

# **BALDOR® • RELIANCE**

## **Product Information Packet**

### **EM7045T**

**7.5//5HP,3520//2930RPM,3PH,60//50HZ,213T**

| Part Detail |      |                |       |             |          |               |            |
|-------------|------|----------------|-------|-------------|----------|---------------|------------|
| Revision:   | H    | Status:        | PRD/A | Change #:   |          | Proprietary:  | No         |
| Type:       | AC   | Prod. Type:    | 3728M | Elec. Spec: | 37WGR224 | CD Diagram:   | CD0005     |
| Enclosure:  | XPFC | Mfg Plant:     |       | Mech. Spec: | 37H239   | Layout:       | 37LYH239   |
| Frame:      | 213T | Mounting:      | F1    | Poles:      | 02       | Created Date: | 05-11-2012 |
| Base:       | RG   | Rotation:      | R     | Insulation: | B        | Eff. Date:    | 02-23-2017 |
| Leads:      | 9#14 |                |       |             |          | Replaced By:  |            |
| Literature: |      | Elec. Diagram: |       |             |          |               |            |

**Nameplate NP1426XPSLEV**

|                |                  |         |      |                   |
|----------------|------------------|---------|------|-------------------|
| NO.            |                  | CC      | 010A |                   |
| SER.           |                  |         |      |                   |
| SPEC.          | 37H239R224G1     |         |      |                   |
| CAT.NO.        | EM7045T          |         |      |                   |
| HP             | 7.5//5           | T. CODE | T3C  |                   |
| VOLTS          | 230/460//190/380 |         |      |                   |
| AMPS           | 18/9//15.4/7.7   |         |      |                   |
| RPM            | 3520//2930       |         |      |                   |
| HZ             | 60//50           | PH      | 3    | CL B              |
| SER.F.         | 1.00             | DES     | A    | CODE J            |
| RATING         | 40C AMB-CONT     |         |      |                   |
| FRAME          | 213T             |         |      |                   |
| USABLE AT 208V | 19.4             | PF      | 84   | NEMA-NOM-EFF 89.5 |
| BLANK          |                  |         |      |                   |

| Parts List    |                                          |          |
|---------------|------------------------------------------|----------|
| Part Number   | Description                              | Quantity |
| SA244914      | SA 37H239R224G1                          | 1.000 EA |
| RA231801      | RA 37H239R224G1                          | 1.000 EA |
| 36FN3000B02   | EXFN, PLASTIC, 6.00 OD, 1.175 ID         | 1.000 EA |
| 35CB3001A02SP | EXPL PROOF CONDUIT BOX, 3/4"PIPE TAP LEA | 1.000 EA |
| 11XW1032G06   | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| HW3001B01     | BRASS CUP WASHER, FOR #8 SCREW           | 1.000 EA |
| 37EP1102A01   | STD FR EP, XPFC                          | 1.000 EA |
| HW4500A19     | 1/4-28X1/4 SLOTTED PLUG F/S              | 2.000 EA |
| HW5100A06     | W2420-025 WVY WSHR (WB)                  | 1.000 EA |
| 37EP1701A02   | PU ENDPLATE,TEFC, 1 FAN, W/GREASER, MACH | 1.000 EA |
| HW4500A19     | 1/4-28X1/4 SLOTTED PLUG F/S              | 2.000 EA |
| XY5013A12     | NUT,1/2-13,HEX,STEEL,ZINCPLATED          | 4.000 EA |
| 37FH3001      | FAN COVER, DIE CAST                      | 1.000 EA |
| 10XN2520A12   | O1/4-20X 3/4 HEX HEAD CAP                | 4.000 EA |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| 35CB3500A01SP | CONDUIT BOX LID, MACH                    | 1.000 EA |
| 51XN2520A16   | SCREW, HEX WS SLT, ZN, 1/4-20 X 1.00     | 4.000 EA |
| HW2501F21     | KEY, 5/16 SQ X 2.375                     | 1.000 EA |
| HA7000A02     | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA  | 1.000 EA |
| 85XU0407S04   | 4X1/4 U DRIVE PIN STAINLESS              | 6.000 EA |
| LB1115N       | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| NP0018F       | ALUM UL XP CONDUIT BOX NAMEPLATE         | 1.000 EA |
| MJ1000A02     | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.050 LB |
| 51XB1214A20   | 12-14X1.25 HXWSSLD SERTYB                | 1.000 EA |

