

**BALDOR® • RELIANCE** 

**Product Information Packet**

**CTM1764T**

**30/7.5HP, 1760/870RPM, 3PH, 60HZ, 286T, 1050M**

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | D      | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 10WGW469   | CD Diagram: | CD0032 | Mfg Plant:    |            |
| Mech. Spec: | 10H161 | Layout:     | 10LYH161   | Poles:      | 04/08  | Created Date: | 08-15-2014 |
| Base:       | RG     | Eff. Date:  | 02-21-2017 | Leads:      | 6#10   |               |            |

| Specs                           |                         |                                |                              |
|---------------------------------|-------------------------|--------------------------------|------------------------------|
| Catalog Number:                 | CTM1764T                | Insulation Class:              | F                            |
| Enclosure:                      | TEFC                    | Inverter Code:                 | Not Inverter                 |
| Frame:                          | 286T                    | KVA Code:                      | G                            |
| Frame Material:                 | Iron                    | Lifting Lugs:                  | Standard Lifting Lugs        |
| Output @ Frequency:             | 7.500 HP @ 60 HZ        | Locked Bearing Indicator:      | Locked Bearing               |
|                                 | 30.000 HP @ 60 HZ       | Motor Lead Quantity/Wire Size: | 6 @ 10 AWG                   |
| Synchronous Speed @ Frequency:  | 1800 RPM @ 60 HZ        | Motor Lead Exit:               | Ko Box                       |
| Voltage @ Frequency:            | 460.0 V @ 60 HZ         | Motor Lead Termination:        | Flying Leads                 |
| XP Class and Group:             | None                    | Motor Type:                    | 1050M                        |
| XP Division:                    | Not Applicable          | Mounting Arrangement:          | F1                           |
| Agency Approvals:               | UR                      | Product Family:                | Chemical Processing (Not DC) |
|                                 | CSA                     | Pulley End Bearing Type:       | Ball                         |
| Auxillary Box:                  | No Auxillary Box        | Pulley Face Code:              | Standard                     |
| Auxillary Box Lead Termination: | None                    | Pulley Shaft Indicator:        | Standard                     |
| Base Indicator:                 | Rigid                   | Rodent Screen:                 | None                         |
| Bearing Grease Type:            | Polyrex EM (-20F +300F) | Shaft Extension Location:      | Pulley End                   |
| Blower:                         | None                    | Shaft Ground Indicator:        | No Shaft Grounding           |
| Current @ Voltage:              | 36.000 A @ 460.0 V      | Shaft Rotation:                | Reversible                   |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| <b>Design Code:</b>                   | B                         | <b>Shaft Slinger Indicator:</b>    | Shaft Slinger       |
| <b>Drip Cover:</b>                    | No Drip Cover             | <b>Speed Code:</b>                 | 2S-1W-VT            |
| <b>Duty Rating:</b>                   | CONT                      | <b>Motor Standards:</b>            | NEMA                |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Starting Method:</b>            | Direct on line      |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Thermal Device - Bearing:</b>   | NONE (OLD)          |
| <b>Front Face Code:</b>               | Standard                  | <b>Thermal Device - Winding:</b>   | None                |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor |
| <b>Heater Indicator:</b>              | No Heater                 | <b>Winding Thermal 1:</b>          | None                |
|                                       |                           | <b>Winding Thermal 2:</b>          | None                |

