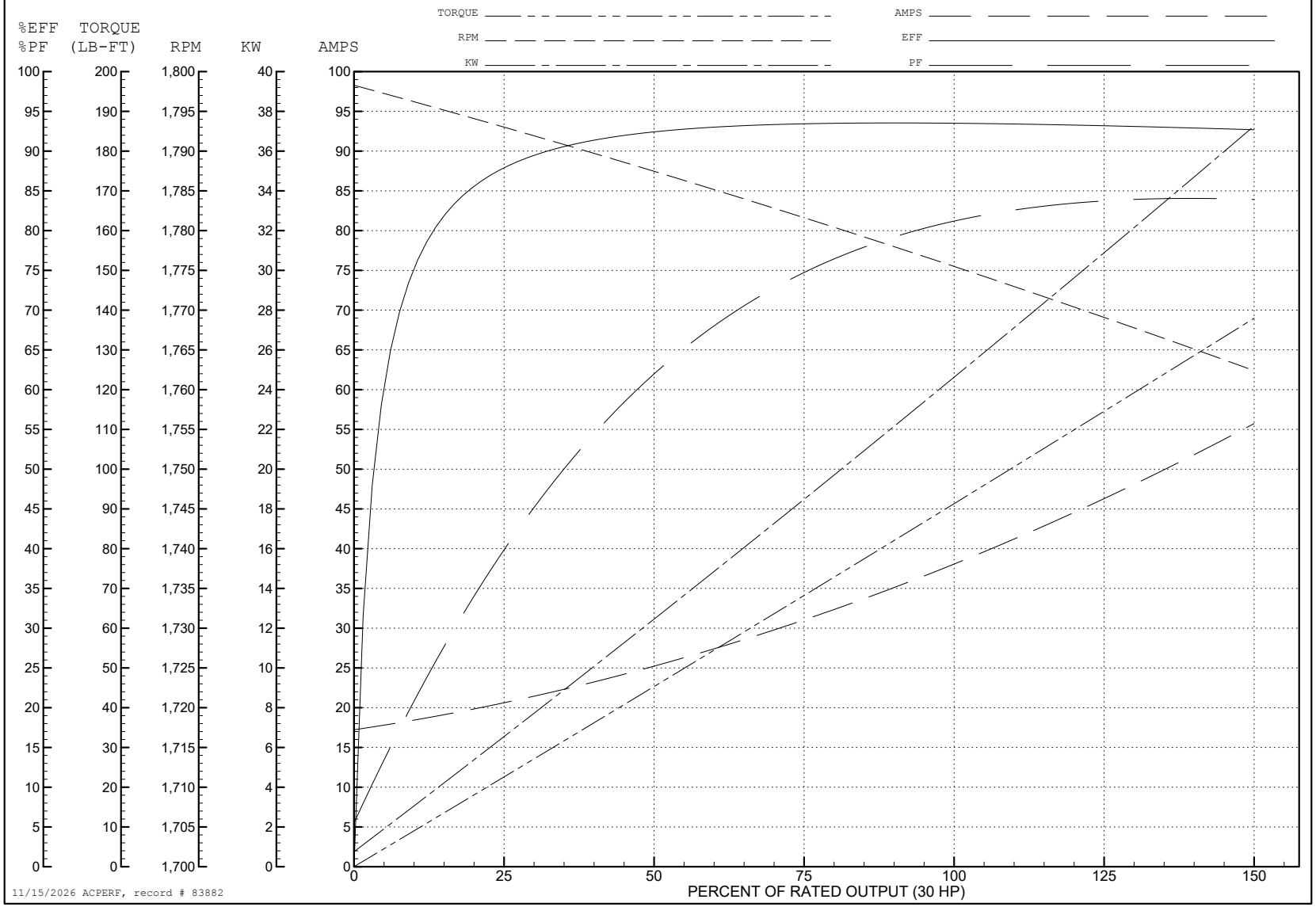
ABB Motors and Mechanical Inc.

