

BALDOR® • RELIANCE 

Product Information Packet

EM25452T-4

450HP,3570RPM,3PH,60HZ,449TS,DP,F1

Part Detail							
Revision:	A	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	A44WG2693	CD Diagram:	416820-008	Mfg Plant:	
Mech. Spec:		Layout:	604989-380	Poles:	02	Created Date:	11-23-2015
Base:		Eff. Date:	03-01-2017	Leads:	6#1 (02 per group)		

Specs			
Catalog Number:	EM25452T-4	Insulation Class:	F
Enclosure:	DP	Inverter Code:	Inverter Ready
Frame:	449TS	IP Rating:	NONE
Frame Material:	Iron	KVA Code:	F
Output @ Frequency:	450.000 HP @ 60 HZ	Lifting Lugs:	Standard Lifting Lugs
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	12 @ 1 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Type:	A44112M
XP Class and Group:	None	Mounting Arrangement:	F1
XP Division:	Not Applicable	Power Factor:	88
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:	494.000 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.	A44-8054-2693	CAT.NO.	EM25452T-4	FRAME	449TS				
HP	450	VOLTS	460	PHASE	3	DESIGN	B	TYPE	P
RPM	3570	AMPS	494	HZ	60	AMB	40	SF	1.15
DRIVE END BEARING	65BC03J30X	DUTY	CONT	INSUL.CLASS	F				
OPP D.E. BEARING	65BC03J30X	ENCL	DP	CODE	F				
SER.NO.		POWER FACTOR	88	NEMA-NOM-EFFICIENCY	96.2				
				MAX CORR KVAR	75	GUARANTEED EFFICIENCY	95.4		
				NEMA NOM/CSA QUOTED EFF					
				MOTOR WEIGHT	2132				

Parts List		
Part Number	Description	Quantity
SA310793	SA A44-8054-2693	1.000 EA
RA298190	RA A44-8054-2693	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
089438082A	BRKT 440 089438081WCB	1.000 EA
004824015A	GREASE POLYREX EM	0.540 LB
032018028EK	HHCS 5/8-11X3-1/2L PLTD	4.000 EA
032018028CK	HHCS 3/8-16X3-1/2 PLTD.	3.000 EA
410700004F	WSHR	1.000 EA
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 EA
034017012AB	LCKW 1/4 STD. PLATED 034017012AF	4.000 EA
405851012AB	SPACE	4.000 EA
032018006AK	HHCS 1/4-20X3/4L PLATED	4.000 EA
034000012AB	WSHR 1/4 STD. PLATED	4.000 EA
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 EA
405851012AB	SPACE	4.000 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
032018006AK	HHCS 1/4-20X3/4L PLATED	4.000 EA
089438082A	BRKT 440 089438081WCB	1.000 EA
702611001A	BAFFL 440 SUB PAINT	1.000 EA
032018028EK	HHCS 5/8-11X3-1/2L PLTD	4.000 EA
032018028CK	HHCS 3/8-16X3-1/2 PLTD.	3.000 EA
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 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
048897010DG	PLUG,ODE BRKT - 360	1.000 EA
048977006J	GRFTG - 440	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
034180024HA	KEY 5/8X5/8X3 L	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	450	P	3/60	3570	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
494	CONT	40/F	1.15	B	F	PRXE
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C (OHMS BETWEEN LINES)		
433499	418143013KE	---	---	.00760		

PERFORMANCE


LOAD	HP	AMPERES	RPM	POWER FACTOR %	EFFICIENCY %
NO LOAD	0	124	3600	4.41	0
1/4	113	170	3593	65.6	94.5
2/4	225	263	3586	83.2	96.3
3/4	337	374	3578	87.4	96.5
4/4	450	494	3570	88.4	96.3
5/4	562	618	3561	88.8	95.9

