

BALDOR® • **RELIANCE**

Product Information Packet

ZDBRPM281004R1

100HP,FL2890,TEBC,1750RPM,460V,3PH,60HZ,

| Part Detail | | | | | | | |
|-------------|--------|----------------|-------|-------------|--------|---------------|------------|
| Revision: | A | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Prod. Type: | | Elec. Spec: | L4052A | CD Diagram: | 422927-001 |
| Enclosure: | TEBC | Mfg Plant: | | Mech. Spec: | | Layout: | 617531-321 |
| Frame: | FL2890 | Mounting: | F3 | Poles: | 04 | Created Date: | 04-09-2015 |
| Base: | | Rotation: | R | Insulation: | H | Eff. Date: | 08-27-2015 |
| Leads: | | | | | | Replaced By: | |
| Literature: | | Elec. Diagram: | | | | | |

| | | DUTY | HP | RPM | AMPS | VOLTS | HZ | | | |
|------------|----------------|----------------|-----|-------------|------------|----------|-----|--|-----------|-----|
| | CONT | | 100 | 1780 | 124 | 460 | 60 | | | |
| | CONT | | 100 | 3555 | 120 | 460 | 120 | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| CAT.NO. | ZDBRPM281004R1 | | | SPEC. NO. | | P28T0311 | | | | |
| SER.NO. | | | | FR | FL 2890 | INSUL | H | | | |
| PH. | 3 | MAX SAFE SPEED | | 5000 | AMB. | 45 | | | MIN. AMB. | -25 |
| DESIGN NO. | L4052A | | | TYPE | | | | | | |
| S.F. | 1.0 | | | D.E. BRG. | 75BC02J30X | | | | | |
| ENCL MOD | | | | O.D.E. BRG. | 55BC02J30X | | | | | |
| | | | | | | | | | | |

| Parts List | | |
|-------------|-------------------------------|----------|
| Part Number | Description | Quantity |
| WS286665 | WS P28T0311 | 1.000 EA |
| RA282873 | RA P28T0311 | 1.000 EA |
| 000613006MY | NP-RPMAC INVERTER DUTY | 1.000 EA |
| 000692000FP | NP, WARNING LIFT INSTRUCTIONS | 1.000 EA |
| 000692000NH | LABEL DIRECTION AIR FL | 1.000 EA |
| 000692000VD | LABEL WARNING | 1.000 EA |
| 418018122A | LABEL | 2.000 EA |
| 418057747A | METAL FASTENER | 8.000 EA |
| 422927001 | C/D LABEL | 1.000 EA |
| 004824015A | GREASE POLYREX EM | 0.300 LB |
| 034693001AB | PPLG - G508- use 034692001AB | 1.000 EA |
| 034693001AB | PPLG - G508- use 034692001AB | 1.000 EA |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 EA |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 EA |
| 036100070JA | HSHCS M8 70MM UNPLATED | 3.000 EA |
| 036100070KA | METRIC HSHCS | 3.000 EA |
| 036140001D | EYEBOLT - 360 | 2.000 EA |
| 036500011AB | METRIC NUT M12-1.75 PLT. | 4.000 EA |
| 036500011AB | METRIC NUT M12-1.75 PLT. | 4.000 EA |
| 036600014AB | FLTW MOTOR MTG. | 2.000 EA |
| 400638001G | WAVEN | 1.000 EA |
| 418150003A | GREASE FITTING CAP | 2.000 EA |
| 602018077A | DRAIN | 1.000 EA |
| 602018077A | DRAIN | 1.000 EA |