| Parts List (continued) |                                          |          |
|------------------------|------------------------------------------|----------|
| Part Number            | Description                              | Quantity |
| XY2520A12              | 1/4-20 HEX NUT, DIRECTIONAL SERRATIONS   | 1.000 EA |
| MG1025G29              | WILKOFAS, 789.229, DARK CHARCOAL GRAY    | 0.028 GA |
| HA3106A03              | THRUBOLT- 1/2-13 X 11.875 X              | 4.000 EA |
| LB1119N                | WARNING LABEL                            | 1.000 EA |
| LC0145B01              | CONNECTION LABEL                         | 1.000 EA |
| NP1426XPSLEV           | SS XP UL CSA-EEV CC CL-I GP-D            | 1.000 EA |
| 37PA1039               | PALLET PACK GRP, PRINT PK1026A06         | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (1000/bx) 11/14 | 1.000 EA |

**AC Induction Motor Performance Data**

Record # 38347 - Typical performance - not guaranteed values

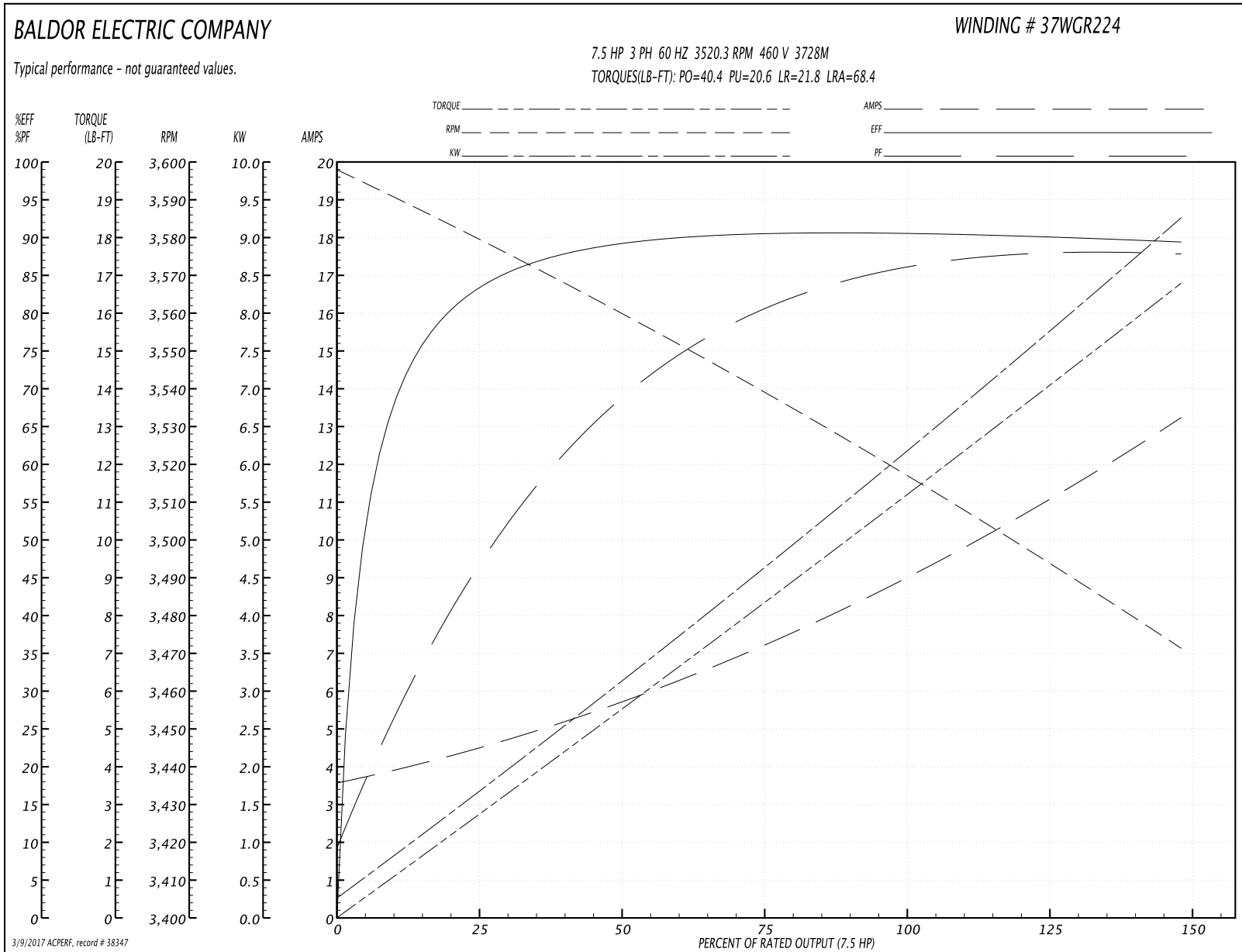
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 37WGR224-R004 | <b>Type:</b> 3728M | <b>Enclosure:</b> XPFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |                      |              |    | 460 V, 60 Hz:<br>High Voltage Connection |                          |
|-----------------------|----------------------|--------------|----|------------------------------------------|--------------------------|
| Rated Output (HP)     | 7.5//5               |              |    | Full Load Torque                         | 10.9 LB-FT               |
| Volts                 | 208-230/460//190/380 |              |    | Start Configuration                      | direct on line           |
