

# ABB BALDOR RELIANCE III

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## Customer information packet

### VECP3774T-4

10HP, 1760RPM, 3PH, 60HZ, 215TC, 0748M, TEFC, F

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                                |                                                          |
|--------------------------------|----------------------------------------------------------|
| Enclosure                      | TEFC                                                     |
| Frame                          | 215TC                                                    |
| Frame Material                 | Iron                                                     |
| Frequency                      | 60.00 Hz                                                 |
| Haz Area Class and Group       | CL I GP A,B,C,D                                          |
| Haz Area Division              | Division II                                              |
| Motor Letter Type              | Three Phase                                              |
| Output @ Frequency             | 10.000 HP @ 60 HZ                                        |
| Phase                          | 3                                                        |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                                         |
| Voltage @ Frequency            | 460.0 V @ 60 HZ                                          |
| Agency Approvals               | CCSA US<br>CSA EEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR |
| Ambient Temperature            | 40 °C                                                    |
| Auxiliary Box                  | NO AUXILLARY BOX                                         |
| Auxiliary Box Lead Termination | None                                                     |
| Base Indicator                 | No Mounting                                              |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                  |
| Blower                         | None                                                     |
| Constant Torque Speed Range    | 1.3                                                      |
| Current @ Voltage              | 12.500 A @ 460.0 V                                       |
| Design Code                    | A                                                        |
| Drip Cover                     | Drip Cover                                               |
| Duty Rating                    | CONT                                                     |
| Efficiency @ 100% Load         | 92.4 %                                                   |
| Electrically Isolated Bearing  | Not Electrically Isolated                                |
| Feedback Device                | NO FEEDBACK                                              |
| Front Face Code                | Standard                                                 |
| Front Shaft Indicator          | None                                                     |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | Z          |
| Type         | AC         |
| Mech. spec.  | 07K370     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 07WGX556   |
| Layout       | 07LYK370   |
| Eff. date    | 10-01-2025 |
| CD Diagram   | CD0006     |
| Poles        | 04         |
| Leads        | 3#14       |
| Proprietary  | False      |
| Created date | 02-15-2011 |

|                                      |                              |
|--------------------------------------|------------------------------|
| <b>Haz Area Temp Code</b>            | T3C                          |
| <b>Heater Indicator</b>              | No Heater                    |
| <b>High Voltage Full Load Amps</b>   | 12.5 a                       |
| <b>Insulation Class</b>              | F                            |
| <b>Inverter Code</b>                 | Inverter Duty                |
| <b>KVA Code</b>                      | H                            |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs        |
| <b>Locked Bearing Indicator</b>      | Locked Bearing               |
| <b>Max Speed</b>                     | 2700 rpm                     |
| <b>Motor Lead Exit</b>               | Ko Box                       |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 14 AWG                   |
| <b>Motor Lead Termination</b>        | Flying Leads                 |
| <b>Motor Standards</b>               | NEMA                         |
| <b>Motor Type</b>                    | 0748M                        |
| <b>Mounting Arrangement</b>          | F1                           |
| <b>Number of Poles</b>               | 4                            |
| <b>Overall Length</b>                | 21.36 IN                     |
| <b>Power Factor</b>                  | 82                           |
| <b>Product Family</b>                | Chemical Processing (Not DC) |
| <b>Pulley End Bearing Type</b>       | Ball                         |
| <b>Pulley Face Code</b>              | C-Face                       |
| <b>Pulley Shaft Indicator</b>        | Standard                     |
| <b>Rodent Screen</b>                 | None                         |
| <b>Service Factor</b>                | 1.15                         |
| <b>Shaft Diameter</b>                | 1.375 IN                     |
| <b>Shaft Extension Location</b>      | Pulley End                   |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding           |
| <b>Shaft Rotation</b>                | Reversible                   |
| <b>Shaft Slinger Indicator</b>       | Shaft Slinger                |
| <b>Speed</b>                         | 1760 rpm                     |
| <b>Speed Code</b>                    | Single Speed                 |
| <b>Starting Method</b>               | Direct on line               |
| <b>Thermal Device - Bearing</b>      | None                         |
| <b>Thermal Device - Winding</b>      | None                         |

| Vibration Sensor Indicator | No Vibration Sensor |
|----------------------------|---------------------|
| Winding Thermal 1          | None                |
| Winding Thermal 2          | None                |

