

# ABB BALDOR RELIANCE III

---

## Customer information packet

### EM251402T-4

400HP, 3570RPM, 3PH, 60HZ, 449TS, A44112M, DP

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	DP
<b>Frame</b>	449TS
<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>	400.000 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	3600 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>	431.000 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>	96.2 %
<b>Feedback Device</b>	NO FEEDBACK
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	431.0 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>IP Rating</b>	NONE
<b>KVA Code</b>	F
<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>	D
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	A44WG2659
<b>Layout</b>	604989-664
<b>Eff. date</b>	09-25-2025
<b>CD Diagram</b>	416820-008
<b>Poles</b>	02
<b>Leads</b>	6#2/0
<b>Proprietary</b>	False
<b>Created date</b>	01-22-2015

<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	2
<b>Overall Length</b>	44.31 IN
<b>Power Factor</b>	90
<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>	2.375 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	3570 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>	A44-6803-2659	<b>CAT.NO.</b>	EM251402T-4	<b>FRAME</b>	449TS
<b>HP</b>	400	<b>VOLTS</b>	460	<b>PHASE</b>	3
<b>RPM</b>	3570	<b>AMPS</b>	431	<b>DESIGN</b>	B
<b>DRIVE END BEARING</b>	65BC03J30X	<b>DUTY</b>	CONT	<b>TYPE</b>	P
<b>OPP D.E. BEARING</b>	65BC03J30X	<b>ENCL</b>	DP	<b>INSUL.CLASS</b>	F
<b>SER.NO.</b>		<b>POWER FACTOR</b>	90	<b>AMB</b>	40
				<b>SF</b>	1.15
				<b>CODE</b>	F
				<b>NEMA-NOM-EFFICIENCY</b>	96.2
				<b>MAX CORR KVAR</b>	50
				<b>GUARANTEED EFFICIENCY</b>	95.4
				<b>NEMA NOM/CSA QUOTED EFF</b>	
				<b>MOTOR WEIGHT</b>	2075

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	449T	400	P	3/60	3570	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
431	CONT	40/F	1.15	B	F	PRXE
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
433472	418143013KE	---	---	.00865		

**PERFORMANCE**

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	89.7	3600	5.37	0
1/4	100	136	3593	72.7	94.6
2/4	200	222	3586	87.5	96.4
3/4	300	324	3579	89.9	96.6
4/4	400	431	3571	90.0	96.4
5/4	500	541	3562	90.1	95.9

**SPEED TORQUE**

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	174	1022	2555
PULL UP	2550	136	800	1885
BREAKDOWN	3474	209	1231	1235
FULL LOAD	3571	100	588	431

