

ABB BALDOR RELIANCE III

Customer information packet

EM44304T-2340

300HP, 1785RPM, 3PH, 60HZ, L449T, A44200M, TEF

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	L449T
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	300.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	2300.0 V @ 60 HZ 4000.0 V @ 60 HZ
Agency Approvals	CCSAUSEEV CCSA US
Ambient Temperature	40 °C
Auxiliary Box	AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	39.100 A @ 4000.0 V 67.800 A @ 2300.0 V
Design Code	-
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.0 %
Feedback Device	NO FEEDBACK
Frame Prefix	L
Heater Indicator	Heater Included, 120 V
High Voltage Full Load Amps	39.1 a
Insulation Class	F
Inverter Code	Not Inverter
IP Rating	NONE
KVA Code	H

Part Detail

Revision	W
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG4996
Layout	617423-169
Eff. date	05-06-2024
CD Diagram	416820-004
Poles	04
Leads	6#6 482406006P
Proprietary	False
Created date	10-15-2013

Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	6 @ 6 AWG
Motor Standards	Other
Motor Type	A44200M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	60.21 IN
Power Factor	87
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	Shaft Slinger
Speed	1785 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	RTD Only

Nameplate

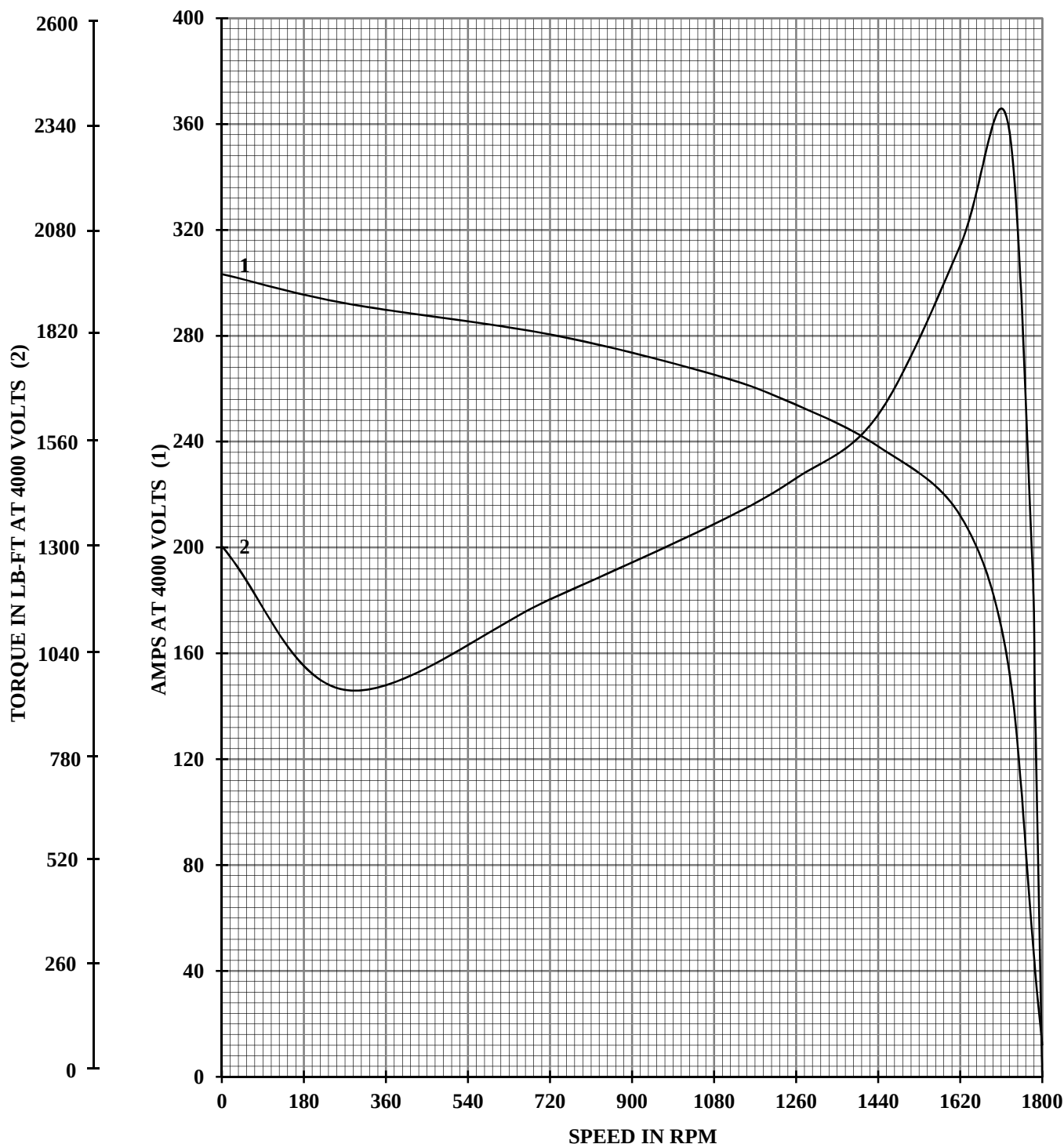
NP3132L											
SPEC NO.	P44G5954			CAT.NO.		EM44304T-2340				FRAME	L449T
HP	300	VOLTS	2300/4000		PHASE	3	DESIGN	-	TYPE	P	
RPM	1785	AMPS	67.8/39.1		HZ	60	AMB	40	SF	1.15	
DRIVE END BEARING	110BC02J30X			DUTY	CONT	INSUL.CLASS		F			
OPP D.E. BEARING	6318/C3VL0241			ENCL	TEFC	CODE	H				
NEMA NOM/CSA QUOTED EFF	NEMA-NOM-EFFICIENCY			95							
SER.NO.											
										MOTOR WEIGHT	3676

