

# ABB BALDOR RELIANCE III

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## Customer information packet

### ZDM2276T

54M 6P TEBC HOR 254TC T'STATS VECTOR

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Enclosure</b>                      | TEBC                                                           |
| <b>Frame</b>                          | 254TC                                                          |
| <b>Frame Material</b>                 | Iron                                                           |
| <b>Frequency</b>                      | 60.00 Hz                                                       |
| <b>Haz Area Class and Group</b>       | None                                                           |
| <b>Haz Area Division</b>              | Not Applicable                                                 |
| <b>Motor Letter Type</b>              | Three Phase                                                    |
| <b>Output @ Frequency</b>             | 7.500 HP @ 60 HZ                                               |
| <b>Phase</b>                          | 3                                                              |
| <b>Synchronous Speed @ Frequency</b>  | 1200 RPM @ 60 HZ                                               |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                             |
| <b>Agency Approvals</b>               | CSA<br>UR                                                      |
| <b>Ambient Temperature</b>            | 40 °C                                                          |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                                               |
| <b>Auxiliary Box Lead Termination</b> | None                                                           |
| <b>Base Indicator</b>                 | Rigid                                                          |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                        |
| <b>Blower</b>                         | BLOWER                                                         |
| <b>Current @ Voltage</b>              | 10.700 A @ 460.0 V<br>21.400 A @ 230.0 V<br>25.000 A @ 208.0 V |
| <b>Design Code</b>                    | A                                                              |
| <b>Drip Cover</b>                     | No Drip Cover                                                  |
| <b>Duty Rating</b>                    | CONT                                                           |
| <b>Efficiency @ 100% Load</b>         | 91.0 %                                                         |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                      |
| <b>Feedback Device</b>                | ENCODER                                                        |
| <b>Front Shaft Indicator</b>          | None                                                           |
| <b>Heater Indicator</b>               | No Heater                                                      |
| <b>High Voltage Full Load Amps</b>    | 10.7 a                                                         |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | F          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 09T110     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 09WGX827   |
| <b>Layout</b>       | 09LYT110   |
| <b>Eff. date</b>    | 08-28-2025 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#12       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-13-2019 |

|                               |                            |
|-------------------------------|----------------------------|
| Insulation Class              | H                          |
| Inverter Code                 | Inverter Duty              |
| KVA Code                      | J                          |
| Lifting Lugs                  | Standard Lifting Lugs      |
| Locked Bearing Indicator      | Locked Bearing             |
| Max Speed                     | 5000 rpm                   |
| Motor Lead Quantity/Wire Size | 9 @ 12 AWG                 |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 0954M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 6                          |
| Overall Length                | 29.41 IN                   |
| Power Factor                  | 71                         |
| Product Family                | General Purpose            |
| Pulley End Bearing Type       | Ball                       |
| Pulley Face Code              | C-Face                     |
| Pulley Shaft Indicator        | Standard                   |
| Rodent Screen                 | None                       |
| RoHS Status                   | ROHS COMPLIANT             |
| Service Factor                | 1.00                       |
| Shaft Diameter                | 1.625 IN                   |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Shaft Slinger Indicator       | Shaft Slinger              |
| Speed                         | 1180 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       | ZDM2276T             |  |         |     |        |           |  |   |  |
| SPEC.        | 09T110X827Z1         |  |         |     |        |           |  |   |  |
| FRAME        | 254TC                |  |         | HP  | 7.5 TE |           |  |   |  |
| VOLTS        | 230/460              |  |         |     |        |           |  |   |  |
| MAG CUR      | 11/5.5               |  |         | FLA |        | 21.4/10.7 |  |   |  |
| RPM          | 1180                 |  | RPM MAX |     |        | 5000      |  |   |  |
| HZ           | 60                   |  | PH      | 3   |        | CLASS     |  | H |  |
| SER.F.       | 1.00                 |  | DES     | A   |        | SL HZ     |  | 1 |  |
| NEMA-NOM-EFF | 91                   |  | WK2     |     | 4.34   |           |  |   |  |
| BLWR V       | PH                   |  | HZ      |     | A      |           |  |   |  |
| RATING       | 40C AMB-CONT         |  |         |     |        |           |  |   |  |
| DE BRG       | 6309                 |  | ODE BRG |     |        | 6208      |  |   |  |
| CC           | 010A                 |  | SER.NO  |     |        |           |  |   |  |
|              | 1000:1 CT, 1000:1 VT |  |         |     |        |           |  |   |  |

