ABB BALDOR RELIANCE

# Customer information packet

## VDRX32444T

40HP, 1775//1480RPM, 3PH, 60/50HZ, 324TC, XPF
Class - CLI GP C,D
Division - Division I

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## Specifications

| | |
|---|---|
| **Enclosure** | XPFC |
| **Frame** | 324TC |
| **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** | 40.000 HP @ 60 HZ |
| | 30.000 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** | 45.000 A @ 380.0 V |
| | 48.000 A @ 460.0 V |
| | 90.000 A @ 190.0 V |
| | 96.000 A @ 230.0 V |
| **Design Code** | A |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |

## Part Detail

| | |
|---|---|
| **Revision** | M |
| **Type** | AC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 12WGY276 |
| **Layout** | 12LYE292 |
| **Eff. date** | 05-07-2026 |
| **CD Diagram** | CD0180 |
| **Poles** | 04 |
| **Leads** | 9#8 |
| **Proprietary** | False |
| **Created date** | 06-06-2019 |

| | |
|---|---|
| **Efficiency @ 100% Load** | 94.1 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Haz Area Temp Code** | T3C |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 45.0 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** | 1254M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 32.00 IN |
| **Power Factor** | 82 |
| **Product Family** | Hazardous Location Motor |
| **Pulley Face Code** | C-Face |
| **Rodent Screen** | None |
| **RoHS Status** | ROHS NON-COMPLIANT |
| **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 |

**Nameplate**

| NP1401XPSLEV | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NO.** | | | | **CC** | 010A | | | | | | |
| **S/N** | | | | **TEMP CODE** | T3C | | | | | | |
| **SPEC.** | 12-0000-0766 | | | **INV.TYPE** | PWM | | | | | | |
| **CAT.NO.** | VDRX32444T | | | **C HP FR** | 60 | **C HP TO** | 90 | | | | |
| **HP** | 40//30/40 | | | **CT HZ FROM** | 6 | | | **CT HZ TO** | 60 | | |
| **VOLTS** | 230/460//190/380 | | | **VT HZ FROM** | 6 | | | **VT HZ TO** | 60 | | |
| **AMPS** | 96/48//90/45 | | **MAG CUR** | 40/20 | | | | | | | |
| **RPM** | 1775//1480 | | **MX RPM** | 2700 | | | | | | | |
| **HZ** | 60//50/6 | **PH** | 3 | **CL** | F | **NOM.EFF.** | 94.1 | | | | |
| **SER.F.** | 1.00 | **DES** | A | **SL HZ** | 0.83 | **WK2** | 7.19 | | | | |
| **FRAME** | 324TC | **RATING** | 40C AMB-CONT | | | | | | | | |
| | 55C AMB @ 1.0 SF, 60C RISE | | | | | | | | | | |
| | 1.15SF ON SINEWAVE | | | NEMA MG-1 PT.5,IP55 | | | | | | | |

**AC Induction Motor Performance Data**
Record # 43813
Typical performance - not guaranteed values

| **Winding:** 12WGY276-R023 | **Type:** 1254M | **Enclosure:** XPFC |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 40 | **Full Load Torque** | 118 LB-FT |
| **Volts** | | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 96/48 | **Breakdown Torque** | 386 LB-FT |
| **R.P.M.** | | | 1775 | **Pull-up Torque** | 193 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 216 LB-FT |
| **NEMA Design Code** | A | **KVA Code** | H | **Starting Current** | 338 A |
| **Service Factor (S.F.)** | | | 1 | **No-load Current** | 19.9 A |
| **NEMA Nom. Eff.** | 94.1 | **Power Factor** | 82 | **Line-line Res. @ 25ºC** | 0.14898 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 54°C |
| | | | | **Locked-rotor Power Factor** | 27 |
| | | | | **Rotor inertia** | 7.19 LB-FT2 |

**Load Characteristics 460 V, 60 Hz, 40 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** |
|---|---|---|---|---|---|---|
| **Power Factor** | 47 | 69 | 78 | 83 | 85 | 85 |
| **Efficiency** | 90.1 | 93.5 | 94.2 | 94.2 | 93.8 | 93.1 |
| **Speed** | 1793.5 | 1788 | 1782.5 | 1776.6 | 1770.7 | 1764.1 |
| **Line amperes** | 22.9 | 29.5 | 38.4 | 48.1 | 59.2 | 70.8 |