000901002AAA	
EQUIPPED WITH 120V/245W AND 24	0V/245W SPACE HEATERS
120V HTR= 1H1,1H2	240V HTR= 2H1,2H2

NP2496L	
MOBIL POLYREX EM	

BALDOR -RELIANCE SALES ORDER	FRAME	HP	TYPE	PHASE	HERTZ	RPM
QUOTE	449	300	P	3	60	1785
VOLTS	AMPS	DUTY	AMB°C	INSUL	S.F.	NEMA DESIGN
4000	39.1	CONT	40	F	1.15	---
CODE LETTER	ENCL.	ROTOR WK ² (lb-ft ²)	STATOR RES.@25°C OHMS (BETWEEN LINES)		TYPICAL DATA	
J	---	102.9	0.99072			
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	12.1	1800	5.7	0.0	
1/4	75	15.6	1796	56.8	91.5	
2/4	150	22.2	1793	77.0	94.5	
3/4	225	30.2	1789	84.2	95.1	
4/4	300	39.1	1785	87.1	95.0	
5/4	375	48.5	1780	88.0	94.6	
6/4	450	58.6	1776	88.0	94.0	
SPEED TORQUE						
		RPM	TORQUE % FULL LOAD	TORQUE LB-FT	AMPERES	
LOCKED ROTOR		0	148	1303	303.3	
PULL UP		270	108	950	292.3	
BREAKDOWN		1723	269	2375	158.2	
FULL LOAD		1785	100	882	39.1	
AMPERES SHOWN FOR 4000 VOLT CONNECTION(S). IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE VOLTAGE.						
REVISION 0						
 A MEMBER OF THE ABB GROUP			DR. BY <u>CD</u> CK. BY <u>---</u> APP. BY <u>T. Kelati</u> DATE <u>5/23/2014</u>		A-C MOTOR A44WG4996-R001 PERFORMANCE SH 1 OF 5 ISSUE DATE <u>5/23/2014</u>	

B-R S.O.	QUOTE	HERTZ	60	AMB°C	40	CODE LETTER	J
FRAME	449	RPM	1785	INSUL	F	ENCLOSURE	---
HP	300	VOLTS	4000	S.F.	1.15	STATOR RES.@25°C	0.99072
TYPE	P	AMPS	39.1	NEMA DESIGN	---	OHMS (BETWEEN LINES)	
PHASE	3	DUTY	CONT	ROTOR WK ² (lb-ft ²)	102.9	TYPICAL DATA	



AMPERES SHOWN FOR **4000** VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE VOLTAGE.

