

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **EM2334T**

**20HP,1765RPM,3PH,60HZ,256T,0952M,TEFC,F1**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | AR   | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 0952M | Elec. Spec: | 09WGY583 | CD Diagram:   | CD0005     |
| Enclosure:  | TEFC | Mfg Plant:     |       | Mech. Spec: | 09P11    | Layout:       | 09LYP011   |
| Frame:      | 256T | Mounting:      | F1    | Poles:      | 04       | Created Date: |            |
| Base:       | RG   | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 01-26-2017 |
| Leads:      | 9#10 |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

## Nameplate NP3441LUA

|              |              |  |  |      |                |     |      |    |   |    |  |    |    |   |
|--------------|--------------|--|--|------|----------------|-----|------|----|---|----|--|----|----|---|
| CAT.NO.      | EM2334T      |  |  |      |                |     |      |    |   |    |  |    |    |   |
| SPEC.        | 09P011Y583G1 |  |  |      |                |     |      |    |   |    |  |    |    |   |
| HP           | 20           |  |  |      |                |     |      |    |   |    |  |    |    |   |
| VOLTS        | 230/460      |  |  |      |                |     |      |    |   |    |  |    |    |   |
| AMP          | 48/24        |  |  |      |                |     |      |    |   |    |  |    |    |   |
| RPM          | 1765         |  |  |      |                |     |      |    |   |    |  |    |    |   |
| FRAME        | 256T         |  |  |      |                | HZ  |      | 60 |   |    |  |    | PH | 3 |
| SER.F.       | 1.15         |  |  | CODE | H              | DES |      |    | A | CL |  |    | F  |   |
| NEMA-NOM-EFF | 93           |  |  |      | PF             | 84  |      |    |   |    |  |    |    |   |
| RATING       | 40C AMB-CONT |  |  |      |                |     |      |    |   |    |  |    |    |   |
| CC           | 010A         |  |  |      | USABLE AT 208V |     |      |    |   |    |  | 51 |    |   |
| DE           | 6309         |  |  |      | ODE            |     | 6208 |    |   |    |  |    |    |   |
| ENCL         | TEFC         |  |  | SN   |                |     |      |    |   |    |  |    |    |   |

 VPWM INVERTER READY  
 CT6-60H(10:1)VT3-60H(20:1)

50Hz 20HP 190/380V 56/28A

SF1.0

| Parts List   |                                          |          |
|--------------|------------------------------------------|----------|
| Part Number  | Description                              | Quantity |
| SA089508     | SA 09P011Y583G1                          | 1.000 EA |
| RA082333     | RA 09P011Y583G1                          | 1.000 EA |
| 09CB3002     | CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30 | 1.000 EA |
| 09GS1000     | GASKET-CONDUIT BOX, 1/16 THICK LEXIDE    | 1.000 EA |
| 10XN2520K12  | 1/4-20 X.75 GRD 5                        | 2.000 EA |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| 09PE1101A136 | PUEP ASSEMBLY, 09EP1101A136              | 1.000 EA |
| HW4600B44    | V-RING SLINGER 1.500 X 1.810 X .28 VITON | 1.000 EA |
| WD1000B17    | T&B CX35TN TERMINAL                      | 1.000 EA |
| 11XW1032G06  | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| 09FE1100A194 | FREP 09EP1100A194 FOR PLANT ROUTING      | 1.000 EA |
| XY3816A12    | 3/8-16 FINISHED NUT                      | 4.000 EA |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HW5100A08    | W3118-035 WVY WSHR (WB)                  | 1.000 EA |
| 10XN2520K28  | 1/4-20 X 1.75" HX HD SCRWGRADE 5, ZINC P | 2.000 EA |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| 10XN2520K36  | 1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P | 4.000 EA |
| HA3113A02    | THRUBOLT 3/8-16 X 16.750                 | 4.000 EA |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| 09FH4000SP   | FAN COVER, STAMPED                       | 1.000 EA |
| HA2081A05    | SPACER TUBE, 309 FAN HSG, 2.00 LONG      | 4.000 EA |
| XY3816A12    | 3/8-16 FINISHED NUT                      | 4.000 EA |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |

| Parts List (continued) |                                          |          |
|------------------------|------------------------------------------|----------|
| Part Number            | Description                              | Quantity |
| 09CB3501               | CONDUIT BOX LID FOR 09CB3001 & 09CB3002  | 1.000 EA |
| 09GS1013               | 09 GS FOR 09CB3501 LID - LEXIDE          | 1.000 EA |
| 51XW2520A12            | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 EA |
| HW2501G25              | KEY, 3/8 SQ X 2.875                      | 1.000 EA |
| LB1115N                | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW4500A03              | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4066A01              | PUSH IN T-DRAIN FITTING (BLACK)          | 1.000 EA |
| HW2500A25              | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 EA |
| 51XB1214A20            | 12-14X1.25 HXWSSLD SERTYB                | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4066A01              | PUSH IN T-DRAIN FITTING (BLACK)          | 1.000 EA |
| HW4500A05              | 1669B ALEM/UNIV860 GR FTG X              | 1.000 EA |
| MJ1000A02              | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.080 LB |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| 09FN3001D01            | EXTERNAL FAN, PLASTIC                    | 1.000 EA |
| MG1000Y03              | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.050 GA |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 EA |
| LB1119N                | WARNING LABEL                            | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (1000/bx) 11/14 | 1.000 EA |
| HW1002A63              | WASHER, 5/8 HI-COLLAR SPRLCKWASHER       | 1.000 EA |
| LC0005                 | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 EA |
| NP3441LUA              | ALUM SUPER-E VPWM INV READY UL           | 1.000 EA |

|          |                                |          |
|----------|--------------------------------|----------|
| 09PA1000 | PACKAGING GROUP COMBINED PRINT | 1.000 EA |
|----------|--------------------------------|----------|

| Accessories |             |            |
|-------------|-------------|------------|
| Part Number | Description | Multiplier |
| 09-1309     | C FACE KIT  | A8         |

