

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM25694T-4

300HP, 1785RPM, 3PH, 60HZ, 449T, DP, F1

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	DP
<b>Frame</b>	449T
<b>Frame Material</b>	Iron
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	None
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Three Phase
<b>Output @ Frequency</b>	300.000 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1800 RPM @ 60 HZ
<b>Voltage @ Frequency</b>	460.0 V @ 60 HZ
<b>Agency Approvals</b>	CURUSEEV
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Current @ Voltage</b>	331.000 A @ 460.0 V
<b>Design Code</b>	B
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	95.8 %
<b>Feedback Device</b>	NO FEEDBACK
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	331.0 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>IP Rating</b>	NONE
<b>KVA Code</b>	G
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Motor Lead Quantity/Wire Size</b>	6 @ 2/0 AWG
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	A44112M

**Part Detail**

<b>Revision</b>	B
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	A44WG4249
<b>Layout</b>	604989-635
<b>Eff. date</b>	07-18-2022
<b>CD Diagram</b>	416820-008
<b>Poles</b>	04
<b>Leads</b>	6#2/0
<b>Proprietary</b>	False
<b>Created date</b>	04-29-2015

<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	48.13 IN
<b>Power Factor</b>	88
<b>Product Family</b>	General Industrial
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	3.375 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1785 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Wye Start - Delta Run
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None

**Nameplate**

<b>NP2496L</b>
MOBIL POLYREX EM

**NP2349L**

<b>SPEC NO.</b>	A44-7189-4249	<b>CAT.NO.</b>	EM25694T-4	<b>FRAME</b>	449T
<b>HP</b>	300	<b>VOLTS</b>	460	<b>PHASE</b>	3
<b>RPM</b>	1785	<b>AMPS</b>	331	<b>DESIGN</b>	B
<b>DRIVE END BEARING</b>	90BC03J30X	<b>DUTY</b>	CONT	<b>TYPE</b>	P
<b>OPP D.E. BEARING</b>	90BC03J30X	<b>ENCL</b>	DP	<b>INSUL.CLASS</b>	F
<b>SER.NO.</b>		<b>CODE</b>	G	<b>AMB</b>	40
		<b>POWER FACTOR</b>	88	<b>SF</b>	1.15
				<b>NEMA-NOM-EFFICIENCY</b>	95.8
				<b>MAX CORR KVAR</b>	59.9
				<b>GUARANTEED EFFICIENCY</b>	95
				<b>NEMA NOM/CSA QUOTED EFF</b>	
				<b>MOTOR WEIGHT</b>	2151

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	449T	300	P	3/60	1785	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
331	CONT	40/F	1.15	B	G	ODP
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
833139	418143042ZEE	---	---	.0152		

**PERFORMANCE**

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	83.6	1800	4.22	0
1/4	75.1	115	1796	64.7	94.6
2/4	150	176	1792	82.7	96.2
3/4	225	251	1787	87.3	96.2
4/4	300	331	1783	88.5	95.9
5/4	375	415	1777	88.7	95.3

**SPEED TORQUE**

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	148	1308	2111
PULL UP	1360	117	1032	1764
BREAKDOWN	1724	244	2156	1114
FULL LOAD	1783	100	883	331

