ABB BALDOR RELIANCE

# Customer information packet

## D50400P2-BV

0508AT, 400HP, 1750RPM, 500, 150, DPBV, F1

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## Specifications

| | |
|---|---|
| **Armature Voltage** | 500 V |
| **Base Speed** | 1750 rpm |
| **Enclosure** | DPFG |
| **Field Voltage** | 150 V |
| | 300 V |
| **Frame** | 508AT |
| **Frame Material** | Steel |
| **Output Power** | 400.000 HP |
| **Agency Approvals** | CSA |
| **Ambient Temperature** | 40 °C |
| **Armature Current** | 624.0 a |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Feedback Device** | NO FEEDBACK |
| **Field Winding Type** | STR. SHUNT |
| **Heater Indicator** | No Heater |
| **Insulation Class** | F |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Motor Standards** | NEMA |
| **Mounting Arrangement** | F1 |
| **Overall Length** | 54.00 IN |
| **Service Factor** | 1.00 |
| **Shaft Diameter** | 3.250 IN |
| **Shaft Extension Location** | Pulley End |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Slinger Indicator** | No Slinger |
| **Thermal Device - Bearing** | None |

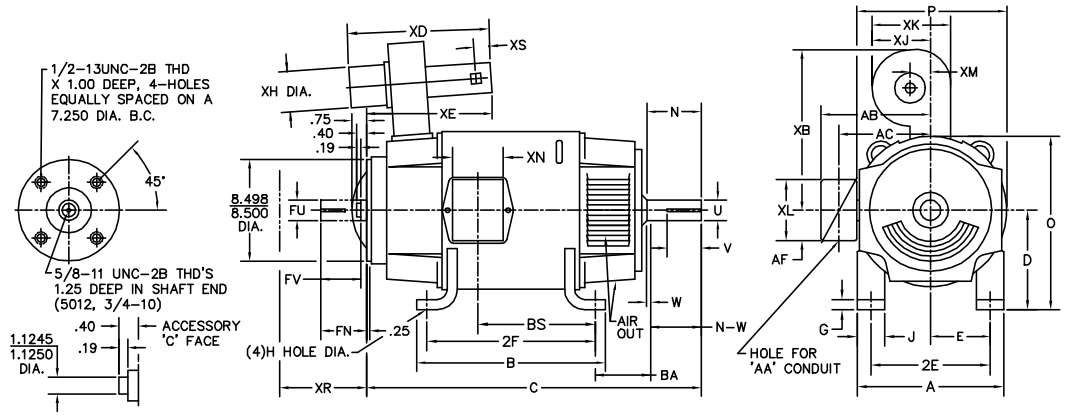
## Part Detail

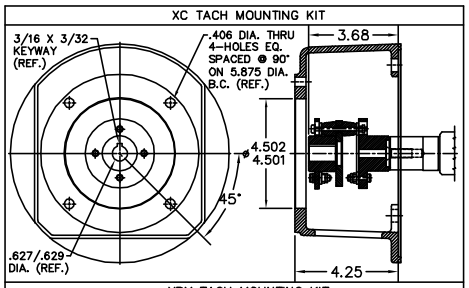
| | |
|---|---|
| **Revision** | C |
| **Type** | DC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | K0127A A |
| **Layout** | 1336-6 |
| **Eff. date** | 03-22-2022 |
| **CD Diagram** | 15209 |
| **Poles** | 00 |
| **Leads** | |
| **Proprietary** | False |
| **Created date** | 04-09-2015 |