REVISION 0

BALDOR
A MEMBER OF THE ABB GROUP

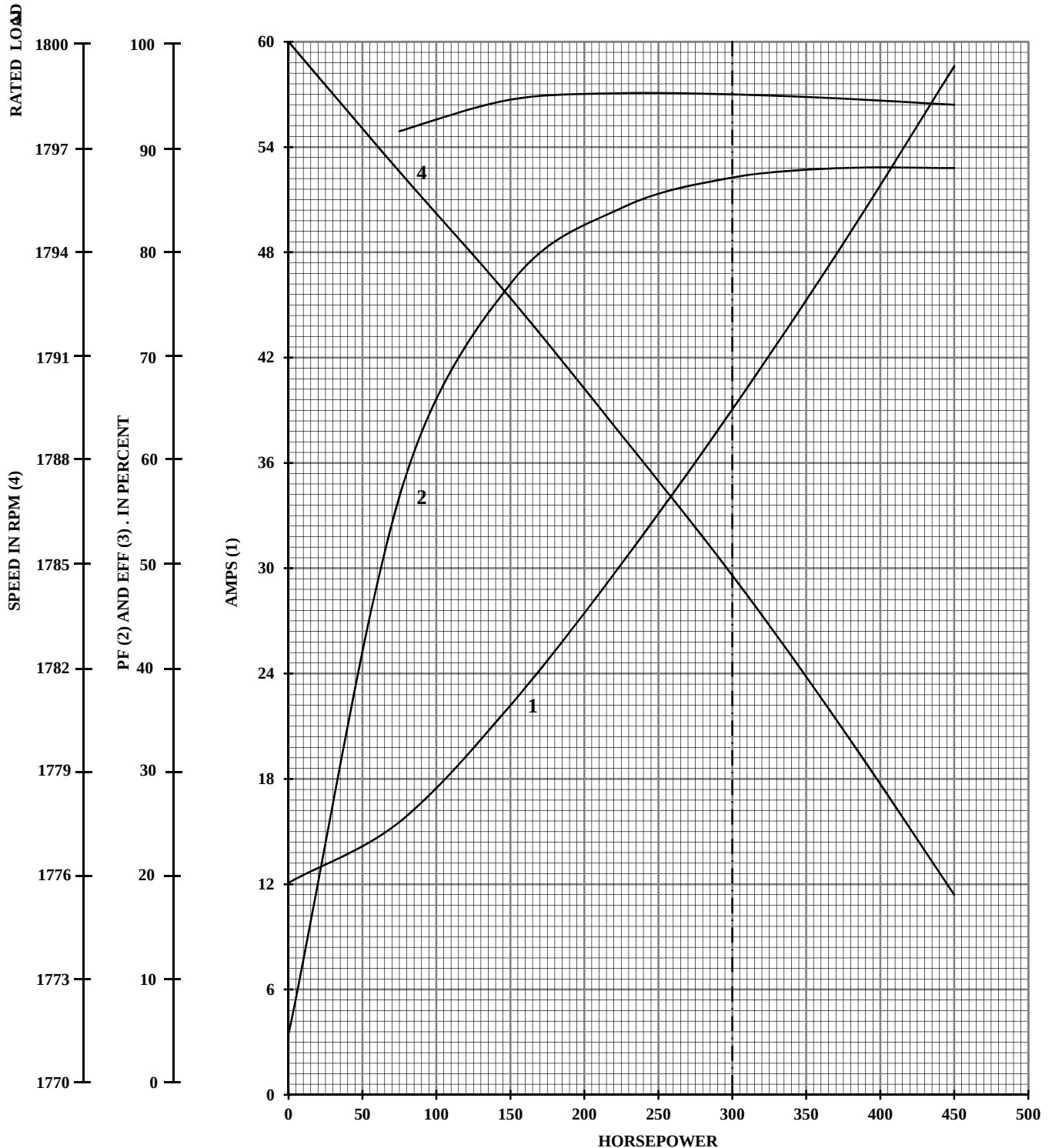
DR. BY CD
CK. BY ---
APP. BY T. Kelati
DATE 5/23/2014

