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# Customer information packet

## CDRX28324T

30HP, 3520//2920RPM, 3PH, 60/50HZ, 286TSC, XP

Class - CLI GP C,D

Division - Division I

## Specifications

|                                |                                                                                                            |
|--------------------------------|------------------------------------------------------------------------------------------------------------|
| Enclosure                      | XPFC                                                                                                       |
| Frame                          | 286TSC                                                                                                     |
| Frame Material                 | Iron                                                                                                       |
| Frequency                      | 50.00 Hz<br>60.00 Hz                                                                                       |
| Haz Area Class and Group       | CLI GP C,D                                                                                                 |
| Haz Area Division              | Division I                                                                                                 |
| Motor Letter Type              | Three Phase                                                                                                |
| Output @ Frequency             | 25.000 HP @ 50 HZ<br>30.000 HP @ 60 HZ                                                                     |
| Phase                          | 3                                                                                                          |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                                                                                           |
| Voltage @ Frequency            | 380.0 V @ 50 HZ<br>230.0 V @ 60 HZ<br>190.0 V @ 50 HZ<br>460.0 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              | 72.000 A @ 208.0 V<br>68.000 A @ 190.0 V<br>66.000 A @ 230.0 V<br>34.000 A @ 380.0 V<br>33.000 A @ 460.0 V |
| Design Code                    | B                                                                                                          |
| Drip Cover                     | No Drip Cover                                                                                              |

## Part detail

|              |            |
|--------------|------------|
| Revision     | G          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 10WGZ035   |
| Layout       | 10LYG898   |
| Eff. date    | 11-05-2024 |
| CD Diagram   | CD0180     |
| Poles        | 02         |
| Leads        | 9#10       |
| Proprietary  | False      |
| Created date | 06-04-2019 |

|                               |                            |
|-------------------------------|----------------------------|
| 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   | 33.0 a                     |
| Insulation Class              | F                          |
| Inverter Code                 | Inverter Duty              |
| IP Rating                     | NONE                       |
| KVA Code                      | G                          |
| Lifting Lugs                  | Standard Lifting Lugs      |
| Locked Bearing Indicator      | Locked Bearing             |
| Max Speed                     | 5400 rpm                   |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 1046M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 2                          |
| Overall Length                | 27.23 IN                   |
| Power Factor                  | 90                         |
| Product Family                | Hazardous Location Motor   |
| Pulley Face Code              | C-Face                     |
| Rodent Screen                 | None                       |
| RoHS Status                   | ROHS NON-COMPLIANT         |
| Service Factor                | 1.00                       |
| Shaft Diameter                | 1.625 IN                   |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Speed                         | 3520 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.        | 10-0000-0834               |        |   |              |         | INV.TYPE            |      | PWM  |          |  |    |  |  |
| CAT.NO.      | CDRX28324T                 |        |   |              |         | C HP FR             |      | 60   | C HP TO  |  | 90 |  |  |
| HP           | 30//25                     |        |   |              |         | CT HZ FROM          |      | 6    | CT HZ TO |  | 60 |  |  |
| VOLTS        | 230/460//190/380           |        |   |              |         | VT HZ FROM          |      | 6    | VT HZ TO |  | 60 |  |  |
| AMPS         | 66/33//68/34               |        |   |              | MAG CUR | 18/9                |      |      |          |  |    |  |  |
| RPM          | 3520//2920                 |        |   |              | MX RPM  | 5400                |      |      |          |  |    |  |  |
| HZ           | 60//50                     | 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 |      |      |          |  |    |  |  |
|              |                            |        |   |              |         |                     |      |      |          |  |    |  |  |