| Parts List (continued) | | |
|------------------------|------------------------------------------|----------|
| Part Number | Description | Quantity |
| 609830005G | TBOLT VERSION 3 | 4.000 EA |
| 807583003AAA | BRKT,DE,FL280 | 1.000 EA |
| 807583004AAB | BRKT,ODE,FL280 | 1.000 EA |
| 032018008DK | HHCS 1/2-13X1 PLATED | 4.000 EA |
| 032018010DK | HHCS 1/2-13X1-1/4 PLATED | 2.000 EA |
| 034530016AB | P/NIP 1/8X2 PLATED - 320 | 2.000 EA |
| 034630001AJ | 1/8" PIPE COUPLING | 2.000 EA |
| 036000012HB | HHCS M6X12MM LONG PLATED | 4.000 EA |
| 036000016KB | HHCSM10-1.5X16MM PLTD-280 | 2.000 EA |
| 036000025JB | HHCS M8X25MM LONG PLATED | 4.000 EA |
| 036000025JB | HHCS M8X25MM LONG PLATED | 4.000 EA |
| 036310010FB | RHMS TERM/BLK MTG | 2.000 EA |
| 036320008CB | M2.5 SCREW | 4.000 EA |
| 036321020HB | HEXSOCKET FLAT SCREW M | 3.000 EA |
| 036500006AB | M4-0.7 METRIC HEX NUT | 2.000 EA |
| 036500009AB | METRIC NUTM8-1.25PLTD-360 | 4.000 EA |
| 036600009AB | METRIC FLWASH M8 PLATED | 4.000 EA |
| 036610009AB | MHSLW M8 SPL.PLTD-G508- BS | 4.000 EA |
| 036620009AB | M8 EXTERNAL LK WASHER | 1.000 EA |
| 036620010AB | M10 EXT. TOOTH LK WASHER | 2.000 EA |
| 074875000A | CONDUIT BOX COVER | 1.000 EA |
| 14FH4801 | CONICAL GRILLE FOR 250MM FAN, 290MM DIA. | 1.000 EA |
| 402731000A | GASK 320-400 | 1.000 EA |
| 412043002E | PLUG | 1.000 EA |

Product Information Packet: ZDBRPM281004R1 - 100HP,FL2890,TEBC,1750RPM,460V,3PH,60HZ,

| | | |
|-------------|---------------------------------------|-----------|
| 415000103G | TLUG | 1.000 EA |
| 417733004AA | GASKET | 2.000 EA |
| 418018074A | GROUND LABEL G100 METRIC 160 D.C. | 3.000 EA |
| 418057169A | LKNUT CAMER | 1.000 EA |
| 418057367A | CLIP, BEI TACH | 2.000 EA |
| 418057373A | SCREW SHEET METAL | 11.000 EA |
| 418057381A | CONDUIT WASHER | 1.000 EA |
| 418057499A | PLATE | 1.000 EA |
| 422962052B | STBSH | 1.000 EA |
| 607980192B | RF,BEI,HS35,TWISTLOCK | 1.000 EA |
| 610490005B | BLOWER MOTOR FL280/ 25E24 | 1.000 EA |
| 613450024C | FAN TEBC FL BALDOR | 1.000 EA |
| 706320009A | CB, 2.00 CONDUIT, METRIC, SHEET METAL | 1.000 EA |
| 708533003A | PLATE, BTM FAN/BLOWER | 2.000 EA |
| 708535010B | FAN COVER FL280 | 1.000 EA |
| 708535011A | BLOWER COVER GRILL FL280 | 1.000 EA |
| 708535014A | FAN COVER BAFFLE FL280 | 1.000 EA |
| LC0034 | CONNECTION LABEL | 1.000 EA |
| 000640000P | TAG WINDING THERMOST | 1.000 EA |
| 004824007K | SPECIAL PAINT | 0.100 EA |
| 034180032HA | KEY 5/8X5/8X4 L bin stocked | 1.000 EA |

| | | | | | | | | | |
|-------------|--------|--------------|------|---------------------------------------|-----------|-------------------------|---------|----------|-----------|
| REL S.O. | - | VOLTS | 460 | ENCLOSURE | TEBC | WYE | CONN EQ | CKT OHMS | PER PHASE |
| FRAME | FL2890 | AMPS | 124 | MAX SAFE RPM | 4800 | (AT BASE RATING, 25 °C) | R1 | .0288 | X1 |
| HP | 100 | DUTY | CONT | IM (AMPS) | 59 | R2 | .0185 | X2 | .254 |
| BASE SPEED | 1780 | S.F. | 1.0 | P.F. @NL/FL | .035/.805 | XM | | | 4.49 |
| PHASE/HERTZ | 3/60 | AMB °C/INSUL | 45/H | WK ² (lb-ft ²) | 9.7 | | | | |


