ABB BALDOR RELIANCE

Customer information packet

EM25404T-4

400HP, 1780RPM, 3PH, 60HZ, 449T, DP, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	DP
Frame	449T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	400.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CURUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	437.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	96.2 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	437.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	12 @ 1 AWG
Motor Standards	NEMA
Motor Type	A44140M

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG3164
Layout	604989-505
Eff. date	03-01-2017
CD Diagram	416820-008
Poles	04
Leads	6#1 (02 per group)
Proprietary	False
Created date	11-24-2015

Mounting Arrangement	F1
Number of Poles	4
Overall Length	48.12 IN
Power Factor	89
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	3.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Wye Start - Delta Run
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP2496L
MOBIL POLYREX EM

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	2424	

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, CURUS EEV, CC, LASER	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
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	WILKOFAST, 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	PR0T

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

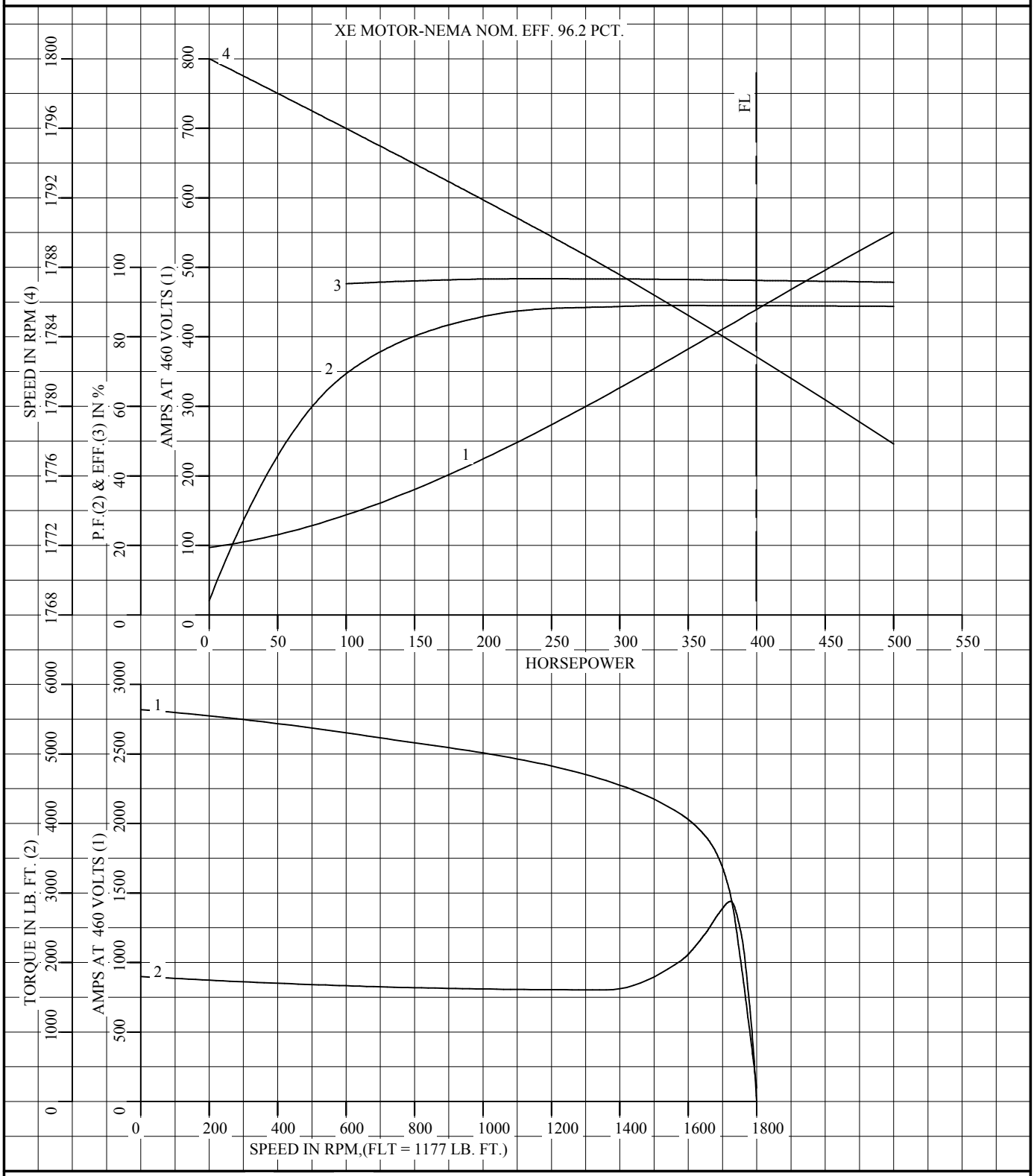
SPEED TORQUE

	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.