**AC Induction Motor Performance Data**

Record # 75696

Typical performance - not guaranteed values

| Winding: 10WGZ035-R005 |        |                  |   | Type: 1046M                              |    | Enclosure: XPFC |                       |         |
|------------------------|--------|------------------|---|------------------------------------------|----|-----------------|-----------------------|---------|
| Nameplate Data         |        |                  |   | 380 V, 50 Hz:<br>High Voltage Connection |    |                 |                       |         |
| Rated Output (HP)      |        | 30//25           |   | Full Load Torque                         |    | 44.55 LB-FT     |                       |         |
| Volts                  |        | 230/460//190/380 |   | Start Configuration                      |    | direct on line  |                       |         |
| Full Load Amps         |        | 66/33//68/34     |   | Breakdown Torque                         |    | 164 LB-FT       |                       |         |
| R.P.M.                 |        | 3520//2920       |   | Pull-up Torque                           |    | 64.66 LB-FT     |                       |         |
| Hz                     | 60//50 | Phase            | 3 | Locked-rotor Torque                      |    | 85.07 LB-FT     |                       |         |
| NEMA Design Code       |        | B                |   | KVA Code                                 | G  |                 | Starting Current      | 219 A   |
| Service Factor (S.F.)  |        | 1                |   | No-load Current                          |    | 8.71 A          |                       |         |
| NEMA Nom. Eff.         |        | 91.7             |   | Power Factor                             | 90 |                 | Line-line Res. @ 25°C | 0.239 Ω |
| Rating - Duty          |        | 40C AMB-CONT     |   | Temp. Rise @ Rated Load                  |    | 59°C            |                       |         |
|                        |        |                  |   | Locked-rotor Power Factor                |    | 26.5            |                       |         |
|                        |        |                  |   | Rotor inertia                            |    | 1.97 LB-FT2     |                       |         |

**Load Characteristics 380 V, 50 Hz, 25 HP**

| % of Rated Load | 25    | 50    | 75    | 100   | 125   | 150   |
|-----------------|-------|-------|-------|-------|-------|-------|
| Power Factor    | 64    | 83    | 89    | 91    | 92    | 91    |
| Efficiency      | 90.9  | 93.3  | 93.5  | 92.5  | 91.9  | 90.6  |
| Speed           | 2981  | 2963  | 2946  | 2927  | 2907  | 2883  |
| Line amperes    | 11.87 | 18.29 | 25.38 | 33.31 | 42.09 | 51.47 |

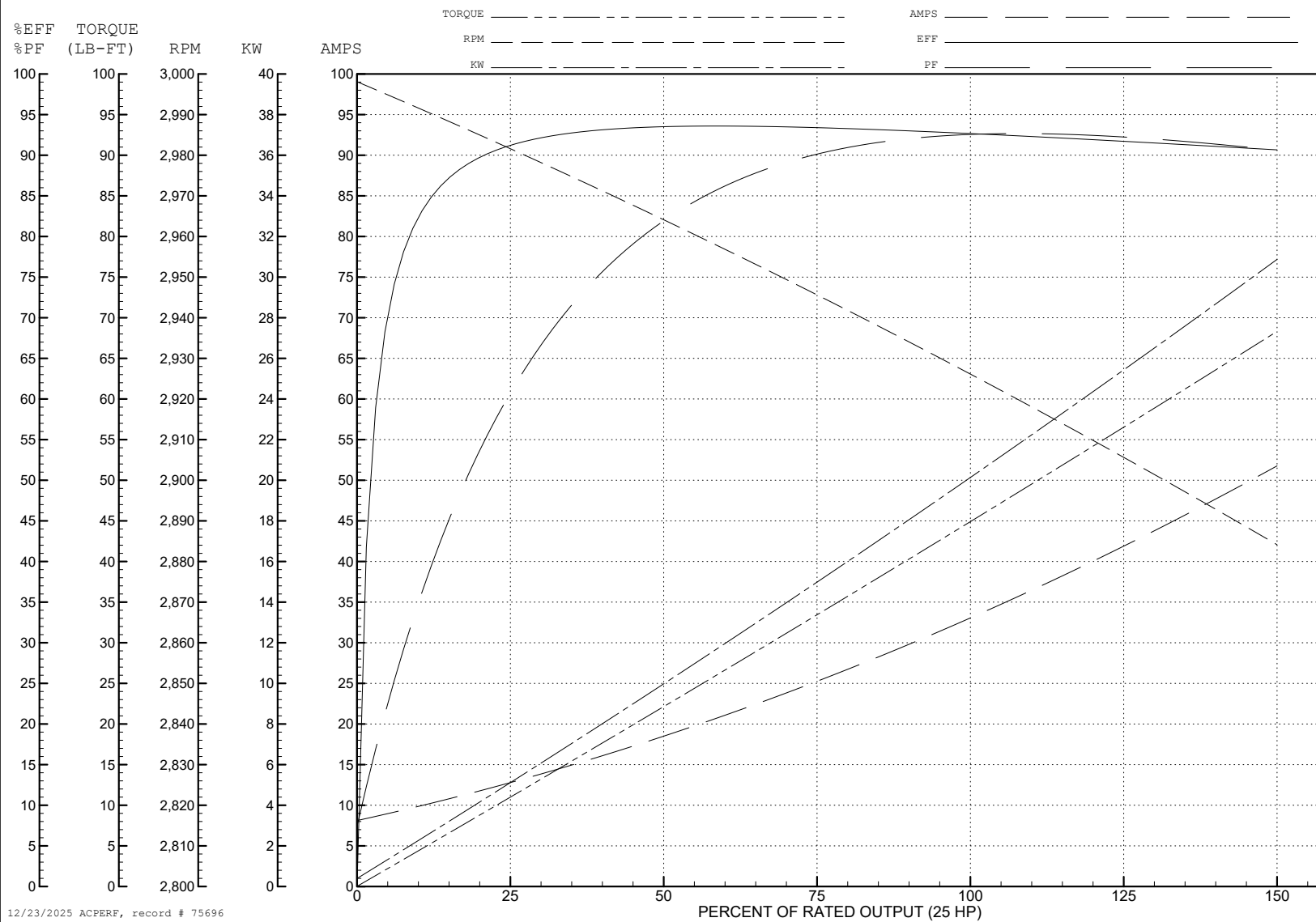
ABB Motors and Mechanical Inc.