|                                                                                    |  |                                                                                                                                                                                                |                                                                                                      |
|------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>BALDOR/460</b><br><b>RELIANCE</b><br>HP 7.5<br>BASE SPEED 1184<br>PHASE/HZ 3/60 |  | CUSTOMER INFORMATION PACKET<br>ZD M2276T - 54M 6P TEBC HOR 254TC 1 <sup>st</sup> STAT VECTOR<br>Base Volt 460<br>NL AMPS 5.84<br>Slip (HZ) 0.80<br>WK <sup>2</sup> (lb-ft <sup>2</sup> ) 4.340 | WYE CONNECT OHMS PER PHASE (BASE RATING, 20C)<br>R1 0.473 X1 2.600<br>R2 0.384 X2 2.660<br>XM 43.300 |
|------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|

### Rated Full Load Data

|              | RPM   | HP    | Torque | Volts | Freq-Hz | Amps |
|--------------|-------|-------|--------|-------|---------|------|
| Base Speed   | 1184  | 7.5   | 32.4   | 460   | 60      | 10.7 |
| Max Speed    | 1774  | 7.5   | 21.8   | 460   | 90      | 9.7  |
| CT Min Speed | 1.184 | 0.007 | 32.4   | 0.46  | 0.06    | 10.7 |

### Load Performance at Base Speed

|           | RPM  | HP   | Torque | Volts | Freq-Hz | Amps |
|-----------|------|------|--------|-------|---------|------|
| No Load   | 1199 | 0.0  | 0.0    | 460   | 60      | 5.8  |
| 1/4       | 1196 | 1.8  | 7.9    | 460   | 60      | 6.3  |
| 1/2       | 1192 | 3.7  | 16.4   | 460   | 60      | 7.5  |
| 3/4       | 1189 | 5.4  | 23.9   | 460   | 60      | 8.9  |
| Full Load | 1184 | 7.5  | 32.4   | 460   | 60      | 10.7 |
| O/L       | 1163 | 14.7 | 66.4   | 460   | 60      | 19.8 |