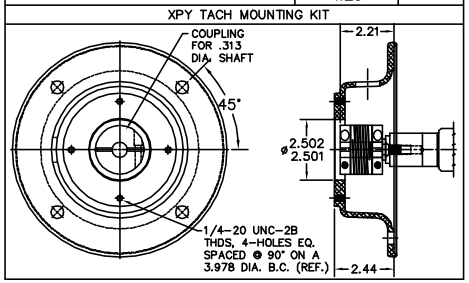
**Nameplate**

| NP1734 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | | | | **MODEL** | T50R8005 | | | | |
| **HP** | 400 | **RPM** | 1750/1950 | | **FRAME** | 0508AT | | | |
| **ARM V** | 500 | **ARM A** | | 624.00 | **WOUND** | STR. SHUNT | | | |
| **FLD V** | 150/300 | **FLD A** | 17.76-12.14/8.88-6.07 | | | | | | |
| **CONN** | | **OHMS** | | | **CL** | F | | | |
| **ENCL** | DPFG | **DUTY** | CONT | | **MX AMB** | 40 | | | |
| **P CODE** | D | **CTSR** | | | **SER.F.** | 1.0 | | | |
| **S/N** | | | **E/S** | K0127A A | | | | | |
| | BRUSH:50034-2 | | | | | | | | |
| **O.D.E. BRG.** | 6216 | **D.E. BRG.** | 6218 | | **BRUSH** | | **QTY** | | |

1336-6

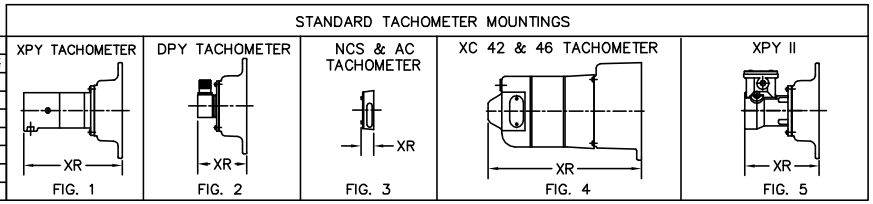



| TACHOMETER | | | |
|---|---|---|---|
| TACH | XR | LBS | FIG # |
| XPY | 9.00 | 6.00 | 1 |
| DPY | 6.91 | 3.00 | 2 |
| NCS | 3.25 | 7.00 | 3 |
| AC | 2.77 | 7.00 | 3 |
| XC42 | 12.49 | 25.00 | 4 |
| XC46 | 14.50 | 35.00 | 4 |
| XPYII | 6.89 | 15.00 | 5 |

STANDARD TACHOMETER MOUNTINGS




| | FOOT MOUNTING | | | | | | D.E. SHAFT EXTENSION | | | | | DRIVE KEY | | ACC SHAFT EXTENSION | | | ACC KEY | | FRAME | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FRAME | BA | E | 2F | G | H | J | N | N-W | U | V | W | KEY-SQ. | KEY-LONG | FN | FU | FV | KEY-SQ. | KEY-LONG | A | B | C | D | O | P |
| 504AT | 8.50 | 10.00 | 16.00 | 1.18 | 1.188 | 4.50 | 6.76 | 6.57 | 3.250 | 6.32 [3] | .19 | .750 | 5.25 | 5.95 | 2.875 | 5.70 | .750 | 5.00 | 24.88 | 18.88 | 45.00 | 12.50 [2] | 24.91 | 24.81 |
| 506AT | 8.50 | 10.00 | 20.00 | 1.18 | 1.188 | 4.50 | 6.76 | 6.57 | 3.250 | 6.32 [3] | .19 | .750 | 5.25 | 5.95 | 2.875 | 5.70 | .750 | 5.00 | 24.88 | 22.88 | 49.00 | 12.50 [2] | 24.91 | 24.81 |
| 508AT | 8.50 | 10.00 | 25.00 | 1.18 | 1.188 | 4.50 | 6.76 | 6.57 | 3.250 | 6.32 [3] | .19 | .750 | 5.25 | 5.95 | 2.875 | 5.70 | .750 | 5.00 | 24.88 | 27.88 | 54.00 | 12.50 [2] | 24.91 | 24.81 |
| 5010AT | 8.50 | 10.00 | 32.00 | 1.18 | 1.188 | 4.50 | 6.76 | 6.57 | 3.250 | 6.32 [3] | .19 | .750 | 5.25 | 5.95 | 2.875 | 5.70 | .750 | 5.00 | 24.88 | 34.88 | 61.00 | 12.50 [2] | 24.91 | 24.81 |
| 5011AT | 8.50 | 10.00 | 36.00 | 1.18 | 1.188 | 4.50 | 6.76 | 6.57 | 3.375 | 6.32 [3] | .19 | .875 | 5.25 | 5.95 | 2.875 | 5.70 | .750 | 5.00 | 24.88 | 38.88 | 65.00 | 12.50 [2] | 24.91 | 24.81 |
| 5012AT | 8.50 | 10.00 | 43.00 | 1.18 | 1.188 | 4.50 | 7.06 | 6.87 | 4.250 | 6.62 [3] | .19 | 1.000 | 5.25 | 5.95 | 2.875 | 5.70 | 1.000 | 5.00 | 24.88 | 45.88 | 73.75 | 12.50 [2] | 24.91 | 24.81 |

