ABB BALDOR RELIANCE

# Customer information packet

## ECP4418T-4

60HP, 890RPM, 3PH, 60HZ, 405T, TEFC, F1
Class - CLI GP A,B,C,D
Division - Division II

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 405T |
| **Frame Material** | Iron |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | CLI GP A,B,C,D |
| **Haz Area Division** | Division II |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 60.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 900 RPM @ 60 HZ |
| **Voltage @ Frequency** | 460.0 V @ 60 HZ |
| **Agency Approvals** | CCSAUSEEV |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Base Indicator** | Rigid |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Constant Torque Speed Range** | 6-60 |
| **Current @ Voltage** | 76.000 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 93.0 % |
| **Feedback Device** | NO FEEDBACK |
| **Haz Area Temp Code** | T3A |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 76.0 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | F |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Motor Lead Quantity/Wire Size** | 3 @ 4 AWG |
| **Motor Standards** | NEMA |

## Part Detail

| | |
|---|---|
| **Revision** | M |
| **Type** | AC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | A40WG0789 |
| **Layout** | 617429-501 |
| **Eff. date** | 10-24-2024 |
| **CD Diagram** | 416820-036 |
| **Poles** | 08 |
| **Leads** | 3#4 |
| **Proprietary** | False |
| **Created date** | 12-04-2013 |

| | |
|---|---|
| **Motor Type** | A40060M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 8 |
| **Overall Length** | 38.20 IN |
| **Power Factor** | 79 |
| **Product Family** | General Industrial |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | Standard |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 2.875 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | Shaft Slinger |
| **Speed** | 890 rpm |
| **Speed Code** | Single Speed |
| **Starting Method** | Direct on line |
| **Thermal Device - Bearing** | None |
| **Thermal Device - Winding** | None |

**Nameplate**

| NP2496L |
|---|
| MOBIL POLYREX EM |

| NP3238 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAT NO** | ECP4418T-4 | **SPEC NO.** | A40-4849-0789 | | | | | | | | | |
| **HP** | 60 | **AMPS** | 76 | **VOLTS** | 460 | **DESIGN** | B | | | | | |
| **FRAME** | 405T | **RPM** | 890 | **HZ** | 60 | **AMB** | 40 | **SF** | 1.15 | | | |
| **D.E. BRG.DATA** | 6316 | **O.D.E. BRG.DATA** | 6316 | **PH** | 3 | **DUTY** | CONT | **INSUL.CLASS** | F | | | |
| **D.E. BRG.** | 80BC03J30X | **TYPE** | P | **ENCL** | TEFC | **CODE** | F | | | | | |
| **O.D.E. BRG.** | 80BC03J30X | **POWER FACTOR** | 79 | **NEMA NOM EFFICIENCY** | 93 | | | | | | | |
| **3/4 LOAD EFF.** | 93.7 | **MAX CORR KVAR** | 20.0 | **GUARANTEED EFFICIENCY** | 91.7 | | | | | | | |
| **TEMP CODE** | T3A | **TEMP =** | 180 | | | | | | | | | |
| **CHP HZ** | 60-90 | **CT HZ** | 6-60 | **VT HZ** | 0-60 | | | | | | | |
| **INVERTER-TEMP-CODE** | T3A | | | | | | | | | | | |
| **SER.NO.** | | **MOTOR WEIGHT** | | | | | | | | | | |