| Nameplate NP1258E |              |  |  |      |     |      |     |    |                |    |   |
|-------------------|--------------|--|--|------|-----|------|-----|----|----------------|----|---|
| CAT.NO.           | CTM1764T     |  |  |      |     |      |     |    |                |    |   |
| SPEC.             | 10H161W469G1 |  |  |      |     |      |     |    |                |    |   |
| HP                | 30/7.5       |  |  |      |     |      |     |    |                |    |   |
| VOLTS             | 460          |  |  |      |     |      |     |    |                |    |   |
| AMP               | 36/13        |  |  |      |     |      |     |    |                |    |   |
| RPM               | 1760/870     |  |  |      |     |      |     |    |                |    |   |
| FRAME             | 286T         |  |  |      | HZ  | 60   |     | PH | 3              |    |   |
| SER.F.            | 1.15         |  |  | CODE | G   |      | DES | B  |                | CL | F |
| NEMA-NOM-EFF      |              |  |  |      | PF  |      |     |    |                |    |   |
| RATING            | 40C AMB-CONT |  |  |      |     |      |     |    |                |    |   |
| CC                |              |  |  |      |     |      |     |    | USABLE AT 208V |    |   |
| DE                | 6311         |  |  |      | ODE | 6311 |     |    |                |    |   |
| ENCL              | TEFC         |  |  | SN   |     |      |     |    |                |    |   |

|                          |            |
|--------------------------|------------|
| <b>Nameplate NP0090E</b> |            |
| <b>FRONT</b>             | 6311       |
| <b>PULLEY</b>            | 6311       |
| <b>LUBRICATE WITH</b>    |            |
| <b>GREASE</b>            | POLYREX EM |

| Parts List   |  |          |
|--------------|--|----------|
| Part Number  | Description                              | Quantity |
| SA286545     | SA 10H161W469G1                          | 1.000 EA |
| RA272777     | RA 10H161W469G1                          | 1.000 EA |
| 10CB1000A09P | CONDUIT BOX, MACH W/EPOXY PRIMER         | 1.000 EA |
| 09GS1010     | GASKET, DWG, LEADWIRE SEPERATOR          | 1.000 EA |
| 10XN3118K16  | 5/16-18 X 1' GRADE #5, STL, ZINC PLATE   | 4.000 EA |
| HW1001A31    | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 EA |
| WD1000B16    | T&B CX70TN TERMINAL                      | 1.000 EA |
| 10XN2520K06  | 1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P | 1.000 EA |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 1.000 EA |
| 10XN3816K28  | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5  | 4.000 EA |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HA4017A11    | 1/8 X 2.75 GREASE EXT (F/S)              | 1.000 EA |
| HA4017A03    | .125 X 1.75 GREASE EXT (F/S)             | 1.000 EA |
| HW4019A01    | PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING | 1.000 EA |
| HW4600A49    | CR #20643 SINGLE LIP SEAL                | 1.000 EA |
| HW4600B40    | V-RING SLINGER 2.000 X 2.680 X .28 VITON | 1.000 EA |
| HW5100A13    | W4627-047 WVY WSHER                      | 1.000 EA |
| 10XN3118K40  | 5/16-18 X 2.50" HEX HD, GRADE 5          | 4.000 EA |
| 10EP1105A20P | MACH'D EPOXY PRIMED EP W/SEAL            | 1.000 EA |
| 10XN3816K28  | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5  | 4.000 EA |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| 10XN3118K40  | 5/16-18 X 2.50" HEX HD, GRADE 5          | 4.000 EA |
| HW4600B40    | V-RING SLINGER 2.000 X 2.680 X .28 VITON | 1.000 EA |
| HW4600A49    | CR #20643 SINGLE LIP SEAL                | 1.000 EA |