| Full Load Amps        | 19.4-18/9//15.4/7.7  |              |    | Breakdown Torque                         | 40.4 LB-FT               |
| R.P.M.                | 3520//2930           |              |    | Pull-up Torque                           | 20.6 LB-FT               |
| Hz                    | 60//50               | Phase        | 3  | Locked-rotor Torque                      | 21.8 LB-FT               |
| NEMA Design Code      | A                    | KVA Code     | J  | Starting Current                         | 68.4 A                   |
| Service Factor (S.F.) | 1                    |              |    | No-load Current                          | 3.73 A                   |
| NEMA Nom. Eff.        | 89.5                 | Power Factor | 84 | Line-line Res. @ 25°C                    | 1.1531 Ω                 |
| Rating - Duty         | 40C AMB-CONT         |              |    | Temp. Rise @ Rated Load                  | 45°C                     |
|                       |                      |              |    | Locked-rotor Power Factor                | 33                       |
|                       |                      |              |    | Rotor inertia                            | 0.255 LB-FT <sup>2</sup> |

**Load Characteristics 460 V, 60 Hz, 7.5 HP**

|                 |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|
| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    |
| Power Factor    | 45     | 69     | 79     | 84     | 87     | 89     |
| Efficiency      | 81.5   | 88.8   | 90.5   | 90.6   | 90.1   | 89.2   |
| Speed           | 3580.5 | 3562.7 | 3541.6 | 3520.3 | 3496.3 | 3470.9 |
| Line amperes    | 4.22   | 5.36   | 7.03   | 8.94   | 11     | 13.1   |

