

# ABB BALDOR RELIANCE III

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## Customer information packet

### ZDVSCP2333T

15HP, 1765RPM, 3PH, 60HZ, 254TC, 0944M, TEFC, F

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                                |
|--------------------------------|----------------------------------------------------------------|
| Enclosure                      | TEFC                                                           |
| 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<br>460.0 V @ 60 HZ                             |
| Agency Approvals               | CSA<br>UR                                                      |
| 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              | 18.100 A @ 460.0 V<br>36.200 A @ 230.0 V<br>38.000 A @ 208.0 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                | TACHOMETER                                                     |
| Front Shaft Indicator          | None                                                           |
| Heater Indicator               | No Heater                                                      |
| High Voltage Full Load Amps    | 18.1 a                                                         |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | F          |
| Type         | AC         |
| Mech. spec.  | 09K342     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 09WGT597   |
| Layout       | 09LYK342   |
| Eff. date    | 08-28-2025 |
| CD Diagram   | CD0005     |
| Poles        | 04         |
| Leads        | 9#12       |
| Proprietary  | False      |
| Created date | 02-02-2021 |

|                               |                              |
|-------------------------------|------------------------------|
| Insulation Class              | F                            |
| Inverter Code                 | Inverter Duty                |
| KVA Code                      | H                            |
| Lifting Lugs                  | Standard Lifting Lugs        |
| Locked Bearing Indicator      | Locked Bearing               |
| Max Speed                     | 2700 rpm                     |
| Motor Lead Quantity/Wire Size | 9 @ 12 AWG                   |
| Motor Lead Termination        | Flying Leads                 |
| Motor Standards               | NEMA                         |
| Motor Type                    | 0944M                        |
| Mounting Arrangement          | F1                           |
| Number of Poles               | 4                            |
| Overall Length                | 28.14 IN                     |
| Power Factor                  | 84                           |
| Product Family                | Chemical Processing (Not DC) |
| Pulley End Bearing Type       | Ball                         |
| Pulley Face Code              | C-Face                       |
| Pulley Shaft Indicator        | Standard                     |
| 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                   |
| 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**

| NP3303L      |                      |         |      |         |       |           |  |  |  |
|--------------|----------------------|---------|------|---------|-------|-----------|--|--|--|
| CAT NO       | ZDVSCP2333T          |         |      |         |       |           |  |  |  |
| SPEC.        | 09K342T597Z1         |         |      |         |       |           |  |  |  |
| FRAME        | 254TC                |         |      | HP      | 15 TE |           |  |  |  |
| VOLTS        | 230/460              |         |      |         |       |           |  |  |  |
| MAG CUR      | 14.6/7.3             |         |      |         | FLA   | 36.2/18.1 |  |  |  |
| RPM          | 1765                 |         |      | RPM MAX | 2700  |           |  |  |  |
| HZ           | 60                   | PH      | 3    | CLASS   | F     |           |  |  |  |
| SER.F.       | 1.00                 |         |      | SL HZ   | 1.2   |           |  |  |  |
| NEMA-NOM-EFF | 92.4                 | WK2     | 1.93 |         |       |           |  |  |  |
| RATING       | 40C AMB-CONT         |         |      |         |       |           |  |  |  |
| DE BRG       | 6309                 | ODE BRG | 6309 |         |       |           |  |  |  |
| CC           | 010A                 | SN      |      |         |       |           |  |  |  |
|              | 1.5:1 CHP PWM        |         |      |         |       |           |  |  |  |
|              | 1000:1 CT, 1000:1 VT |         |      |         |       |           |  |  |  |

| NP0090L        |            |
|----------------|------------|
| FRONT          | 6309       |
| PULLEY         | 6309       |
| LUBRICATE WITH |            |
| GREASE         | POLYREX EM |