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

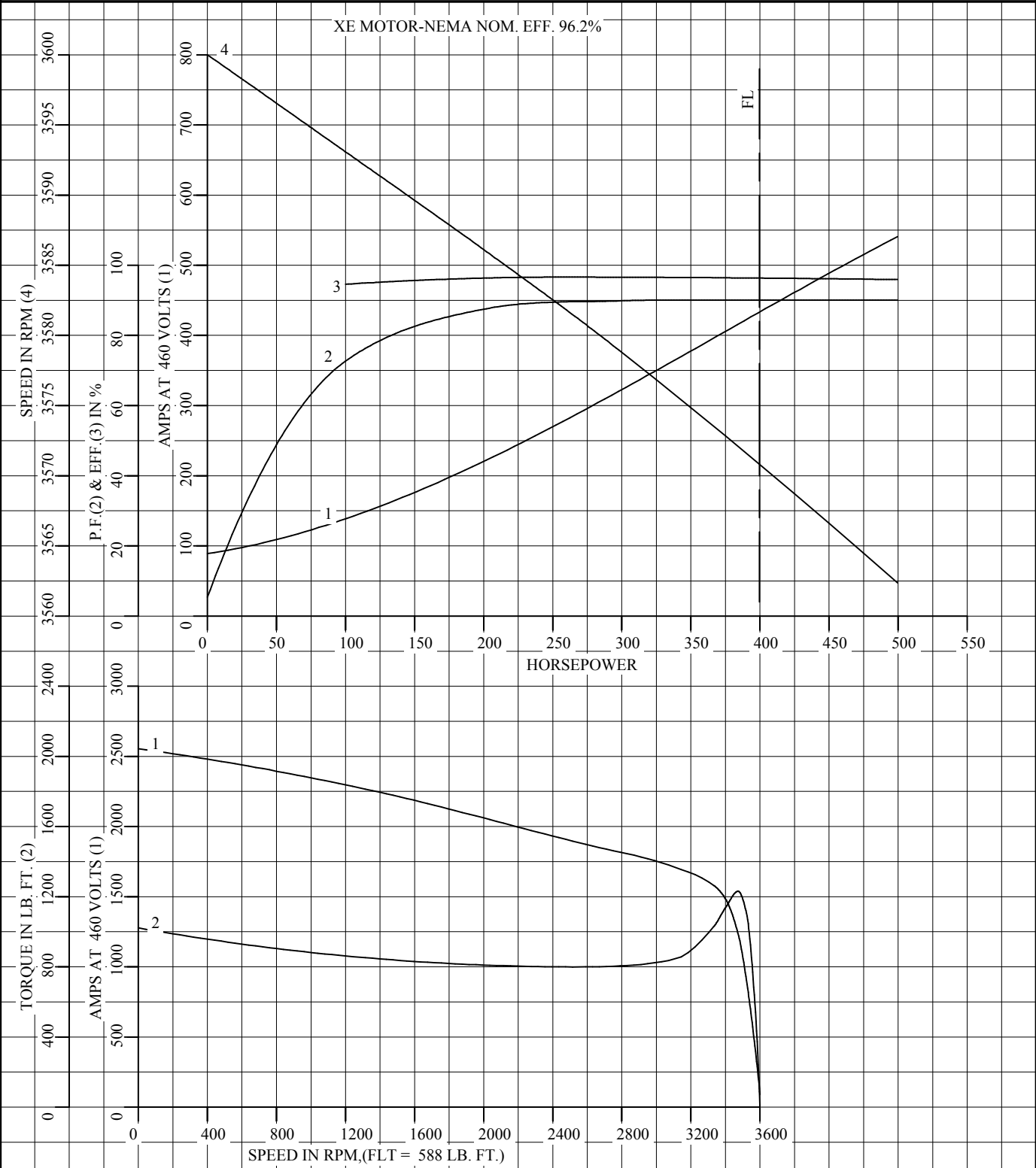
REMARKS: TYPICAL DATA  
XE MOTOR-NEMA NOM. EFF. 96.2%



DR. BY D. M. BYRD  
CK. BY C. E. JAMISON  
APP. BY D. M. BYRD  
DATE 05/14/02

**A-C MOTOR  
PERFORMANCE A44WG2659-R002  
DATA** ISSUE DATE 05/14/02

REL S.O.	RPM <b>3570</b>	S.F. <b>1.15</b>	ROTOR <b>418143013KE</b>
FRAME <b>449T</b>	VOLTS <b>460</b>	NEMA DESIGN <b>B</b>	TEST S.O. <b>TYPICAL DATA</b>
HP <b>400</b>	AMPS <b>431</b>	CODE LETTER <b>F</b>	TEST DATE <b>---</b>
TYPE <b>P</b>	DUTY <b>CONT</b>	ENCLOSURE <b>PRXE</b>	STATOR RES. @ 25 °C <b>.00865</b>
PHASE/HERTZ <b>3/60</b>	AMB °C/INSUL <b>40/F</b>	E/S <b>433472</b>	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 D. M. BYRD  
 CK. BY C.E. JAMISON  
 APP. BY D. M. BYRD  
 DATE 05/14/02

