

BALDOR® • RELIANCE 

Product Information Packet

EM25404T-4

400HP, 1780RPM, 3PH, 60HZ, 449T, DP, F1

| Part Detail | | | | | | | |
|-------------|----|-------------|------------|-------------|--------------------|---------------|------------|
| Revision: | A | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | A44WG3164 | CD Diagram: | 416820-008 | Mfg Plant: | |
| Mech. Spec: | | Layout: | 604989-505 | Poles: | 04 | Created Date: | 11-24-2015 |
| Base: | | Eff. Date: | 03-01-2017 | Leads: | 6#1 (02 per group) | | |

| Specs | | | |
|--------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EM25404T-4 | Insulation Class: | F |
| Enclosure: | DP | Inverter Code: | Inverter Ready |
| Frame: | 449T | IP Rating: | NONE |
| Frame Material: | Iron | KVA Code: | F |
| Output @ Frequency: | 400.000 HP @ 60 HZ | Lifting Lugs: | Standard Lifting Lugs |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Motor Lead Quantity/Wire Size: | 12 @ 1 AWG |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Type: | A44140M |
| XP Class and Group: | None | Mounting Arrangement: | F1 |
| XP Division: | Not Applicable | Power Factor: | 89 |
| Agency Approvals: | CCSA US | Product Family: | General Industrial |
| | CSA EEV | Pulley End Bearing Type: | Ball |
| Auxillary Box: | No Auxillary Box | Pulley Face Code: | Standard |
| Base Indicator: | Rigid | Shaft Ground Indicator: | No Shaft Grounding |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Shaft Rotation: | Reversible |
| Current @ Voltage: | 437.000 A @ 460.0 V | Shaft Slinger Indicator: | No Slinger |
| Design Code: | B | Speed Code: | Single Speed |
| Drip Cover: | No Drip Cover | Motor Standards: | NEMA |
| Duty Rating: | CONT | Starting Method: | Wye Start - Delta Run |

| | | | |
|--------------------------|-------------|----------------------------------|------|
| Feedback Device: | NO FEEDBACK | Thermal Device - Bearing: | None |
| Heater Indicator: | No Heater | Thermal Device - Winding: | None |

Nameplate NP2496L

MOBIL POLYREX EM

| Nameplate NP2349L | | | | | | | | | | |
|-------------------|---------------|-------|------|--------------|------------|-------------------------|---------------------|-------|-----------------------|------|
| SPEC NO. | A44-8061-3164 | | | CAT.NO. | EM25404T-4 | | | FRAME | 449T | |
| HP | 400 | VOLTS | 460 | PHASE | 3 | DESIGN | B | TYPE | P | |
| RPM | 1780 | AMPS | 437 | HZ | 60 | AMB | 40 | SF | 1.15 | |
| DRIVE END BEARING | 90BC03J30X | | DUTY | CONT | | INSUL.CLASS | F | | | |
| OPP D.E. BEARING | 90BC03J30X | | ENCL | DP | | CODE | F | | | |
| SER.NO. | | | | POWER FACTOR | 89 | | NEMA-NOM-EFFICIENCY | 96.2 | | |
| | | | | | | MAX CORR KVAR | 57 | | GUARANTEED EFFICIENCY | 95.4 |
| | | | | | | NEMA NOM/CSA QUOTED EFF | | | | |
| | | | | | | MOTOR WEIGHT | 2677 | | | |