**A-C MOTOR
PERFORMANCE
CURVES**

A44WG4996-R001

SH 2 OF 5
ISSUE DATE: 5/23/2014

B-R S.O.	QUOTE	HERTZ	60	AMB°C	40	CODE LETTER	J
FRAME	449	RPM	1785	INSUL	F	ENCLOSURE	---
HP	300	VOLTS	4000	S.F.	1.15	STATOR RES.@25°C	0.99072
TYPE	P	AMPS	39.1	NEMA DESIGN	---	OHMS (BETWEEN LINES)	
PHASE	3	DUTY	CONT	ROTOR WK ² (lb-ft ²)	102.9	TYPICAL DATA	



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REVISION 0

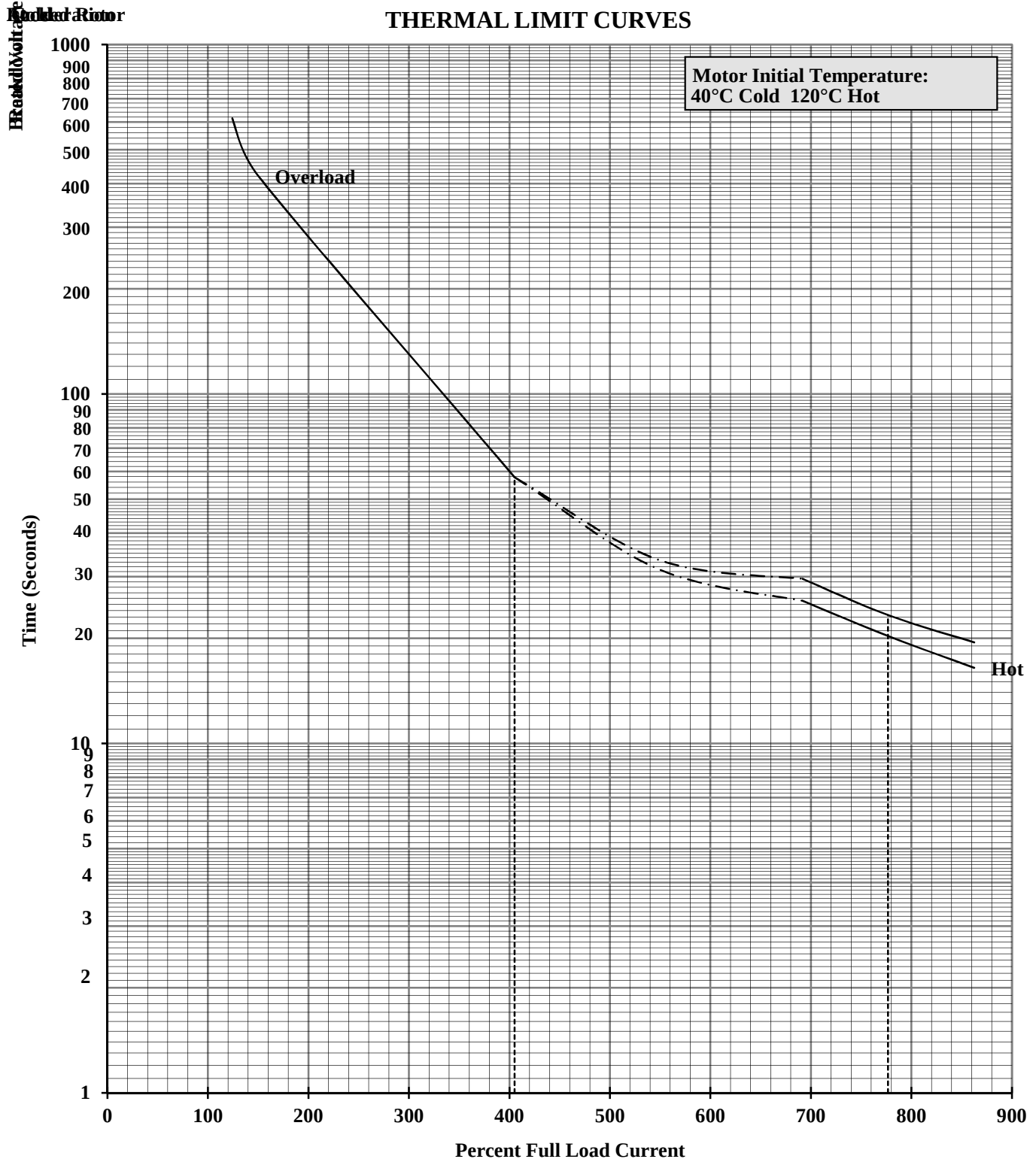
BALDOR
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DR. BY CD
CK. BY ---
APP. BY T. Kelati
DATE 5/23/2014