**Parts List**

| Part number | Description | Quantity |
|---|---|---|
| SA273152 | SA A40-4849-0789 | 1.000 ea |
| RA259755 | RA A40-4849-0789 | 1.000 ea |
| 421948051 | LABEL, MYLAR | 1.000 ea |
| 000692000FF | N/P | 1.000 ea |
| NP2496L | MOTOR LUBE NAMEPLATE | 1.000 ea |
| 000613006PU | N/P (RELEASE QTY 10,000) UL CSA LABEL | 1.000 ea |
| 000692000VD | LABEL WARNING | 1.000 ea |
| NP3238 | SS CP XEX SEVERE DUTY MAIN NP,CURUS EEV | 1.000 ea |
| 089412501A | BRKT FTMT G400 FIN MACH 6316 89412500WCA | 1.000 ea |
| 083198101A | G400 STD FAN COVER MACHINING | 1.000 ea |
| 034180012DA | KEY 1X4X1/4X1-1/2 L | 1.000 ea |
| 412118006A | DRAIN | 2.000 ea |
| 702618011RN | FAN 440 702618004T - 2.00 BORE 17.5 DIA | 1.000 ea |
| 004824015A | GREASE POLYREX EM | 0.880 lb |
| 032018020EK | HHCS 5/8-11X2-1/2 PLTD. | 4.000 ea |
| 032018010CK | HHCS 3/8-16X1-1/4 PLTD. 032018010CR | 4.000 ea |
| 032018026CK | HHCS 3/8-16X3-1/4 PLTD. | 3.000 ea |
| 415096002A | CPLG 1/8 HEX TYPE | 1.000 ea |
| 415045002B | SLGR | 1.000 ea |
| 410700000DA | WAVY SPRING WASHER | 1.000 ea |
| 034000014AB | WSH ID.406 OD.812 TH.065 | 4.000 ea |
| 034530052AB | P/NIP 1/8X6-1/2 Zinc | 1.000 ea |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |
| 034530056BB | P/NIP 1/4X7 SCHED 40 | 1.000 ea |
| 089412501A | BRKT FTMT G400 FIN MACH 6316 89412500WCA | 1.000 ea |
| 032018020EK | HHCS 5/8-11X2-1/2 PLTD. | 4.000 ea |
| 032018026CK | HHCS 3/8-16X3-1/4 PLTD. | 3.000 ea |
| 034631002AB | BUSH 1/4 TO 1/8 PLTD. | 1.000 ea |
| 034692005AA | P PLUG 3/4"BLK. | 1.000 ea |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |

| | | |
|---|---|---|
| 415045002B | SLGR | 1.000 ea |
| 034530040BB | P/NIP 1/4X5 | 1.000 ea |
| 034631002AB | BUSH 1/4 TO 1/8 PLTD. | 1.000 ea |
| 034530040AB | P/NIP 1/8X5 GALV. | 1.000 ea |
| 415096002A | CPLG 1/8 HEX TYPE | 1.000 ea |
| 076708000BB | CONDUIT BOX-360 | 1.000 ea |
| 415039016A | TERBD, 360-400 | 1.000 ea |
| 076709000A | C/B Cover - 360 | 1.000 ea |
| 067053000B | GASK 320-400 | 1.000 ea |
| 418150003A | GREASE FITTING CAP | 1.000 ea |
| 032018010CK | HHCS 3/8-16X1-1/4 PLTD. 032018010CR | 4.000 ea |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 ea |
| 415000115H | T/LUG #2AWG-4/0AWG | 1.000 ea |
| 033512008LB | HHTTS 1/4-20X1 PLATED | 4.000 ea |
| 406099000A | PLUG - FAN COVER 320-440 | 1.000 ea |
| 034000014AB | WSH ID.406 OD.812 TH.065 | 4.000 ea |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 ea |
| 418150003A | GREASE FITTING CAP | 1.000 ea |
| MG1025N19 | WILKO 778.50 BLUE GREEN - 55 GAL DRUMS | 0.380 ga |
| 033775004EA | DRSCR #6-1/4 304 S.S. | 4.000 ea |
| 034180044JA | KEY 3/4X3/4X5-1/2 L | 1.000 ea |
| PK5004A02 | WOOD BASE 40X32 WITH STACKED 2X4 RUNNER | 1.000 ea |
| 032510024D | CARRIAGE BOLT - 444 | 2.000 ea |
| 034001014AB | FLAT WASHER 3/8"PLATED | 2.000 ea |
| 034001016AB | WSHR .562ID 1.375OD .109 | 2.000 ea |
| 033300014AC | HEX NUT, SHIPPING - 400 | 2.000 ea |
| 604799003C | PLASTIC BAG 42X32X46 | 1.000 ea |
| LB1449 | DIV-2/NEC WARNING LABEL | 1.000 ea |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |
| 032018005DL | 1/2-13 X 5/8 SILICON BRONZE HHCS | 1.000 ea |