REL S.O.	RPM 1780	S.F. 1.15	ROTOR 418143049GE
FRAME 449T	VOLTS 460	NEMA DESIGN B	TEST S.O. CALCULATED DATA
HP 400	AMPS 437	CODE LETTER F	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE PR0T	STATOR RES.@ 25 °C .0107
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 433997	OHMS (BETWEEN LINES)



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

A-C MOTOR PERFORMANCE CURVES

A44WG3164-R003

ISSUE DATE 04/02/14

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

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

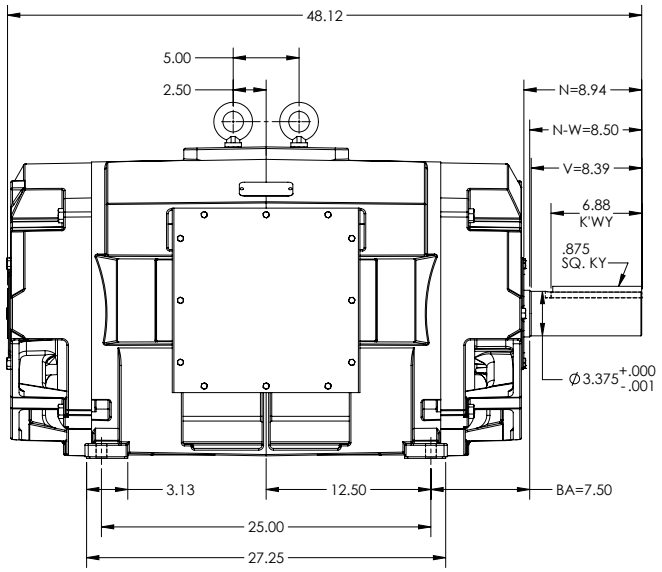
604989-505

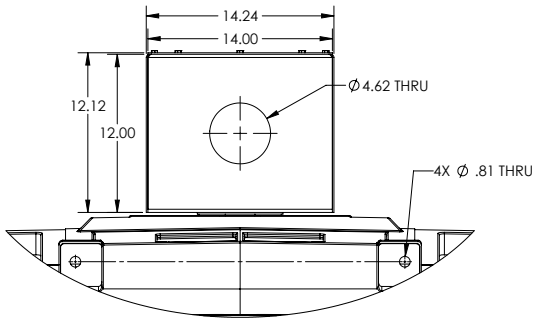
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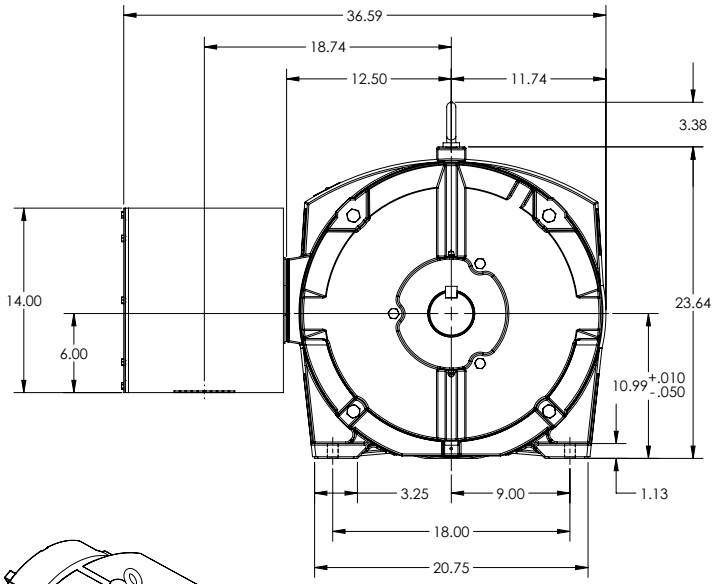
MOUNTING: FOOT, F-1 SIDE

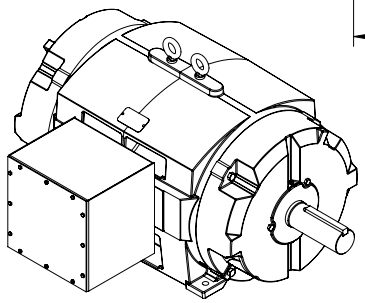
FRAME E449T
14X14X12 FABRICATED STEEL C/BOX

COOLING: SELF-VENTILATED









MOTOR WRIGHT: 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" T.I.R.