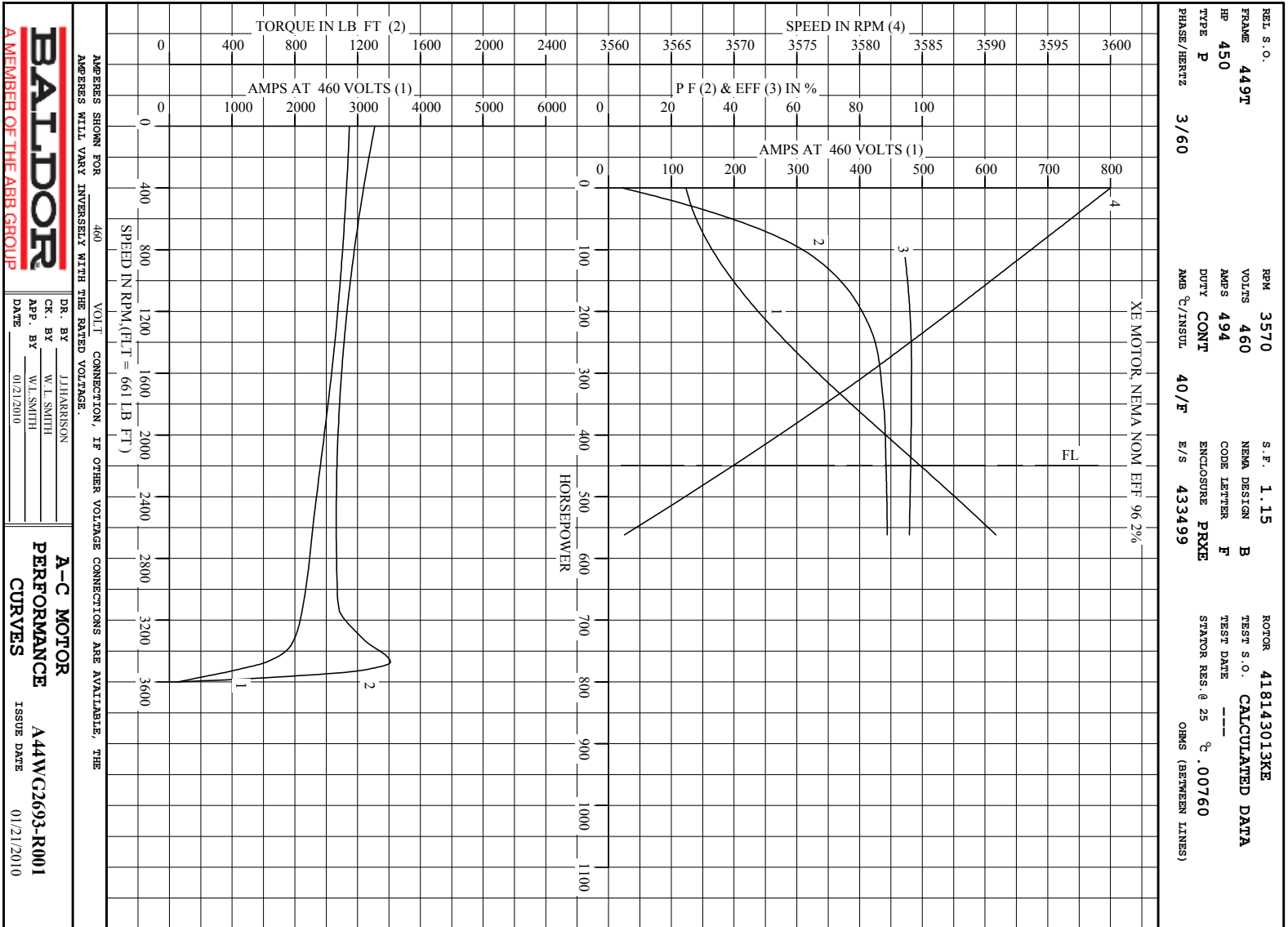
SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	198	1310	2870
PULL UP	2550	161	1064	2300
BREAKDOWN	3472	213	1409	1539
FULL LOAD	3570	100	661	494

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%

 <p>A MEMBER OF THE ABB GROUP</p>	DR. BY	J. J. HARRISON	<p>A-C MOTOR PERFORMANCE DATA</p> <p>AA4WG2693-R001</p> <p>ISSUE DATE 01/21/20</p>
	CR. BY	W. L. SMITH	
	APP. BY	W. L. SMITH	
	DATE	01/21/2010	



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

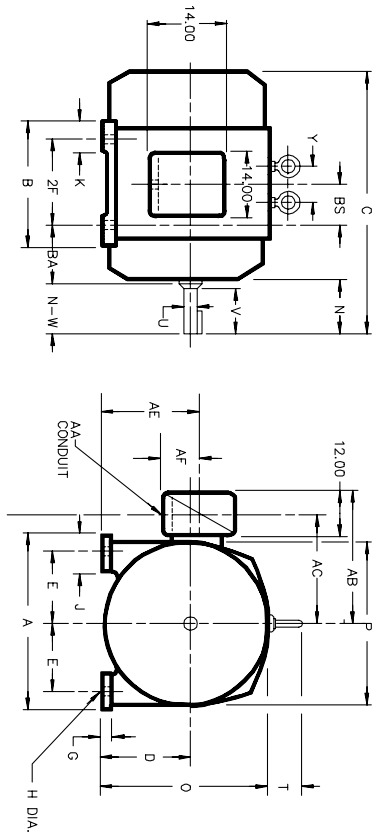
DR. BY	J.HARRISON
CK. BY	W.L.SMITH
APP. BY	W.L.SMITH
DATE	01/21/2010

A-C MOTOR PERFORMANCE CURVES

A44WC2693-R001

ISSUE DATE 01/21/2010

DUTY MASTER ALTERNATING CURRENT MOTORS
 ENCLOSURE: PROTECTED SQUIRREL-CAGE INDUCTION COOLING: SELF-VENTILATED
 TOTALLY ENCLOSED NON-VENTILATED
 MOUNTING: FOOT
 FRAMES 445T THRU 449TS ABOVE NEMA RATINGS
 WITH SPECIAL CONDUIT BOX