RATED FULL LOAD DATA

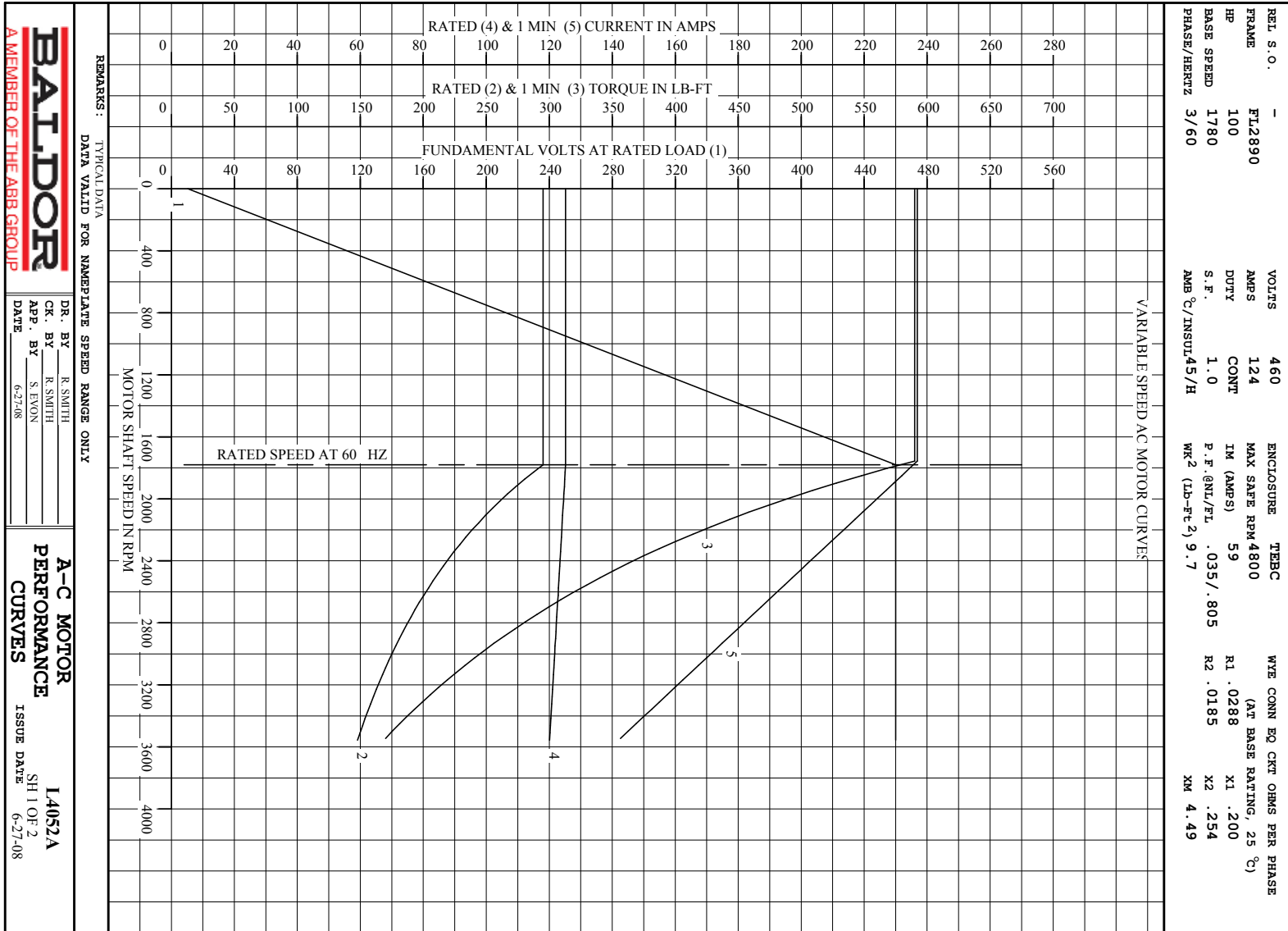
| | RPM | HP | TORQUE LB-FT | FUND VOLTS | FREQ-HZ | AMPS |
|------------|------|-----|-----------------|---------------|---------|------|
| BASE SPEED | 1781 | 100 | 295 | 460 | 60 | 125 |
| MAX SPEED | 3556 | 100 | 148 | 460 | 120 | 120 |
| MIN SPEED | 0 | 0 | 295 | 10.5 | .648 | 125 |