**Parts List**

| Part number  | Description                              | Quantity |
|--------------|------------------------------------------|----------|
| SA390525     | SA 09K342T597Z1                          | 1.000 ea |
| RA380977     | RA 09K342T597Z1                          | 1.000 ea |
| 09CB1002A12P | KOBX W/1.25 NPT LEAD HOLE & 2.38 MTG HOL | 1.000 ea |
| 09GS1010     | GASKET, DWG, LEADWIRE SEPERATOR          | 1.000 ea |
| 51XW2520A12  | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 ea |
| WD1000B16    | T&B CX70TN OR L70P TERMINAL LUG          | 1.000 ea |
| 10XN2520K08  | 1/4-20 X .50 GRADE #5, STL, ZINC PLATE   | 1.000 ea |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 1.000 ea |
| HW4600B67    | V-RING SLINGER 1.770 X 2.170 X .28 VITON | 1.000 ea |
| HA3400A39    | STUD- 3/8-16 X 6.44 OAL HEX              | 4.000 ea |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HW4500A20    | 1/8NPT SL PIPE PLUG                      | 1.000 ea |
| HA4017A08    | .125 X 3.50 LGTH GREASER EXTEN.          | 1.000 ea |
| HA4017A02    | .125X2.50 GREASER EXTENS.F/S             | 1.000 ea |
| HW4019A01    | PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING | 1.000 ea |
| HW5100A11    | W3917-042 WVY WSHR (WB)                  | 1.000 ea |
| 10XN2520K36  | 1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P | 4.000 ea |
| 09EP1318A02P | ENDPLATE, MACH EPOXY PRIMER              | 1.000 ea |
| 10XN3816K24  | 3/8-16 X 1.50 HEX HD CAP SCREW, GRADE 5  | 4.000 ea |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HW4600B44    | V-RING SLINGER 1.500 X 1.810 X .28 VITON | 1.000 ea |
| HW4500A20    | 1/8NPT SL PIPE PLUG                      | 1.000 ea |
| 10XN2520K36  | 1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P | 4.000 ea |
| 611712073A   | TACH 210                                 | 1.000 ea |
| 10XN2520K12  | 1/4-20 X.75 GRD 5                        | 1.000 ea |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 1.000 ea |
| 10XN1032K12  | 10-32 X .75 HD, GRADE 5                  | 2.000 ea |
| HW1001A10    | WASHER, #10 SPLT LK, ZN X                | 2.000 ea |
| HW1000A10    | #10 FLAT WASHER (SAE)                    | 2.000 ea |
| 09FH1000A38P | FAN COVER, MACH W/EPOXY PRIMER           | 1.000 ea |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |

|                |                                          |          |
|----------------|------------------------------------------|----------|
| XY3816A12      | 3/8-16 FINISHED NUT W/SERRATIONS         | 4.000 ea |
| 12CB1503P      | CONDUIT BOX LID, CAST W/EPOXY PRIMER     | 1.000 ea |
| 12GS1002       | GASKET, CONDUIT BOX LID, NEOP            | 1.000 ea |
| 10XN3118K16    | 5/16-18 X 1' GRADE #5, STL, ZINC PLATE   | 2.000 ea |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 2.000 ea |
| HW2501G25      | KEY, 3/8 SQ X 2.875                      | 1.000 ea |
| MJ5001A27      | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.031 qt |
| MJ5002A01      | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 0.023 ea |
| LB1002N        | LABEL,MARINE DUTY (ON ROLLS)             | 1.000 ea |
| MJ5002A01      | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 0.025 ea |
| 09EP1118A37LP5 | FREP MACH, 309 BRG. EPOXY PRIMER         | 1.000 ea |
| HW4500A17      | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HW4500A05      | 1669B ALEM/UNIV860 GR FTG X              | 1.000 ea |
| HA4054         | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| HA4051A00      | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| 37FN3002B02    | EXFN, PLASTIC, 7.50 OD, 1.503 ID         | 1.000 ea |
| MJ1000A02      | GREASE, POLYREX EM EXXON                 | 0.080 lb |
| HW4500A03      | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 ea |
| HW4500A17      | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HA4054         | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| HA4051A00      | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW2500A25      | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| MG1025N19      | WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8  | 0.050 ga |
| 85XU0407S04    | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 ea |
| LB1624         | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LC0145B01      | CONNECTION LABEL                         | 1.000 ea |
| NP3303L        | SS VEC UL CSA CC (W/OUT DESIGN FIELD)    | 1.000 ea |
| NP0090L        | NP BRG INFO LASER ETCHED                 | 1.000 ea |
| 40PA1005       | PACKAGING GROUP, 09 STD                  | 1.000 ea |
| LD7020D09      | LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS  | 1.000 ea |
| MN416A01       | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |