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



**AC Induction Motor Performance Data**

Record # 38349 - Typical performance - not guaranteed values

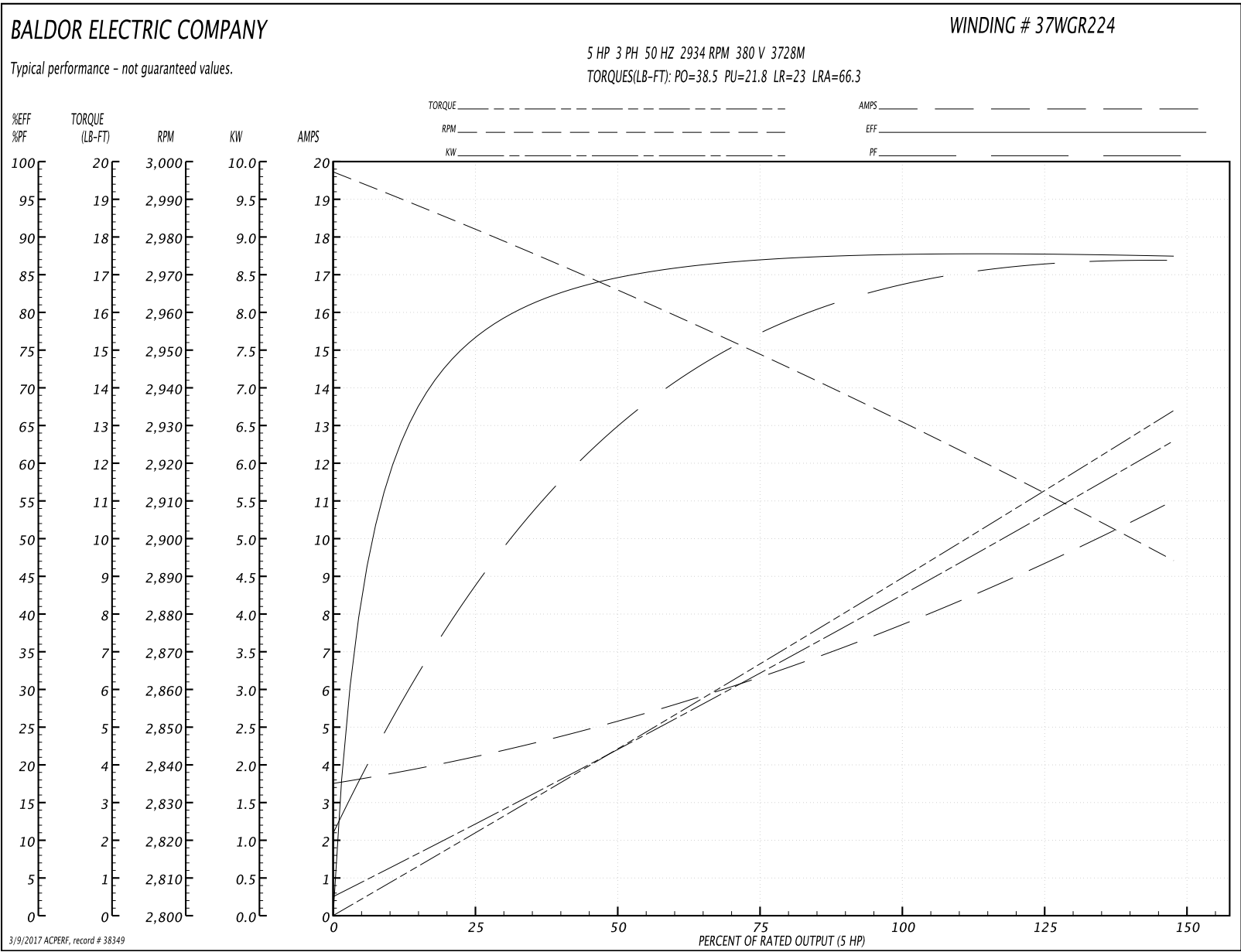
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 37WGR224-R004 | <b>Type:</b> 3728M | <b>Enclosure:</b> XPFC |
|-------------------------------|--------------------|------------------------|

