

# **BALDOR**® • ***RELIANCE***

## **Product Information Packet**

# **EM2531T-8**

**25HP, 1770RPM, 3PH, 60HZ, 284T, 4050M, OPSB, F1**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | E    | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 4050M | Elec. Spec: | 40WGX796 | CD Diagram:   | CD0695     |
| Enclosure:  | OPSB | Mfg Plant:     |       | Mech. Spec: | 40G48    | Layout:       | 40LYG048   |
| Frame:      | 284T | Mounting:      | F1    | Poles:      | 04       | Created Date: | 01-22-2013 |
| Base:       | RG   | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 10-08-2014 |
| Leads:      | 6#8  |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

| Nameplate NP2138L |              |                |            |                         |      |        |      |
|-------------------|--------------|----------------|------------|-------------------------|------|--------|------|
| CAT.NO.           | EM2531T-8    | P/N            |            | ENCLOSURE               | OPSB |        |      |
| SPEC.             | 40G048X796   | CC             | 010A       | FRAME                   | 284T | S/N    |      |
| HP                | 25           | CLASS          | F          | HZ                      | 60   |        |      |
| RPM               | 1770         | PH             | 3          | DES                     | B    |        |      |
| VOLT              | 200          | KVA-CODE       | G          | ODE BRG                 | 6309 | DE BRG | 6311 |
| AMP               | 70           | USABLE AT 208V |            |                         |      |        |      |
| RATING            | 40C AMB-CONT | GREASE         | POLYREX EM |                         |      |        |      |
| NEMA-NOM-EFF      | 93.6         | PF             | 82         | SER.F.                  | 1.15 |        |      |
|                   |              |                |            |                         |      |        |      |
| HTR-VOLTS         |              | HTR-AMPS       |            | MAX. SPACE HEATER TEMP. |      |        |      |

| Parts List     |  |          |
|----------------|--|----------|
| Part Number    | Description                              | Quantity |
| SA257341       | SA 40G048X796                            | 1.000 EA |
| RA244127       | RA 40G048X796                            | 1.000 EA |
| S/P107-000-004 | SUPER-E(284 FR. & UP)-CL PLANT,POLYREX E | 1.000 EA |
| HA6361A01      | LIFTING LUG FOR 37, 39 & 40 FRAME ZINC   | 2.000 EA |
| HA6017         | CAST ADAPTER, 40,42 KOBX                 | 1.000 EA |
| 19XW3118A12    | .31-18 X .75 HEX WASHER HEAD TAPTITE II  | 2.000 EA |
| HW1001A31      | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 2.000 EA |
| 10CB3000SP     | STD KO BOX MODEL 310,312,314 MTRS W/2.00 | 1.000 EA |
| 19XW3118A12    | .31-18 X .75 HEX WASHER HEAD TAPTITE II  | 4.000 EA |
| WD1000B16      | T&B CX70TN TERMINAL                      | 1.000 EA |
| 51XF2520A08    | SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L | 1.000 EA |
| 40EP3200A02    | STD FREP OPEN 309 BRG                    | 1.000 EA |
| HW5100A11      | W3917-042 WVY WSHR (WB)                  | 1.000 EA |
| 40EP3200B05    | STD PUEP OPEN 311 BRG                    | 1.000 EA |
| XY3816A12      | 3/8-16 FINISHED NUT                      | 8.000 EA |
| 10CB3500       | CONDUIT BOX LID, CAST                    | 1.000 EA |
| 51XW2520A12    | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 EA |
| HW2501H28      | KEY, 1/2 SQ X 3.250                      | 1.000 EA |
| LB1115N        | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| MN416A01       | TAG-INSTAL-MAINT no wire (1200/bx) 11/14 | 1.000 EA |
| HW4500A03      | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20      | 1/8NPT SL PIPE PLUG                      | 1.000 EA |
| HA4051A00      | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| MJ1000A75      | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.050 LB |