| | CONDUIT BOX | | | | | | | BLOWER | | | | | | | | | ARM APPROX. WK² LBS.FT.² | APPROXIMATE WEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FRAME | AA | AB | AC | AF | BS | XL | XN | SIZE | XB | XD | XE | XH | XM | XJ | XK | XS | | |
| 504AT | 3 | 20.65 | 16.81 | 2.62 | 13.25 | 11.63 | 7.76 | LM8 | 25.50 | 27.38 | 20.94 | 10.75 | 5.50 | 12.38 | 15.25 | 3.75 | 79.10 | 1957 [5] |
| 506AT | 3 | 20.65 | 16.81 | 2.62 | 17.25 | 11.63 | 7.76 | LM8 | 25.50 | 27.38 | 20.94 | 10.75 | 5.50 | 12.38 | 15.25 | 3.75 | 98.76 | 2337 [5] |
| 508AT | 3 | 20.65 | 16.81 | 2.62 | 22.25 | 11.63 | 7.76 | LM8 | 25.50 | 27.38 | 20.94 | 10.75 | 5.50 | 12.38 | 15.25 | 3.75 | 121.87 | 2867 [5] |
| 5010AT | 4 [4] | 21.20 | 16.81 | 2.84 | 30.12 | 13.40 | 13.50 | LM9 | 25.50 | 28.31 | 20.94 | 10.75 | 5.50 | 12.38 | 15.25 | 3.75 | 156 | 3520 [5] |
| 5011AT | 4 [4] | 21.20 | 16.81 | 2.84 | 34.12 | 13.40 | 13.50 | LM9 | 25.50 | 28.31 | 21.88 | 10.75 | 5.50 | 12.38 | 15.25 | 3.75 | 161 | 3880 [5] |
| 5012AT | 4 [4] | 21.20 | 17.19 | 2.84 | 41.12 | 13.40 | 13.50 | LM9 | 25.50 | 28.31 | 21.88 | 10.75 | 5.50 | 12.38 | 15.25 | 3.75 | 170 | 5177 [5] |