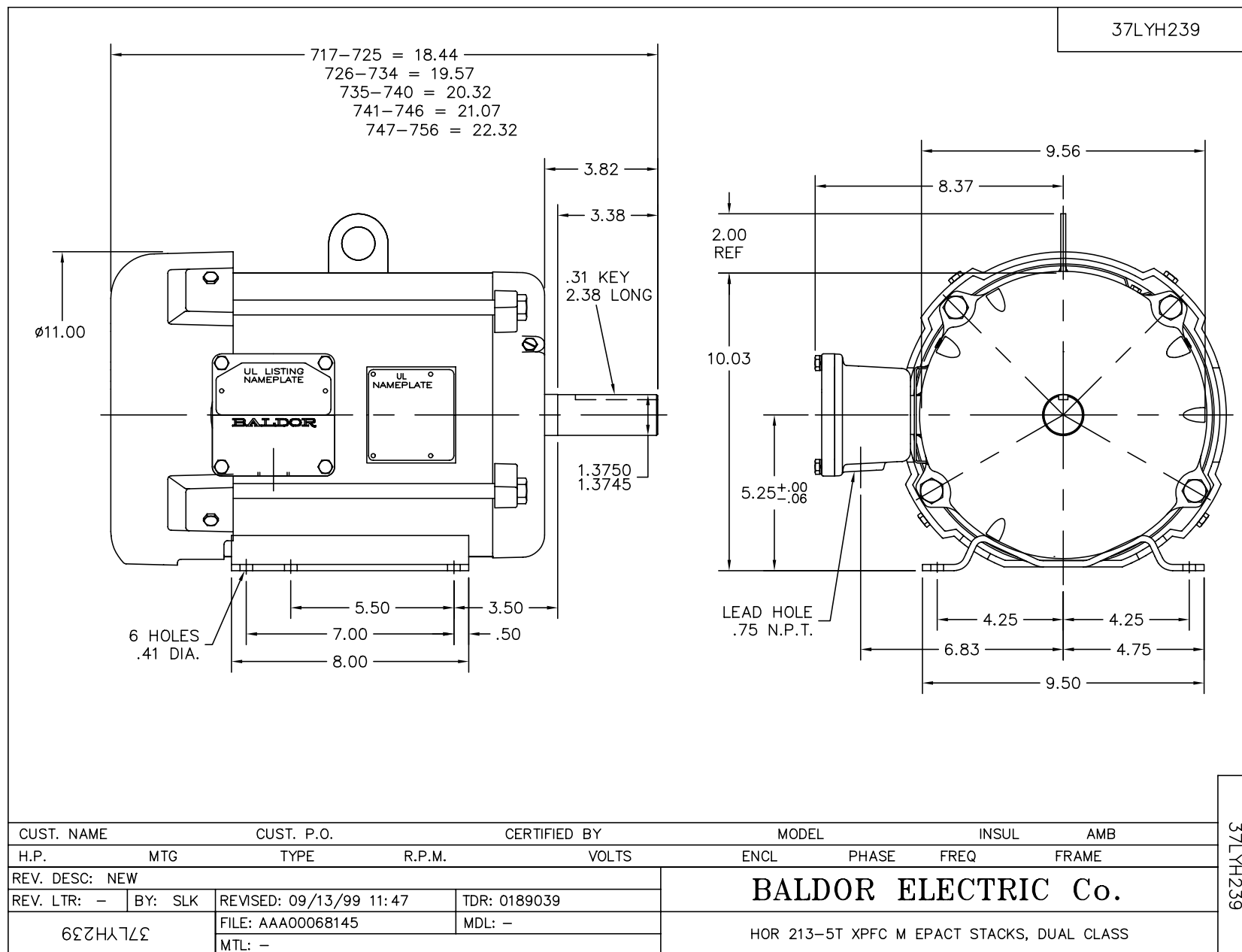
| Nameplate Data        |                      |              |    | 380 V, 50 Hz:<br>High Voltage Connection |                          |
|-----------------------|----------------------|--------------|----|------------------------------------------|--------------------------|
| Rated Output (HP)     | 7.5//5               |              |    | Full Load Torque                         | 8.71 LB-FT               |
| Volts                 | 208-230/460//190/380 |              |    | Start Configuration                      | direct on line           |
| Full Load Amps        | 19.4-18/9//15.4/7.7  |              |    | Breakdown Torque                         | 38.5 LB-FT               |
| R.P.M.                | 3520//2930           |              |    | Pull-up Torque                           | 21.8 LB-FT               |
| Hz                    | 60//50               | Phase        | 3  | Locked-rotor Torque                      | 23 LB-FT                 |
| NEMA Design Code      | A                    | KVA Code     | J  | Starting Current                         | 66.3 A                   |
| Service Factor (S.F.) | 1                    |              |    | No-load Current                          | 3.63 A                   |
| NEMA Nom. Eff.        | 89.5                 | Power Factor | 84 | Line-line Res. @ 25°C                    | 1.1 Ω                    |
| Rating - Duty         | 40C AMB-CONT         |              |    | Temp. Rise @ Rated Load                  | 35°C                     |
|                       |                      |              |    | Locked-rotor Power Factor                | 37                       |
|                       |                      |              |    | Rotor inertia                            | 0.255 LB-FT <sup>2</sup> |