WINDING # 10WGY538

30 HP 3 PH 60 HZ 1776.5 RPM 460 V 1056M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=330 PU=142 LR=178 LRA=270



**AC Induction Motor Performance Data**
Record # 83883
Typical performance - not guaranteed values

| **Winding:** 35WGM218-R026 | **Type:** 3516M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **575 V, 60 Hz: Single Voltage Motor** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | .75 | **Full Load Torque** | 2.22 LB-FT |
| **Volts** | | | 575 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | .9 | **Breakdown Torque** | 10.6 LB-FT |
| **R.P.M.** | | | 1750 | **Pull-up Torque** | 6.34 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 7.57 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | M | **Starting Current** | 7.89 A |
| **Service Factor (S.F.)** | | | 1.25 | **No-load Current** | 0.621 A |
| **NEMA Nom. Eff.** | 84 | **Power Factor** | 71 | **Line-line Res. @ 25ºC** | 34.7 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 30°C |
| **S.F. Amps** | | | 1.1 | **Temp. Rise @ S.F. Load** | 38°C |
| | | | | **Locked-rotor Power Factor** | 65.1 |
| | | | | **Rotor inertia** | 0.0946 lb-ft² |

**Load Characteristics 575 V, 60 Hz, 0.75 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 31 | 48 | 62 | 71 | 78 | 83 | 78 |
| **Efficiency** | 68.4 | 80 | 83.4 | 84.4 | 84.3 | 82.1 | 84.3 |
| **Speed** | 1790 | 1778 | 1766 | 1753 | 1739 | 1722 | 1739 |
| **Line amperes** | 0.647 | 0.711 | 0.808 | 0.924 | 1.07 | 1.24 | 1.07 |

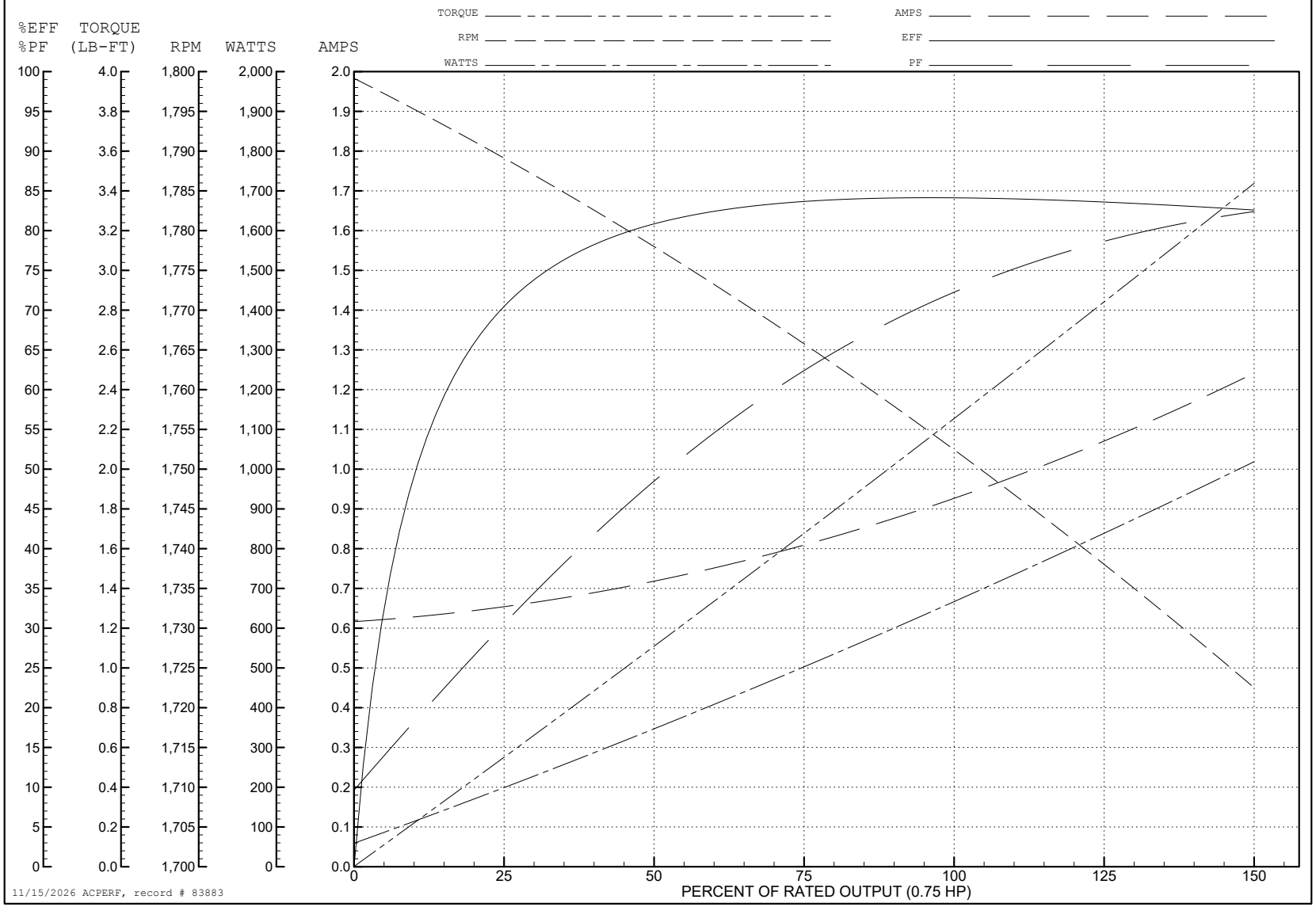
ABB Motors and Mechanical Inc.