**A-C MOTOR  
PERFORMANCE  
CURVES** **A44WG2659-R002**  
 ISSUE DATE 05/14/02

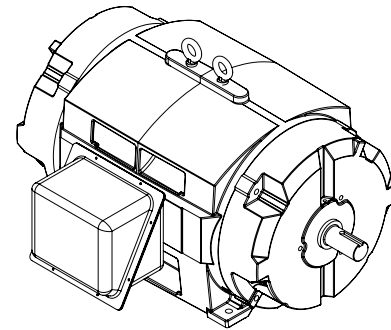
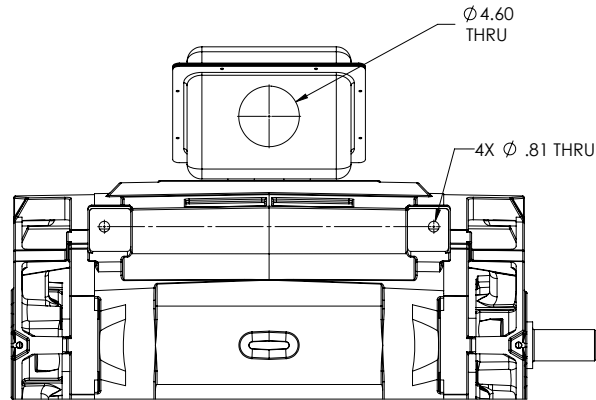
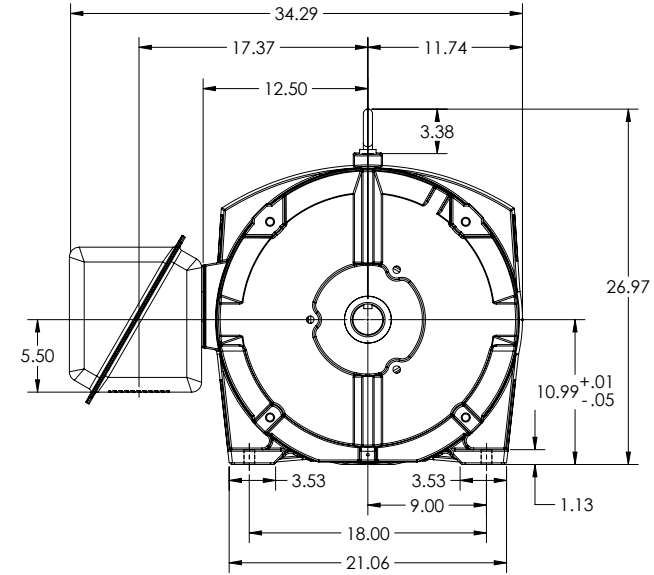
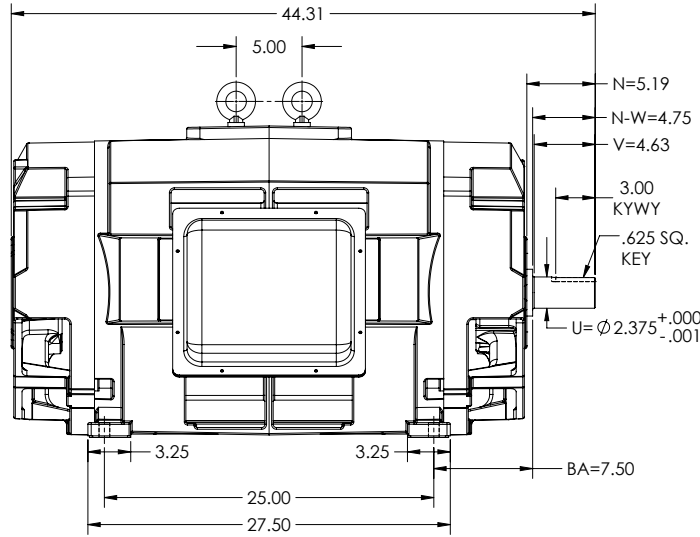
**DUTY MASTER ALTERNATING CURRENT MOTORS**  
SQUIRREL-CAGE INDUCTION

ENCLOSURE: OPEN DRIP-PROOF

MOUNTING: FOOT, F-1

E449TS FRAME MOUNTING

COOLING: NON-VENTILATED



DIMENSIONS ARE IN INCHES.  
WEIGHT (LBS) 2100, MAY VARY 15% DEPENDING ON RATING.  
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER  
**1 OF 1**

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

F99-686F09

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

REV. DESC: NEW	VERSION: 00	REVISED: 10/26/10 10/22/2020	TDR: 000001151313
MODEL NO. 604989-664			
BY: USJOSUL			

**BALDOR**

449TS ODP F1 FT S

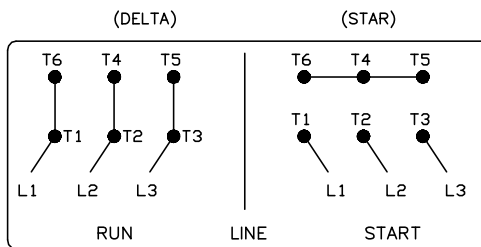
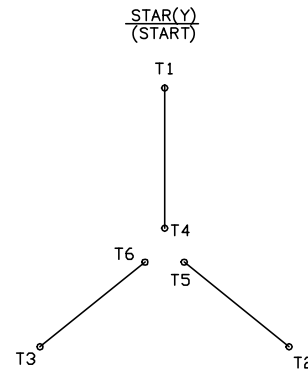
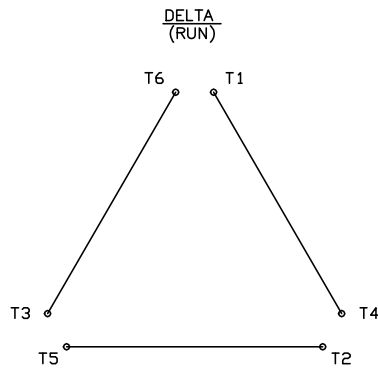
P99-686F09

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