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

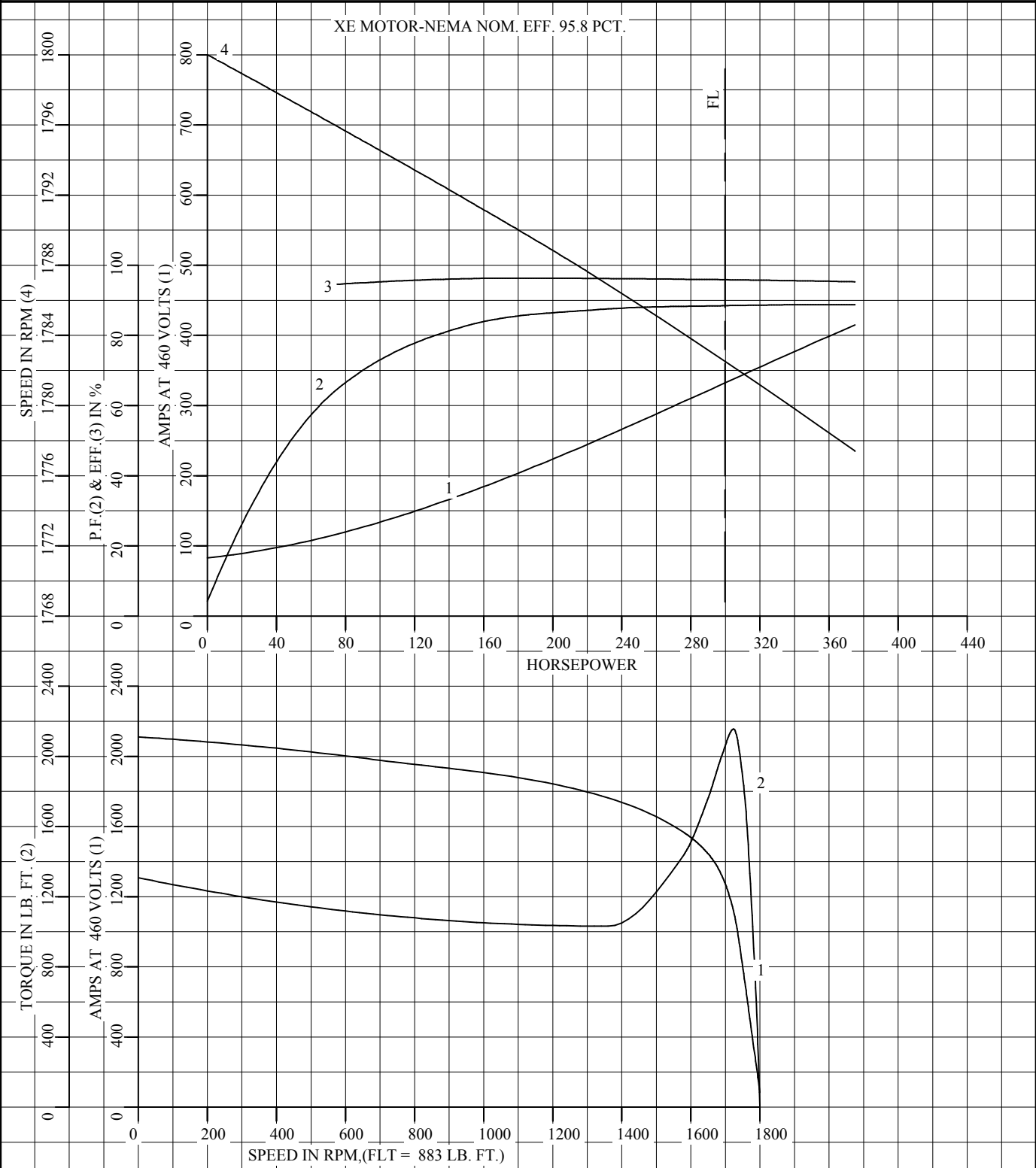
REMARKS: CALCULATED DATA  
XE MOTOR-NEMA NOM. EFF. 95.8 PCT.



DR. BY G. R. WEBB  
CK. BY W. L. SMITH  
APP. BY W. L. SMITH  
DATE 04/29/15

**A-C MOTOR  
PERFORMANCE A44WG4249-R001  
DATA** ISSUE DATE 04/29/15

REL S.O.	RPM 1785	S.F. 1.15	ROTOR 418143042ZEE
FRAME 449T	VOLTS 460	NEMA DESIGN B	TEST S.O. CALCULATED DATA
HP 300	AMPS 331	CODE LETTER G	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE ODP	STATOR RES. @ 25 °C .0152
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 833139	OHMS (BETWEEN LINES)