| Parts List (continued) |  |          |
|------------------------|--|----------|
| Part Number            | Description                              | Quantity |
| 10FH1007P              | FAN COVER, CAST W/EPOXY PRIMER           | 1.000 EA |
| 10XN3118K20            | 5/16-18 X 1 1/4 GRADE 5 STEEL ZC PLATED  | 3.000 EA |
| HW1001A31              | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 3.000 EA |
| 10CB1503A01P           | CONDUIT BOX LIPPED LID, MACH W/EPXY PRMR | 1.000 EA |
| 14GS1003               | GASKET CONDUIT BOX LID, NEOP             | 1.000 EA |
| 10XN2520K16            | 1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P   | 4.000 EA |
| HW1001A25              | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 EA |
| HW2501H29              | KEY, 1/2 SQ X 3.375                      | 1.000 EA |
| MJ5001A27              | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.031 QT |
| MJ5001A14              | DYNAPRO SEALANT, CP MTR VC#2508050 (603  | 0.033 EA |
| MJ5002A01              | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 0.025 EA |
| LB1115N                | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| LB1002N                | LABEL,MARINE DUTY (ON ROLLS)             | 1.000 EA |
| 10EP1110A34GP6         | FREP, MACH W/PRIMER & GREEN PAINT        | 1.000 EA |
| HA4051A00              | PLASTIC CAP FOR GREASE FITTING           | 1.000 EA |
| HW4500A21              | 1618BALEMITE FITTING 825 UNIVERSAL       | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4001A01SP            | DRAIN PLUG, PLASTIC (MICRO PLAS)         | 1.000 EA |
| MJ1000A02              | GREASE, POLYREX EM EXXON (USe 4824-15A)  | 0.130 LB |
| 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 |
| HA4001A01SP            | DRAIN PLUG, PLASTIC (MICRO PLAS)         | 1.000 EA |
| 09FN3001A02SP          | EXTERNAL FAN, PLASTIC                    | 1.000 EA |

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|             |  |          |
|-------------|--|----------|
| HW2500A25   | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 EA |
| 51XB1214A20 | 12-14X1.25 HXWSSLD SERTYB                | 1.000 EA |
| MG1025N19   | WILKOFASST, 778.50, RELIANCE BLUE-GREEN  | 0.070 GA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 EA |
| LB1119N     | WARNING LABEL                            | 1.000 EA |
| LC0032      | CONNECTION LABEL                         | 1.000 EA |
| NP1258E     | SS CP UL CSA CC                          | 1.000 EA |
| NP0090E     | SS NO LOGO'S BEARING & GREASE DATA       | 1.000 EA |
| 10PA1000    | PACKAGING GROUP COMBINED PRINT PK1023A06 | 1.000 EA |
| MN416A01    | TAG-INSTAL-MAINT no wire (1200/bx) 5/18  | 1.000 EA |