WINDING # 10WGZ035

Typical performance - not guaranteed values.

25 HP 3 PH 50 HZ 2927 RPM 380 V 1046M

TORQUES (LB-FT): PO=164 PU=64.66 LR=85.07 LRA=219



**AC Induction Motor Performance Data**

Record # 75697

Typical performance - not guaranteed values

| Winding: 10WGZ035-R005 |        |                  |   | Type: 1046M                              |    | Enclosure: XPFC |                       |         |
|------------------------|--------|------------------|---|------------------------------------------|----|-----------------|-----------------------|---------|
| Nameplate Data         |        |                  |   | 460 V, 60 Hz:<br>High Voltage Connection |    |                 |                       |         |
| Rated Output (HP)      |        | 30//25           |   | Full Load Torque                         |    | 44.4 LB-FT      |                       |         |
| Volts                  |        | 230/460//190/380 |   | Start Configuration                      |    | direct on line  |                       |         |
| Full Load Amps         |        | 66/33//68/34     |   | Breakdown Torque                         |    | 169 LB-FT       |                       |         |
| R.P.M.                 |        | 3520//2920       |   | Pull-up Torque                           |    | 60.8 LB-FT      |                       |         |
| Hz                     | 60//50 | Phase            | 3 | Locked-rotor Torque                      |    | 80 LB-FT        |                       |         |
| NEMA Design Code       |        | B                |   | KVA Code                                 | G  |                 | Starting Current      | 223 A   |
| Service Factor (S.F.)  |        | 1                |   | No-load Current                          |    | 8.85 A          |                       |         |
| NEMA Nom. Eff.         |        | 91.7             |   | Power Factor                             | 90 |                 | Line-line Res. @ 25°C | 0.239 Ω |
| Rating - Duty          |        | 40C AMB-CONT     |   | Temp. Rise @ Rated Load                  |    | 58°C            |                       |         |
|                        |        |                  |   | Locked-rotor Power Factor                |    | 23.5            |                       |         |
|                        |        |                  |   | Rotor inertia                            |    | 1.97 LB-FT2     |                       |         |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 64   | 83   | 89   | 91   | 92   | 91   |
| Efficiency      | 89.6 | 92.9 | 93.5 | 92.7 | 92.4 | 91.4 |
| Speed           | 3580 | 3561 | 3544 | 3525 | 3504 | 3480 |
| Line amperes    | 12   | 18.3 | 25.2 | 33   | 41.5 | 50.5 |

