

BALDOR® • RELIANCE 

Product Information Packet

EM3774T

10HP,1765RPM,3PH,60HZ,215T,0748M,TEFC,F1

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | E | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 07WGT511 | CD Diagram: | CD0005 | Mfg Plant: | |
| Mech. Spec: | 07H002 | Layout: | 07LYH002 | Poles: | 04 | Created Date: | 11-11-2020 |
| Base: | RG | Eff. Date: | 02-21-2022 | Leads: | 9#14 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EM3774T | Heater Indicator: | No Heater |
| Enclosure: | TEFC | Insulation Class: | F |
| Frame: | 215T | Inverter Code: | Inverter Ready |
| Frame Material: | Iron | KVA Code: | H |
| Motor Letter Type: | Three Phase | Lifting Lugs: | Standard Lifting Lugs |
| Output @ Frequency: | 10.000 HP @ 60 HZ | Locked Bearing Indicator: | No Locked Bearing |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 14 AWG |
| Voltage @ Frequency: | 230.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| | 460.0 V @ 60 HZ | Motor Lead Termination: | Flying Leads |
| XP Class and Group: | None | Motor Type: | 0748M |
| XP Division: | Not Applicable | Mounting Arrangement: | F1 |
| Agency Approvals: | UR | Power Factor: | 83 |
| | CSA EEV | Product Family: | General Purpose |
| | 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: | 12.300 A @ 460.0 V | Shaft Rotation: | Reversible |
| | 24.600 A @ 230.0 V | Shaft Slinger Indicator: | No Slinger |
| | 27.000 A @ 208.0 V | Speed Code: | Single Speed |
| Design Code: | B | Motor Standards: | NEMA |
| Drip Cover: | No Drip Cover | Starting Method: | Direct on line |
| Duty Rating: | CONT | Thermal Device - Bearing: | None |
| Electrically Isolated Bearing: | Not Electrically Isolated | Thermal Device - Winding: | None |
| Feedback Device: | NO FEEDBACK | Vibration Sensor Indicator: | No Vibration Sensor |
| Front Face Code: | Standard | Winding Thermal 1: | None |
| Front Shaft Indicator: | None | Winding Thermal 2: | None |

| | | | | | | | | | | |
|-----------------------------------|-------------------------------|--|-------------|------------|-----------------------|----|--|--------------|-----------|-------|
| Nameplate NP3441LUA | | | | | | | | | | |
| CAT.NO. | EM3774T | | | | | | | | | |
| SPEC | 07H002T511G1 | | | | | | | | | |
| HP | 10 | | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | | |
| AMPS | 24.6/12.3 | | | | | | | | | |
| RPM | 1765 | | | | | | | | | |
| FRAME | 215T | | | | HZ | 60 | | | PH | 3 |
| SF | 1.15 | | CODE | H | DES | B | | CLASS | F | |
| NEMA NOM. EFF | 91.7 | | PF | 83 | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | | |
| CC | 010A | | | | USABLE AT 208V | | | | | 27 |
| ENCL | TEFC | | SER | | | | | | | |
| DE | 6307 | | | ODE | 6206 | | | | | |
| VPWM INVERTER READY | SFA 28.2/14.1 | | | | | | | | | |
| CT6-60H(10:1)VT3-60H(20:1) | 50HZ 10HP 190/380V 29.8/14.9A | | | | | | | | | |
| | | | | | | | | | | SF1.0 |

| Parts List | | |
|-------------|--|----------|
| Part Number | Description | Quantity |
| SA388058 | SA 07H002T511G1 | 1.000 EA |
| RA378400 | RA 07H002T511G1 | 1.000 EA |
| 37FN3002C01 | EXFN, PLASTIC, 6.00 OD, 1.155 ID | 1.000 EA |
| HW3201A05 | 3/8-16 EYEBOLT | 1.000 EA |
| 09CB3002SP | CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30 | 1.000 EA |
| 09GS1000SP | GASKET-CONDUIT BOX, 1/16 THICK LEXIDE | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| WD1000B16 | T&B CX70TN OR L70P TERMINAL LUG | 1.000 EA |
| 59XW2520G07 | .25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN | 1.000 EA |
| 37EP1100A41 | FR ENDPLATE ASSEMBLY FOR ROUTING | 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 |
| 37PE1101A22 | PU ENDPLATE ASSEMBLY FOR ROUTING | 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 |
| 09CB3501SP | CONDUIT BOX LID FOR 09CB3001 & 09CB3002 | 1.000 EA |
| 09GS1013SP | GS FOR 09CB3501, 12CB1500 & 12CB1503 LID | 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 |
| HA7000A02 | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA | 1.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 EA |
| MJ1000A02 | GREASE, POLYREX EM EXXON | 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 CSA-EEV C | 1.000 EA |
| 07PA1011 | PKG GRP, 07 CAST IRON PK1181 | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (2200bx) 4/22 | 1.000 EA |