Nameplate

| NP3257       |              |      |     |      |   |  |    |   |  |
|--------------|--------------|------|-----|------|---|--|----|---|--|
| CAT.NO.      | VECP3774T-4  |      |     |      |   |  |    |   |  |
| SPEC.        | 07K370X556G2 |      |     |      |   |  |    |   |  |
| HP           | 10 TE        |      |     |      |   |  |    |   |  |
| VOLTS        | 460          |      |     |      |   |  |    |   |  |
| AMP          | 12.5         |      |     |      |   |  |    |   |  |
| RPM          | 1760         |      |     |      |   |  |    |   |  |
| FRAME        | 215TC        |      | HZ  | 60   |   |  | PH | 3 |  |
| SER.F.       | 1.15         | CODE | H   | DES  | A |  | CL | F |  |
| RATING       | 40C AMB-CONT |      |     |      |   |  |    |   |  |
| SN           |              |      |     |      |   |  |    |   |  |
| DE           | 6307         |      | ODE | 6307 |   |  |    |   |  |
| NEMA-NOM-EFF | 92.4         |      | PF  | 82   |   |  |    |   |  |
| G.MIN.EFF    | 91.0         |      | CC  | 010A |   |  |    |   |  |
| T. CODE      | T3C          |      | T=  | 160  |   |  |    |   |  |

| NP3260      |              |                         |     |
|-------------|--------------|-------------------------|-----|
| SPEC.       | 07K370X556G2 |                         |     |
| D.E. BRG.   | 35BC03XP30X  |                         |     |
| O.D.E. BRG. | 35BC03XP30X  |                         |     |
| GREASE      | POLYREX EM   |                         |     |
| RPM MAX     | 2700         | MAX. KVAR               | 1.7 |
| BLANK       |              |                         |     |
| INV.TYPE    | PWM          |                         |     |
| T=          | 160          |                         |     |
| C HP FR     | 60           | C HP TO                 | 90  |
| CT HZ FROM  | 1.3          | CT HZ TO                | 60  |
| VT HZ FROM  | 0-           | VT HZ TO                | 60  |
| HTR-VOLTS   |              | HTR-AMPS                |     |
| HTR-WATTS   |              | MAX. SPACE HEATER TEMP. |     |

**Parts List**

| Part number  | Description                              | Quantity |
|--------------|------------------------------------------|----------|
| SA217594     | SA 07K370X556G2                          | 1.000 ea |
| RA204773     | RA 07K370X556G2                          | 1.000 ea |
| 37FN3002C01  | EXFN, PLASTIC, 6.00 OD, 1.155 ID         | 1.000 ea |
| HW3201A05    | 3/8-16 EYEBOLT                           | 1.000 ea |
| 09CB1001A03G | CONDUIT BOX, MACH GRAY                   | 1.000 ea |
| RM1017       | LEAD SEPERATOR GASKET MODEL 307 1/8" THK | 1.000 ea |
| 19XW2520A16  | SCREW,1/4-20X1 TAPTITE-II OR ROLOC 91    | 2.000 ea |
| 11XW1032G06  | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| HW3001B01    | BRASS CUP WASHER, FOR #10 SCREW          | 1.000 ea |
| 10XN2520S06  | 1/4 20X3/8 HX HD CAP S.S.                | 2.000 ea |
| WD1000B16    | T&B CX70TN OR L70P TERMINAL LUG          | 1.000 ea |
| 37EP1101C43G | TEFC 307 BRG, GRSR,RELIEF,.25-20 FH TAPS | 1.000 ea |
| HW4500A01    | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| HA4051A00    | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A17    | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HA4054       | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| HW5100A08    | W3118-035 WVY WSHR (WB)                  | 1.000 ea |
| 37EP1300A41G | FACE MTD E.P. ENCL 307 BRG. 213-5TC S.P. | 1.000 ea |
| HW4500A01    | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| HA4051A00    | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A17    | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HA4054       | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| 10XN2520A30  | HEX HD CAP SCREW-STD THD-.25 X 20 THD PE | 4.000 ea |
| XY3118A12    | 5/16-18 HEX NUT DIRECTIONAL SERRATION    | 4.000 ea |
| 51XB1214A20  | 12-14X1.25 HXWSSLD SERTYB                | 1.000 ea |
| 07FH1001A02G | FAN HOUSING, 307 W/MTG BOSSES, GRS HOLE  | 1.000 ea |
| 10XN2520A16  | 1/4-20 X 1 HEX HEAD CAP SCR, ZINC PLATED | 3.000 ea |
| WD4100A02    | DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL  | 1.000 ea |
| 39FH4500A04G | SP'L DRIP COVER FOR 307 MOTOR MACH GRAY  | 1.000 ea |
| 12XN1032A20  | 10-32X1 1/4 HXWS SLTD                    | 4.000 ea |
| HA2001A09    | SPACER, .218 ID X .937 LG                | 4.000 ea |