Remarks: Calculated Data

**BALDOR • RELIANCE**

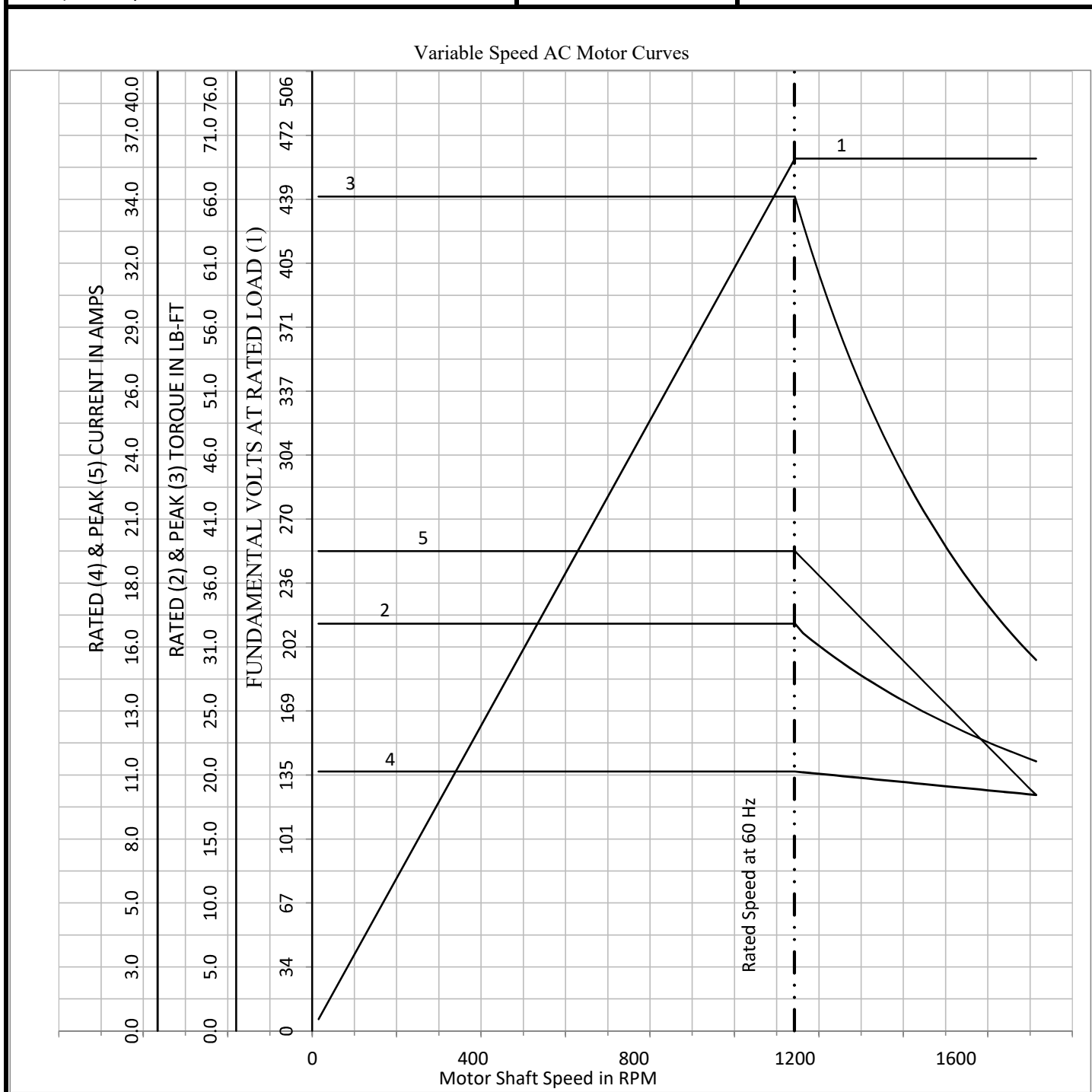
DR BY USBRRANI  
 CK BY CD  
 APP BY USBRRANI  
 DATE 7/21/2026