| Parts List | | |
|-------------|---------------------------------------|----------|
| Part Number | Description | Quantity |
| SA310868 | SA A44-8061-3164 | 1.000 EA |
| RA298272 | RA A44-8061-3164 | 1.000 EA |
| 421948044 | LABEL, MYLAR | 1.000 EA |
| NP2496L | MOTOR LUBE NAMEPLATE | 1.000 EA |
| 000613006PU | N/P (RELEASE QTY 10,000) UL CSA LABEL | 1.000 EA |
| 000692000FF | N/P | 1.000 EA |
| 000692000VD | LABEL WARNING | 1.000 EA |
| NP2349L | SUPER-E ,SS, CSA, CSA SUPER-E | 1.000 EA |
| 702611001A | BAFFL 440 SUB PAINT | 1.000 EA |
| 089439051A | BRKT 440 089439051WCB | 1.000 EA |
| 004824015A | GREASE POLYREX EM | 1.160 LB |
| 032018028EK | HHCS 5/8-11X3-1/2L PLTD | 4.000 EA |
| 032018036DK | HHCS 1/2-13X4-1/2 PLTD. | 3.000 EA |
| 410700004A | WSHR | 1.000 EA |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 EA |
| 035000001G | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 EA |
| 034017012AB | LCKW 1/4 STD. PLATED 034017012AF | 4.000 EA |
| 032018005AK | HHCS 1/4-20X5/8 PLATED | 4.000 EA |
| 034000012AB | WSHR 1/4 STD. PLATED | 4.000 EA |
| 034600001AA | BUSH 1/4TO1/8 BLACK | 1.000 EA |
| 418151014G | RETAIN RING | 1.000 EA |
| 034017012AB | LCKW 1/4 STD. PLATED 034017012AF | 4.000 EA |
| 034600001AA | BUSH 1/4TO1/8 BLACK | 1.000 EA |
| 034000012AB | WSHR 1/4 STD. PLATED | 4.000 EA |

| Parts List (continued) | | |
|------------------------|---------------------------------------|----------|
| Part Number | Description | Quantity |
| 032018005AK | HHCS 1/4-20X5/8 PLATED | 4.000 EA |
| 089439051A | BRKT 440 089439051WCB | 1.000 EA |
| 702611001A | BAFFL 440 SUB PAINT | 1.000 EA |
| 032018028EK | HHCS 5/8-11X3-1/2L PLTD | 4.000 EA |
| 032018036DK | HHCS 1/2-13X4-1/2 PLTD. | 3.000 EA |
| 406056008A | GASKET, TERBD 440 | 1.000 EA |
| 418150003A | GREASE FITTING CAP | 1.000 EA |
| MG1025Y17 | WILKOFAS, 789.701, SUPER E PEARL GOLD | 0.500 GA |
| 032018008DK | HHCS 1/2-13X1 PLATED | 4.000 EA |
| 048897010DJ | BUSH - 445 | 1.000 EA |
| 702616012T | CONDUIT BOX | 1.000 EA |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 EA |
| 035000001A | ALFTG 1/8" 1610-BL | 1.000 EA |
| 418150003A | GREASE FITTING CAP | 1.000 EA |
| 033775004EA | DRSCR #6-1/4 304 S.S. | 2.000 EA |
| 034180054KA | 7/8 SQ X 6.75 KEY | 1.000 EA |
| 604797056 | 400-447 FRAME 60 X 42 | 1.000 EA |
| 032510026D | CARRIAGE BOLT - 440 | 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 |

| | | | | | | |
|-----------|-------------|---------------|-----------|---|-------------|-------|
| REL. S.O. | FRAME | HP | TYPE | PHASE/HERTZ | RPM | VOLTS |
| | 449T | 400 | P | 3/60 | 1780 | 460 |
| AMPS | DUTY | AMB °C/INSUL. | S.F. | NEMA DESIGN | CODE LETTER | ENCL. |
| 437 | CONT | 40/F | 1.15 | B | F | PROT |
| E/S | ROTOR | TEST S.O. | TEST DATE | STATOR RES. @25 °C OHMS (BETWEEN LINES) | | |
| 433997 | 418143049GE | --- | --- | .0107 | | |

PERFORMANCE

| LOAD | HP | AMPERES | RPM | POWER FACTOR % | EFFICIENCY % |
|---------|-----|---------|------|----------------|--------------|
| NO LOAD | 0 | 97.7 | 1800 | 4.12 | 0 |
| 1/4 | 100 | 142 | 1796 | 69.5 | 95.3 |
| 2/4 | 200 | 226 | 1792 | 85.8 | 96.6 |
| 3/4 | 300 | 327 | 1788 | 88.7 | 96.6 |
| 4/4 | 400 | 437 | 1783 | 88.9 | 96.2 |
| 5/4 | 500 | 551 | 1778 | 88.8 | 95.7 |