| <b>Parts List (continued)</b> |  |                 |
|-------------------------------|--|-----------------|
| <b>Part Number</b>            | <b>Description</b>                       | <b>Quantity</b> |
| HW4500A03                     | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA        |
| HW4500A20                     | 1/8NPT SL PIPE PLUG                      | 1.000 EA        |
| HA4051A00                     | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA        |
| MG1000Y03                     | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.070 GA        |
| 85XU0407S04                   | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 EA        |
| 40AD2002A01                   | LEXAN BAFFLE 40 FR OPEN                  | 1.000 EA        |
| 40AD2002A01                   | LEXAN BAFFLE 40 FR OPEN                  | 1.000 EA        |
| HA3154A04                     | THRUBOLT STUD 3/8-16 X 18.750            | 4.000 EA        |
| LB1119N                       | WARNING LABEL                            | 1.000 EA        |
| LC0695                        | CONNECTION LABEL                         | 1.000 EA        |
| NP2138L                       | ALUM SUPER-E UL CSA-EEV PREM CC (300     | 1.000 EA        |
| 40PA1000                      | PACKAGING GROUP                          | 1.000 EA        |

| <b>Accessories</b> |                    |                   |
|--------------------|--------------------|-------------------|
| <b>Part Number</b> | <b>Description</b> | <b>Multiplier</b> |
| 40-1400            | C FACE KIT         | A8                |

**AC Induction Motor Performance Data**

Record # 41057 - Typical performance - not guaranteed values

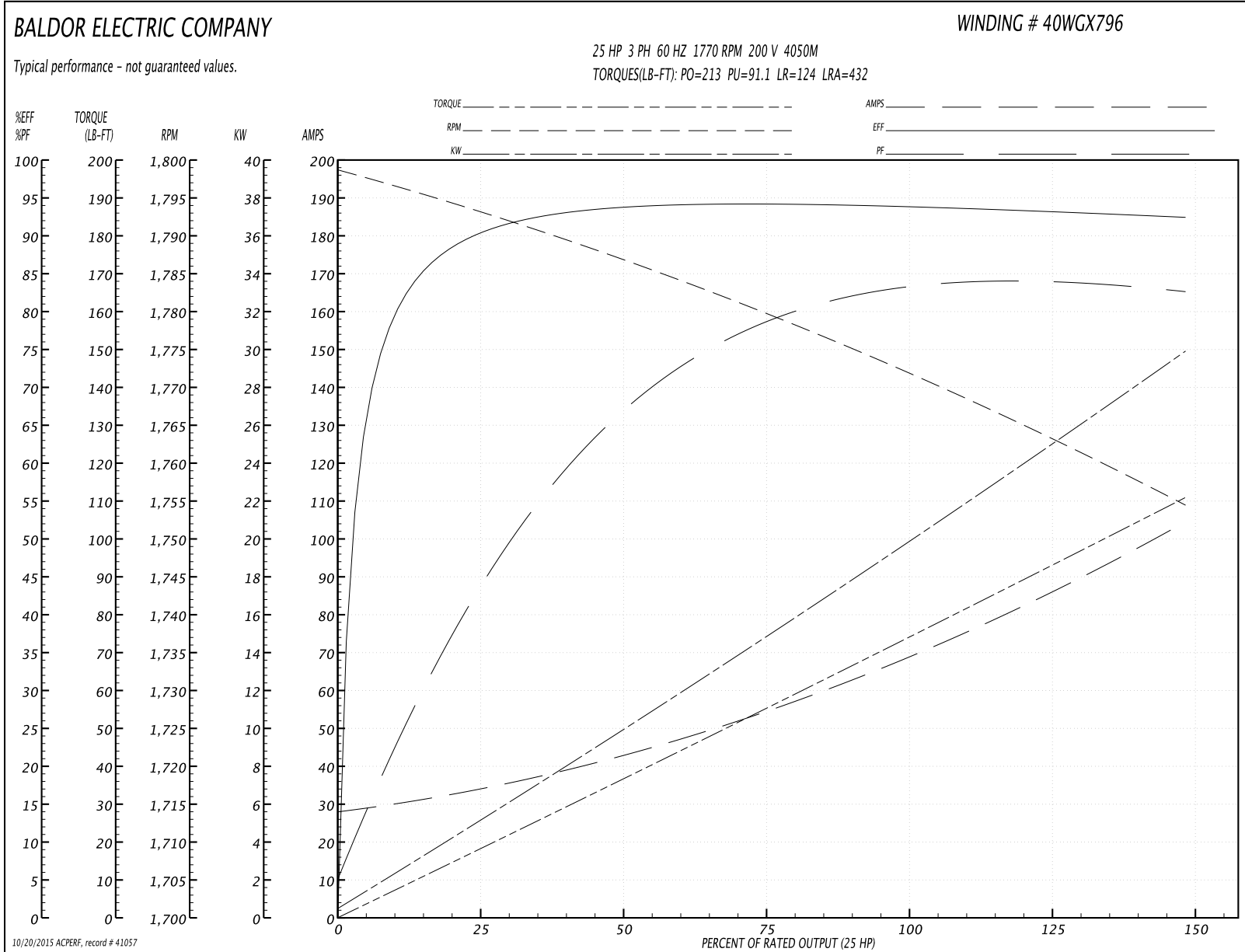
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 40WGX796-R001 | <b>Type:</b> 4050M | <b>Enclosure:</b> OPSB |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 200 V, 60 Hz:<br>Single Voltage Motor |                         |
|-----------------------|--------------|--------------|----|---------------------------------------|-------------------------|
| Rated Output (HP)     | 25           |              |    | Full Load Torque                      | 74.1 LB-FT              |
| Volts                 | 200          |              |    | Start Configuration                   | direct on line          |
| Full Load Amps        | 70           |              |    | Breakdown Torque                      | 213 LB-FT               |
| R.P.M.                | 1770         |              |    | Pull-up Torque                        | 91.1 LB-FT              |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                   | 124 LB-FT               |
| NEMA Design Code      | B            | KVA Code     | G  | Starting Current                      | 432 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                       | 29 A                    |
| NEMA Nom. Eff.        | 93.6         | Power Factor | 82 | Line-line Res. @ 25°C                 | 0.0619 Ω                |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load               | 33°C                    |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                | 40°C                    |
|                       |              |              |    | Rotor inertia                         | 3.96 LB-FT <sup>2</sup> |