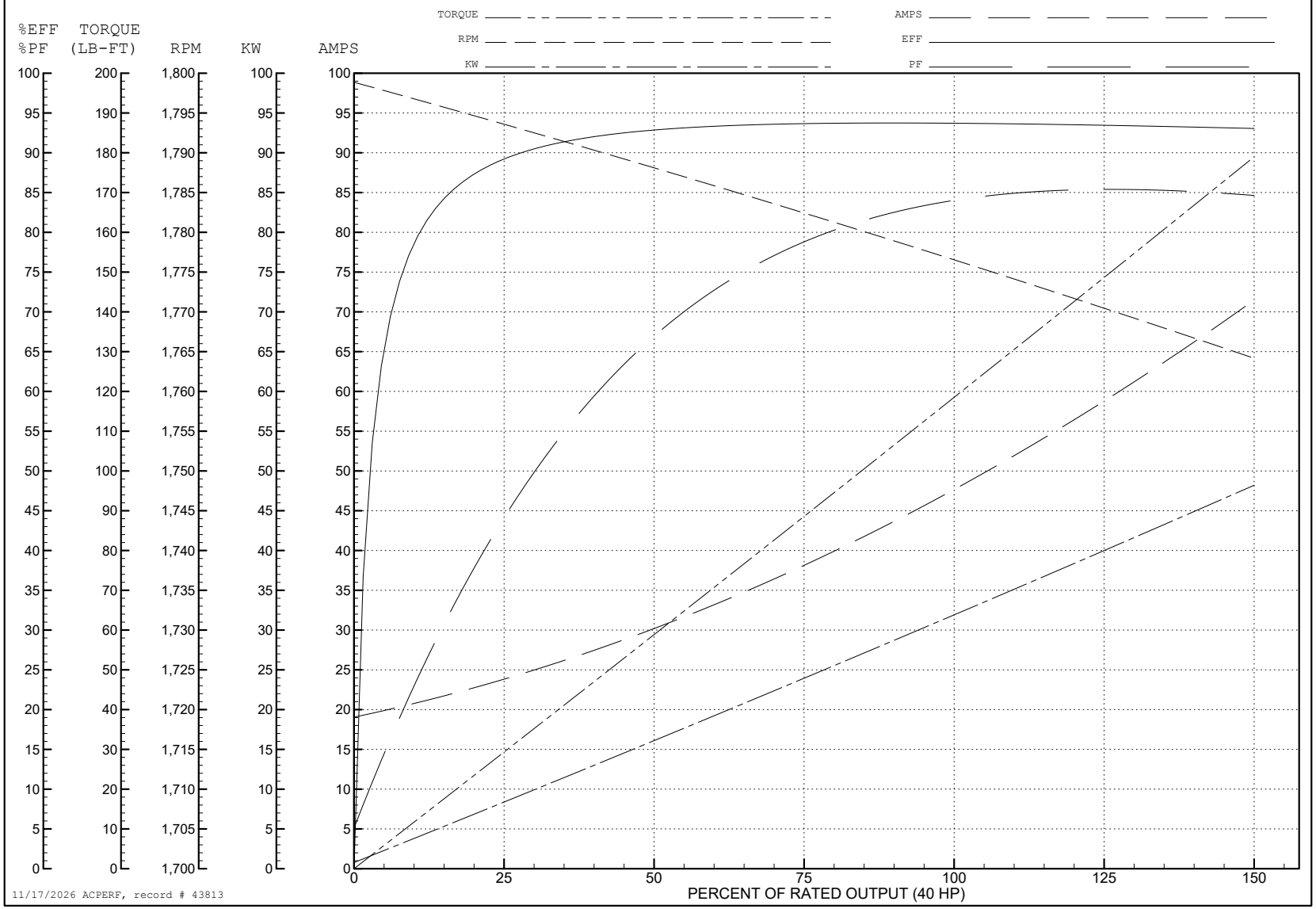
ABB Motors and Mechanical Inc.

WINDING # 12WGY276

40 HP 3 PH 60 HZ 1775 RPM 460 V 1254M

TORQUES(LB-FT): PO=386 PU=193 LR=216 LRA=338

Typical performance - not guaranteed values.