**A-C MOTOR
PERFORMANCE
CURVES**

A44WG4996-
SH 3 OF 5
ISSUE DATE: 3/25/2014

B-R S.O.	QUOTE	HERTZ	60	AMB°C	40	CODE LETTER	J
FRAME	449	RPM	1785	INSUL	F	ENCLOSURE	---
HP	300	VOLTS	4000	S.F.	1.15	STATOR RES.@25°C	0.99072
TYPE	P	AMPS	39.1	NEMA DESIGN	---	OHMS (BETWEEN LINES)	
PHASE	3	DUTY	CONT	ROTOR WK ² (lb-ft ²)	102.9	TYPICAL DATA	



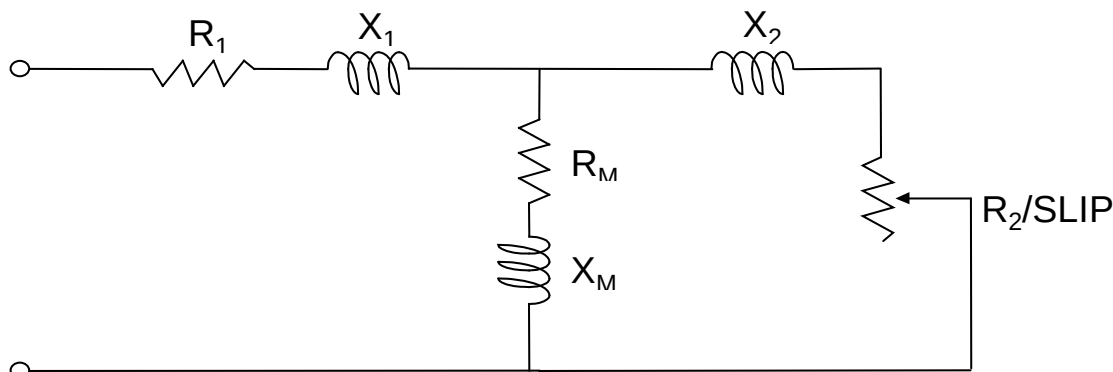
REVISION 0

B-R S.O.	QUOTE	HERTZ	60	AMB°C	40	CODE LETTER	J
FRAME	449	RPM	1785	INSUL	F	ENCLOSURE	---
HP	300	VOLTS	4000	S.F.	1.15	STATOR RES.@25°C	0.99072
TYPE	P	AMPS	39.1	NEMA DESIGN	---	OHMS (BETWEEN LINES)	
PHASE	3	DUTY	CONT	ROTOR WK ² (lb-ft ²)	102.9	TYPICAL DATA	

EQUIVALENT CIRCUIT DATA

(Per Unit, Per Phase)

FULL LOAD				LOCKED ROTOR			
R ₁	0.00893	X ₁	0.07529	R ₁	0.00733	X ₁	0.06921
R ₂	0.00734	X ₂	0.09790	R ₂	0.01836	X ₂	0.03416
R _M	0.09348	X _M	2.60639	R _M	0.32673	X _M	2.24672
BASE OHMS		71.49200		BASE VOLTS		2309	
SC Time Constant		0.037 Sec		X" = X _S		0.10337	
OC Time Constant		0.977 Sec		X/R Ratio		9.65	



Parallel Equivalent			
FL R _M ' pu	72.76431	LR R _M ' pu	15.77603
FL X _M ' pu	2.60974	LR X _M ' pu	2.29423