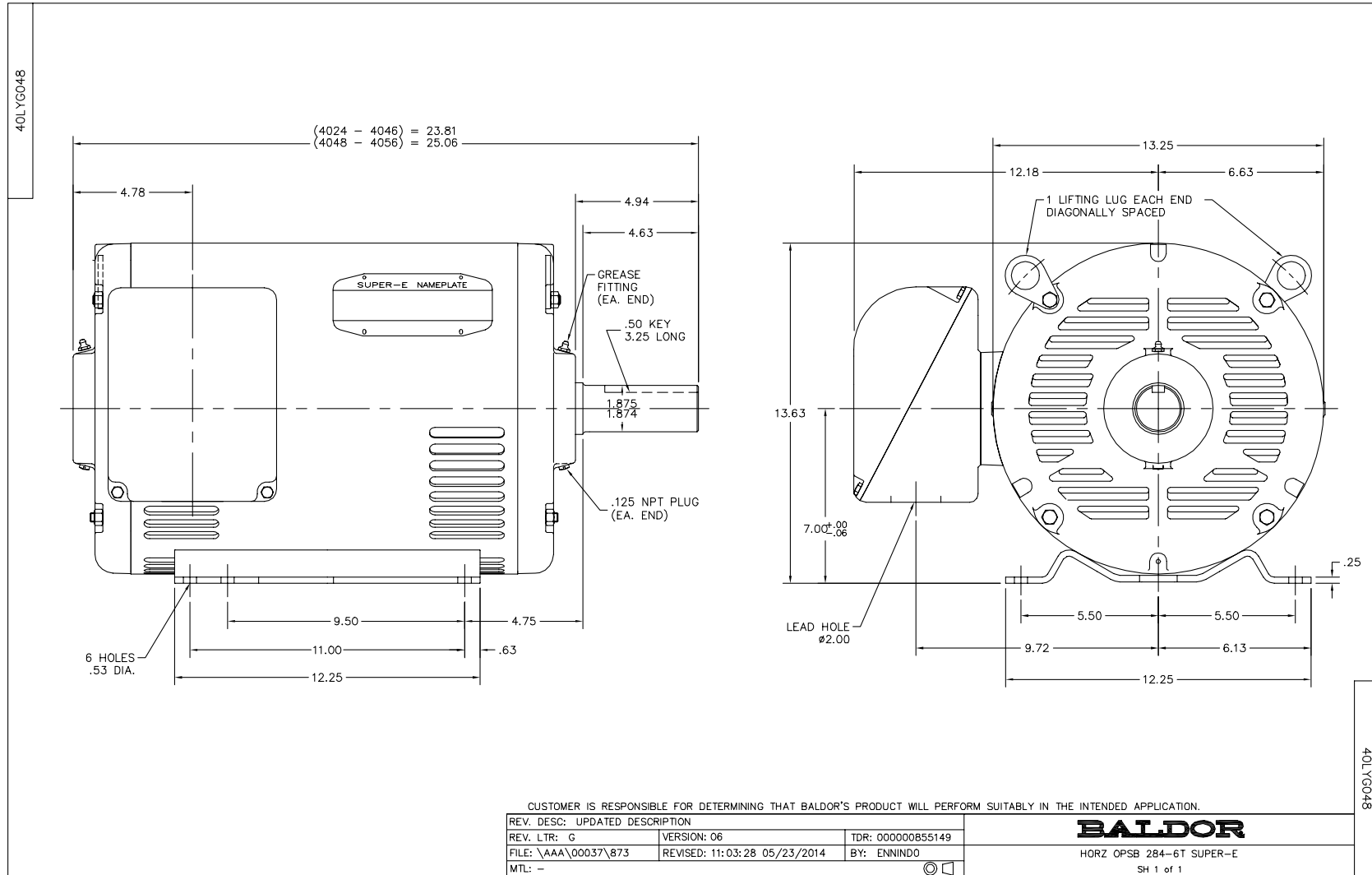
Load Characteristics 200 V, 60 Hz, 25 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 46   | 68   | 78   | 82   | 84   | 83   | 83   |
| Efficiency      | 89.6 | 93   | 93.8 | 93.6 | 93.1 | 92.3 | 93.3 |
| Speed           | 1793 | 1786 | 1780 | 1772 | 1764 | 1754 | 1767 |
| Line amperes    | 32.7 | 42.4 | 55   | 69.9 | 85.7 | 104  | 79.4 |

