ABB BALDOR RELIANCE

# Customer information packet

## ZDNM2333T

15HP, 1765RPM, 3PH, 60HZ, 254TC, 0948M, TENV
Class - None
Division - Not Applicable

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11/17/2026 7:37:07 AM

## Specifications

| | |
|---|---|
| **Enclosure** | TENV |
| **Frame** | 254TC |
| **Frame Material** | Iron |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 15.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 230.0 V @ 60 HZ |
| | 460.0 V @ 60 HZ |
| **Agency Approvals** | UR |
| | CSA |
| **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 |
| **Current @ Voltage** | 18.500 A @ 460.0 V |
| | 37.000 A @ 230.0 V |
| **Design Code** | A |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 92.4 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | ENCODER |
| **Front Face Code** | Encoder/Feedback Device |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 18.5 a |

## Part Detail

| | |
|---|---|
| **Revision** | AP |
| **Type** | AC |
| **Mech. spec.** | 09F277 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 09WGX946 |
| **Layout** | 09LYF277 |
| **Eff. date** | 11-14-2023 |
| **CD Diagram** | CD0005 |
| **Poles** | 04 |
| **Leads** | 9#12 |
| **Proprietary** | False |
| **Created date** | 01-01-0001 |

| | |
|---|---|
| **Insulation Class** | H |
| **Inverter Code** | Inverter Duty |
| **KVA Code** | K |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 5000 rpm |
| **Motor Lead Exit** | Ko Box |
| **Motor Lead Quantity/Wire Size** | 9 @ 12 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 0948M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 24.05 IN |
| **Power Factor** | 80 |
| **Product Family** | General Purpose |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | C-Face |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.00 |
| **Shaft Diameter** | 1.625 IN |
| **Shaft Extension Location** | Pulley End |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | Shaft Slinger |
| **Speed** | 1765 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**

| NP1168L | | | | | | | |
|---|---|---|---|---|---|---|---|
| **CAT NO** | ZDNM2333T | | | | | | |
| **SPEC.** | 09F277X946Z1 | | | | | | |
| **FRAME** | 254TC | | **HP** | 15 TE | | | |
| **VOLTS** | 230/460 | | | | | | |
| **MAG CUR** | 17.8/8.9 | | | **FLA** | 37/18.5 | | |
| **RPM** | 1765 | | **RPM MAX** | 5000 | | | |
| **HZ** | 60 | **PH** | 3 | **CLASS** | H | | |
| **SER.F.** | 1.00 | **DES** | A | **SL HZ** | 1 | | |
| **NEMA-NOM-EFF** | 92.4 | **WK2** | 2.1 | | | | |
| **BLWR V** | | **PH** | | **HZ** | | **A** | |
| **RATING** | 40C AMB-CONT | | | | | | |
| **DE BRG** | 6309 | | **ODE BRG** | 6208 | | | |
| **CC** | 010A | **SER.NO** | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NP VOLTS | 230/460 | MAX SAFE RPM | 5000 | WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C) | | | |
| NP AMPS | 37/18.5 | Base Volt | 460 | R1 | 0.231 | X1 | 0.904 |
| HP | 15HP | NL AMPS | 8.8 | R2 | 0.195 | X2 | 1.090 |
| BASE SPEED | 1765 | Slips (Hz) | 0.93 | | | XM | 26.400 |
| PHASE/HZ | 3/60 | $WK^2$ (lb-ft$^2$) | 2.1 | | | | |

## Rated Full Load Data

| | RPM | HP | Torque | Volts | Freq-Hz | Amps |
|---|---|---|---|---|---|---|
| Base Speed | 1772 | 15.0 | 44.5 | 460 | 60 | 18.5 |
| Max Speed | 2657 | 15.0 | 29.7 | 460 | 90 | 16.8 |
| Min Speed | 0 | 0.0 | 44.5 | 20.69 | 0.93 | 18.5 |

## Load Performance at Base Speed

| | RPM | HP | Torque | Volts | Freq-Hz | Amps |
|---|---|---|---|---|---|---|
| No Load | 1799 | 0.0 | 0.0 | 460 | 60 | 8.8 |
| 1/4 | 1794 | 3.8 | 11.1 | 460 | 60 | 9.7 |
| 1/2 | 1787 | 7.6 | 22.4 | 460 | 60 | 12.0 |
| 3/4 | 1779 | 11.4 | 33.7 | 460 | 60 | 15.1 |
| Full Load | 1772 | 15.0 | 44.5 | 460 | 60 | 18.5 |
| O/L | 1746 | 30.0 | 90.3 | 460 | 60 | 34.4 |

| Blower Data | Volts | Ph/Hz | FL Amps | LR Amps | Frame | CFM |
|---|---|---|---|---|---|---|
| | | | | | | |