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

AC Induction Motor Performance Data

Record # 85502

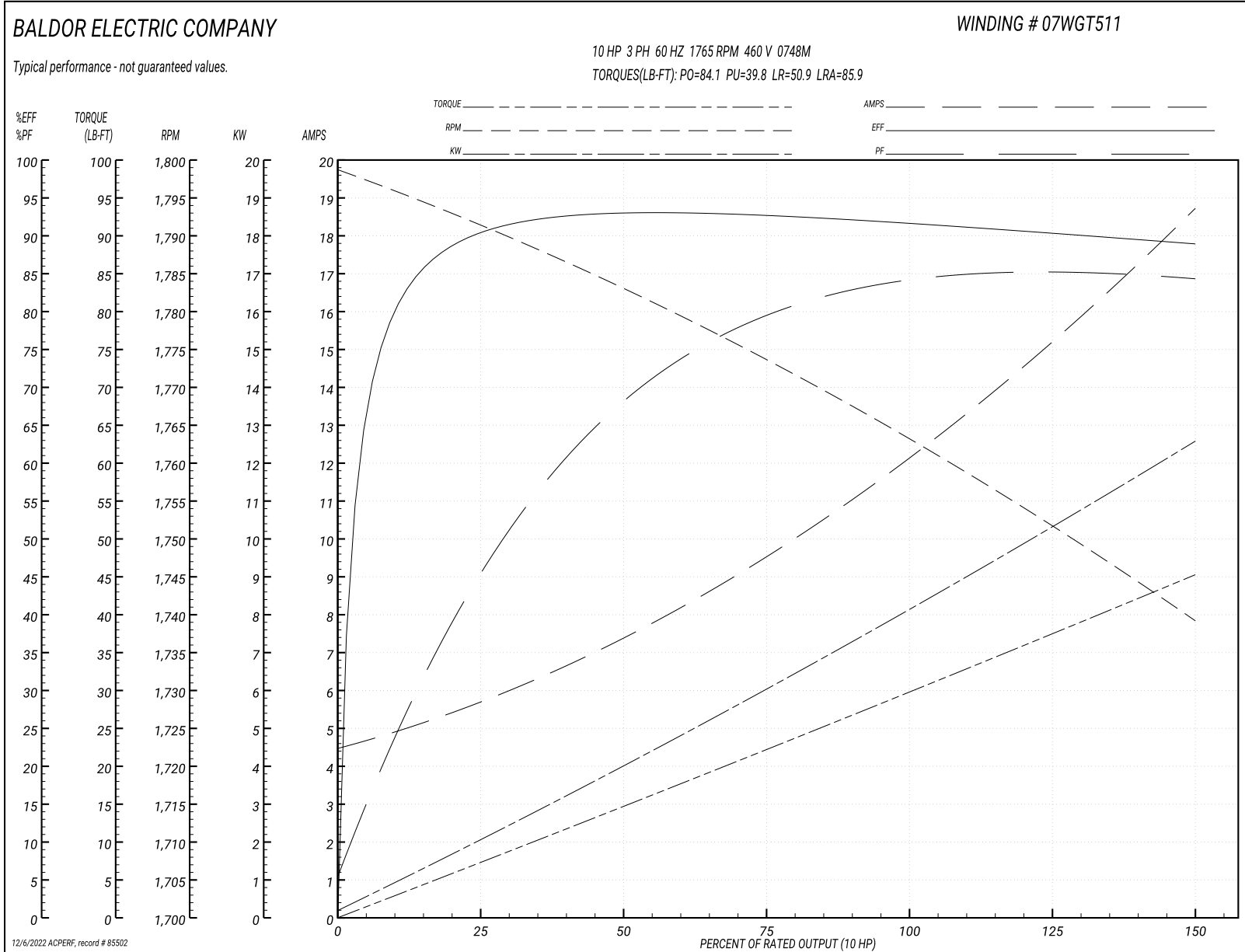
Preliminary Data Sheet

| Winding: 07WGT511-R001 | | Type: 0748M | | Enclosure: TEFC | |
|-------------------------------|-------------------|----------------------------------|--|------------------------|--|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | | |
| Rated Output (HP) | 10 | Full Load Torque | 29.8 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 24.6/12.3 | Breakdown Torque | 84.1 LB-FT | | |
| R.P.M. | 1765 | Pull-up Torque | 39.8 LB-FT | | |
| Hz | 60 Phase | Locked-rotor Torque | 50.9 LB-FT | | |
| NEMA Design Code | B KVA Code | Starting Current | 85.9 A | | |
| Service Factor (S.F.) | 1.15 | No-load Current | 4.67 A | | |