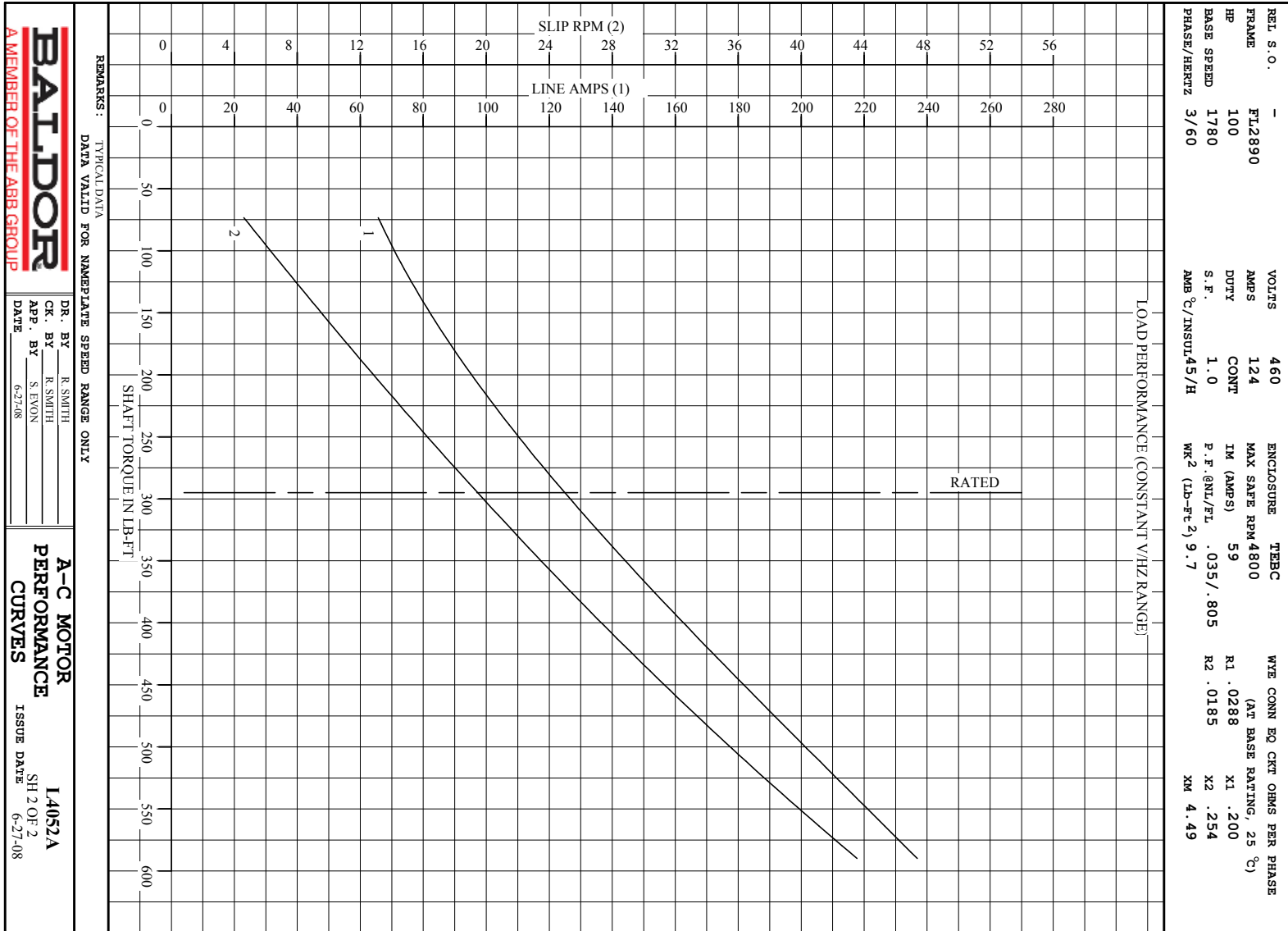
LOAD PERFORMANCE AT BASE SPEED

| | RPM | HP | TORQUE LB-FT | FUND VOLTS | FREQ-HZ | AMPS |
|-----------|------|------|-----------------|---------------|---------|------|
| NO LOAD | 1800 | 0 | 0 | 460 | 60 | 58.3 |
| 1/4 | 1795 | 25.0 | 73 | 460 | 60 | 65.8 |
| 1/2 | 1791 | 50.1 | 147 | 460 | 60 | 81.0 |
| 3/4 | 1786 | 74.9 | 220 | 460 | 60 | 101 |
| FULL LOAD | 1781 | 100 | 295 | 460 | 60 | 125 |
| O/L | 1756 | 197 | 590 | 460 | 60 | 237 |