DIMENSIONS ARE IN INCHES

FRAME	A	D(2)	E	G	H	J	O	P	BA	K	T	Y (4)
445T	21.00	11.00	9.00	1.12	.81	3.25	23.62	24.25	7.50	3.25	3.25	---
447S	21.00	11.00	9.00	1.12	.81	3.25	23.62	24.25	7.50	3.25	3.25	---
447T	21.00	11.00	9.00	1.12	.81	3.25	24.25	24.25	7.50	3.25	4.25	5.00
447S	21.00	11.00	9.00	1.12	.81	3.25	24.25	24.25	7.50	3.25	4.25	5.00
449T	21.00	11.00	9.00	1.12	.81	3.25	24.25	24.25	7.50	3.25	4.25	5.00
449TS	21.00	11.00	9.00	1.12	.81	3.25	24.25	24.25	7.50	3.25	4.25	5.00

FRAME	C	BS	B	BACK END SHAFT AND KEY	SO.	WT.
445T	39.56	8.25	19.00	2F N N-W U(3) V LGTH. KEY (LBS)	.875	1410
447S	35.81	8.25	19.00	8.94 8.50 3.375 8.25 6.88	.875	1410
447T	43.06	10.00	22.50	8.94 8.50 3.375 8.25 6.88	.875	1750
447S	39.31	10.00	22.50	8.94 8.50 3.375 8.25 6.88	.875	1750
449T	48.06	12.50	27.50	8.94 8.50 3.375 8.25 6.88	.875	2100
449TS	44.31	12.50	27.50	5.19 4.75 2.375 4.50 3.00	.625	2100

FRAME	AA	AB	AC	AF	PROT	AE
445T	4"	24.63	18.63	7.00	12.00	11.00
447S	4"	24.63	18.63	7.00	12.00	11.00
447T	4"	24.63	18.63	7.00	12.00	11.00
447S	4"	24.63	18.63	7.00	12.00	11.00
449T	4"	24.63	18.63	7.00	12.00	11.00
449TS	4"	24.63	18.63	7.00	12.00	11.00

- (1) SPECIAL DIMENSIONS ON THIS LINE
- (2) "D" VARIES +.00, -.06
- (3) "U" & "V" VARY +.00, -.001
- (4) 445 FRAME HAS ONE EYE BOLT CENTERLINE OF FRAME.

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED. STANDARD DOUBLE SHAFT SUPPLIED ONLY WHEN SPECIFIED. IF MOUNTING CLEARANCE DETAILS ARE REQUIRED CONSULT FACTORY. MAXIMUM PERMISSIBLE SHAFT ROUNDOFF WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003 T.I.R.

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

REV. DESC: CHANGING TO CORRECT TITLE	VERSION: 02	TDR: 000000752338
REV. LTR: B	REVISED: 01:05:26 06/27/2012	BY: RAGRA
FILE: \RAG\00012\166		
MTL: -		

BALDOR
 DIM SHEET PROT 445T-449TS ABV/NEMA - SPCL C/BOX - 14X14X12
 SH 1 of 1

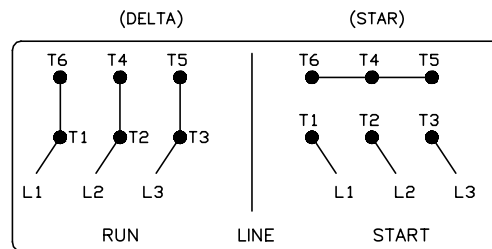
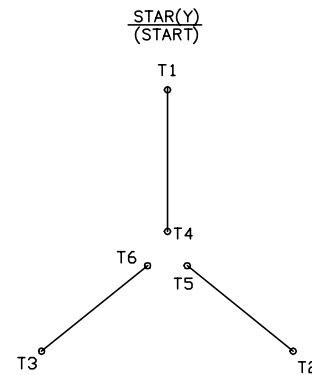
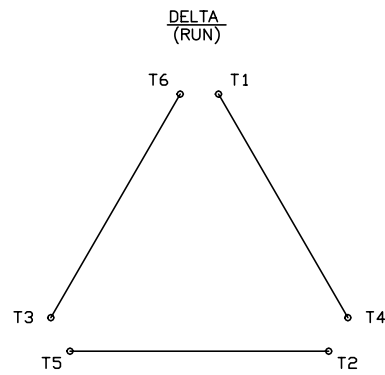
FRAME _____ TYPE _____ CERTIFIED FOR _____
 ORDER _____ ITEM _____ HP _____ RPM _____ HZ _____ VOLTS _____
 SALES ORDER _____ APPROVED BY _____ DATE _____

416820-008

A-C MOTOR CONNECTION DIAGRAM

STANDARD 6 LEAD

Y START - DELTA RUN



< N. P. 1767-DC >

416820-008

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

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Marketing maintained PDF of MN408:

[MN408?ManNumber=MN408](#)

Marketing maintained PDF of MN416:

[MN416?ManNumber=MN416](#)