| NEMA Nom. Eff. | 91.7 Power Factor | Line-line Res. @ 25°C | 1.11 Ω | | |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 70°C | | |
| S.F. Amps | 28.3/14.15 | Temp. Rise @ S.F. Load | 93°C | | |
| | | Locked-rotor Power Factor | 40.4 | | |
| | | Rotor inertia | 1.18 lb-ft ² | | |

Load Characteristics 460 V, 60 Hz, 10 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 48 | 70 | 79 | 83 | 85 | 85 | 84 |
| Efficiency | 89.8 | 92.6 | 92.6 | 91.7 | 90.4 | 88.8 | 90.7 |
| Speed | 1791 | 1783 | 1774 | 1763 | 1752 | 1739 | 1753 |
| Line amperes | 5.44 | 7.24 | 9.6 | 12.3 | 15.3 | 18.6 | 14.1 |

Performance Graph at 460V, 60Hz, 10.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 88389

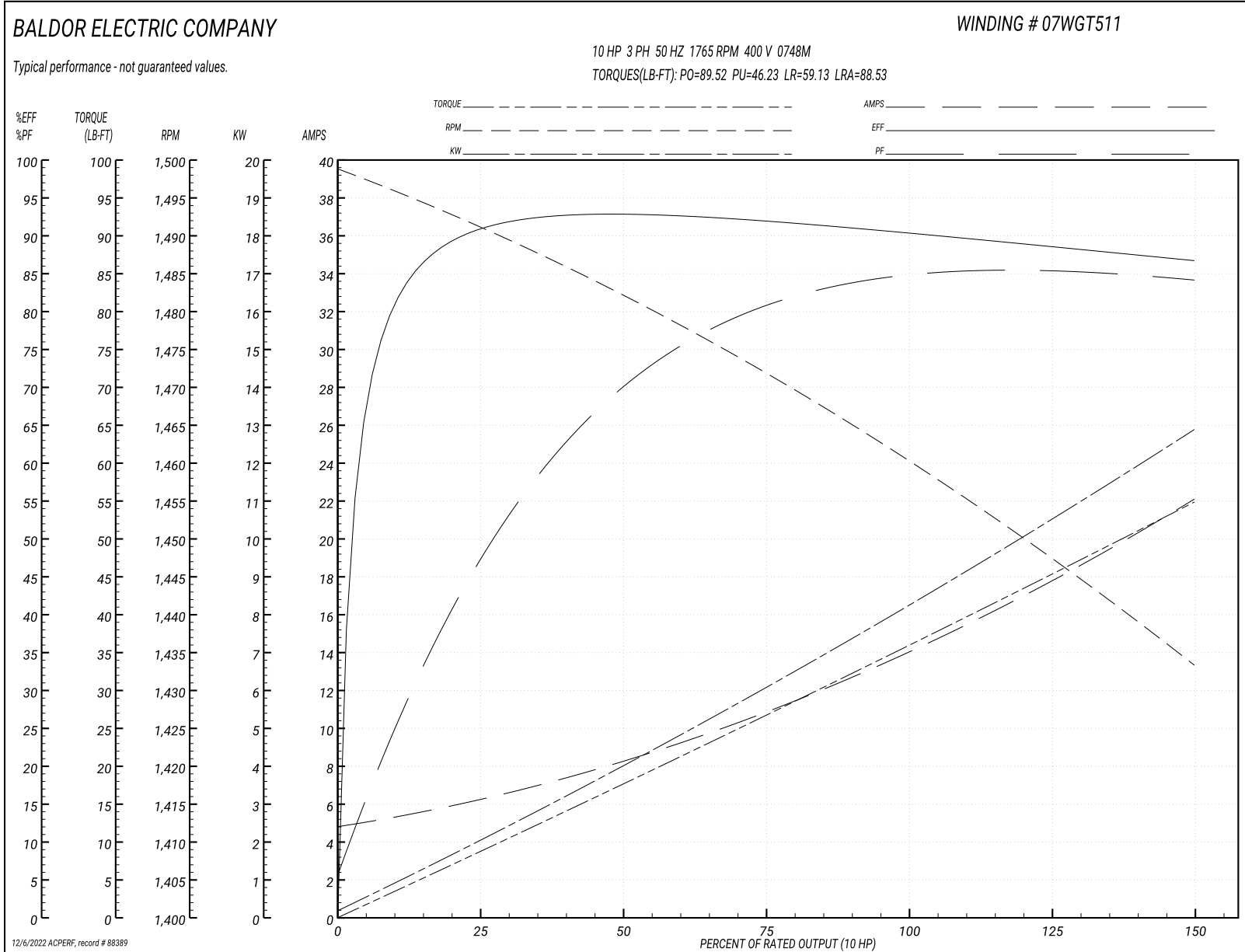
Typical performance - not guaranteed values