REMARKS: TYPICAL DATA

| | | | |
|---------------------------------------------------------------------------------------------------------------------------|---------|----------|------------------------------------------------------------------------------------------|
|  <p>A MEMBER OF THE ABB GROUP</p> | DR. BY | R. SMITH | <p>A-C MOTOR PERFORMANCE DATA</p> <p>ISSUE DATE 6-27-08</p> |
| | CR. BY | R. SMITH | |
| | APP. BY | S. EVON | |
| | DATE | 6-27-08 | |

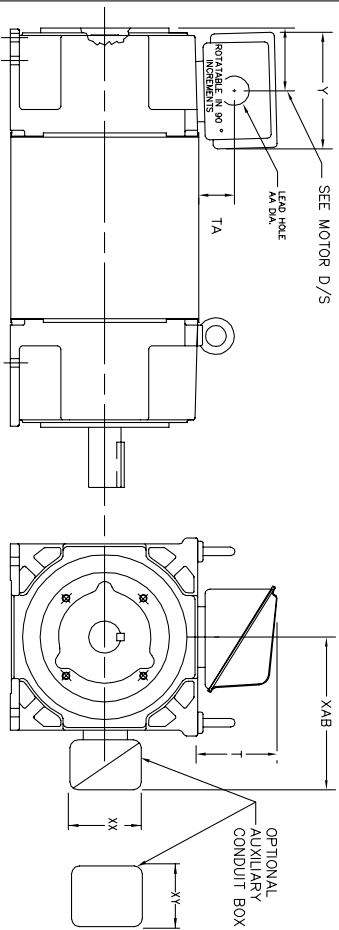




616779-050

INDUSTRIAL ALTERNATING CURRENT MOTORS RPM AC

STEEL, CAST IRON, MILL AND TERMINAL BOARD CONDUIT BOX DIMENSIONS
NEMA FRAMES FL210 thru RL280 and IEC FRAMES RDL132 thru RDL180
NEMA FRAMES FL180 thru FL280 and IEC FRAMES FDL112 thru FDL180



| TERMINAL BOX | Y | TA | T | AA | MAX AMP'S | REMARKS |
|--------------|-------|------|-------|-------------|-----------|----------------------|
| 706310-63B | 14.39 | 7.43 | 12.15 | -- | 400 | TERMINAL STRIP |
| 706310-226R | 9.00 | 3.06 | 5.40 | Pg36 & Pq16 | 160 | TERMINAL STRIP |
| 706310-225R | 7.25 | 2.30 | 4.40 | Pg29 & Pq16 | 100 | TERMINAL STRIP |
| 706310-56B | 9.00 | 3.06 | 5.40 | Pg36 & Pq16 | 160 | TERMINAL STRIP |
| 706310-56A | 7.75 | 2.30 | 4.40 | Pg29 & Pq16 | 100 | TERMINAL STRIP |
| 706320-14D | 15.00 | 7.56 | 12.81 | 5 | 510 | CAST IRON |
| 706320-13A | 10.50 | 4.88 | 9.00 | 4.0 TAP | 210 | CAST IRON |
| 706320-12B | 9.25 | 4.81 | 8.56 | 3 | 140 | CAST IRON |
| 75460-62B | 7.25 | 2.50 | 5.25 | 1.5 TAP | 110 | CAST IRON |
| 706320-4C | 5.75 | 2.38 | 4.38 | 1.0 TAP | 60 | CAST IRON FL180 ONLY |
| 706310-3E | 16.00 | 4.40 | 7.81 | 3 | 590 | MILL |
| 706310-3X | 8.00 | 2.38 | 5.00 | -- | 160 | MILL |
| 702658-1G | 14.62 | 7.56 | 12.70 | 5 | 500 | STEEL |
| 706320-16A | 9.00 | 4.12 | 8.44 | 4.59 | 305 | STEEL |
| 706320-9A | 7.25 | 3.50 | 7.06 | 2.50 | 160 | STEEL |
| 75454-1AJ | 7.69 | 2.38 | 5.25 | 1.94 | 121 | STEEL |
| 75452-B | 6.34 | 2.00 | 4.12 | 1.75 | 61 | STEEL |
| 75452-G | 6.34 | 2.00 | 4.12 | -- | 61 | SPECIAL |
| 706320-5A | 6.12 | 2.38 | 4.38 | 1.75/2.00 | 75 | STEEL FL180 ONLY |
| 706320-3A | 5.00 | 1.62 | 3.00 | 1.12 | 40 | STEEL FL180 ONLY |
| 706320-7A | 7.62 | 2.00 | 7.00 | 2.5/3.0 | 208 | STEEL FL180 ONLY |