| REL. S.O. | FRAME | HP | TYPE | PHASE/ HERTZ | RPM | VOLTS |
|---|---|---|---|---|---|---|
| | 405T | 60 | P | 3/60 | 890 | 460 |

| AMPS | DUTY | AMB °C/ INSUL. | S.F. | NEMA DESIGN | CODE LETTER | ENCL. |
|---|---|---|---|---|---|---|
| 76 | CONT | 40/F | 1.15 | B | F | TEFC |

| E/S | ROTOR | TEST S.O. | TEST DATE | STATOR RES.@25 °C OHMS (BETWEEN LINES) |
|---|---|---|---|---|
| 496241 | 418142071BE | --- | --- | .114 |

PERFORMANCE

| LOAD | HP | AMPERES | RPM | % POWER FACTOR | % EFFICIENCY |
|---|---|---|---|---|---|
| NO LOAD | 0 | 37.2 | 900 | 3.70 | 0 |
| 1/4 | 15.0 | 40.7 | 897 | 38.4 | 90.2 |
| 2/4 | 30.0 | 49.5 | 894 | 60.9 | 93.3 |
| 3/4 | 45.0 | 61.6 | 891 | 73.0 | 93.7 |
| 4/4 | 60.0 | 76.0 | 888 | 79.3 | 93.3 |
| 5/4 | 75.0 | 92.3 | 884 | 82.3 | 92.4 |
| | | | | | |

SPEED TORQUE

| | RPM | TORQUE % FULL LOAD | TORQUE LB.-FT. | AMPERES |
|---|---|---|---|---|
| LOCKED ROTOR | 0 | 148 | 525 | 405 |
| PULL UP | 280 | 127 | 451 | 380 |
| BREAKDOWN | 844 | 225 | 800 | 235 |
| FULL LOAD | 888 | 100 | 355 | 76.0 |

AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS: TYPICAL DATA
XE MOTOR-NEMA. NOM. EFF. 93.0%, GUAR. EFF. 92.4%

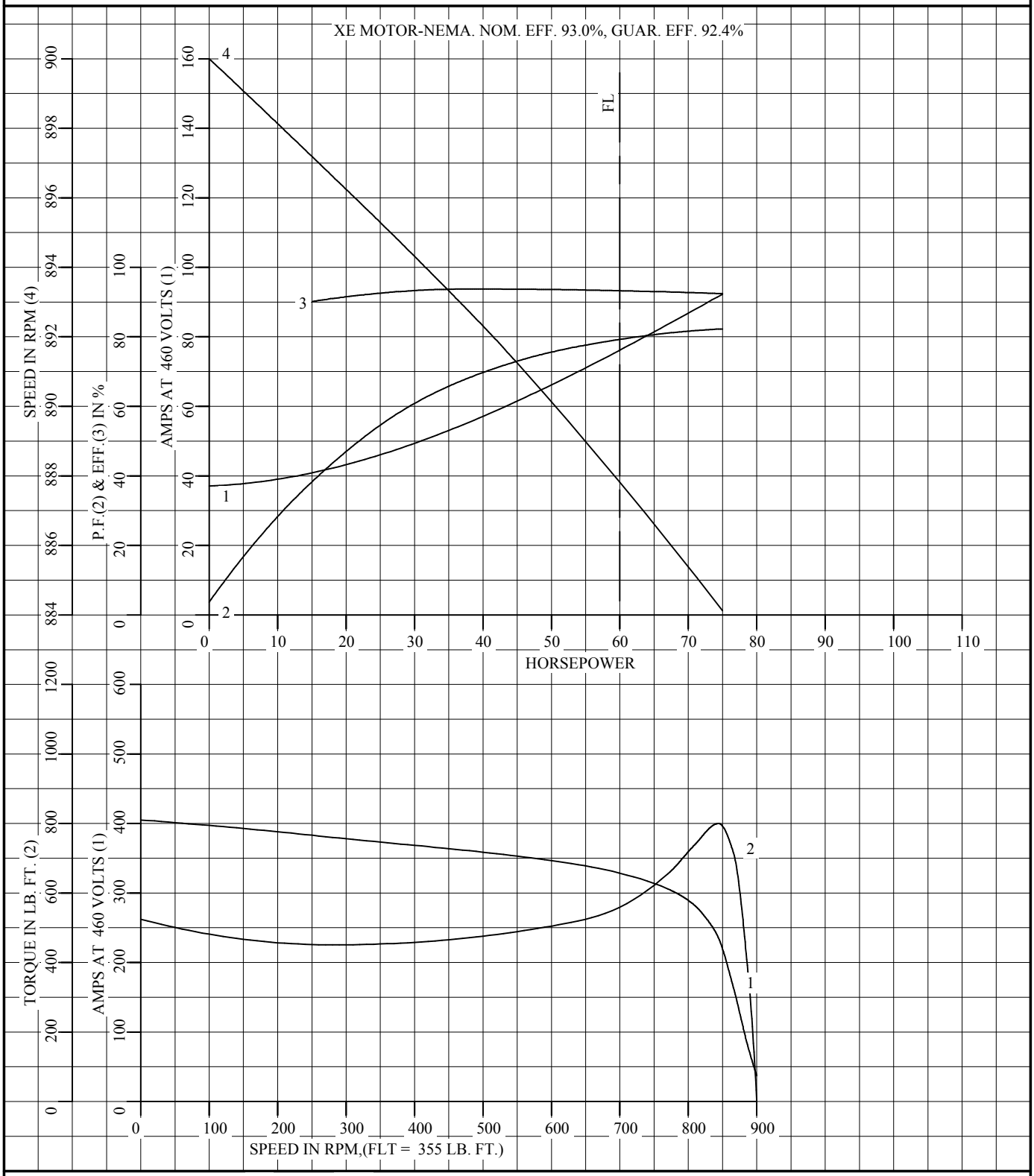
BALDOR
A MEMBER OF THE ABB GROUP

DR. BY D. M. BYRD
CK. BY J. P. TSAO
APP. BY J. P. TSAO
DATE 04/25/89

A-C MOTOR PERFORMANCE DATA

A40WG0789-R001
ISSUE DATE 09/17/15

| | | | |
|---|---|---|---|
| REL S.O. | RPM 890 | S.F. 1.15 | ROTOR 418142071BE |
| FRAME 405T | VOLTS 460 | NEMA DESIGN B | TEST S.O. TYPICAL DATA |
| HP 60 | AMPS 76 | CODE LETTER F | TEST DATE --- |
| TYPE P | DUTY CONT | ENCLOSURE TEFC | STATOR RES.@ 25 °C .114 |
| PHASE/HERTZ 3/60 | AMB °C/INSUL 40/F | E/S 496241 | OHMS (BETWEEN LINES) |




AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

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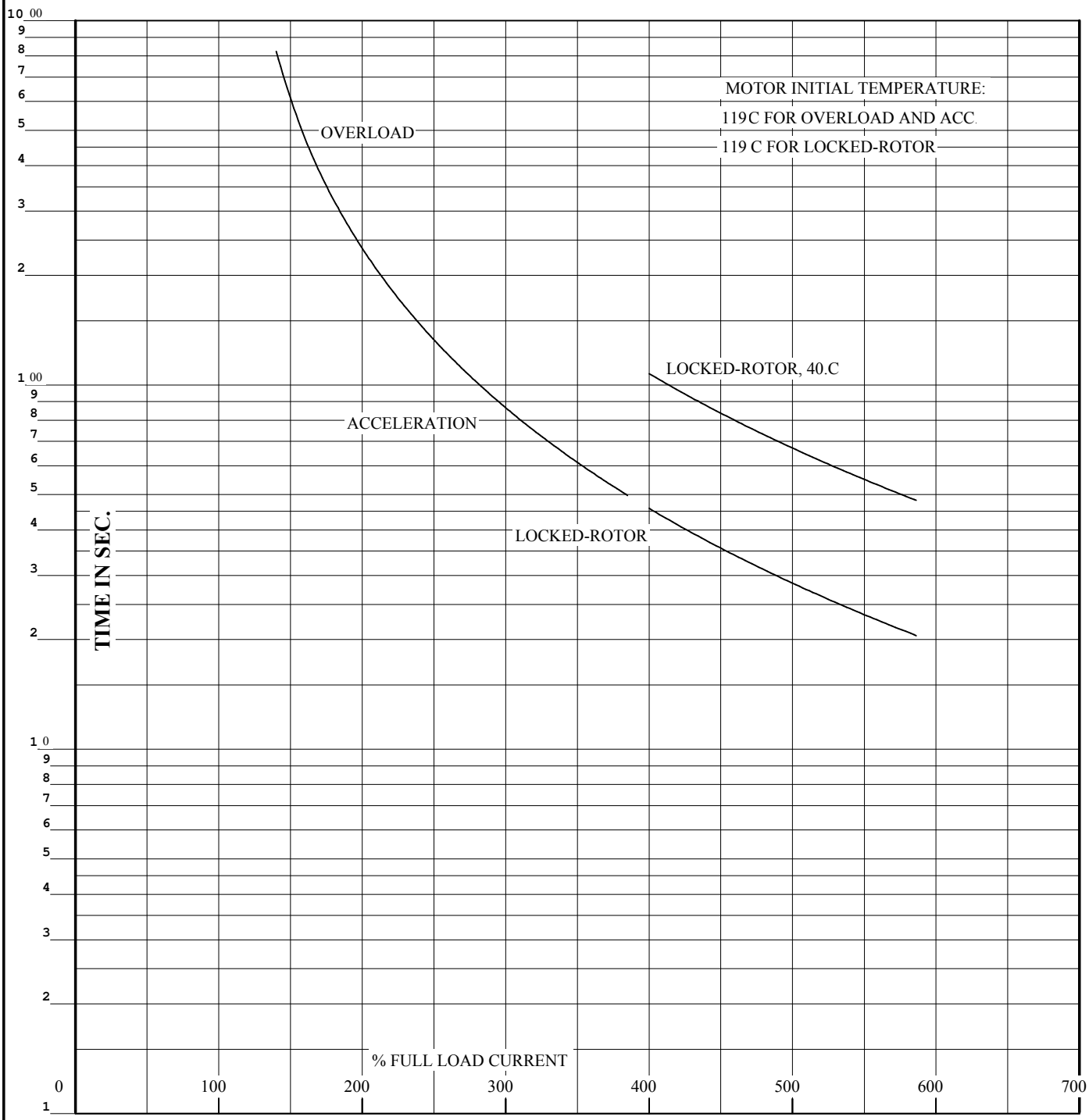
| | |
|---|---|
| DR. BY | D. M. BYRD |
| CK. BY | J. P. TSAO |
| APP. BY | J. P. TSAO |
| DATE | 04/25/89 |

A-C MOTOR PERFORMANCE CURVES

A40WG0789-R001

ISSUE DATE 09/17/15

| | | | |
|---|---|---|---|
| REL. S.O. | RPM 890 | S.F. 1.15 | ROTOR 418142071BE |
| FRAME 405T | VOLTS 460 | NEMA DESIGN B | TEST S.O. TYPICAL DATA |
| HP 60 | AMPS 76 | CODE LETTER F | TEST DATE --- |
| TYPE P | DUTY CONT | ENCLOSURE TEFC | STATOR RES.@ 25 °C.114 |
| PHASE/HERTZ 3/60 | AMB °C/INSUL 40/F | E/S 496241 | OHMS (BETWEEN LINES) |