R₁ = Stator dc resistance
 R₂ = Rotor resistance
 R_M = Core loss resistance
 SC = Short circuit
 OC = Open circuit

X₁ = Stator leakage reactance
 X₂ = Rotor leakage reactance
 X_M = Magnetizing reactance
 FL = Full load
 LR = Locked rotor

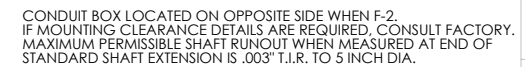
X" = X_S = Subtransient reactance

REVISION 0

SQUIRREL-CAGE INDUCTION

COOLING: FAN COOLED

INCLUDES DOWEL PIN HOLES, VERTICAL JACK SCREW HOLES, F1 AUX BOXES
FOR WDG RTD & SPACE HEATERS AND 14X14X12 FABRICATED MAIN CBOX



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

BALDOR®

D/S GL449T W/ 14X14X12 CB,DOWEL JACK SCREWS,320 AUX,180 AUX

DUTY MASTER ALTERNATING CURRENT MOTORS

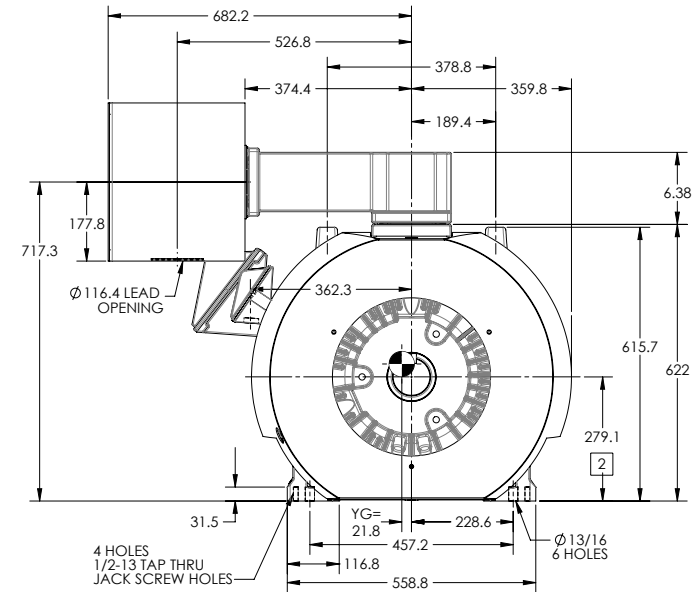
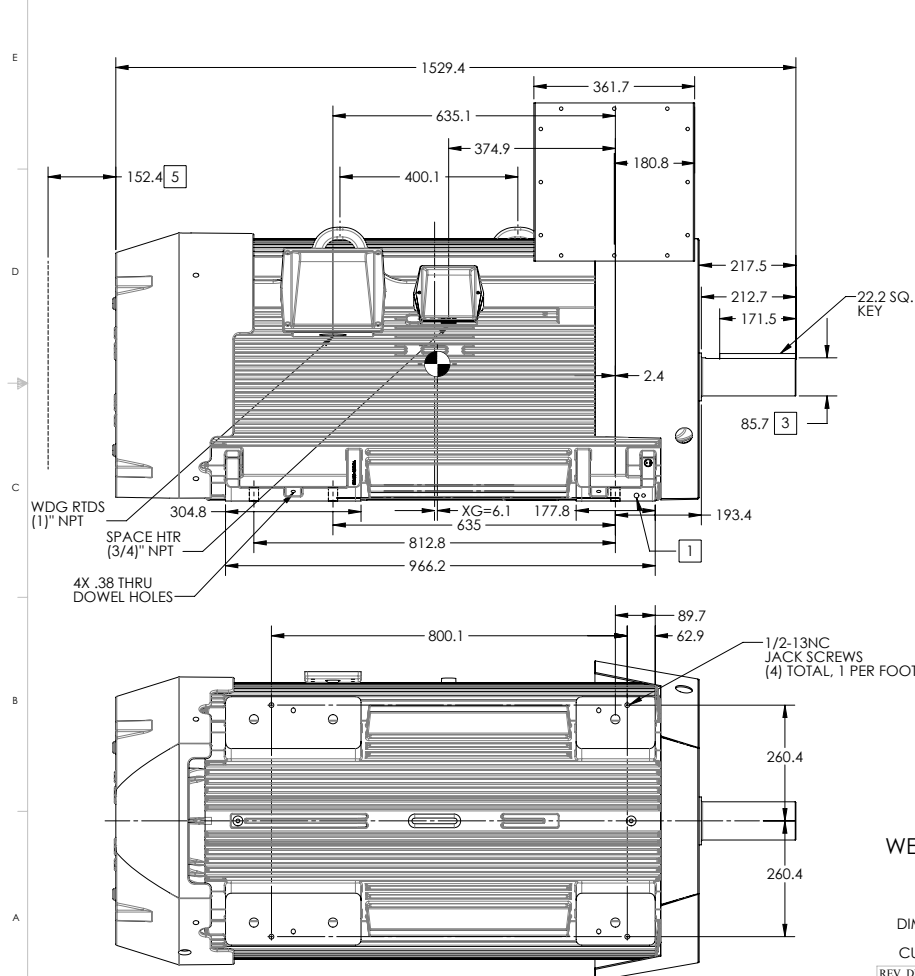
SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