Remarks: Calculated Data
Vector PWM Inverter Duty

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| | |
|---|---|
| DR BY | BR |
| CK BY | |
| APP BY | BR |
| DATE | 3/28/2017 |

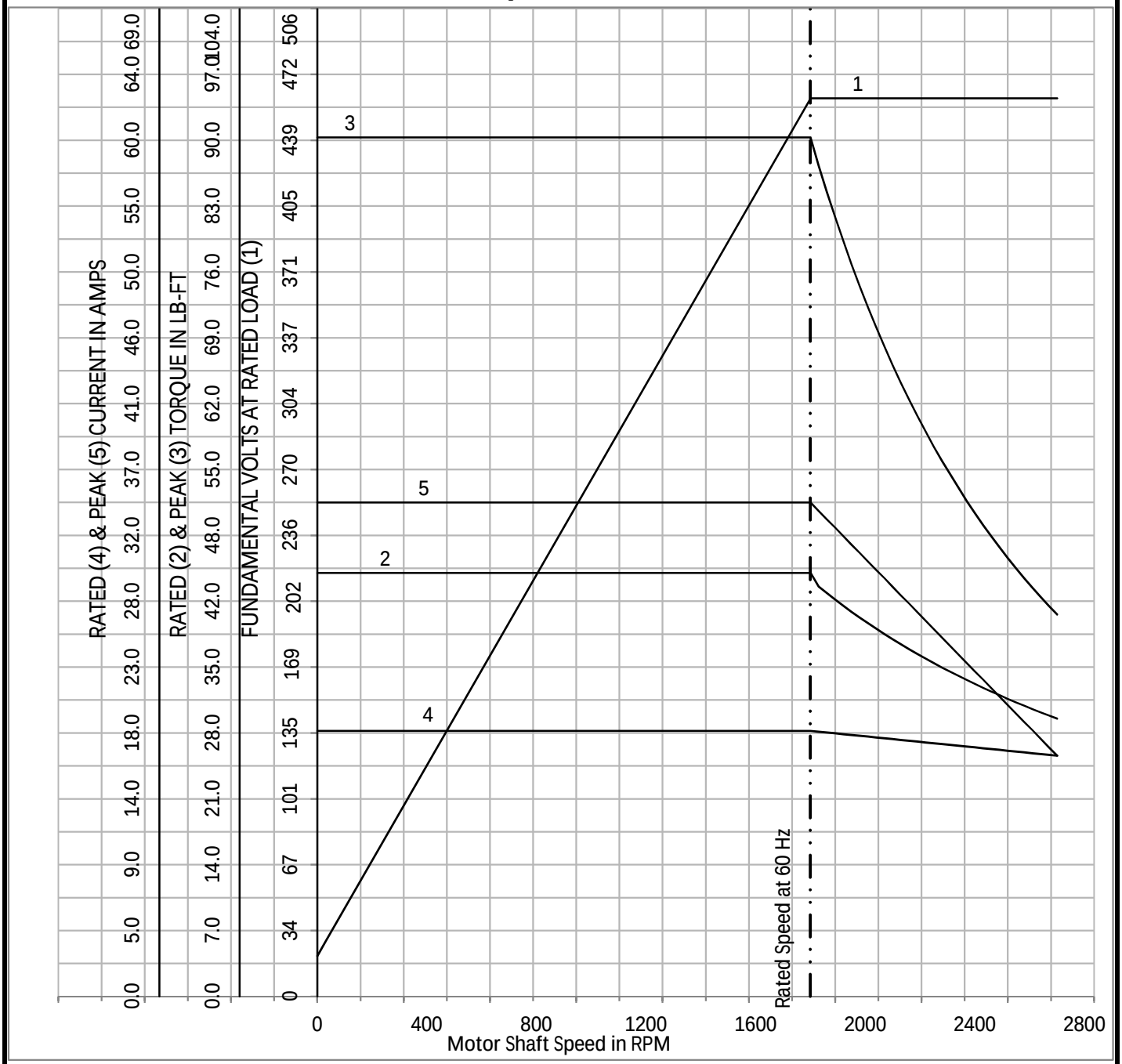
A-C MOTOR PERFORMANCE CURVES

**09WGX946**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
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| BASE SPEED | 1765 | Slips (Hz) | 0.93 | | | XM | 26.400 |
| PHASE/HZ | 3/60 | WK2 (lb-ft2) | 2.1 | | | | |