| FRAME SIZE | XAB | OPTIMAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM) | | | | PART NUMBER | | | |
|-------------------------|------|----------------------------------------------------|------|---------------|-------------------------|-------------|------|------|------------|
| | | XX | XY | XAB | XY | | | | |
| FL210/FL132/RL210/RL132 | 7.38 | 4.25 | 4.25 | 6.0200-7-26-A | FL210/FL132/RL210/RL132 | 10.88 | 8.00 | 8.00 | 706310-3-B |
| FL230/FL180/RL230/RL180 | 8.44 | 4.23 | 4.23 | 6.0200-7-26-A | FL230/FL180/RL230/RL180 | 11.88 | 8.00 | 8.00 | 706310-3-B |
| FL280/FL180/RL280/RL180 | 9.12 | 4.23 | 4.23 | 6.0200-7-26-A | FL280/FL180/RL280/RL180 | 12.62 | 8.00 | 8.00 | 706310-3-B |

- (1) 'AA' CONDUIT
- (2) 'AA' PIPE TAP
- (3) CUSTOMER TO PROVIDE HOLE FOR CONDUIT.
- (4) 'E' DN 'SA' OR 'I' TAP DN '4C'

TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7,
OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.

050-60761919

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

| | |
|----------------------------------------------------------|------------------------------|
| REV. DESC: BOX # 706320-9A, CHANGE AA DIM FROM 2 TO 2.50 | TDR: 000000785386 |
| REV. LTR: C | VERSION: 03 |
| FILE: \RGG\00003\692 | REVISED: 08:40:55 02/11/2013 |
| MTL: - | BY: RGGWT |

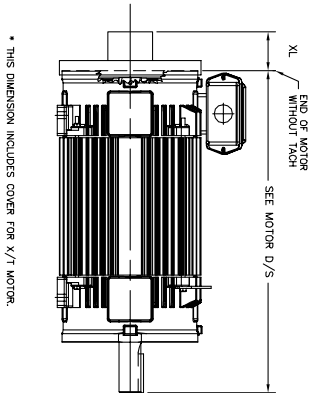
BALDOR
DIM SHT NEMA RL210-RL280 FL180-FL280 IEC RDL132-RDL180
SH 1 of 1

616779-055

RPM AC TACHOMETER DIMENSIONS
 NEMA FRAMES FL180 thru FL440 and IEC FRAMES FDL112 thru FDL280
 DIMENSIONS ARE IN INCHES(mm)