|              |                                           |          |
|--------------|-------------------------------------------|----------|
| 09CB1504A01G | LIPPED CONDUIT BOX LID, MACH GRAY EPOXY   | 1.000 ea |
| 09GS1001A01  | GASKET, BOX LID, 1/8 THICK BLACK NEOPREN  | 1.000 ea |
| 10XN2520A12  | 1/4-20 X 3/4 HEX HEAD CAP                 | 2.000 ea |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I  | 2.000 ea |
| HA1005A07    | SLINGER, OD 2.25, ID 1.344, 307 BRG       | 1.000 ea |
| HW4600B33    | V-RING SLINGER 1.375 X 1.890 X .35 VITON  | 1.000 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 |
| MJ5001A27    | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL   | 0.001 qt |
| 85XU0407S04  | 4X1/4 U DRIVE PIN STAINLESS               | 2.000 ea |
| LB1624       | COMBINED WARNING LABEL, ISO/ANSI PICTOGR  | 1.000 ea |
| LB1002N      | LABEL, MARINE DUTY (ON ROLLS)             | 1.000 ea |
| MJ1000A02    | GREASE, POLYREX EM EXXON                  | 0.050 lb |
| HA3104A32    | THRUBOLT- 5/16-18 X12.750                 | 4.000 ea |
| MG1025N19    | WILKOFASST, 778.50, RELIANCE BLUE-GREEN 8 | 0.036 ga |
| LB1449       | DIV-2/NEC WARNING LABEL                   | 1.000 ea |
| LC0006       | CONNECTION LABEL                          | 1.000 ea |
| NP3257       | SS CP SUPER-E DIV-2 UL CSA-C US EEV PREM  | 1.000 ea |
| NP3260       | SS CP SUPER-E AUX DATA INFORMATION        | 1.000 ea |
| 85XU0407S04  | 4X1/4 U DRIVE PIN STAINLESS               | 2.000 ea |
| 07PA1011     | PKG GRP, 07 CAST IRON PK1181              | 1.000 ea |
| 07PA1095     | PKG GRP, VER 07 CAST IRON                 | 1.000 ea |
| MN416A01     | TAG-INSTAL-MAINT no wire (2500 bx)11/25   | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 47025