**AC Induction Motor Performance Data**
Record # 74483
Typical performance - not guaranteed values

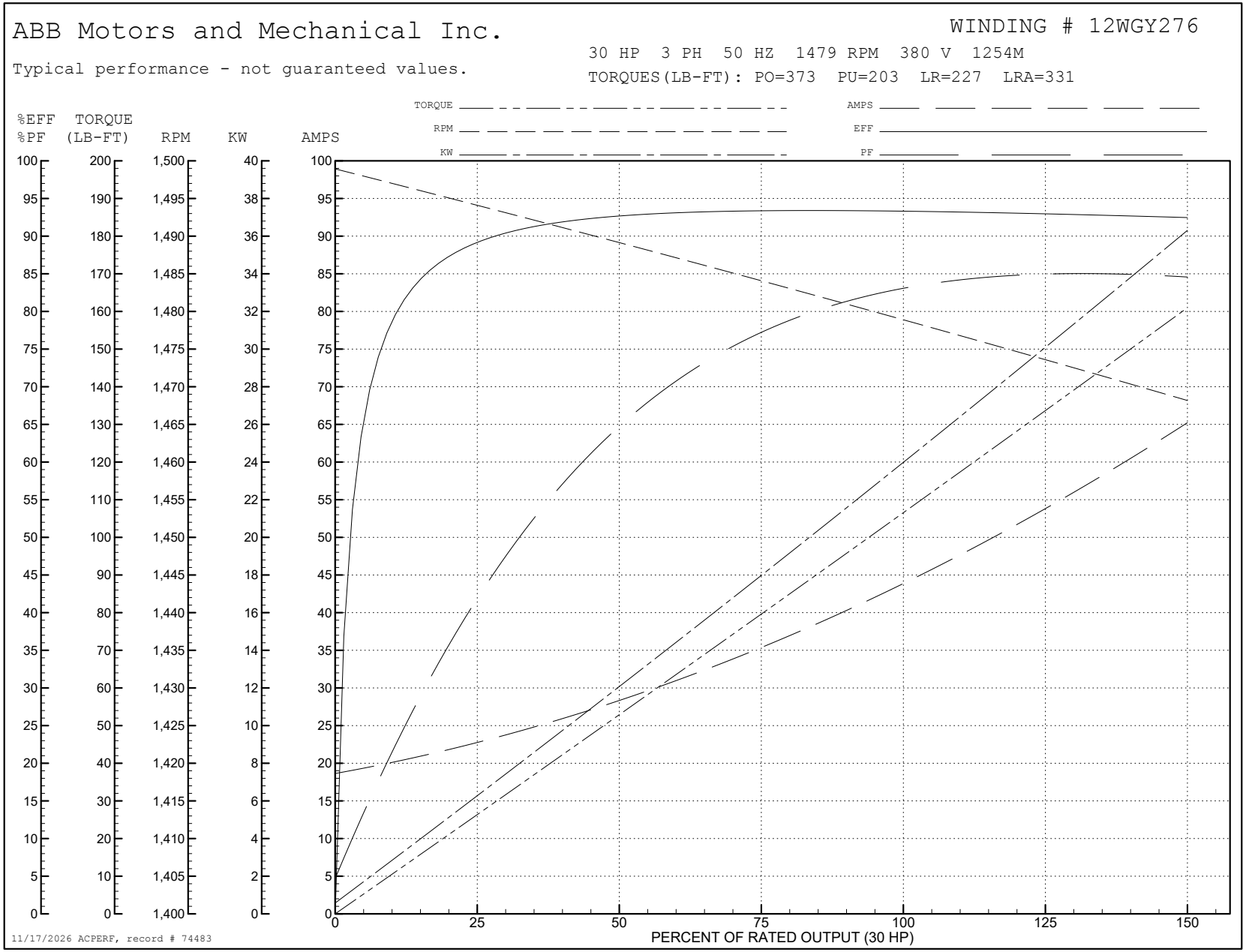
| **Winding:** 12WGY276-R040 | **Type:** 1254M | **Enclosure:** XPFC |
|---|---|---|