DPFV, DPSV, TEPV, TESV, TENV & TEAO-PB
 IC06, IC17, IC37, IC410, & IC416-PB

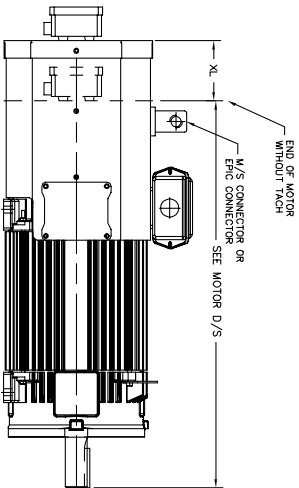
| TACH MODEL | XL Inchest(mm) | LBS. |
|----------------------|----------------|------|
| BEI DE DYNAPAR HS35 | 2.88 (74) | 5 |
| DYNAPAR H20 | 7.50 (191)MAX | 10 |
| NORTHSTAR HS35M | 3.31 (84) | 10 |
| NORTHSTAR ST67 | 2.88 (74) | 5 |
| DYNAPAR H56 | 10.56 (268) | 40 |
| AVTRON M3 DR M4 | 3.62 (92) | 10 |
| TAMAGAWA TS5013(X17) | 6.00 (152) | 10 |
| NORTHSTAR ST56 | 2.88 (74) | 5 |
| NORTHSTAR ST85 | 2.00 (51) | 5 |
| BEI H38D | 10.17 (259) | 15 |
| TAMAGAWA TS2151 | 2.64 (67) | 5 |
| BEI H23 | 7.50 (191) | 15 |
| DYNAPAR H20 | 2.00 (50.8) | 5 |
| DYNAPAR H25 | 12.88 (327) | 10 |
| STEGMANN SRS25 | 7.25 (184.4) | 10 |
| NORTHSTAR HS035 | 3.00 (76.2) | 10 |
| HEIDENHAIN ERM425 | 2.5 (63.5) | 5 |
| AVTRON HS35M | 4.19 (106.4) | 5 |
| HEIDENHAIN ERN480 | 5.00 (126.2) | 5 |
| DYNAPAR H125 | 7.00 (177.8) | 10 |
| DYNAPAR H22 | 3.62 (92.1) | 5 |
| AVTRON H255 | 2.54 (64.5) | 9 |
| AVTRON AV950 | 2.54 (64.5) | 9 |
| AVTRON AV56 | 4.50 (115) | 15 |
| HS108 | 3.30 (84) | 5 |
| HS125 | 3.30 (84) | 2 |
| NORTHSTAR RT8 | 3.25 (82) | 15 |
| DYNAPAR H4625 | 5.88 (150) | 10 |
| AVTRON AV485 | 5.50 (141) | 18 |



* THIS DIMENSION INCLUDES COVER FOR X/7 MOTOR.

TEAO-BC, IC416-BC

| TACH MODEL | XL Inchest(mm) | LBS. |
|------------------------|----------------|------|
| BEI DE DYNAPAR HS35 | 4.50 (115) | 15 |
| DYNAPAR H20 | 4.50 (115) | 10 |
| AVTRON M3 DR M4 | 4.50 (115) | 10 |
| NORTHSTAR HS35M | 4.50 (115) | 15 |
| NORTHSTAR ST56 | 4.50 (115) | 10 |
| NORTHSTAR ST67 | 4.50 (115) | 10 |
| NORTHSTAR ST85 | 4.50 (115) | 5 |
| TAMAGAWA TS5008 TS5013 | 4.50 (115) | 10 |
| DYNAPAR H20 | 4.50 (115) | 10 |
| STEGMANN SRS25 | 4.50 (115) | 10 |
| STEGMANN SRS25/SH50 | 4.50 (115) | 3 |
| STEGMANN SRS360 | 4.50 (115) | 15 |
| H20 & H2E | 4.50 (115) | 15 |
| AVTRON HS35M | 4.50 (115) | 10 |
| AVTRON AV85 | 4.50 (115) | 10 |
| AVTRON M56 | 4.50 (115) | 5 |
| AVTRON AV67 | 4.50 (115) | 10 |
| HS108 | 4.50 (115) | 5 |
| TS2014 | 4.50 (115) | 5 |
| AVTRON HS45 | 4.50 (115) | 15 |
| DYNAPAR HS035M | 4.50 (115) | 15 |



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

| | |
|-------------------------------------------|------------------------------|
| REV. DESC: ADD TAMAGAWA TS5008 (B1248085) | TDR: 000000895710 |
| REV. LTR: U | VERSION: 19 |
| FILE: \RGG\00003\694 | REVISED: 08:00:14 03/06/2015 |
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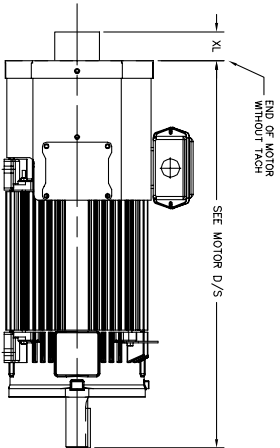
BALDOR