**A-C MOTOR  
 PERFORMANCE  
 CURVES**

**09WGX827**

Record: 20707

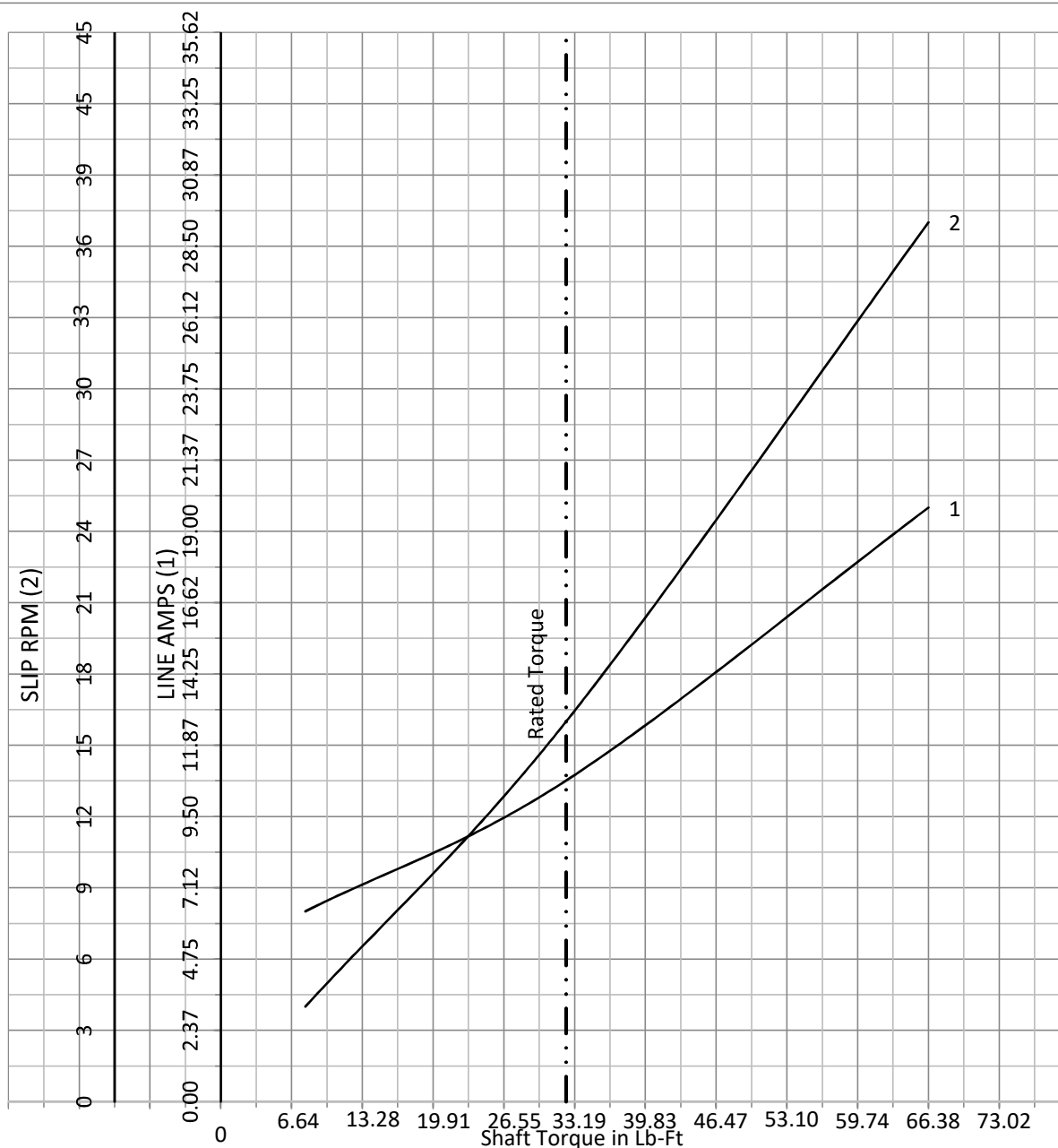
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|------------------------|------|---------------------------------------|-------|-----------------------------------------------|-------|---------------------------------------------------|--------|
| <b>BALDOR RELIANCE</b> |      | CUSTOMER INFORMATION PACKET           |       | M2276T - 54M 6P TEBC HOR 254TC T'STATS VECTOR |       | WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C) |        |
| HP                     | 7.5  | Base Volt                             | 460   | R1                                            | 0.473 | X1                                                | 2.600  |
| BASE SPEED             | 1184 | NL AMPS                               | 5.84  | R2                                            | 0.384 | X2                                                | 2.660  |
| PHASE/HZ               | 3/60 | Slip (HZ)                             | 0.80  |                                               |       | XM                                                | 43.300 |
|                        |      | WK <sup>2</sup> (lb-ft <sup>2</sup> ) | 4.340 |                                               |       |                                                   |        |



|                          |  |                                           |                                                                                         |
|--------------------------|--|-------------------------------------------|-----------------------------------------------------------------------------------------|
| Calculated Data          |  | Data Valid For Nameplate Speed Range only |                                                                                         |
| <b>BALDOR • RELIANCE</b> |  | DR BY <u>USBRRAN1</u>                     | <b>A-C MOTOR<br/>PERFORMANCE<br/>CURVES</b><br><br><b>09WGX827</b><br><br>Record: 20707 |
|                          |  | CK BY <u>CD</u>                           |                                                                                         |
|                          |  | APP BY <u>USBRRAN1</u>                    |                                                                                         |
|                          |  | DATE <u>7/21/2026</u>                     |                                                                                         |