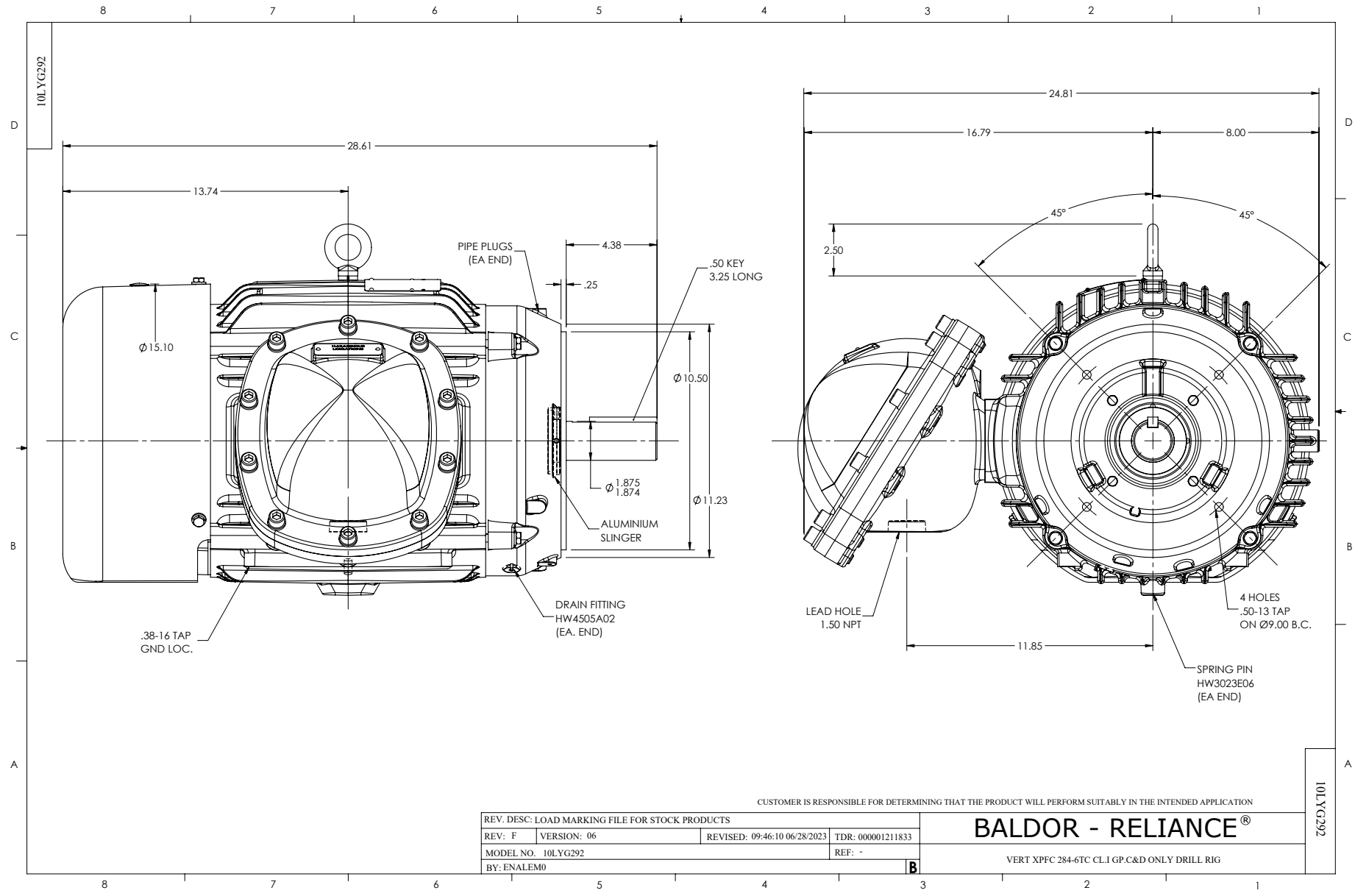
WINDING # 35WGM218

0.75 HP 3 PH 60 HZ 1750 RPM 575 V 3516M

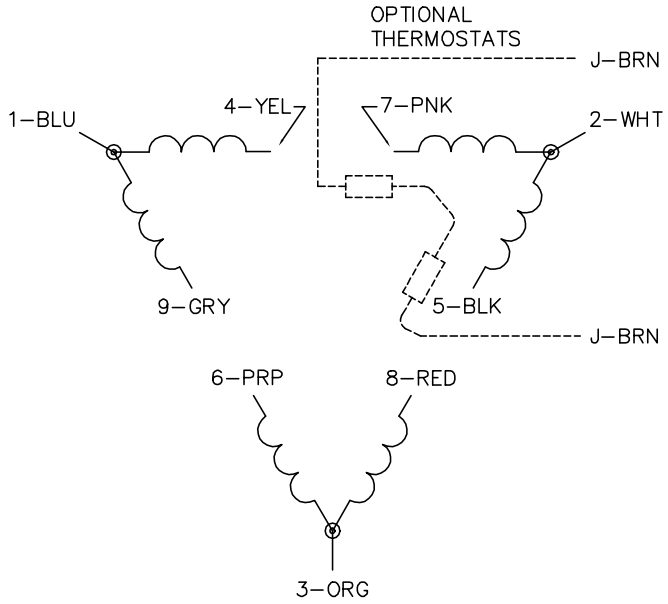
Typical performance - not guaranteed values.

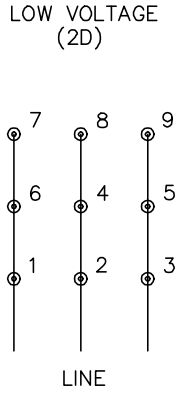
TORQUES(LB-FT): PO=10.6 PU=6.34 LR=7.57 LRA=7.89

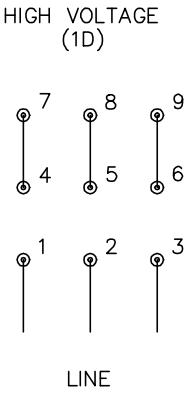



10LYG292
28.61
13.74
PIPE PLUGS
(EA END)
4.38
.25
.50 KEY
3.25 LONG
Ø15.10
Ø10.50
Ø1.875
1.874
Ø11.23
ALUMINIUM
SLINGER
DRAIN FITTING
HW4505A02
(EA. END)
.38-16 TAP
GND LOC.
24.81
16.79
8.00
45°
45°
2.50
LEAD HOLE
1.50 NPT
11.85
4 HOLES
.50-13 TAP
ON Ø9.00 B.C.
SPRING PIN
HW3023E06
(EA END)
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD MARKING FILE FOR STOCK PRODUCTS
REV: F
VERSION: 06
REVISED: 09:46:10 06/28/2023
TDR: 000001211833
MODEL NO. 10LYG292
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
VERT XPFC 284-6TC CL.I GP.C&D ONLY DRILL RIG
10LYG292

CD0180




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

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|---|---|---|
| REV. DESC: ADD CLASS CONN00000007 | | |
| REV. LTR: D | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\148 | REVISED: 10:25:29 02/19/2019 | BY: ENBRIR0 |
| MTL: – | | |

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1