**AC Induction Motor Performance Data**

Record # 34539 - Typical performance - not guaranteed values

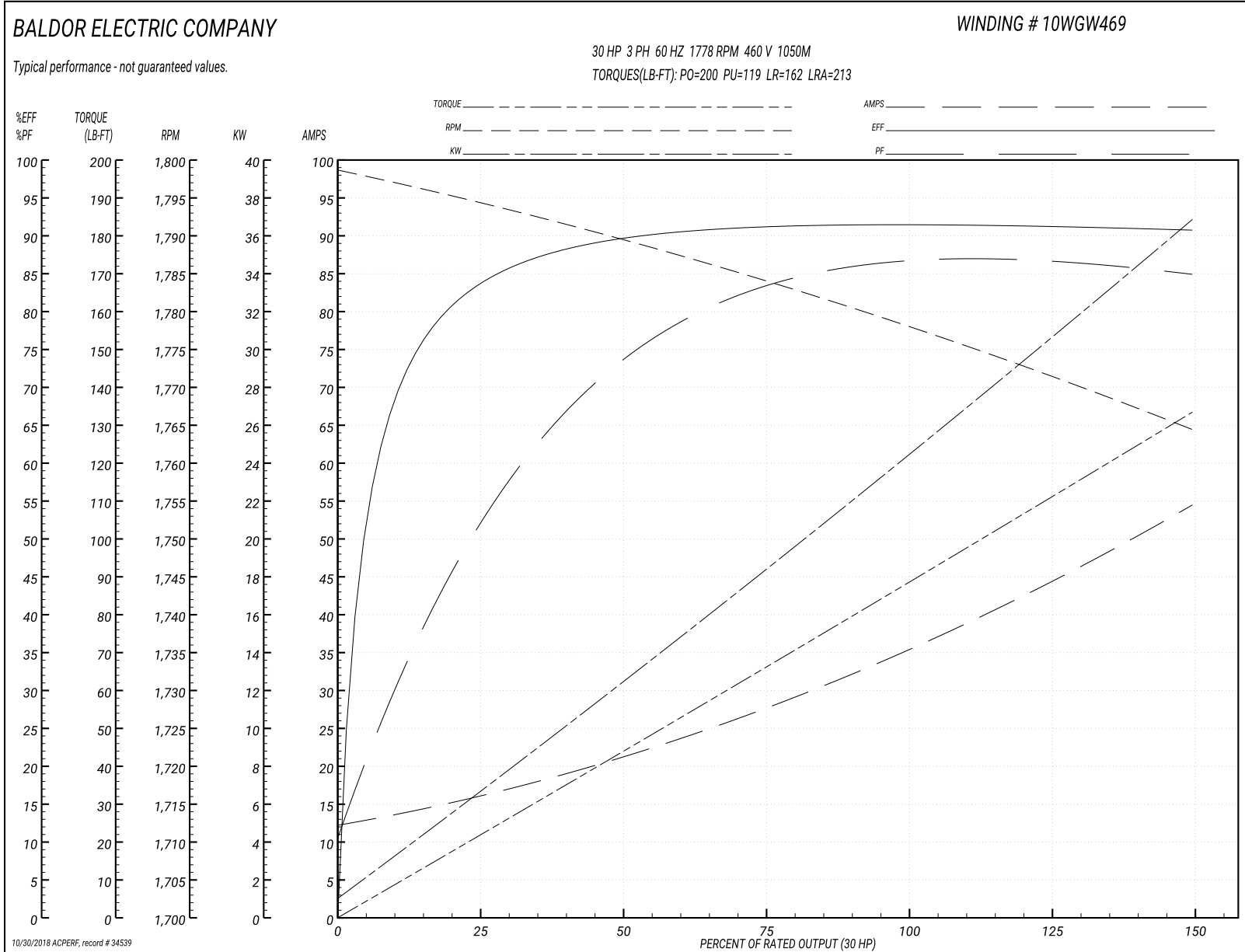
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 10WGW469-R007 | <b>Type:</b> 1050M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data        |              |              |   | 460 V, 60 Hz:<br>High Speed Connection |                |
|-----------------------|--------------|--------------|---|--|----------------|
| Rated Output (HP)     | 30/7.5       |              |   | Full Load Torque                       | 89 LB-FT       |
| Volts                 | 460          |              |   | Start Configuration                    | direct on line |
| Full Load Amps        | 36/13        |              |   | Breakdown Torque                       | 200 LB-FT      |
| R.P.M.                | 1760/870     |              |   | Pull-up Torque                         | 119 LB-FT      |
| Hz                    | 60           | Phase        | 3 | Locked-rotor Torque                    | 162 LB-FT      |
| NEMA Design Code      | B            | KVA Code     | G | Starting Current                       | 213 A          |
| Service Factor (S.F.) | 1.15         |              |   | No-load Current                        | 12.7 A         |
| NEMA Nom. Eff.        | 0            | Power Factor | 0 | Line-line Res. @ 25°C                  | 0.318 Ω        |
| Rating - Duty         | 40C AMB-CONT |              |   | Temp. Rise @ Rated Load                | 88°C           |
| S.F. Amps             |              |              |   | Temp. Rise @ S.F. Load                 | 102°C          |

Load Characteristics 460 V, 60 Hz, 30 HP

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 55   | 75   | 83   | 86   | 86   | 85   | 86   |
| Efficiency      | 83.8 | 89.6 | 91.2 | 91.5 | 91.3 | 90.7 | 91.4 |
| Speed           | 1794 | 1789 | 1784 | 1778 | 1772 | 1764 | 1774 |
| Line amperes    | 15.5 | 21.1 | 28   | 36   | 44.6 | 54.2 | 41.2 |

Performance Graph at 460V, 60Hz, 30.0HP Typical performance - Not guaranteed values