|            |           |                                       |      |                                                   |       |    |        |
|------------|-----------|---------------------------------------|------|---------------------------------------------------|-------|----|--------|
| NP VOLTS   | 230/460   | MAX SAFE RPM                          | 2700 | WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C) |       |    |        |
| NP AMPS    | 36.2/18.1 | Base Volt                             | 460  | R1                                                | 0.296 | X1 | 1.130  |
| HP         | 15HP      | NL AMPS                               | 7.6  | R2                                                | 0.238 | X2 | 1.330  |
| BASE SPEED | 1765      | Slips                                 | 1.17 |                                                   |       | XM | 33.900 |
| PHASE/HZ   | 3/60      | WK <sup>2</sup> (lb-ft <sup>2</sup> ) | 1.92 |                                                   |       |    |        |

### Rated Full Load Data

|            | RPM  | HP   | Torque | Volts | Freq-Hz | Amps |
|------------|------|------|--------|-------|---------|------|
| Base Speed | 1765 | 15.0 | 44.5   | 460   | 60      | 18.1 |
| Max Speed  | 2646 | 15.0 | 29.7   | 460   | 90      | 17.2 |
| Min Speed  | 0    | 0.0  | 44.5   | 23.08 | 1.17    | 18.1 |

### Load Performance at Base Speed

|           | RPM  | HP   | Torque | Volts | Freq-Hz | Amps |
|-----------|------|------|--------|-------|---------|------|
| No Load   | 1799 | 0.0  | 0.0    | 460   | 60      | 7.6  |
| 1/4       | 1791 | 3.7  | 10.8   | 460   | 60      | 8.6  |
| 1/2       | 1783 | 7.5  | 22.1   | 460   | 60      | 11.0 |
| 3/4       | 1774 | 11.3 | 33.3   | 460   | 60      | 14.5 |
| Full Load | 1765 | 15.0 | 44.5   | 460   | 60      | 18.1 |
| O/L       | 1730 | 29.9 | 90.8   | 460   | 60      | 36.1 |