|                          |      |                             |       |                                                  |       |                                                   |        |
|--------------------------|------|-----------------------------|-------|--------------------------------------------------|-------|---------------------------------------------------|--------|
| <b>BALDOR • RELIANCE</b> |      | CUSTOMER INFORMATION PACKET |       | ZDM2276T - 54M 6P TEB C HOR 254TC T'STATS VECTOR |       | WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C) |        |
| HP                       | 7.5  | Base Volt                   | 460   | R1                                               | 0.473 | X1                                                | 2.600  |
| BASE SPEED               | 1184 | NL AMPS                     | 5.84  | R2                                               | 0.384 | X2                                                | 2.660  |
| PHASE/HZ                 | 3/60 | Slip (HZ)                   | 0.80  |                                                  |       | XM                                                | 43.300 |
|                          |      | WK2 (lb-ft2)                | 4.340 |                                                  |       |                                                   |        |

Vector PWM Inverter Duty  
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

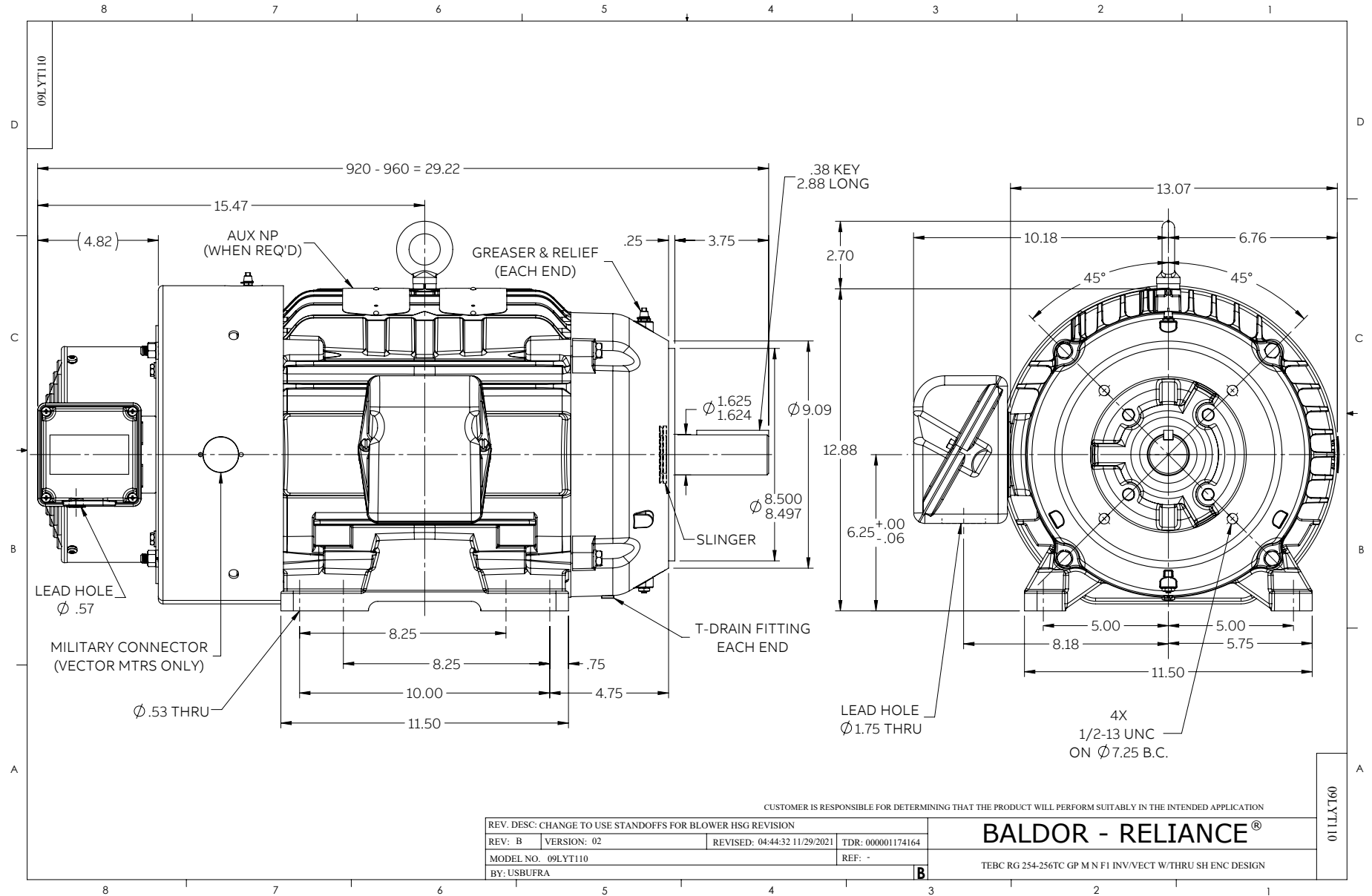
**BALDOR • RELIANCE**

DR BY USBRRANI  
CK BY CD  
APP BY USBRRANI  
DATE 7/21/2026

**A-C MOTOR  
PERFORMANCE  
CURVES**

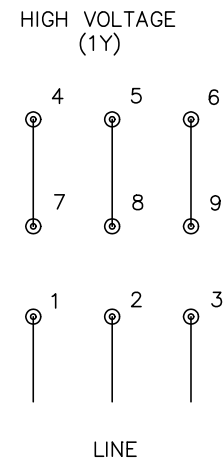
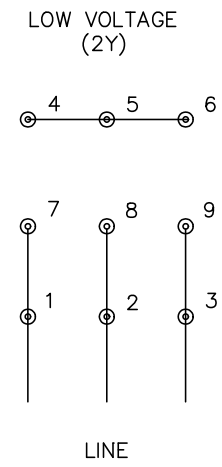
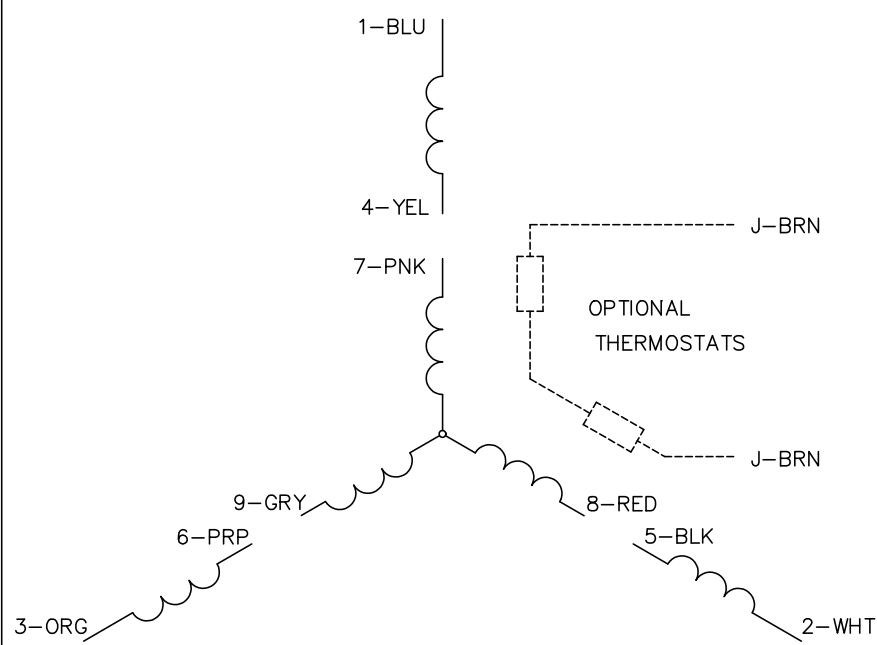
**09WGX827**

Record: 20707





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.

|                                           |         |                         |              |
|-------------------------------------------|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 900000                                    |         | FILE: AAA00005140       | MDL: -       |
|                                           |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005