**AC Induction Motor Performance Data**

Record # 34540 - Typical performance - not guaranteed values

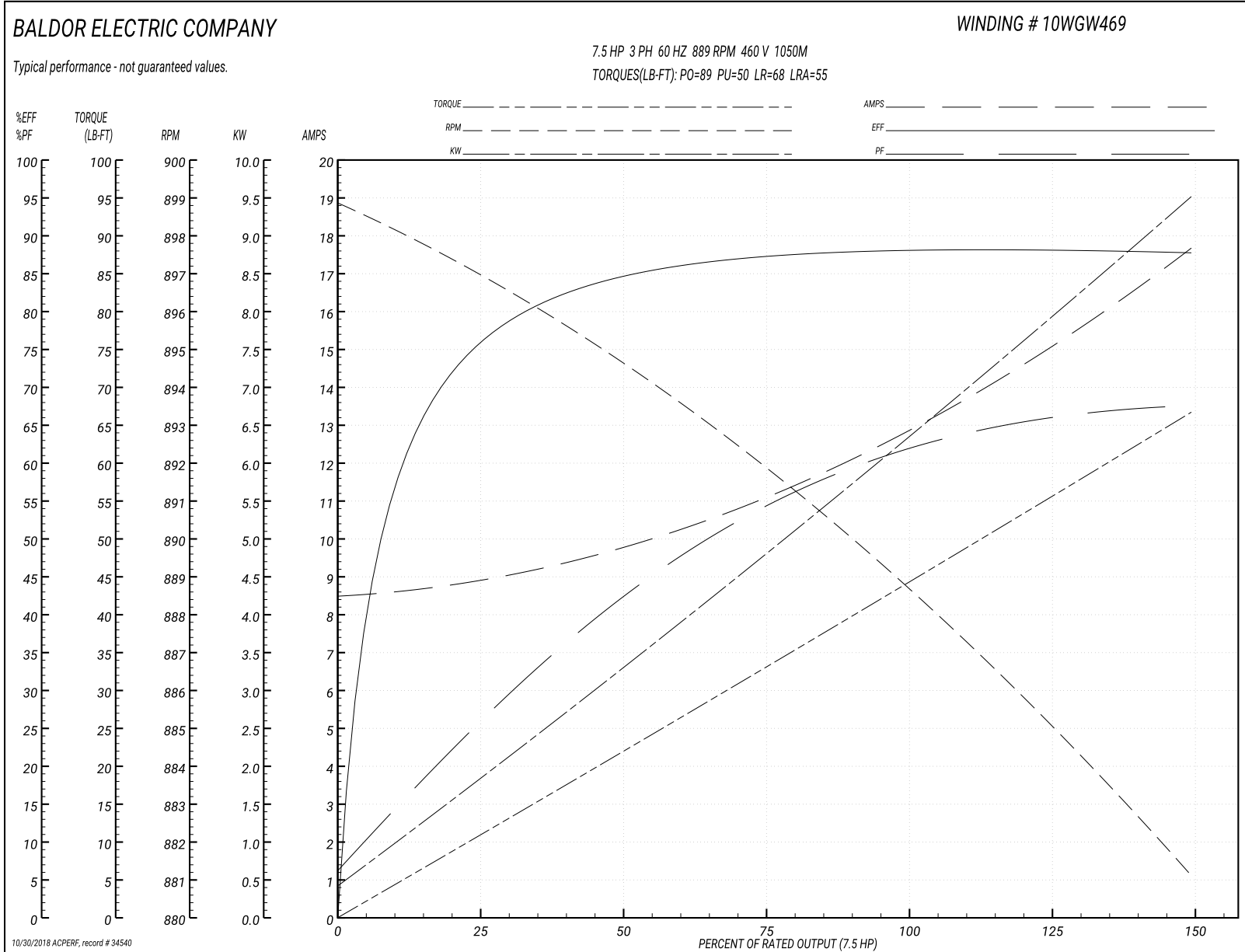
|                               |                    |                        |
|-------------------------------|--------------------|------------------------|
| <b>Winding:</b> 10WGW469-R007 | <b>Type:</b> 1050M | <b>Enclosure:</b> TEFC |
|-------------------------------|--------------------|------------------------|