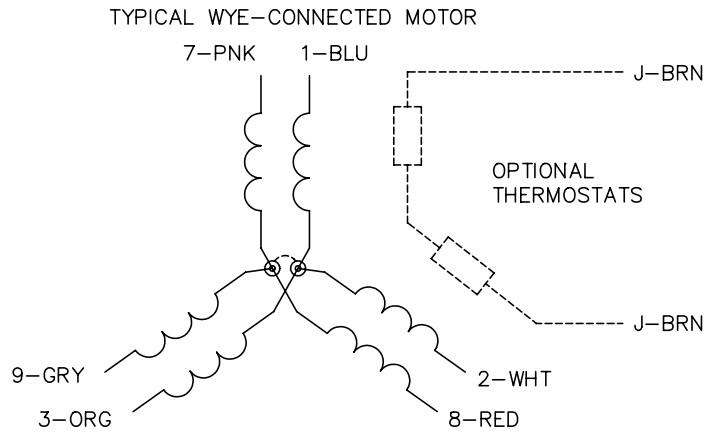
Performance Graph at 200V, 60Hz, 25.0HP Typical performance - Not guaranteed values



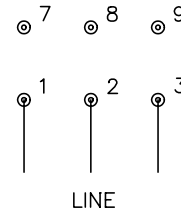




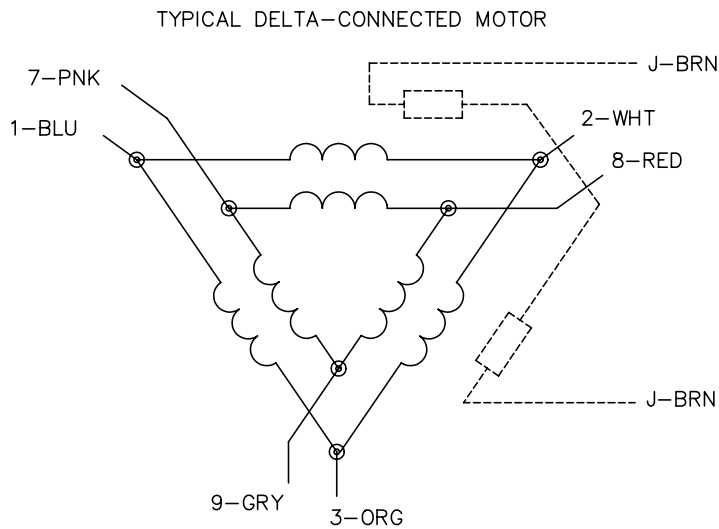
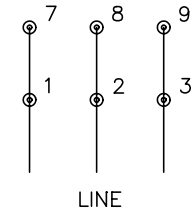
CD0695



START CONNECTION



RUN CONNECTION



NOTES:

1. MOTOR MAY BE WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: C

BY: JLP

REVISED: 01/21/99 3:19

TDR: 0171435

9690D0

FILE: AAA00005151

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, SV, 6 LEADS, PART WINDING START

CD0695