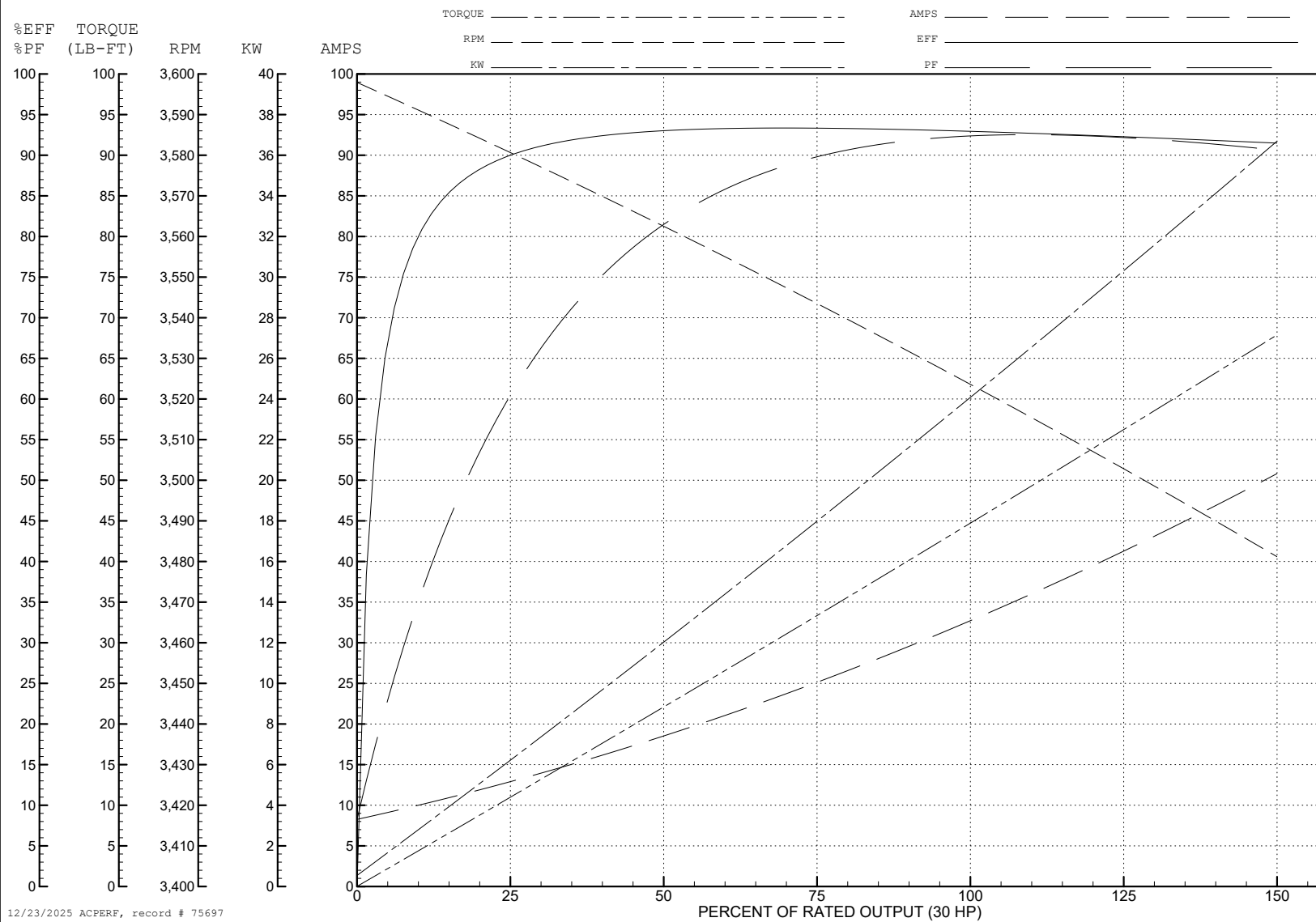
ABB Motors and Mechanical Inc.