**AC Induction Motor Performance Data**

Record # 2056 - Typical performance - not guaranteed values

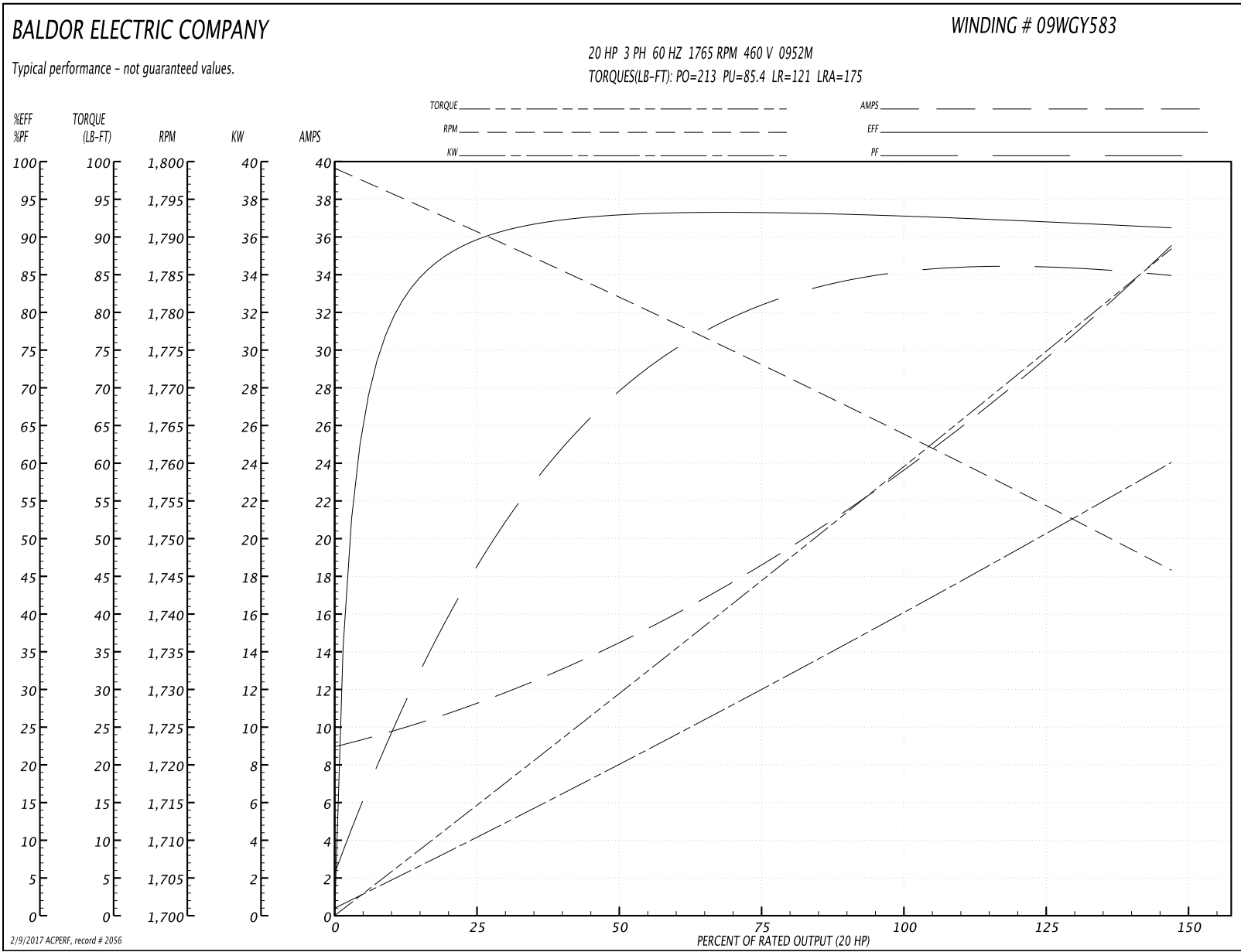
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 09WGY583-R001 | <b>Type:</b> 0952M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                         |
|-----------------------|--------------|--------------|----|------------------------------------------|-------------------------|
| Rated Output (HP)     | 20           |              |    | Full Load Torque                         | 59 LB-FT                |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line          |
| Full Load Amps        | 48/24        |              |    | Breakdown Torque                         | 213 LB-FT               |
| R.P.M.                | 1765         |              |    | Pull-up Torque                           | 85.4 LB-FT              |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 121 LB-FT               |
| NEMA Design Code      | A            | KVA Code     | H  | Starting Current                         | 175 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 9.41 A                  |
| NEMA Nom. Eff.        | 93           | Power Factor | 84 | Line-line Res. @ 25°C                    | 0.426 Ω                 |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 60°C                    |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 74°C                    |
|                       |              |              |    | Locked-rotor Power Factor                | 32.9                    |
|                       |              |              |    | Rotor inertia                            | 2.27 LB-FT <sup>2</sup> |