SPEED TORQUE

| | RPM | TORQUE % FULL LOAD | TORQUE LB.-FT. | AMPERES |
|--------------|------|--------------------|----------------|---------|
| LOCKED ROTOR | 0 | 153 | 1798 | 2819 |
| PULL UP | 1360 | 136 | 1606 | 2308 |
| BREAKDOWN | 1724 | 245 | 2880 | 1477 |
| FULL LOAD | 1783 | 100 | 1177 | 437 |

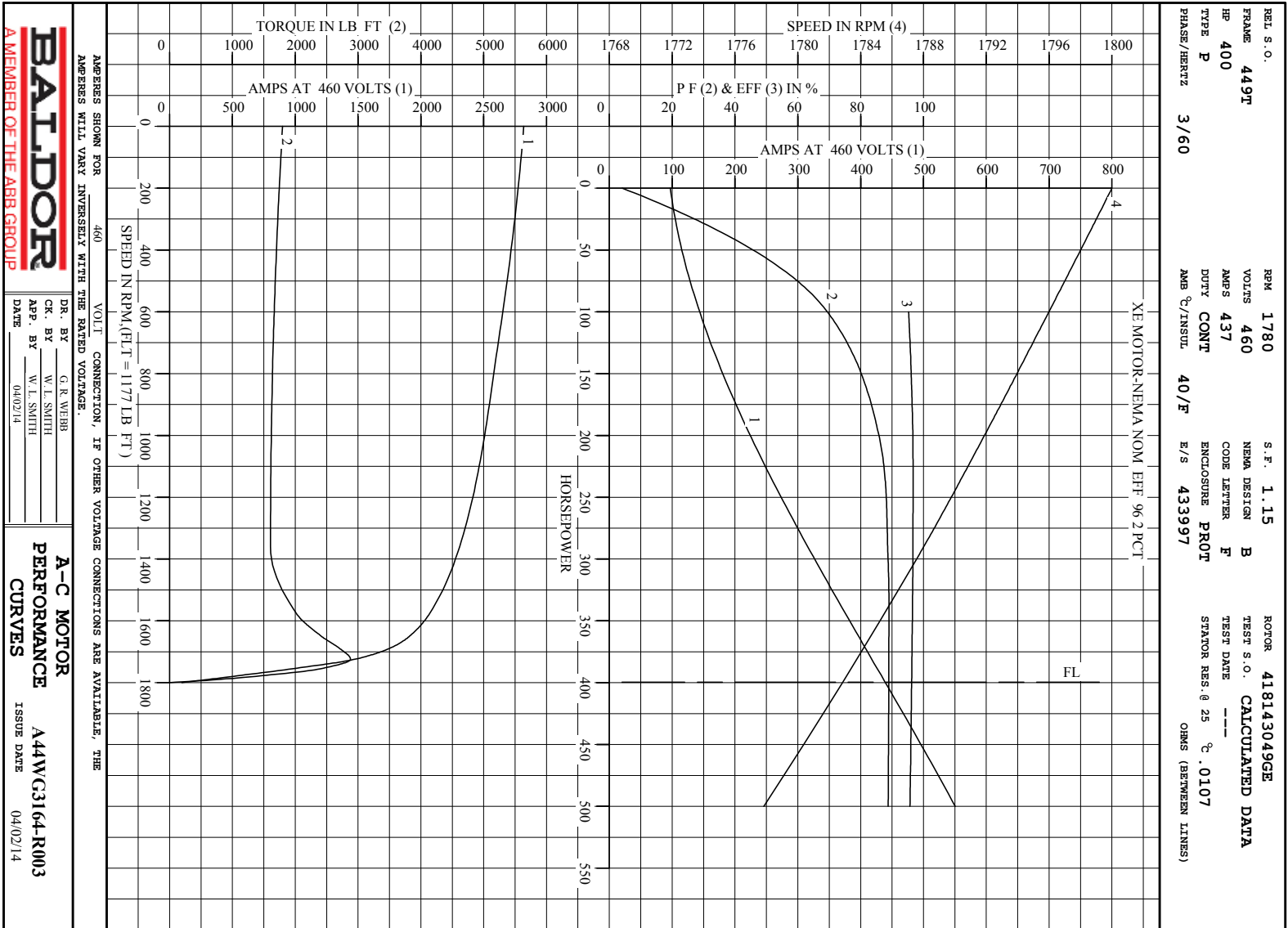
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS: CALCULATED DATA
 XE MOTOR-NEMA NOM. EFF. 96.2 PCT.