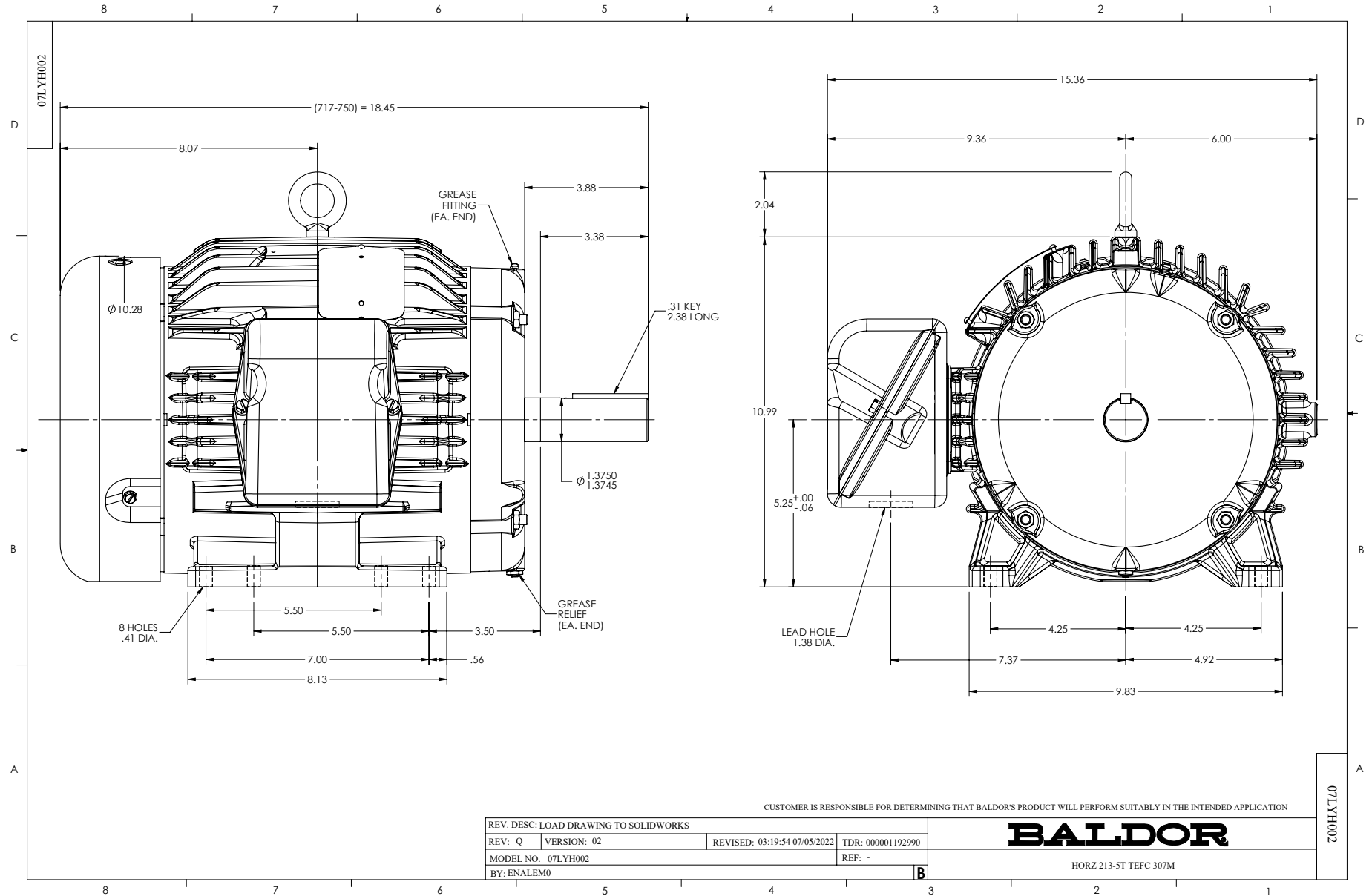
| Winding: 07WGT511-R001 | | Type: 0748M | | Enclosure: TEFC | |
|-------------------------------|-------------------|----------------------------|--|------------------------------|--------|
| Nameplate Data | | | 400 V, 50 Hz: High Voltage Connection | | |
| Rated Output (HP) | 10 | Full Load Torque | 35.99 LB-FT | | |
| Volts | 230/460 | Start Configuration | direct on line | | |
| Full Load Amps | 24.6/12.3 | Breakdown Torque | 89.52 LB-FT | | |
| R.P.M. | 1765 | Pull-up Torque | 46.23 LB-FT | | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 59.13 LB-FT | |
| NEMA Design Code | B KVA Code | H | Starting Current | 88.53 A | |
| Service Factor (S.F.) | 1.15 | No-load Current | 5.03 A | | |
| NEMA Nom. Eff. | 91.7 | Power Factor | 83 | Line-line Res. @ 25°C | 1.09 Ω |
| Rating - Duty | 40C AMB-CONT | | Temp. Rise @ Rated Load | 91°C | |
| S.F. Amps | | | Temp. Rise @ S.F. Load | 117°C | |
| | | | Locked-rotor Power Factor | 35.2 | |
| | | | Rotor inertia | 1.18 lb-ft ² | |