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

Remarks: Calculated Data  
Vector PWM Inverter Duty

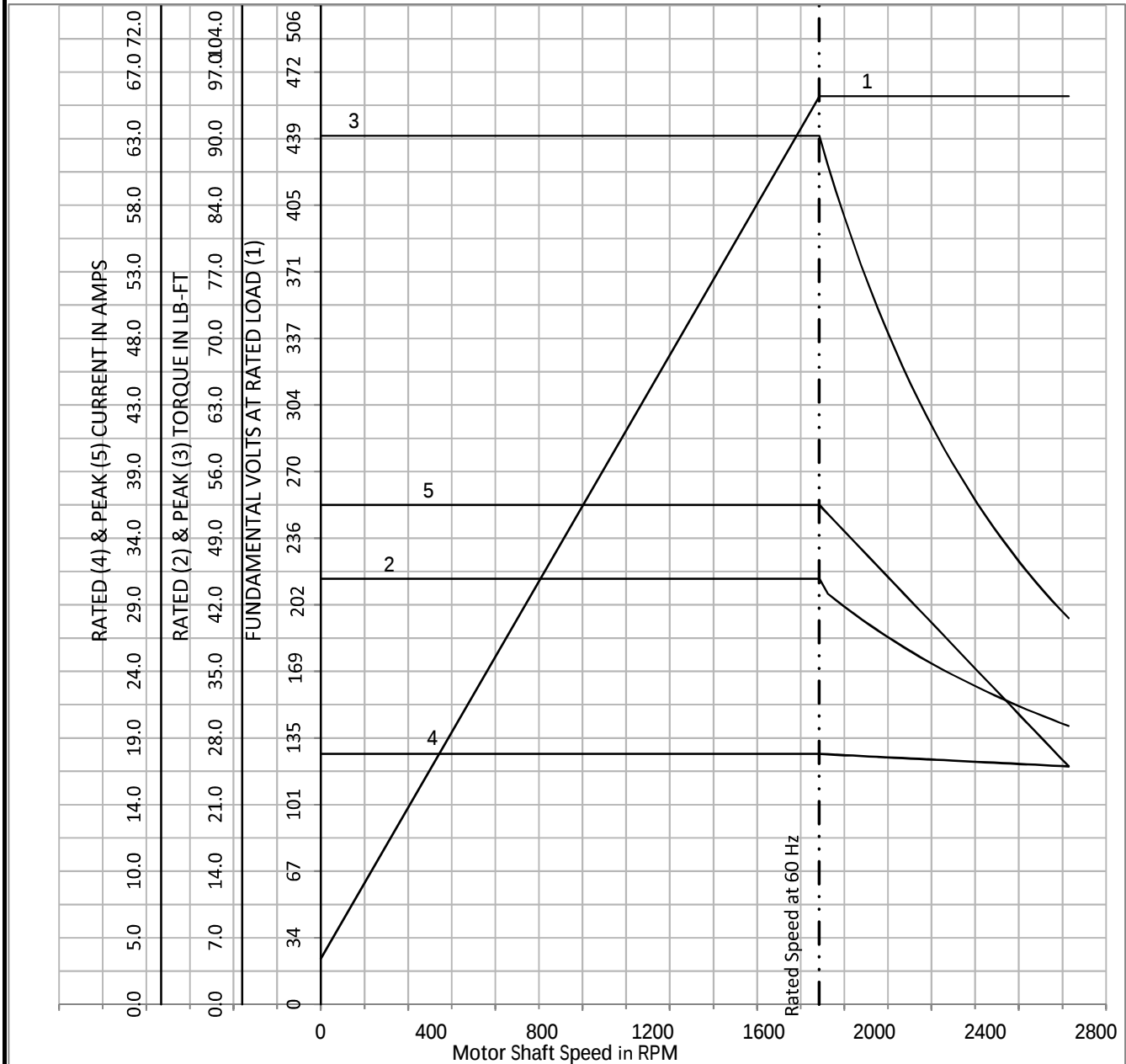
**BALDOR**  
A MEMBER OF THE ABB GROUP

DR BY BR  
CK BY  
APP BY BR  
DATE 10/31/2024

A-C MOTOR **09WGT597**  
PERFORMANCE  
CURVES

|            |           |              |             |                                                   |       |    |         |
|------------|-----------|--------------|-------------|---------------------------------------------------|-------|----|---------|
| NP VOLTS   | 230/460   | MAX SAFE RPM | 2700        | WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C) |       |    |         |
| NP AMPS    | 36.2/18.1 | Base Volt    | 460         | R1                                                | 0.296 | X1 | 1.13    |
| HP         | 15HP      | NL AMPS      | 7.56        | R2                                                | 0.238 | X2 | 1.33    |
| BASE SPEED | 1765      | Slips        | 1.166666667 |                                                   |       | XM | 33.9000 |
| PHASE/HZ   | 3/60      | WK2 (lb-ft2) | 1.92        |                                                   |       |    |         |