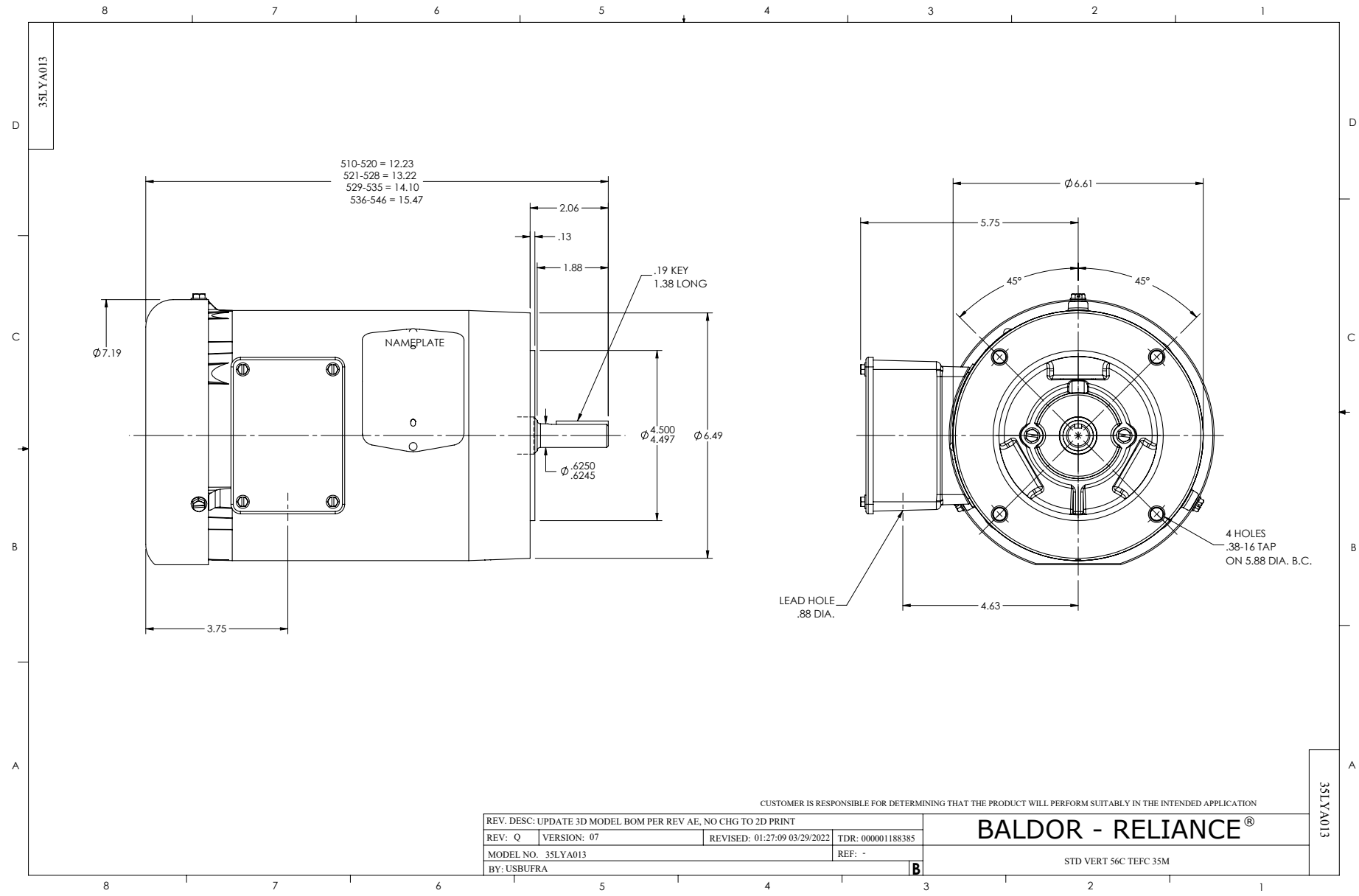
1) SHAFT DIAMETERS TO 1.500 TOLERANCE +.0000 -.0005
SHAFT DIAMETERS ABOVE 1.500 TOLERANCE +.0000 -.0010
SHAFT DIAMETERS TO 1.625 RUNOUT .002 T.I.R. MAX.
SHAFT DIAMETERS ABOVE 1.625 RUNOUT .003 T.I.R. MAX.
2) 'D' DIMENSION TOLERANCE +.000 - .060
3) 'V' DIMENSION IS MAX. HUB LENGTH ON SHAFT
4) THERE ARE TWO HOLES FOR 4" CONDUIT, SECOND HOLE IS 6" TOWARD DRIVE END.
5) TOTAL WEIGHT OF MOTOR AND BLOWER LESS TACH WEIGHT.
6) ALL DIMENSIONS NOT NOTED ARE NOMINAL DIMENSIONS CONSULT FACTORY FOR TOLERANCES.

FOR F1 OR F2 CONDUIT BOX
LOCATION SEE SALES ORDER

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

| | | | |
|---|---|---|---|
| REV. DESC: CHG (5011)U DIM TO 3.375, KEY-SQ TO .875 | | | BALDOR ELECTRIC Co. |
| REV. LTR: G | BY: MBT | REVISED: 15:36:36 07/17/2002 | TDR: 273841 |
| 9-9ξξ1 | | FILE: CHB00001076 | REF: 1336-6 |
| | | MTL: - | DIM SHEET: 504-5012AT,DPBV,W/TACH |

1336-6


35LYA013
510-520 = 12.23
521-528 = 13.22
529-535 = 14.10
536-546 = 15.47
2.06
.13
1.88
.19 KEY
1.38 LONG
NAMEPLATE
Ø7.19
Ø4.500
4.497
Ø6.49
Ø .6250
.6245
3.75
Ø6.61
5.75
45°
45°
4 HOLES
.38-16 TAP
ON 5.88 DIA. B.C.
LEAD HOLE
.88 DIA.
4.63
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV AE, NO CHG TO 2D PRINT
REV: Q
VERSION: 07
REVISED: 01:27:09 03/29/2022
TDR: 000001188385
MODEL NO. 35LYA013
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
STD VERT 56C TEFC 35M
35LYA013