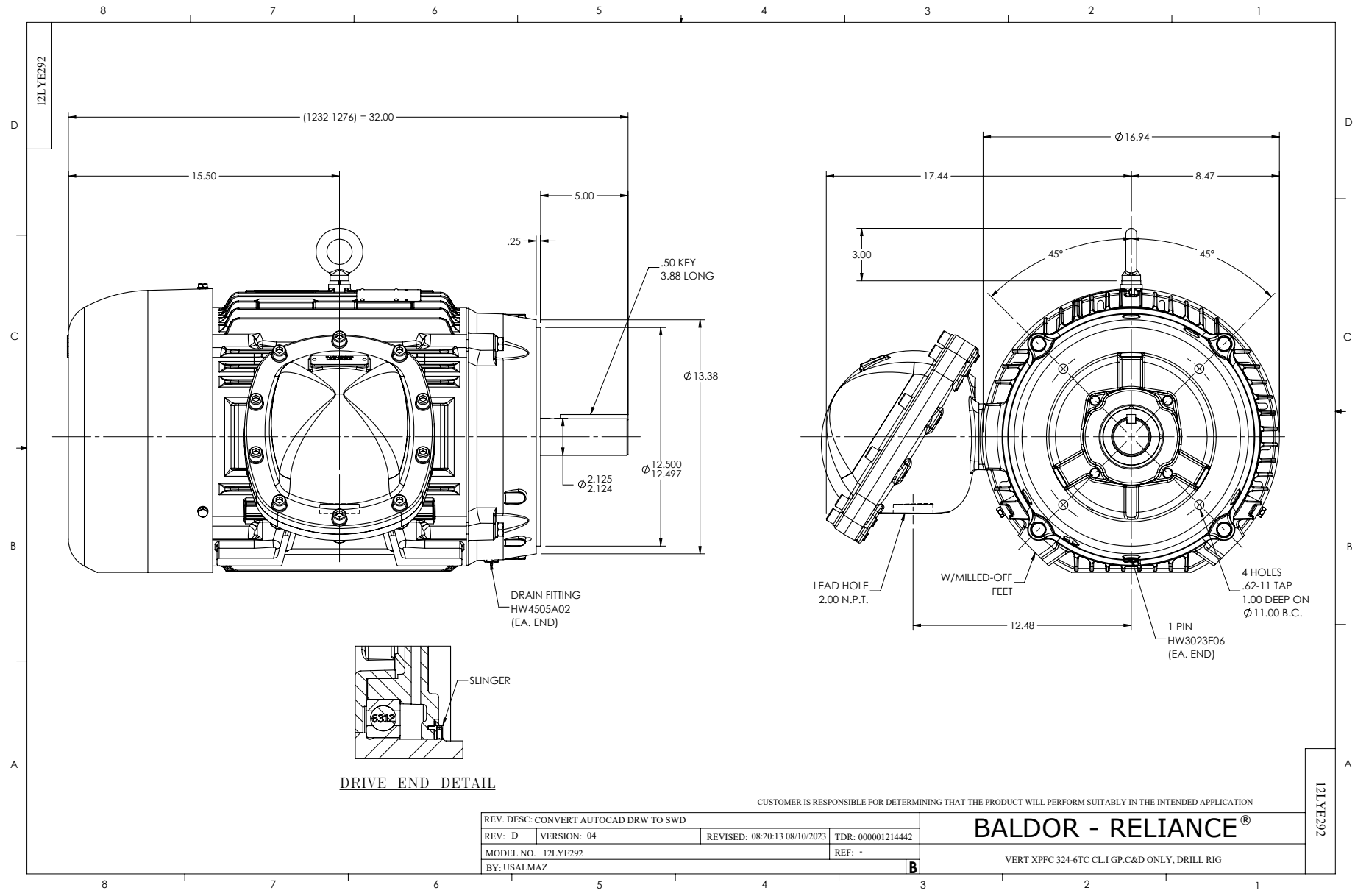
| **Nameplate Data** | | | |
|---|---|---|---|
| **Rated Output (HP)** | | | 40//30 |
| **Volts** | | | 230/460//190/380 |
| **Full Load Amps** | | | 96/48//90/45 |
| **R.P.M.** | | | 1775//1480 |
| **Hz** | 60//50 | **Phase** | 3 |
| **NEMA Design Code** | A | **KVA Code** | H |
| **Service Factor (S.F.)** | | | 1 |
| **NEMA Nom. Eff.** | 94.1 | **Power Factor** | 82 |
| **Rating - Duty** | | | 40C AMB-CONT |
| **S.F. Amps** | | | |