THERMAL LIMIT CURVE

REMARKS: XE MOTOR-NEMA. NOM. EFF. 93.0%, GUAR. EFF. 92.4%

AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

BALDOR A MEMBER OF THE ABB GROUP

| | |
|---|---|
| DR. BY | D. M. BYRD |
| CK. BY | J. P. TSAO |
| APP. BY | J. P. TSAO |
| DATE | 04/25/89 |

A-C MOTOR PERFORMANCE CURVES

A40WG0789-R001

ISSUE DATE 09/17/15



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617429-501

# DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

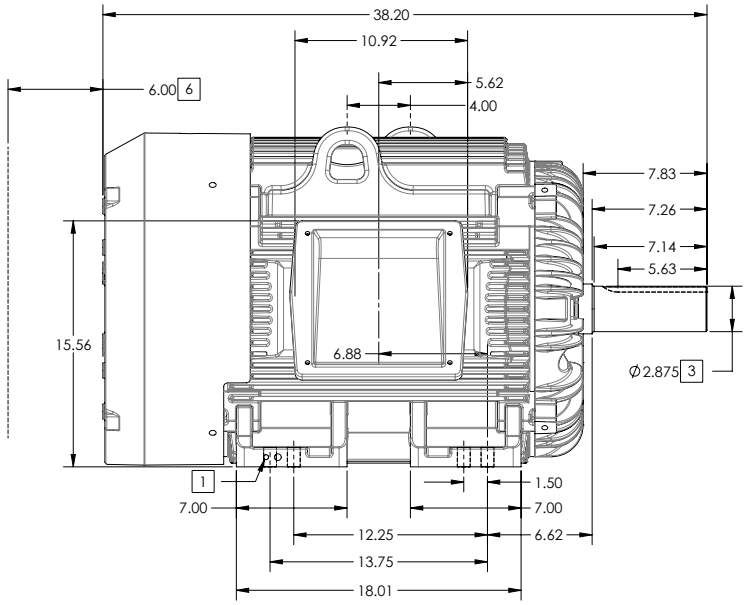
MOUNTING: FOOT

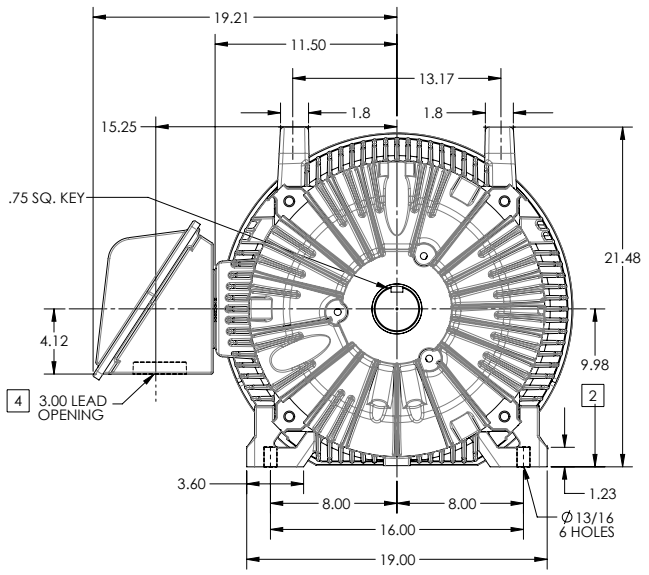
FRAME G405T ABOVE NEMA RATINGS

INCLUDES 404T FRAME MOUNTING HOLES

COOLING: FAN COOLED

XT/ECP SEVERE DUTY ENCLOSURE




1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00,-.06
3. VARIES +.000,-.001
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. OBSTRUCTION MUST NOT ENCROACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003" T.I.R. TO 5 INCH DIA.

5 WEIGHT (LBS): 1370

DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

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

SHEET NUMBER 1 OF 2

617429-501

| | | | |
|---|---|---|---|
| REV. DESC: CHANGE BA FROM 6.76 TO 6.62 | | | |
| REV: B | VERSION: 02 | REVISED: 01:11:16 04/14/2014 | TDR: 000000848770 |
| MODEL NO. 617429-501 | | | REF: |
| BY: MGHJMZ2 | Material: | | C |