Typical performance - not guaranteed values

| Winding: 07WGX556-R070 |    |       | Type: 0748M                           |                     | Enclosure: TEFC         |                       |        |         |
|------------------------|----|-------|---------------------------------------|---------------------|-------------------------|-----------------------|--------|---------|
| Nameplate Data         |    |       | 460 V, 60 Hz:<br>Single Voltage Motor |                     |                         |                       |        |         |
| Rated Output (HP)      |    | 10    | Full Load Torque                      |                     | 29.7 LB-FT              |                       |        |         |
| Volts                  |    | 460   | Start Configuration                   |                     | direct on line          |                       |        |         |
| Full Load Amps         |    | 12.5  | Breakdown Torque                      |                     | 104 LB-FT               |                       |        |         |
| R.P.M.                 |    | 1760  | Pull-up Torque                        |                     | 52 LB-FT                |                       |        |         |
| Hz                     | 60 | Phase | 3                                     | Locked-rotor Torque |                         | 70.5 LB-FT            |        |         |
| NEMA Design Code       |    | A     | KVA Code                              | H                   | Starting Current        |                       | 96.9 A |         |
| Service Factor (S.F.)  |    | 1.15  | No-load Current                       |                     | 5.06 A                  |                       |        |         |
| NEMA Nom. Eff.         |    | 92.4  | Power Factor                          |                     | 82                      | Line-line Res. @ 25°C |        | 0.978 Ω |
| Rating - Duty          |    | 40C   | AMB-CONT                              |                     | Temp. Rise @ Rated Load |                       | 55°C   |         |
| S.F. Amps              |    |       | Temp. Rise @ S.F. Load                |                     | 68°C                    |                       |        |         |
|                        |    |       | Rotor inertia                         |                     | 1.18 LB-FT2             |                       |        |         |

**Load Characteristics 460 V, 60 Hz, 10 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 46   | 69   | 79   | 83   | 85   | 86   | 84   |
| Efficiency      | 88.6 | 92.2 | 92.7 | 92.3 | 91.5 | 90.3 | 91.8 |
| Speed           | 1793 | 1785 | 1777 | 1769 | 1760 | 1750 | 1764 |
| Line amperes    | 5.73 | 7.38 | 9.59 | 12.2 | 14.9 | 18   | 13.8 |

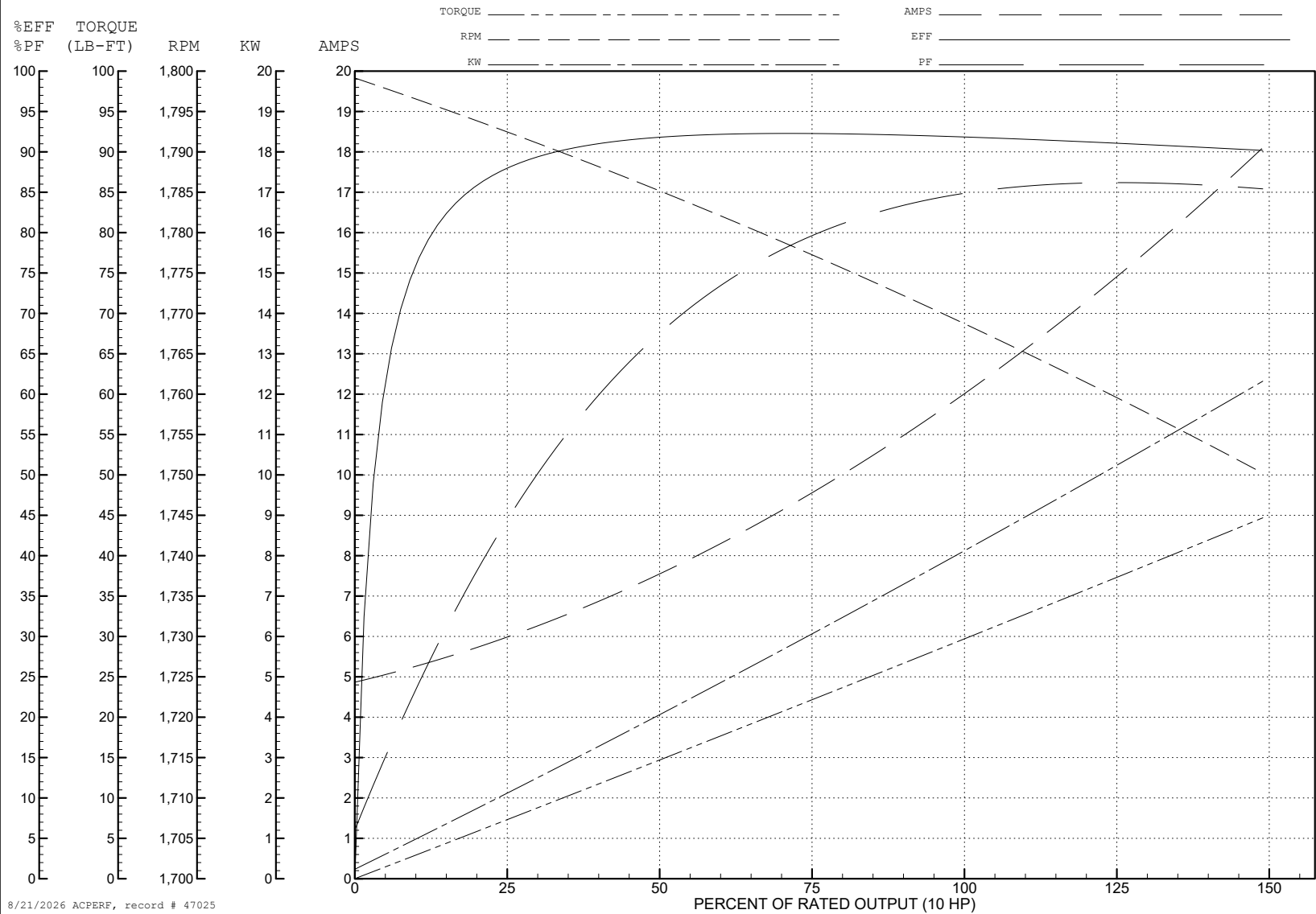
ABB Motors and Mechanical Inc.