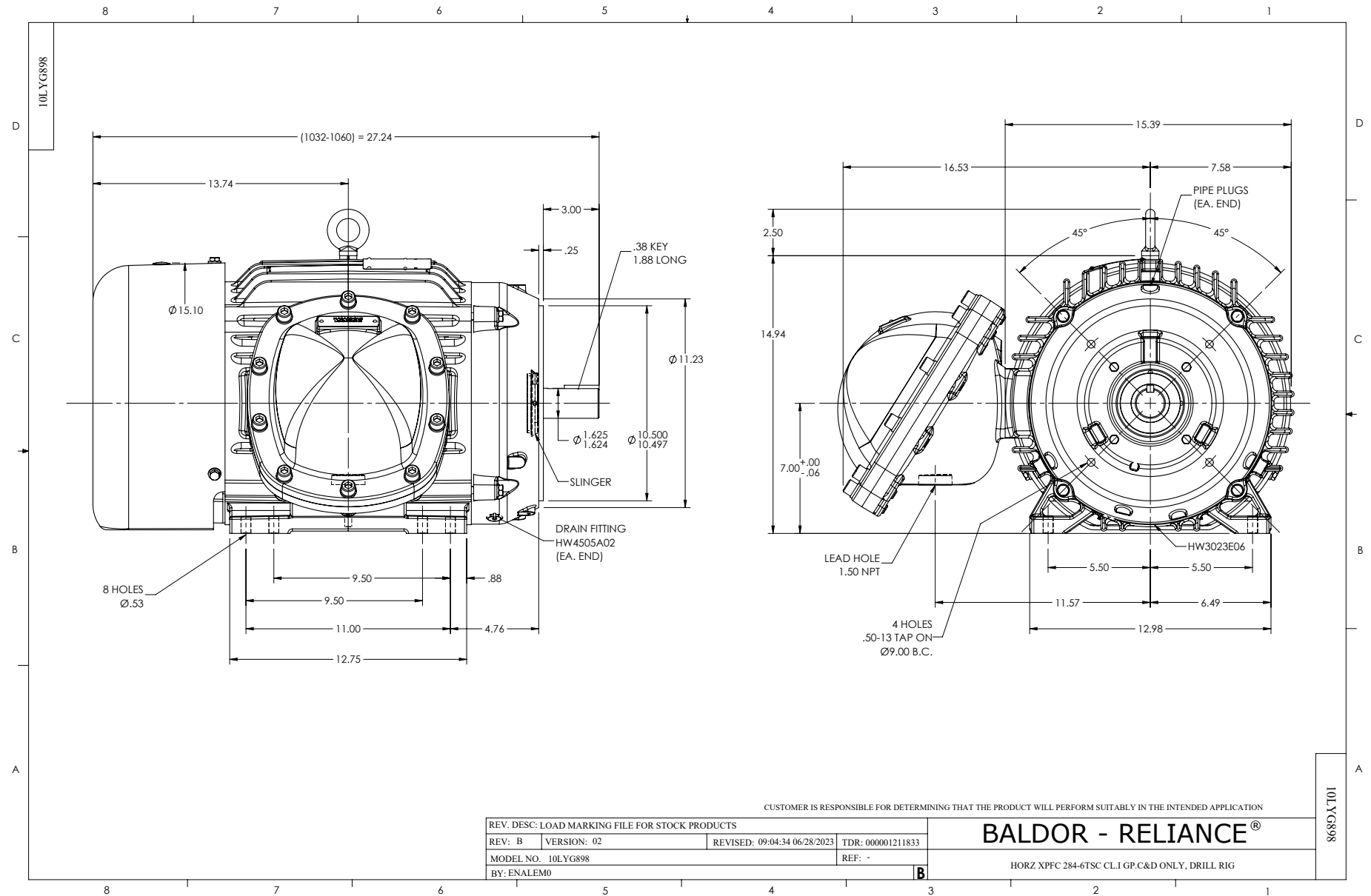
WINDING # 10WGZ035

Typical performance - not guaranteed values.

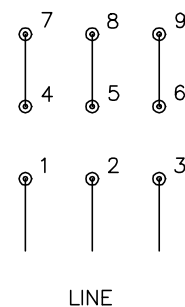
30 HP 3 PH 60 HZ 3525 RPM 460 V 1046M

TORQUES (LB-FT): PO=169 PU=60.8 LR=80 LRA=223





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.

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: ENBRIRO

MTL: —

**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

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