Vector PWM Inverter Duty  
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

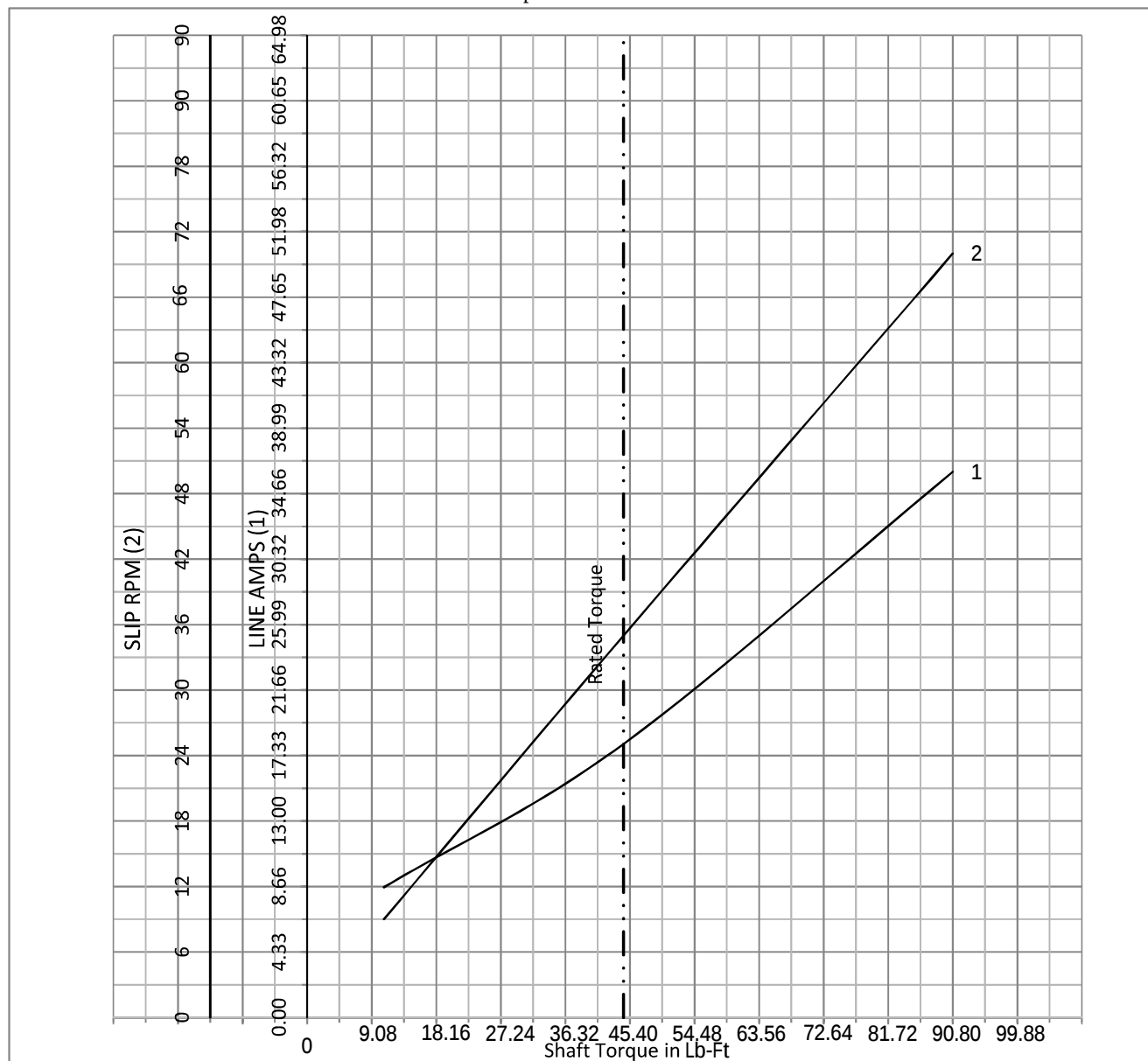


DR BY BR  
 CK BY  
 APP BY BR  
 DATE 10/31/2024

A-C MOTOR **09WGT597**  
 PERFORMANCE  
 CURVES

|            |           |              |             |                                                   |       |    |      |
|------------|-----------|--------------|-------------|---------------------------------------------------|-------|----|------|
| NP VOLTS   | 230/460   | MAX SAFE RPM | 2700        | WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C) |       |    |      |
| NP AMPS    | 36.2/18.1 | Base Volt    | 460         | R1                                                | 0.296 | X1 | 1.13 |
| HP         | 15HP      | NL AMPS      | 7.56        | R2                                                | 0.238 | X2 | 1.33 |
