

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **EM3770T**

**7.5HP,1770RPM,3PH,60HZ,213T,0735M,TEFC**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | Z    | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 0738M | Elec. Spec: | 07WGX790 | CD Diagram:   | CD0005     |
| Enclosure:  | TEFC | Mfg Plant:     |       | Mech. Spec: | 07H002   | Layout:       | 07LYH002   |
| Frame:      | 213T | Mounting:      | F1    | Poles:      | 04       | Created Date: |            |
| Base:       | RG   | Rotation:      | R     | Insulation: | F        | Eff. Date:    | 04-21-2016 |
| Leads:      | 9#14 |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

## Nameplate NP3441LUA

|              |              |  |  |                |    |      |     |  |   |    |    |      |   |
|--------------|--------------|--|--|----------------|----|------|-----|--|---|----|----|------|---|
| CAT.NO.      | EM3770T      |  |  |                |    |      |     |  |   |    |    |      |   |
| SPEC.        | 07H002X790   |  |  |                |    |      |     |  |   |    |    |      |   |
| HP           | 7.5          |  |  |                |    |      |     |  |   |    |    |      |   |
| VOLTS        | 230/460      |  |  |                |    |      |     |  |   |    |    |      |   |
| AMP          | 19/9.5       |  |  |                |    |      |     |  |   |    |    |      |   |
| RPM          | 1770         |  |  |                |    |      |     |  |   |    |    |      |   |
| FRAME        | 213T         |  |  |                | HZ |      | 60  |  |   |    | PH |      | 3 |
| SER.F.       | 1.15         |  |  | CODE           |    | J    | DES |  | A | CL |    | F    |   |
| NEMA-NOM-EFF | 91.7         |  |  | PF             |    | 81   |     |  |   |    |    |      |   |
| RATING       | 40C AMB-CONT |  |  |                |    |      |     |  |   |    |    |      |   |
| CC           | 010A         |  |  | USABLE AT 208V |    |      |     |  |   |    |    | 19.8 |   |
| DE           | 6307         |  |  | ODE            |    | 6206 |     |  |   |    |    |      |   |
| ENCL         | TEFC         |  |  | SN             |    |      |     |  |   |    |    |      |   |

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

50Hz 7.5HP 190/380V 22/11A

SF1.0

| Parts List     |                                          |          |
|----------------|------------------------------------------|----------|
| Part Number    | Description                              | Quantity |
| SA115069       | SA 07H002X790                            | 1.000 EA |
| RA106158       | RA 07H002X790                            | 1.000 EA |
| 37FN3002C01    | EXFN, PLASTIC, 6.00 OD, 1.155 ID         | 1.000 EA |
| S/P107-000-005 | SUPER-E PROC'S(254/6 FR.) ZK PLANT - POL | 1.000 EA |
| HW3201A05      | 3/8-16 EYEBOLT                           | 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 |
| 51XW2520A12    | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 EA |
| WD1000B17      | T&B CX35TN TERMINAL                      | 1.000 EA |
| 11XW1032G06    | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| 37EP1100A111   | FR ENDPLATE MACH FOR GREASER & RELIEF    | 1.000 EA |
| HW4500A17      | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HW4500A01      | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| HW5100A06      | W2420-025 WVY WSHR (WB)                  | 1.000 EA |
| 37EP1101A22    | PU ENDPLATE, MACH                        | 1.000 EA |
| HW4500A17      | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HW4500A01      | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 EA |
| XY3118A12      | 5/16-18 HEX NUT DIRECTIONAL SERRATION    | 4.000 EA |
| 07FH4007SP     | PRIMED                                   | 1.000 EA |
| 51XW1032A06    | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |
| 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 |
| HW2501F21      | KEY, 5/16 SQ X 2.375                     | 1.000 EA |

| Parts List (continued) |                                          |          |
|------------------------|------------------------------------------|----------|
| Part Number            | Description                              | Quantity |
| HA7000A02              | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA  | 1.000 EA |
| LB1115N                | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 EA |
| MJ1000A02              | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.050 LB |
| HA3104A32              | THRUBOLT- 5/16-18 X12.750                | 4.000 EA |
| 51XB1214A20            | 12-14X1.25 HXWSSLD SERTYB                | 1.000 EA |
| MG1000Y03              | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.036 GA |
| LC0005E01              | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |
| NP3441LUA              | ALUM SUPER-E VPWM INV READY UL           | 1.000 EA |
| 07PA1000               | PACKAGING GROUP COMBINED PRINT           | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (1000/bx) 11/14 | 1.000 EA |

| Accessories |             |            |
|-------------|-------------|------------|
| Part Number | Description | Multiplier |
| 37-1304     | C FACE KIT  | A8         |

## AC Induction Motor Performance Data

Record # 34382 - Typical performance - not guaranteed values

|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 07WGX790-R010 | <b>Type:</b> 0738M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                          |
|-----------------------|--------------|--------------|----|------------------------------------------|--------------------------|
| Rated Output (HP)     | 7.5          |              |    | Full Load Torque                         | 22.2 LB-FT               |
| Volts                 | 230/460      |              |    | Start Configuration                      | direct on line           |
| Full Load Amps        | 19/9.5       |              |    | Breakdown Torque                         | 70.9 LB-FT               |
| R.P.M.                | 1770         |              |    | Pull-up Torque                           | 32.7 LB-FT               |
| Hz                    | 60           | Phase        | 3  | Locked-rotor Torque                      | 43 LB-FT                 |
| NEMA Design Code      | A            | KVA Code     | J  | Starting Current                         | 70.8 A                   |
| Service Factor (S.F.) | 1.15         |              |    | No-load Current                          | 4.3 A                    |
| NEMA Nom. Eff.        | 91.7         | Power Factor | 81 | Line-line Res. @ 25°C                    | 1.41 Ω                   |
| Rating - Duty         | 40C AMB-CONT |              |    | Temp. Rise @ Rated Load                  | 41°C                     |
| S.F. Amps             |              |              |    | Temp. Rise @ S.F. Load                   | 50°C                     |
|                       |              |              |    | Locked-rotor Power Factor                | 37.2                     |
|                       |              |              |    | Rotor inertia                            | 0.934 LB-FT <sup>2</sup> |

Load Characteristics 460 V, 60 Hz, 7.5 HP

|                 |      |      |      |      |      |      |      |
|-----------------|------|------|------|------|------|------|------|
| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
| Power Factor    | 42   | 64   | 75   | 80   | 83   | 84   | 82   |
| Efficiency      | 87.5 | 91.6 | 92.5 | 91.8 | 91.1 | 90.1 | 91.5 |
| Speed           | 1793 | 1786 | 1778 | 1770 | 1760 | 1750 | 1764 |
| Line amperes    | 4.83 | 6.02 | 7.6  | 9.5  | 11.6 | 13.9 | 10.7 |

## Performance Graph at 460V, 60Hz, 7.5HP Typical performance - Not guaranteed values