**Load Characteristics 380 V, 50 Hz, 5 HP**

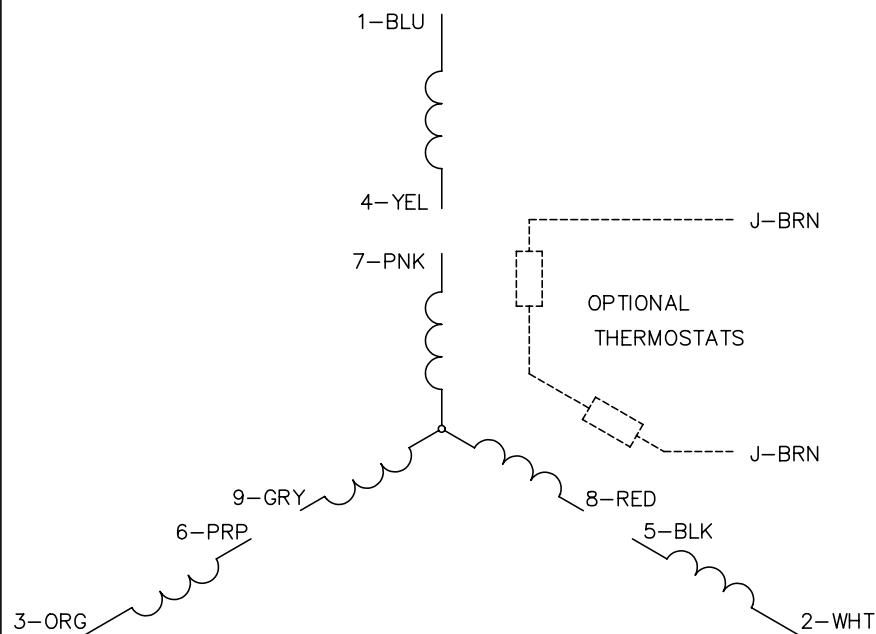
|                 |      |      |      |      |      |      |
|-----------------|------|------|------|------|------|------|
| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
| Power Factor    | 42   | 65   | 76   | 82   | 85   | 88   |
| Efficiency      | 73.7 | 83.9 | 86.9 | 87.9 | 87.7 | 87.5 |
| Speed           | 2983 | 2968 | 2951 | 2934 | 2914 | 2894 |
| Line amperes    | 4.01 | 4.88 | 6.18 | 7.66 | 9.26 | 10.9 |

Performance Graph at 380V, 50Hz, 5.0HP Typical performance - Not guaranteed values

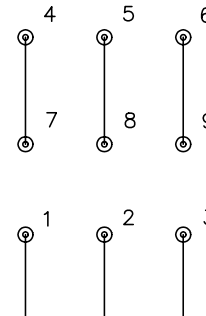




CD0005

LOW VOLTAGE  
(2Y)

LINE

HIGH VOLTAGE  
(1Y)

LINE

## 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