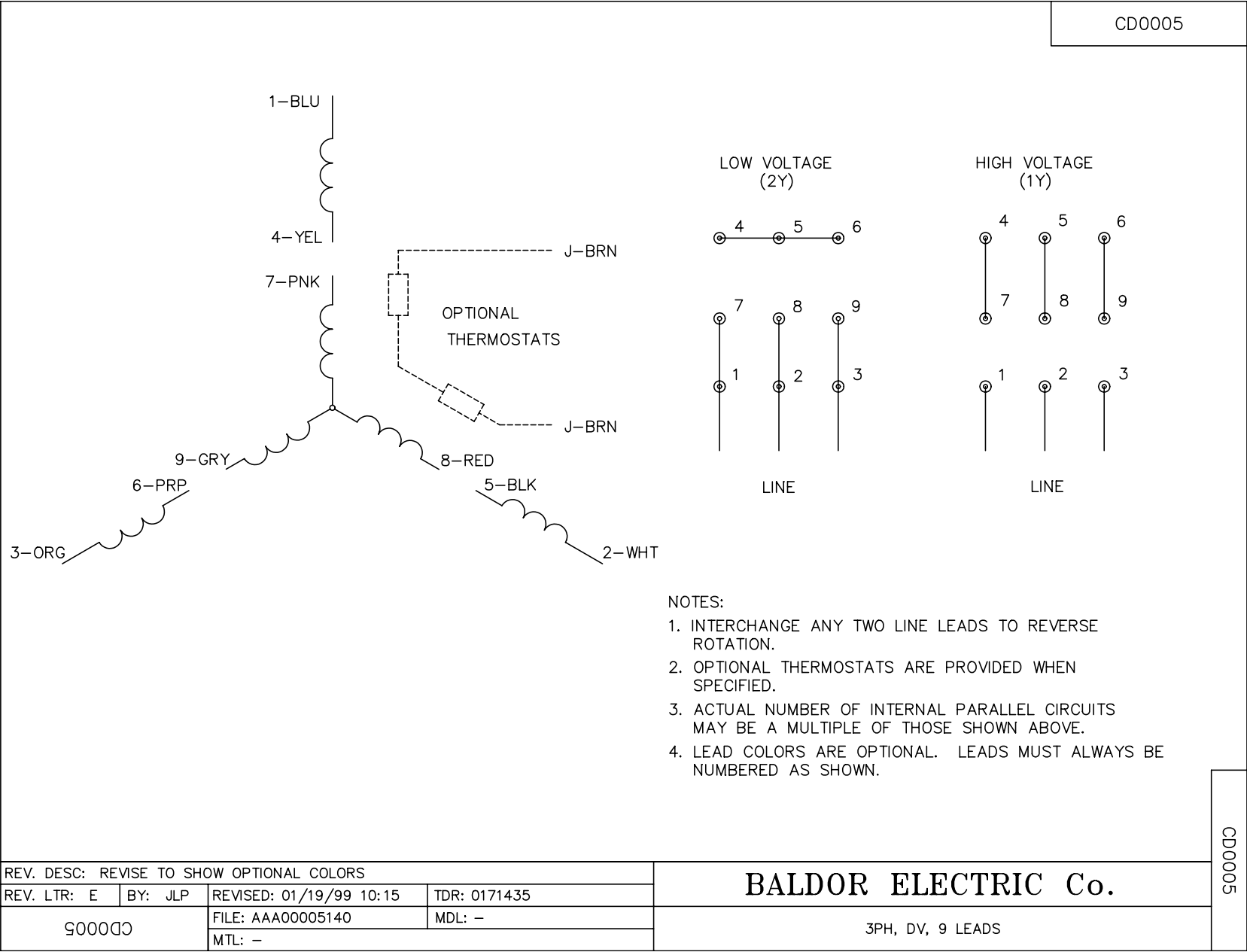
**Load Characteristics 460 V, 60 Hz, 20 HP**

|                 |      |      |      |      |      |      |       |
|-----------------|------|------|------|------|------|------|-------|
| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F.  |
| Power Factor    | 46   | 69   | 80   | 84   | 86   | 87   | 85    |
| Efficiency      | 89   | 92.8 | 93.1 | 93   | 92.2 | 91.1 | 92.5  |
| Speed           | 1791 | 1783 | 1770 | 1766 | 1756 | 1745 | 1760  |
| Line amperes    | 10.7 | 14   | 19.1 | 23.7 | 29.1 | 35.4 | 26.94 |

Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values







Marketing maintained PDF of MN416:

<http://www.baldor.com/support/Literature/Load.ashx/MN416?ManNumber=MN416>