SHEET NUMBER 1 OF 1

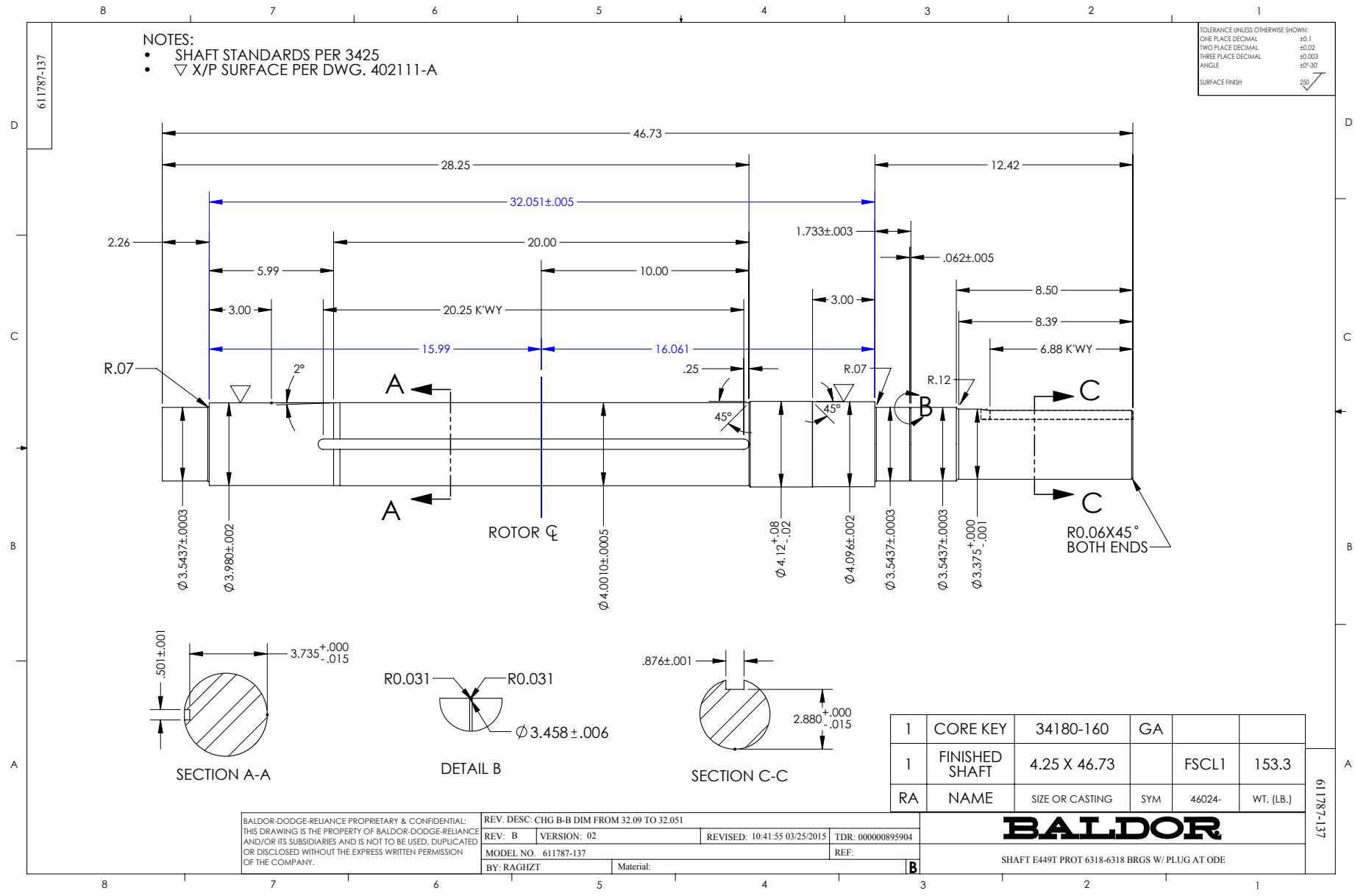
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REV. DESC: UPDATE MODEL TO ADD EXTERNAL HARDWARE PER PROD MGM			
REV: B	VERSION: 02	REVISED: 07:48:44 07/14/2022	TDR: 000001193529
MODEL NO. 604989-505			
BY: USBUFRA		C	