DR. BY G. R. WEBB
 CK. BY W. I. SMITH
 APP. BY W. I. SMITH
 DATE 04/02/14

A-C MOTOR PERFORMANCE DATA
 A44WG3164-R003
 ISSUE DATE 04/02/14



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

DR. BY G. R. WEBB
 CK. BY W. L. SMITH
 App. BY W. L. SMITH
 DATE 04/02/14

A-C MOTOR PERFORMANCE CURVES A44WC3164-R003
 ISSUE DATE 04/02/14

Printed on 4/2/14 10:23 @ ragsun

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

604989-505

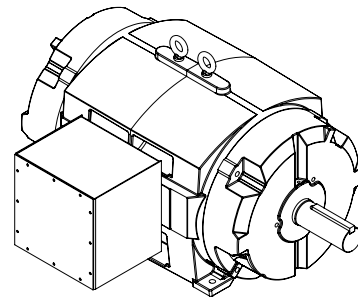
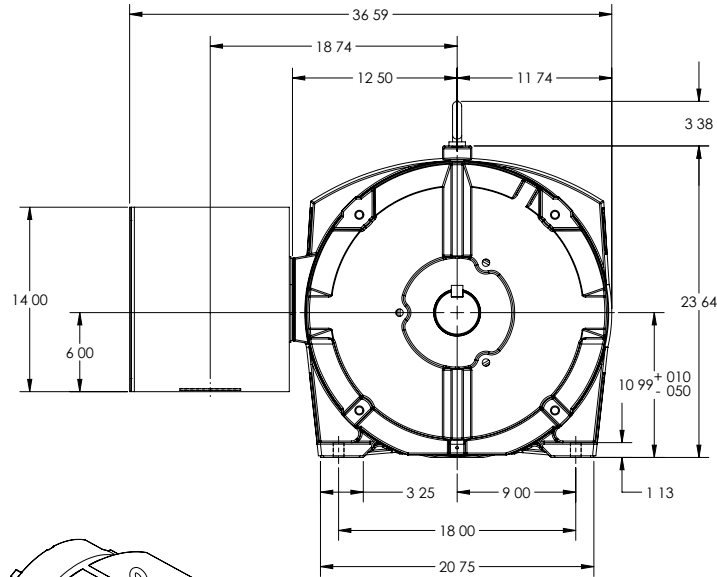
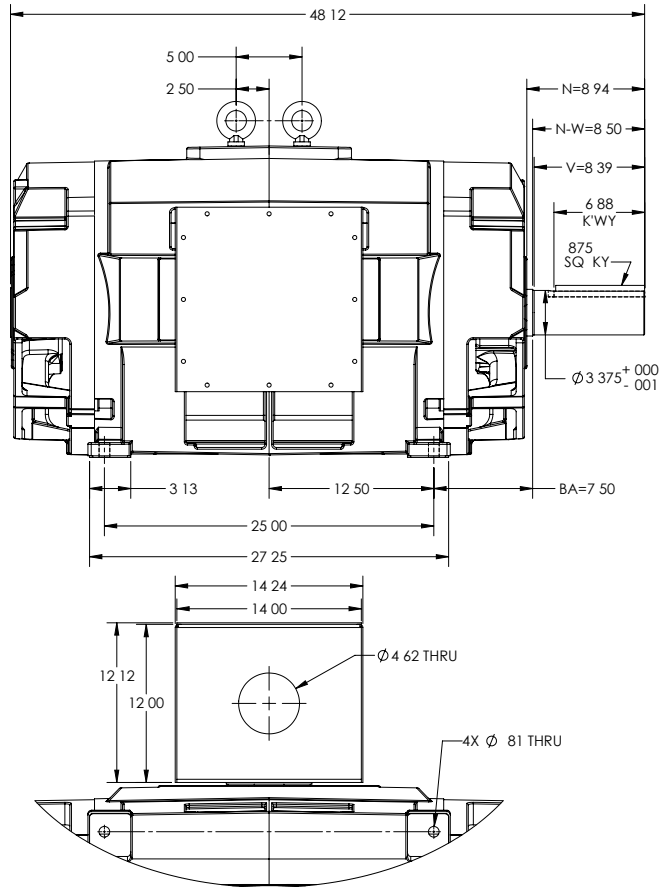
ENCLOSURE: PROTECTED; OPEN DRIP PROOF