Load Characteristics 400 V, 50 Hz, 10 HP

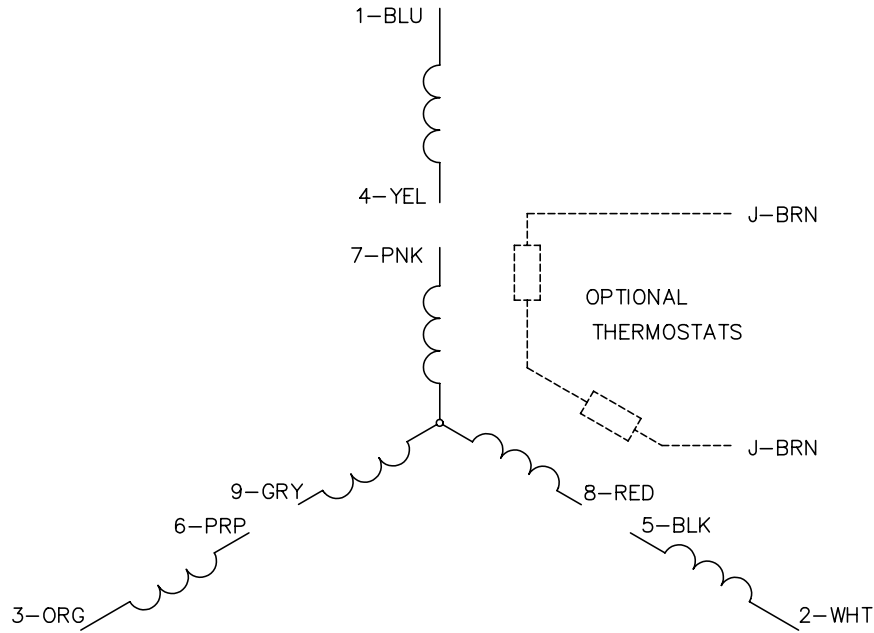
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 50 | 71 | 80 | 84 | 85 | 85 | 85 |
| Efficiency | 90 | 92.4 | 91.9 | 90.4 | 88.9 | 86.5 | 89.5 |
| Speed | 1491 | 1482 | 1472 | 1460 | 1448 | 1433 | 1453 |
| Line amperes | 5.96 | 8.13 | 10.95 | 14.22 | 17.88 | 21.98 | 16.4 |

Performance Graph at 400V, 50Hz, 10.0HP Typical performance - Not guaranteed values

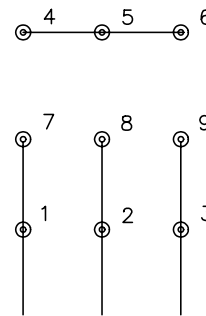




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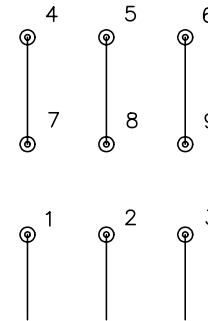


LOW VOLTAGE
(2Y)



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

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FILE: AAA00005140

MDL: -

MTL: -

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3PH, DV, 9 LEADS

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