FRAME GL449T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

 INCLUDES DOWEL PIN HOLES, VERTICAL JACK SCREW HOLES, F1 AUX BOXES
FOR WDG RTD & SPACE HEATERS AND 14X14X12 FABRICATED MAIN CBOX


1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00/-1.5
3. VARIES +.000/-0.025
4. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
5. OBSTRUCTION MUST NOT ENCROACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF
STANDARD SHAFT EXTENSION IS .076MM T.I.R. TO 127MM DIA.

WEIGHT (N): 17800

DIMENSIONS ARE IN MM, SEE SHEET 1 FOR DIMENSIONS IN INCHES

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

REV. DESC: ADD COG TO DRAWING

REV: A VERSION: 01

REVISED: 01-40-05 08/31/2015

BALDOR

MODEL NO. 617423-169

BY: RAGISS1

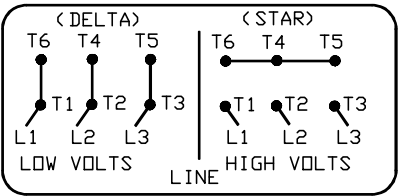
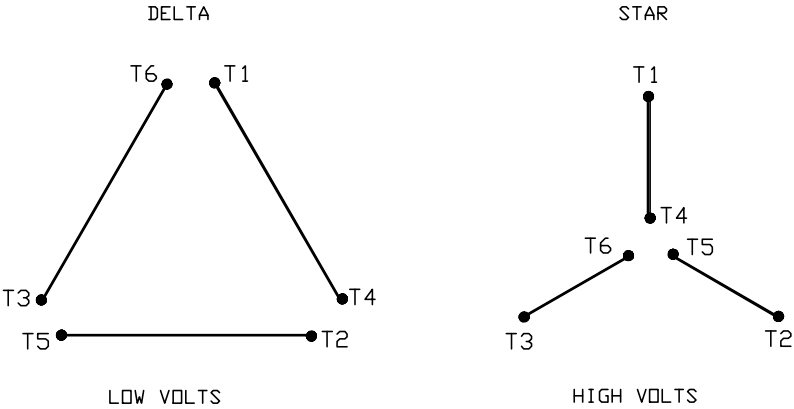
Material:

REF:

D/S GL449T W/ 14X14X12 CB, DOWEL JACK SCREWS, 320 AUX, 180 AUX

416820-004

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 6 LEAD < DELTA/STAR CONNECTED >
DUAL VOLTAGE < LOW VOLTS/HIGH VOLTS >



< N. P. 1767-CC >

REV. DESC: FONT CHANGE FOR PDF SEARCHABLE		
REV. LTR: C	VERSION: 03	TDR: 000001009406
FILE: \RSN\00017\950	REVISED: 10:55:03 12/21/2016	BY: MGHMTT
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BALDOR

A-C MOTOR CONNECTION DIAGRAM
SH 1 of 1

416820-004