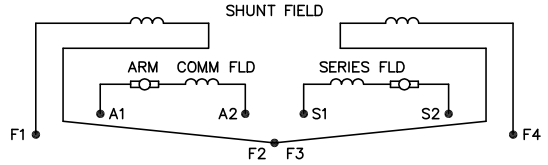
15209

ALUMINUM (MATT) BACKGROUND WITH BLACK LETTERS

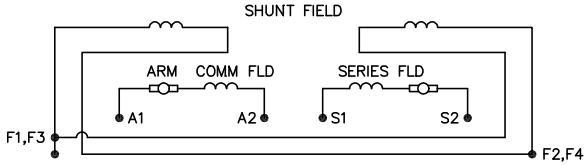
LABEL MANUFACTURER IDENTIFYING MARK TO APPEAR HERE

3 1/4

CONNECTIONS AND TERMINAL MARKINGS




HIGH FIELD EXCITATION VOLTAGE (SERIES CONN.)




LOW FIELD EXCITATION VOLTAGE (PARALLEL CONN.)

FOR STRAIGHT SHUNT MOTORS: DISREGARD S1 AND S2.
FOR SERIES MOTORS: DISREGARD F1,F2,F3,F4.
STRAIGHT SHUNT: F1 AND A1 SAME POLARITY, ROTATION CCW.
SERIES: CONNECT A2 AND S1, ROTATION CCW.
STABILIZED SHUNT AND COMPOUND: F1 AND A1 SAME POLARITY. CONNECT A2 AND S1, ROTATION CCW.
FOR CW ROTATION: INTERCHANGE A1 AND A2. ROTATION VIEWED FROM OPPOSITE DRIVE END. FOR FIELD REVERSING MOTORS WITH A SERIES FIELD: S1 MUST REVERSE POLARITY WHEN F1 REVERSES.
THERMOSTAT: WHEN SUPPLIED WILL HAVE LEADS TAGGED P1 AND P2. THERMOSTAT SENSES HEAT OF COMMUTATING FIELD COIL.

AMPERE RATINGS OF CONTACTS.

| MAX AMPS BREAK | | | MAX CONTINUOUS |
|---|---|---|---|
| 120 VAC | 240 VAC | 24 VDC | AMP – ALL VOLTAGES |
| 12 | 8 | 2 | 2 |

SPACE HEATER: WHEN SUPPLIED WILL HAVE LEADS TAGGED H1 AND H2. SEE MOTOR NAMEPLATE FOR HEATER VOLTAGE AND CURRENT.

15209

2 1/2

NOTE:
MATERIAL .005 MINUMUM FULL HARD ALUMINUM DULL FINISH.
TEMP. RANGE −20°C TO +125°C MAXIMUM.
FOR INDOOR AND OUTDOOR MOUNTING BACK.
METAL, PRESSURE SENSITIVE BACK.
MUST MEET CSA STANDARD.
THE CSA INDENTIFYING MARK OF THE LABEL MANUFACTURER MUST APPEAR IN THE UPPER RIGHT HAND CORNER AS INDICATED.

UNLESS OTHERWISE SPECIFIED,
BREAK ALL SHARP EDGES .010/.020.
REMOVE ALL BURRS.

TOLERANCES

| | |
|---|---|
| .X ±.015 | FRACTIONS ±1/32 |
| .XX ±.010 | RADII ±1/16 |
| .XXX +.005 | ANGLES ±1° |

| | | | | |
|---|---|---|---|---|
| MATL: NOTED | | | | BALDOR ELECTRIC Co. |
| REV: | G | CHANGE ALL "NAMEPLATE" TEXT TO "LABEL" | | |
| 15209 | SCALE: – | BY: BKW | REVISED: 02/19/97 | LABEL, CONNECTIONS AND TERMINAL MARKINGS DC |
| | FILE: CHB00002485 | | TDR: 0115147 | |

15209