FRAME E449T

COOLING: SELF-VENTILATED

MOUNTING: FOOT, F-1 SIDE

14X14X12 FABRICATED STEEL C/BOX



MOTOR WEIGHT: 2100 LBS
*MAY VARY BY 15% DEPENDING ON RATING

DIMENSIONS ARE IN INCHES

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

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED CONSULT FACTORY

MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003 T1 R

SHEET NUMBER
1 OF 1

505-686109

| | | | |
|----------------------|------------------------------------|-----------------------------|-----------------|
| REV. DESC | REMOVE FUNCTIONAL REPLACEMENT NOTE | | |
| REV A | VERSION 01 | REVISED 11/08/13 11/19/2015 | TDR 00000953052 |
| MODEL NO. 60 989-505 | | | |
| BY USBRCHA2 | | | |

BALDOR

9T PROT F-1 FT - 1 X1 X12 FAB STL C/BOX

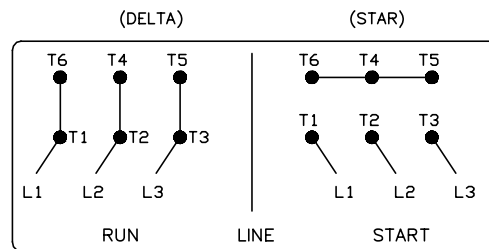
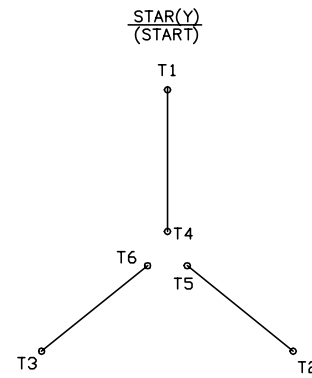
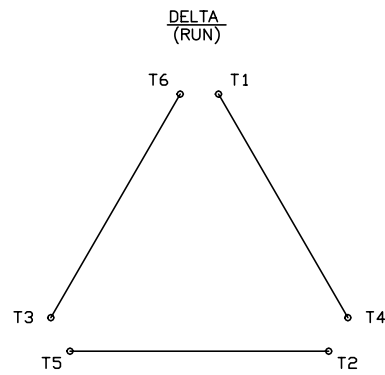
505-686109

416820-008

A-C MOTOR CONNECTION DIAGRAM

STANDARD 6 LEAD

Y START - DELTA RUN



< N. P. 1767-DC >

| | | |
|--|--------------------------------|------------------|
| REV. DESC: ADDED T4 TO Y CONNECT DIAGRAM | | |
| REV. LTR: D | VERSION: 04 | TDR: 00000847713 |
| FILE: \RAG\00001\808 | REVISED: 10: 41: 26 04/08/2014 | BY: RAGJSS1 |
| MTL: - | Ⓢ □ | |



CONNECT DIAGRAM STD 6 LEAD Y START DELTA RUN

SH 1 of 1

416820-008

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[MN408?ManNumber=MN408](#)

Marketing maintained PDF of MN416:

[MN416?ManNumber=MN416](#)