BALDOR

449T PROT F-1 FT - 14X14X12 FAB STL C/BOX

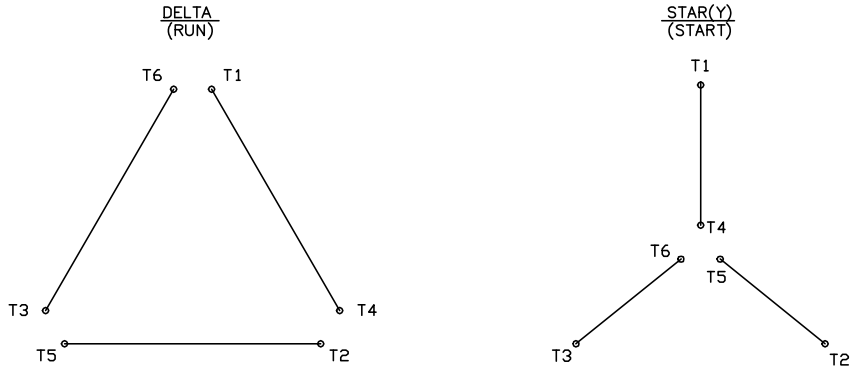
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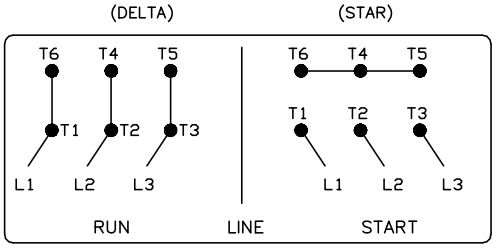

NOTES:
• SHAFT STANDARDS PER 3425
• ▽ X/P SURFACE PER DWG. 402111-A
611787-137
TOLERANCE UNLESS OTHERWISE SHOWN:
ONE PLACE DECIMAL ±0.1
TWO PLACE DECIMAL ±0.02
THREE PLACE DECIMAL ±0.003
ANGLE ±0°-30'
SURFACE FINISH 250
46.73
28.25
12.42
32.051±.005
2.26
20.00
1.733±.003
.062±.005
5.99
10.00
8.50
3.00
20.25 K'WY
3.00
8.39
15.99
16.061
6.88 K'WY
R.07
2°
.25
R.07
R.12
45°
45°
A
A
B
C
C
ROTOR ℄
Ø3.5437±.0003
Ø3.980±.002
Ø4.0010±.0005
Ø4.12 +.08 -.02
Ø4.096±.002
Ø3.5437±.0003
Ø3.5437±.0003
Ø3.375 +.000 -.001
R0.06X45°
BOTH ENDS
.501±.001
3.735 +.000 -.015
SECTION A-A
R0.031
R0.031
Ø3.458±.006
DETAIL B
.876±.001
2.880 +.000 -.015
SECTION C-C
1 CORE KEY 34180-160 GA
1 FINISHED SHAFT 4.25 X 46.73 FSCL1 153.3
RA NAME SIZE OR CASTING SYM 46024- WT. (LB.)
611787-137
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REV. DESC: CHG B-B DIM FROM 32.09 TO 32.051
REV: B VERSION: 02 REVISED: 10:41:55 03/25/2015 TDR: 000000895904
MODEL NO. 611787-137 REF:
BY: RAGHZT Material: B
BALDOR
SHAFT E449T PROT 6318-6318 BRGS W/ PLUG AT ODE

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: 000000847713
FILE: \RAG\00001\808	REVISED: 10:41:26 04/08/2014	BY: RAGJSS1
MTL: -		

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CONNECT DIAGRAM STD 6 LEAD Y START DELTA RUN

SH 1 of 1

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