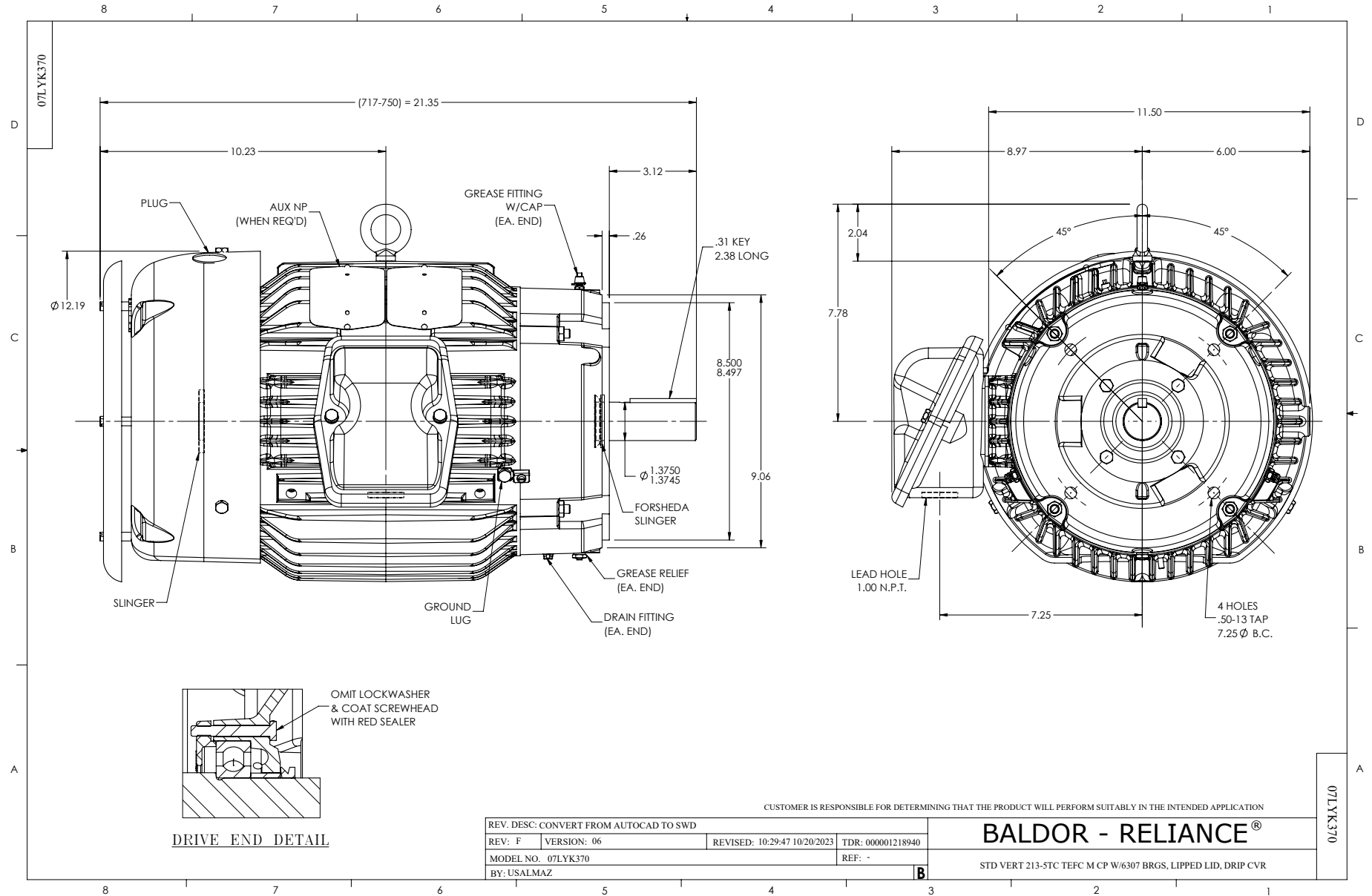
WINDING # 07WGX556

Typical performance - not guaranteed values.

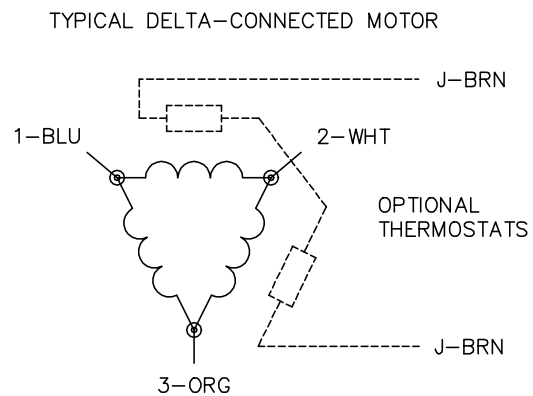
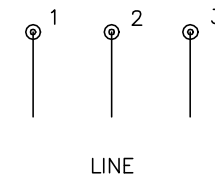
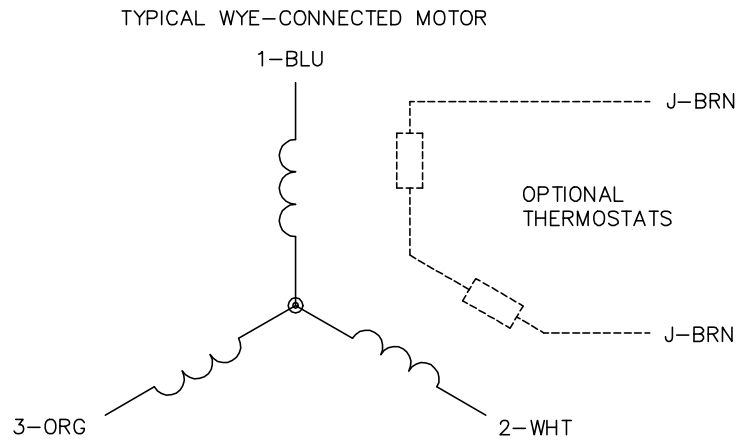
10 HP 3 PH 60 HZ 1760 RPM 460 V 0748M

TORQUES (LB-FT): PO=104 PU=52 LR=70.5 LRA=96.9





CD0006



**NOTES:**

1. THREE LEAD MOTOR MAY BE EITHER 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 BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10: 24: 49 02/19/2019

BY: ENBRIRO

MTL: -



**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1