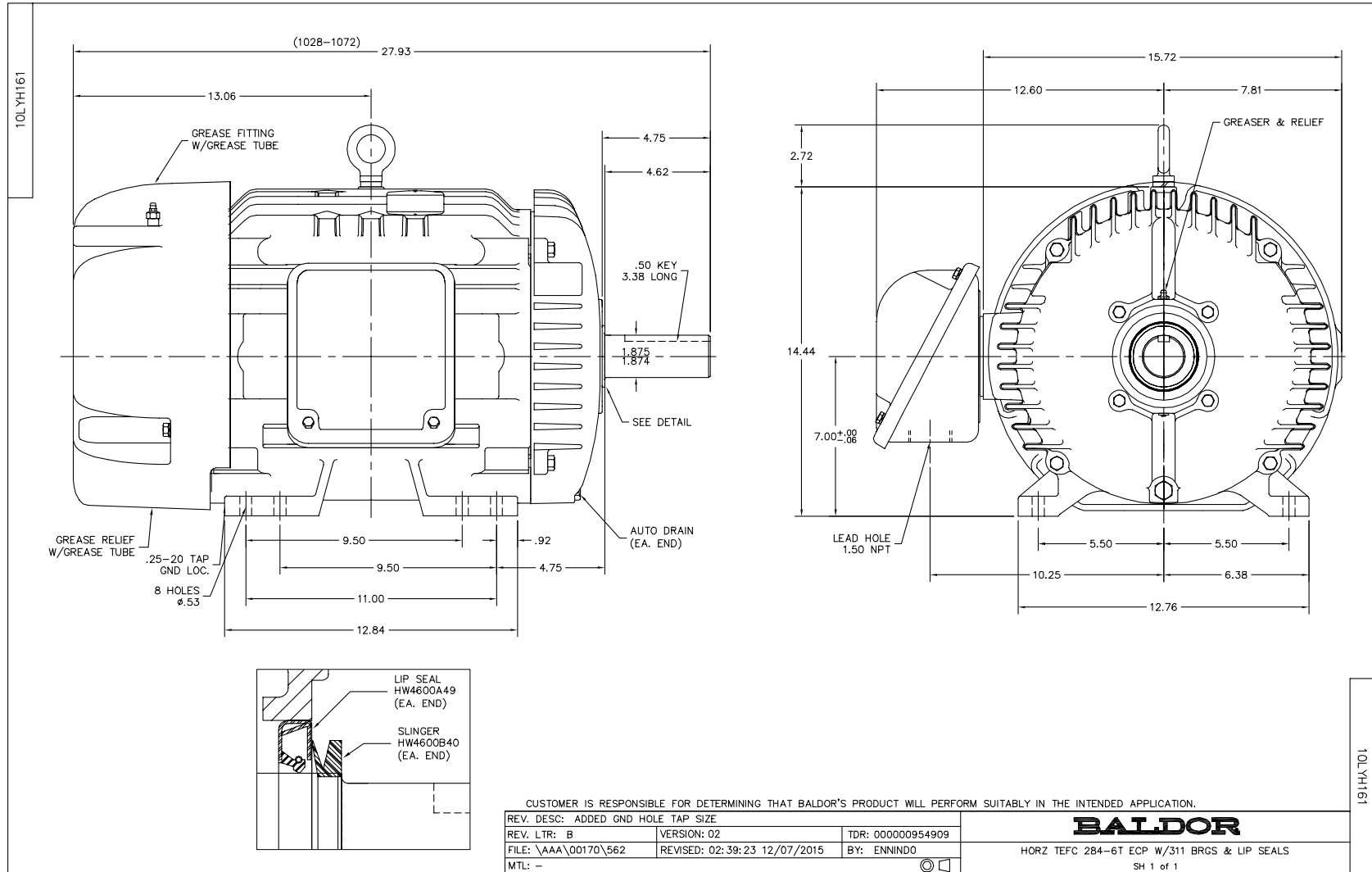
| Nameplate Data        |              |              |   | 460 V, 60 Hz:<br>Low Speed Connection |                |
|-----------------------|--------------|--------------|---|---------------------------------------|----------------|
| Rated Output (HP)     | 30/7.5       |              |   | Full Load Torque                      | 44.5 LB-FT     |
| Volts                 | 460          |              |   | Start Configuration                   | direct on line |
| Full Load Amps        | 36/13        |              |   | Breakdown Torque                      | 89 LB-FT       |
| R.P.M.                | 1760/870     |              |   | Pull-up Torque                        | 50 LB-FT       |
| Hz                    | 60           | Phase        | 3 | Locked-rotor Torque                   | 68 LB-FT       |
| NEMA Design Code      | B            | KVA Code     | G | Starting Current                      | 55 A           |
| Service Factor (S.F.) | 1.15         |              |   | No-load Current                       | 8.5 A          |
| NEMA Nom. Eff.        | 0            | Power Factor | 0 | Line-line Res. @ 25°C                 | 1.31 Ω         |
| Rating - Duty         | 40C AMB-CONT |              |   | Temp. Rise @ Rated Load               | 45°C           |
| S.F. Amps             |              |              |   | Temp. Rise @ S.F. Load                | 52°C           |