| **380 V, 50 Hz: High Voltage Connection** | |
|---|---|
| **Full Load Torque** | 106 LB-FT |
| **Start Configuration** | direct on line |
| **Breakdown Torque** | 373 LB-FT |
| **Pull-up Torque** | 203 LB-FT |
| **Locked-rotor Torque** | 227 LB-FT |
| **Starting Current** | 331 A |
| **No-load Current** | 19.39 A |
| **Line-line Res. @ 25ºC** | 0.145 Ω |
| **Temp. Rise @ Rated Load** | 47°C |
| **Temp. Rise @ S.F. Load** | 57°C |
| **Locked-rotor Power Factor** | 30.4 |
| **Rotor inertia** | 7.19 LB-FT2 |

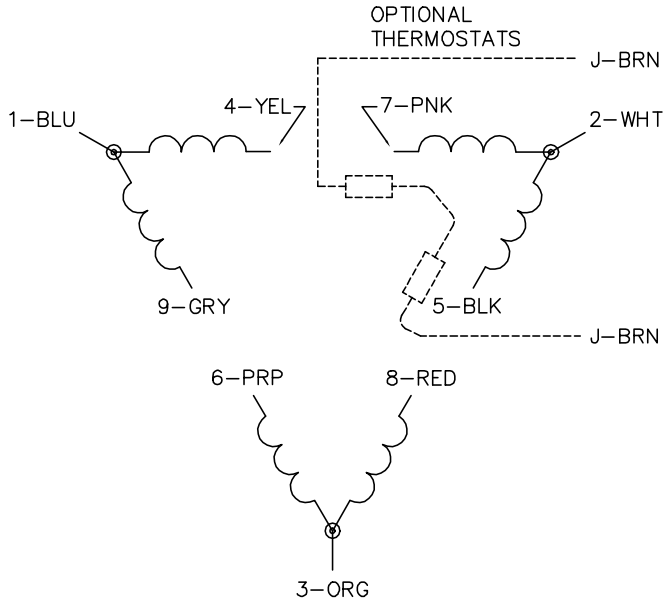
**Load Characteristics 380 V, 50 Hz, 30 HP**

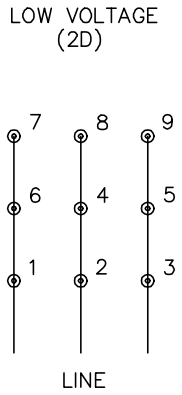
| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** |
|---|---|---|---|---|---|---|
| **Power Factor** | 44 | 66 | 77 | 82 | 84 | 85 |
| **Efficiency** | 88.7 | 92.8 | 93.7 | 93.1 | 92.8 | 92.5 |
| **Speed** | 1494 | 1489 | 1484 | 1479 | 1474 | 1468 |
| **Line amperes** | 21.96 | 27.73 | 35.61 | 44.25 | 54.18 | 64.6 |

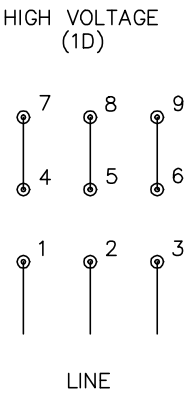

ABB Motors and Mechanical Inc.
WINDING # 12WGY276
30 HP 3 PH 50 HZ 1479 RPM 380 V 1254M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=373 PU=203 LR=227 LRA=331
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (30 HP)
11/17/2026 ACPERF, record # 74483


12LYE292
(1232-1276) = 32.00
15.50
5.00
.25
.50 KEY
3.88 LONG
Ø13.38
Ø12.500
12.497
Ø2.125
2.124
DRAIN FITTING
HW4505A02
(EA. END)
Ø16.94
17.44
8.47
3.00
45°
45°
LEAD HOLE
2.00 N.P.T.
W/MILLED-OFF
FEET
4 HOLES
.62-11 TAP
1.00 DEEP ON
Ø11.00 B.C.
12.48
1 PIN
HW3023E06
(EA. END)
SLINGER
6312
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD DRW TO SWD
REV: D
VERSION: 04
REVISED: 08:20:13 08/10/2023
TDR: 000001214442
MODEL NO. 12LYE292
REF: -
BY: USALMAZ
B
BALDOR - RELIANCE®
VERT XPFC 324-6TC CL.I GP.C&D ONLY, DRILL RIG
12LYE292

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

| | | |
|---|---|---|
| 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