DIM SHT TACH DIM NEMA FL180 - FL440 IEC FDL112 - FDL280

SH 1 of 1

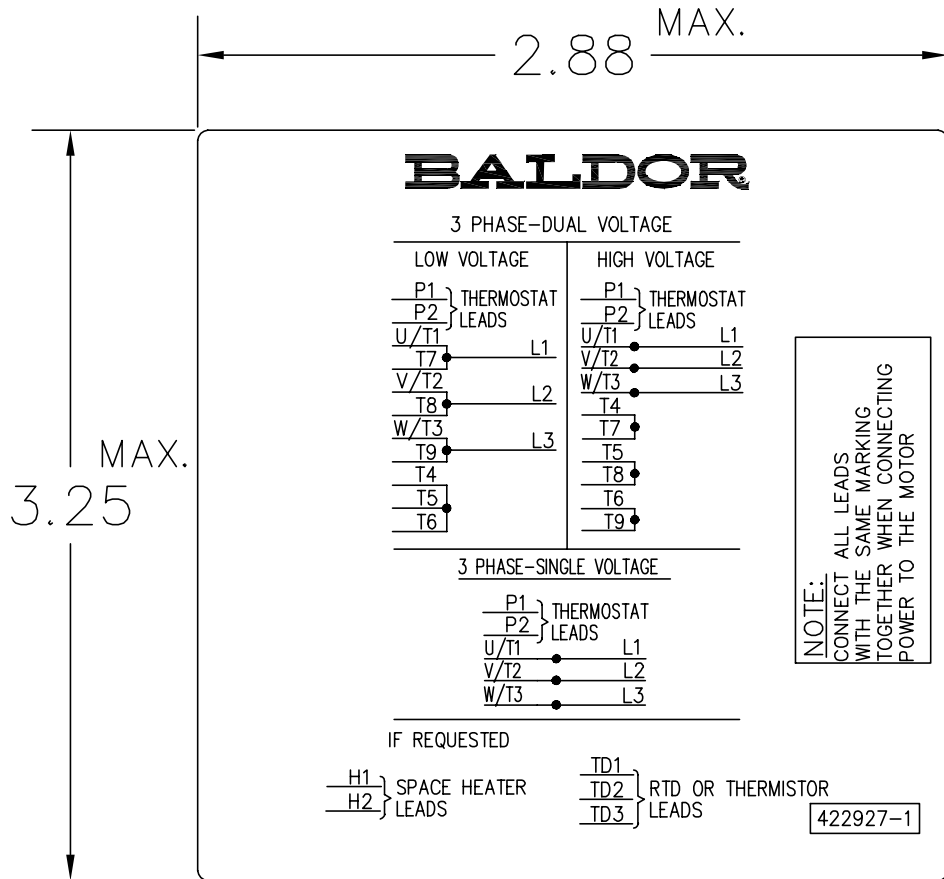
TEFC, IC411

| TACH MODEL | XL Inchest(mm) | LBS. |
|---------------------|----------------|------|
| BEI HS35 | 2.88 (74) | 7 |
| NORTHSTAR HS35M | 3.31 (84) | 10 |
| DYNAPAR H20 | 3.75 (95) | 15 |
| DYNAPAR HS35, HS038 | 2.88 (74) | 7 |
| HEX(X1) | 9.75 (248) | 35 |
| ERM425 | 7.90 (201) | 35 |
| AVTRON HS35M | 4.19 (106) | 2 |
| STEGMANN SRS50 | 3.75 (95) | 1 |
| DYNAPAR H20 | 2.00 (51) | 1 |
| NORTHSTAR HS125 | 2.81 (71) | 2 |
| NORTHSTAR HS108 | 3.30 (84) | 5 |



055-6179-61

422927-001



NOTE:
DATA TO BE SIZED
SO THAT IT FITS INTO
MATERIAL DECAL
DIMENSIONS. MAKE
LETTERS & NUMBERS
AS LARGE AS POSSIBLE.

MATERIAL: CERAMATIC DGF-P4
PERMA GRIP ADHESIVE

ALL LETTERS, NUMBERS
AND LINES TO BE BLACK
ON WHITE BACKGROUND.

422927-001

| | | |
|-------------------------------------------------------|------------------------------|-------------------|
| REV. DESC: CHANGE BACKGROUND COLOR FROM GOLD TO WHITE | | |
| REV. LTR: B | VERSION: 02 | TDR: 000000788708 |
| FILE: \RGG\00000\203 | REVISED: 08:09:29 03/04/2013 | |
| MTL: - | BY: RGGWT | |

BALDOR

EXTERNAL CONNECTION LABEL

SH 1 of 1

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<http://www.baldor.com/support/Literature/Load.ashx/MN406?ManNumber=MN406>