BALDOR

G405T/404T STD – FOOTED – XT/ECP SEVERE DUTY ENCLOSURE

617429-501

617429-501

# DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

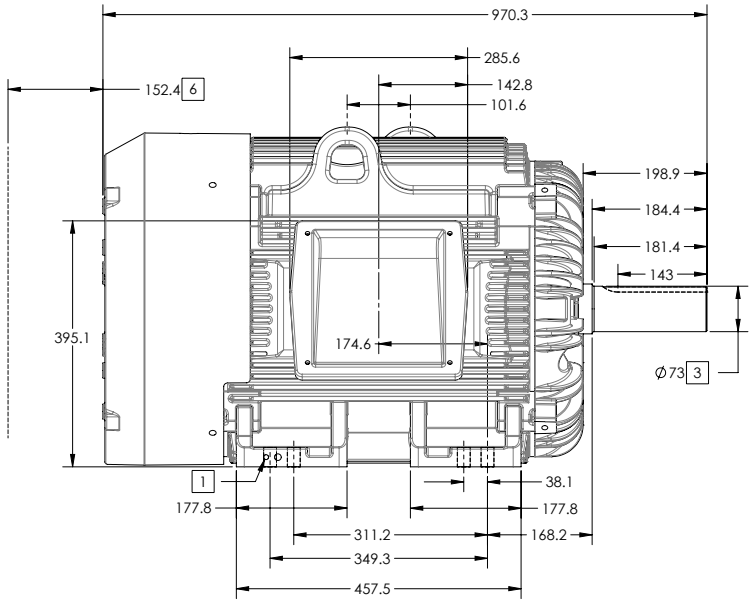
FRAME G405T ABOVE NEMA RATINGS

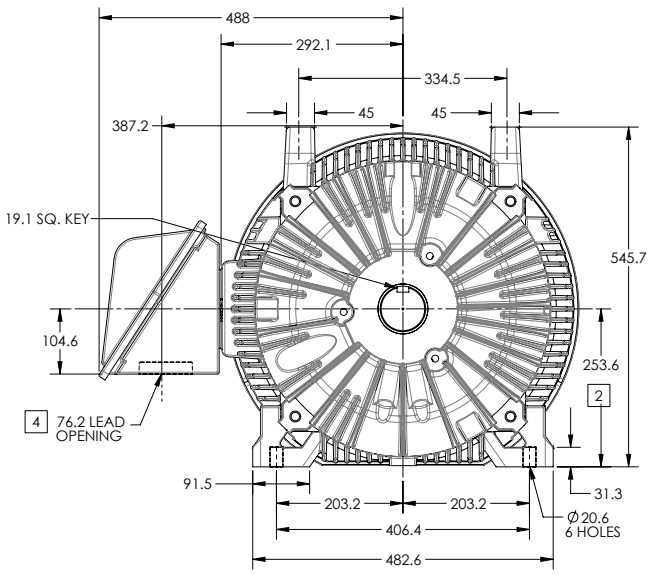
COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T FRAME MOUNTING HOLES

XT/ECP SEVERE DUTY ENCLOSURE




1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.0,-1.5
3. VARIES +.00,-.03
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. OBSTRUCTION MUST NOT ENCROACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .08 MM T.I.R. TO 127 MM DIA.

5 WEIGHT (KGS): 630

DIMENSIONS ARE IN MILLIMETERS; SEE SHEET 1 FOR DIMENSIONS IN INCHES

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

SHEET NUMBER 2 OF 2

617429-501

| | | | |
|---|---|---|---|
| REV. DESC: CHANGE BA FROM 6.76 TO 6.62 | | | |
| REV: B | VERSION: 02 | REVISED: 01:11:16 04/14/2014 | TDR: 000000848770 |
| MODEL NO. 617429-501 | | | REF: |
| BY: MGHJMZ2 | Material: | | C |

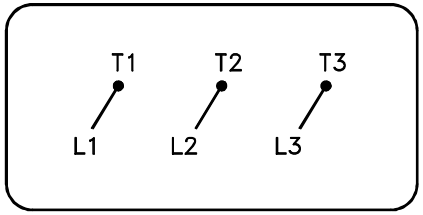
BALDOR

G405T/404T STD – FOOTED – XT/ECP SEVERE DUTY ENCLOSURE

617429-501

416820–036

# A–C MOTOR
# CONNECTION DIAGRAM
## STANDARD 3 LEAD CONNECTED




(N.P. 1575–BA)

416820–036

| | | | |
|---|---|---|---|
| REV. DESC: LOADED TO BUS, C/R 335225 | | | BALDOR |
| REV. LTR: – | VERSION: 00 | TDR: 000000538207 | |
| FILE: \MGA\00000\682 | | REVISED: 11:54:06 04/30/2010 | CONN DIAG – STANDARD 3 LEAD |
| MTL: – | | BY: RAGRA | SH 1 of 1 |