Vector PWM Inverer Duty

Variable Speed AC Motor Curves




Calculated Data

Data Valid For Nameplate Speed Range only

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| | |
|---|---|
| DR BY | BR |
| CK BY | |
| APP BY | BR |
| DATE | 3/28/2017 |

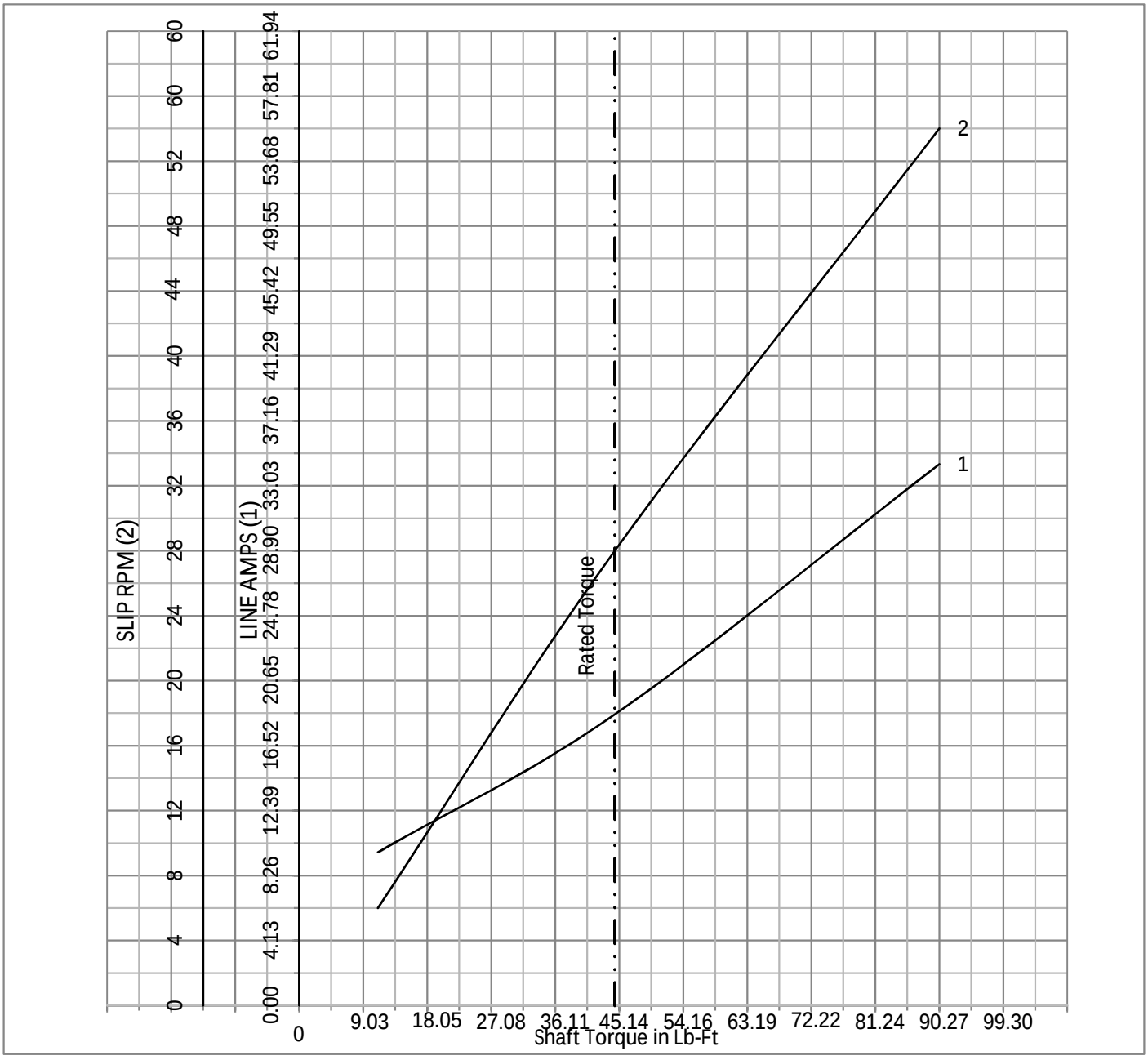
A-C MOTOR PERFORMANCE CURVES

**09WGX946**

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| HP | 15HP | NL AMPS | 8.75 | R2 | 0.195 | X2 | 1.090 |
| BASE SPEED | 1765 | Slips (Hz) | 0.93 | | | XM | 26.400 |
| PHASE/HZ | 3/60 | WK2 (lb-ft2) | 2.1 | | | | |