| BASE SPEED | 1765      | Slips        | 1.166666667 |                                                   |       | XM | 33.9 |
| PHASE/HZ   | 3/60      | WK2 (lb-ft2) | 1.92        |                                                   |       |    |      |

Vector PWM Inverer Duty  
Vaiaable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

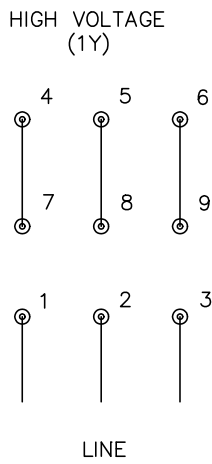
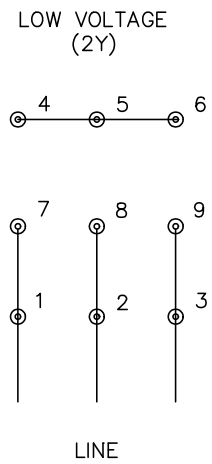
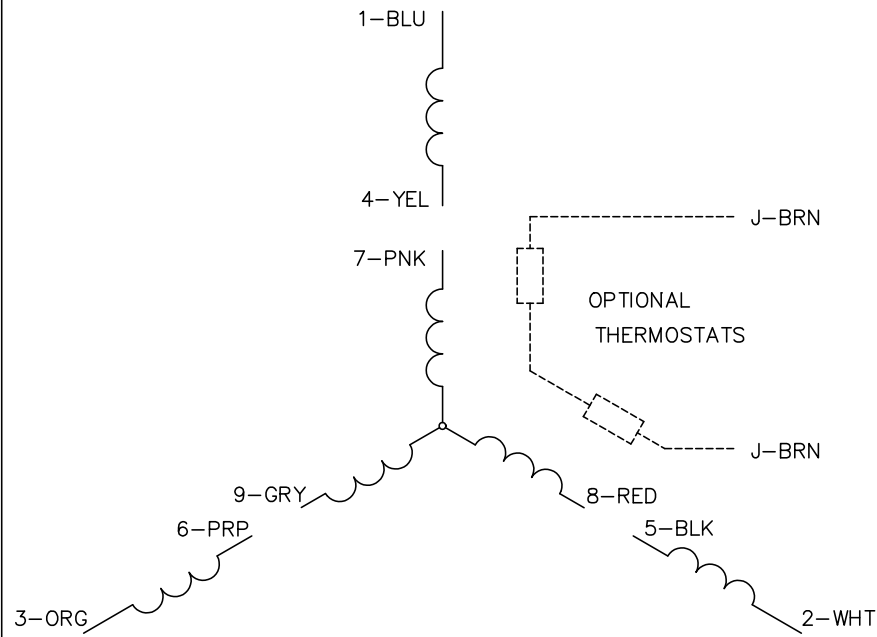


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 CK BY  
 APP BY BR  
 DATE 10/31/2024

A-C MOTOR **09WGT597**  
 PERFORMANCE  
 CURVES



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 |
| S00000                                    |         | FILE: AAA00005140       | MDL: -       |
|                                           |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005