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 04/29/15

**A-C MOTOR  
 PERFORMANCE  
 CURVES** A44WG4249-R001  
 ISSUE DATE 04/29/15

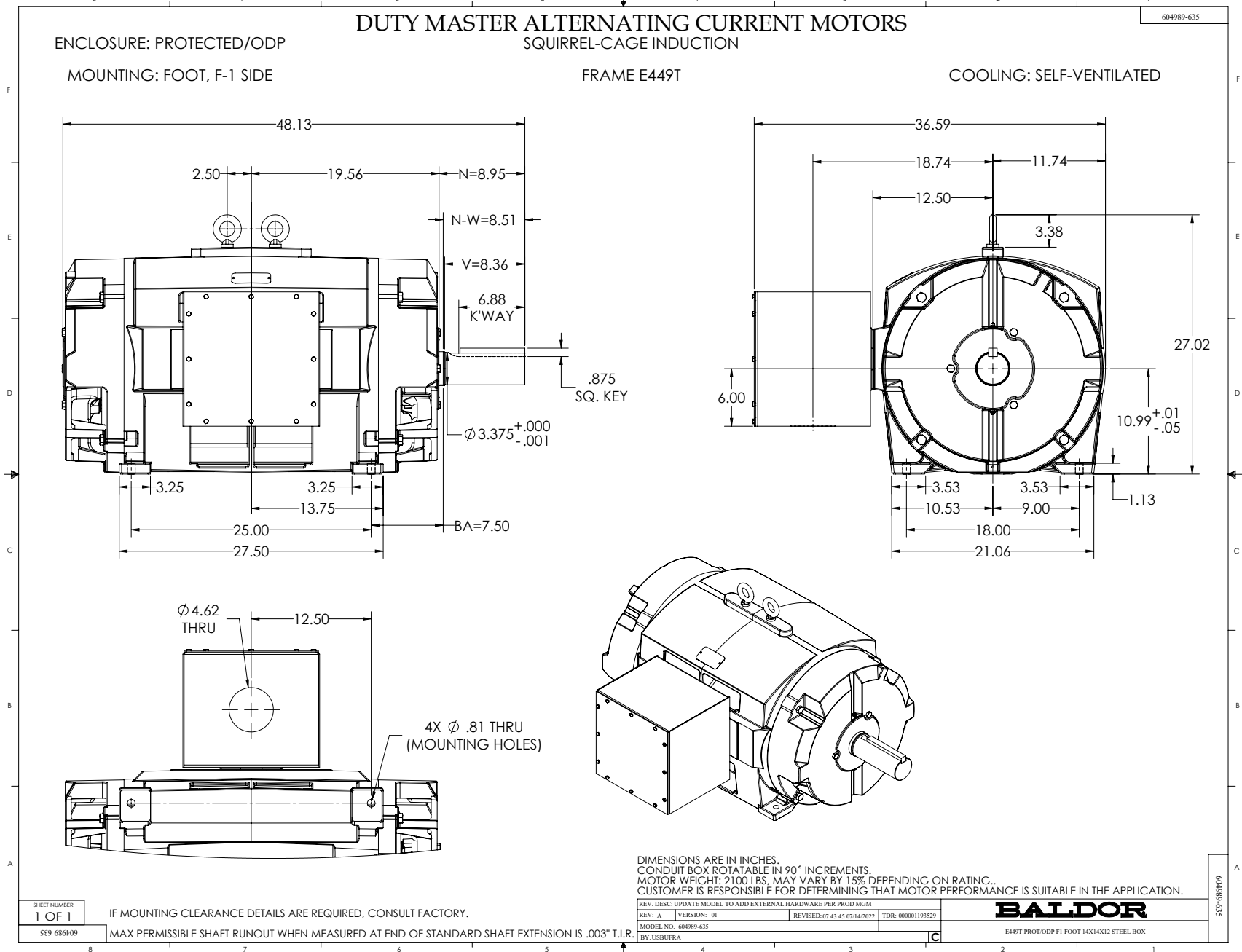
**DUTY MASTER ALTERNATING CURRENT MOTORS**  
SQUIRREL-CAGE INDUCTION

ENCLOSURE: PROTECTED/ODP

MOUNTING: FOOT, F-1 SIDE

FRAME E449T

COOLING: SELF-VENTILATED



SHEET NUMBER  
**1 OF 1**

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

MAX PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003" T.I.R.

DIMENSIONS ARE IN INCHES.  
CONDUIT BOX ROTATABLE IN 90° INCREMENTS.  
MOTOR WEIGHT: 2100 LBS. MAY VARY BY 15% DEPENDING ON RATING.  
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

REV. DESC: UPDATE MODEL TO ADD EXTERNAL HARDWARE PER PROD MGM	VERSION: 01	REVISED: 07-43-45 07/14/2022	TDR: 000001193529
MODEL NO. 604989-635	BY: USBUFR4		

**BALDOR**

E449T PROT/ODP F1 FOOT 14X14X12 STEEL BOX

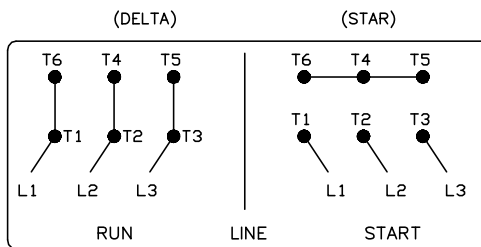
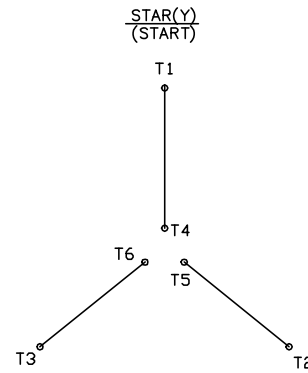
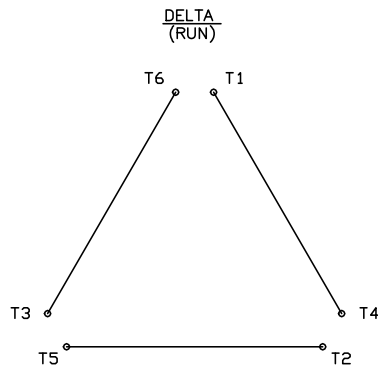
604989-635

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: -	© □	

**BALDOR**

CONNECT DIAGRAM STD 6 LEAD Y START DELTA RUN

SH 1 of 1

416820-008