Vector PWM Inverer Duty

Vaiable Speed AC Motor Curves




Calculated Data

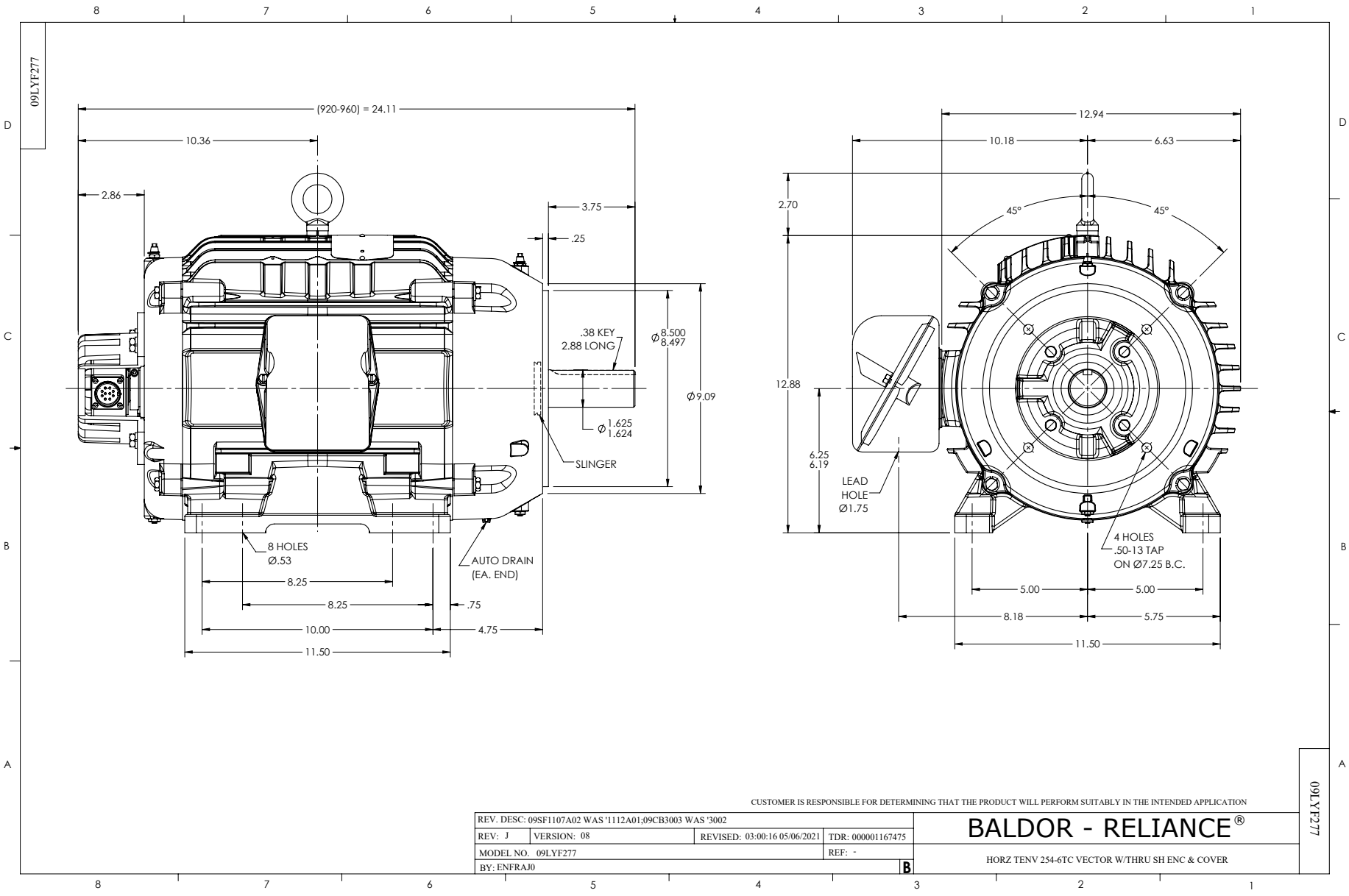
Data Valid For Nameplate Speed Range only