Load Characteristics 460 V, 60 Hz, 7.5 HP

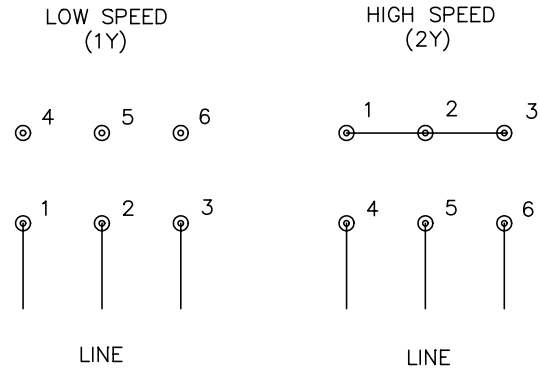
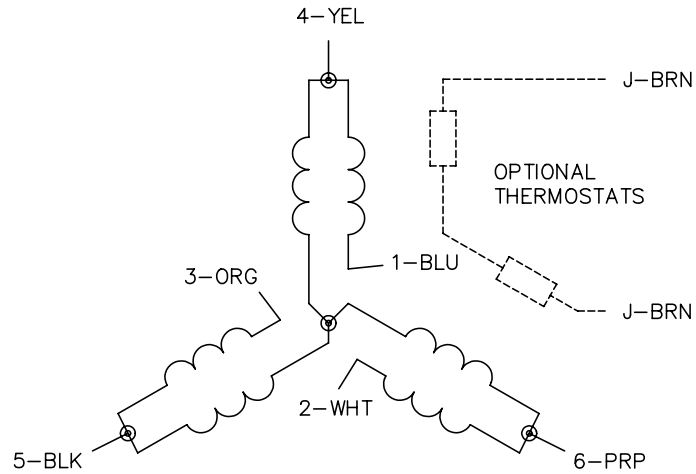
| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 26   | 43   | 55   | 61   | 66   | 68   | 64   |
| Efficiency      | 75.5 | 84.4 | 87.3 | 88.3 | 88.3 | 87.6 | 88.3 |
| Speed           | 897  | 894  | 892  | 889  | 885  | 881  | 887  |
| Line amperes    | 8.9  | 9.8  | 11.1 | 13   | 15   | 17.7 | 14.2 |

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





CD0032



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: 01/22/99 8:27 | TDR: 0171435 |
| CD0032                                    |         | FILE: AAA00005145      | MDL: -       |
|   |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, SV, 6 LEADS, 2-SPEED 1-WINDING VARIABLE TORQUE

CD0032

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