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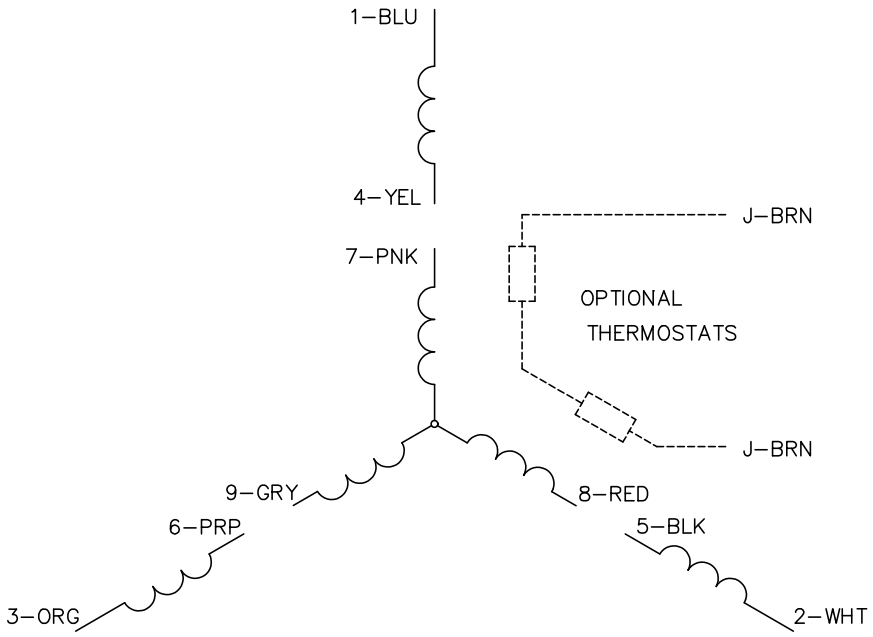
| | |
|---|---|
| DR BY | BR |
| CK BY | |
| APP BY | BR |
| DATE | 3/28/2017 |

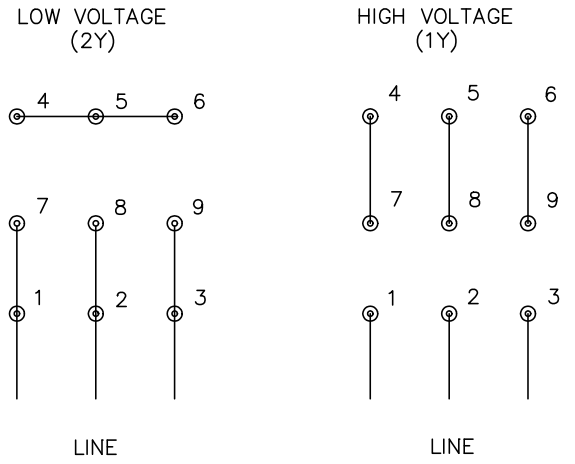
A-C MOTOR PERFORMANCE CURVES

**09WGX946**


09LYF277
(920-960) = 24.11
10.36
2.86
3.75
.25
.38 KEY
2.88 LONG
Ø 8.500
8.497
Ø 9.09
Ø 1.625
1.624
SLINGER
8 HOLES
Ø.53
AUTO DRAIN
(EA. END)
8.25
8.25
.75
10.00
4.75
11.50
12.94
10.18
6.63
2.70
45°
45°
12.88
6.25
6.19
LEAD
HOLE
Ø1.75
4 HOLES
.50-13 TAP
ON Ø7.25 B.C.
5.00
5.00
8.18
5.75
11.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: 09SF1107A02 WAS '1112A01;09CB3003 WAS '3002
REV: J
VERSION: 08
REVISED: 03:00:16 05/06/2021
TDR: 000001167475
MODEL NO. 09LYF277
REF: -
BY: ENFRAJ0
B
BALDOR - RELIANCE®
HORZ TENV 254-6TC VECTOR W/THRU SH ENC & COVER
09LYF277

CD0005




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.

CD0005

| | | | |
|---|---|---|---|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS | | | BALDOR ELECTRIC Co. |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| CD0005 | | FILE: AAA00005140 | MDL: – |
| | | MTL: – | 3PH, DV, 9 LEADS |