ABB BALDOR RELIANCE

Customer information packet

M244402TS-2341

400HP, 3565RPM, 3PH, 60HZ, 449TS, A44112M, DP
Class -
Division - Not Applicable

7/8/2026 4:31:11 PM

Specifications

Enclosure	DP
Frame	449TS
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	400.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	4160.0 V @ 60 HZ
	2300.0 V @ 60 HZ
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	48.900 A @ 4160.0 V
	87.000 A @ 2300.0 V
Design Code	-
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.0 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	48.9 a
Insulation Class	F
Inverter Code	Not Inverter
IP Rating	NONE
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	6 @ 8 AWG
Motor Standards	NEMA
Motor Type	A44112M

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG5198
Layout	604989-506
Eff. date	04-04-2018
CD Diagram	416820-004
Poles	02
Leads	6#8 482406008P
Proprietary	False
Created date	04-09-2015

Mounting Arrangement	F1
Number of Poles	2
Overall Length	44.38 IN
Power Factor	89
Product Family	Compressor - Screw
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3565 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP2496L
MOBIL POLYREX EM

NP3132L

SPEC NO.	A44-7116-5198		**CAT.NO.**	M244402TS-2341						**FRAME**	449TS	
HP	400	**VOLTS**	2300/4160	**PHASE**	3	**DESIGN**	-	**TYPE**	P			
RPM	3565	**AMPS**	87/48.9	**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						
NEMA NOM/CSA QUOTED EFF			**NEMA-NOM-EFFICIENCY**	95								
SER.NO.												
										MOTOR WEIGHT	2178	

BALDOR -RELIANCE SALES ORDER	FRAME	HP	TYPE	PHASE	HERTZ	RPM
	449	400	P	3	60	3564

VOLTS	AMPS	DUTY	AMB°C	INSUL	S.F.	NEMA DESIGN
4160	48.9	CONT	40	F	1.15	---

CODE LETTER	ENCL.	ROTOR WK^2 (lb-ft^2)	STATOR RES.@25°C OHMS (BETWEEN LINES)	TYPICAL DATA
F	ODP	29	0.95932	

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	13.2	3600	5.8	0.0
1/4	100	17.8	3592	62.9	92.5
2/4	200	26.8	3583	81.3	95.0
3/4	300	37.4	3574	87.0	95.4
4/4	400	48.9	3564	88.9	95.2
5/4	500	61.2	3554	89.2	94.7
6/4	600	74.5	3543	88.7	94.1

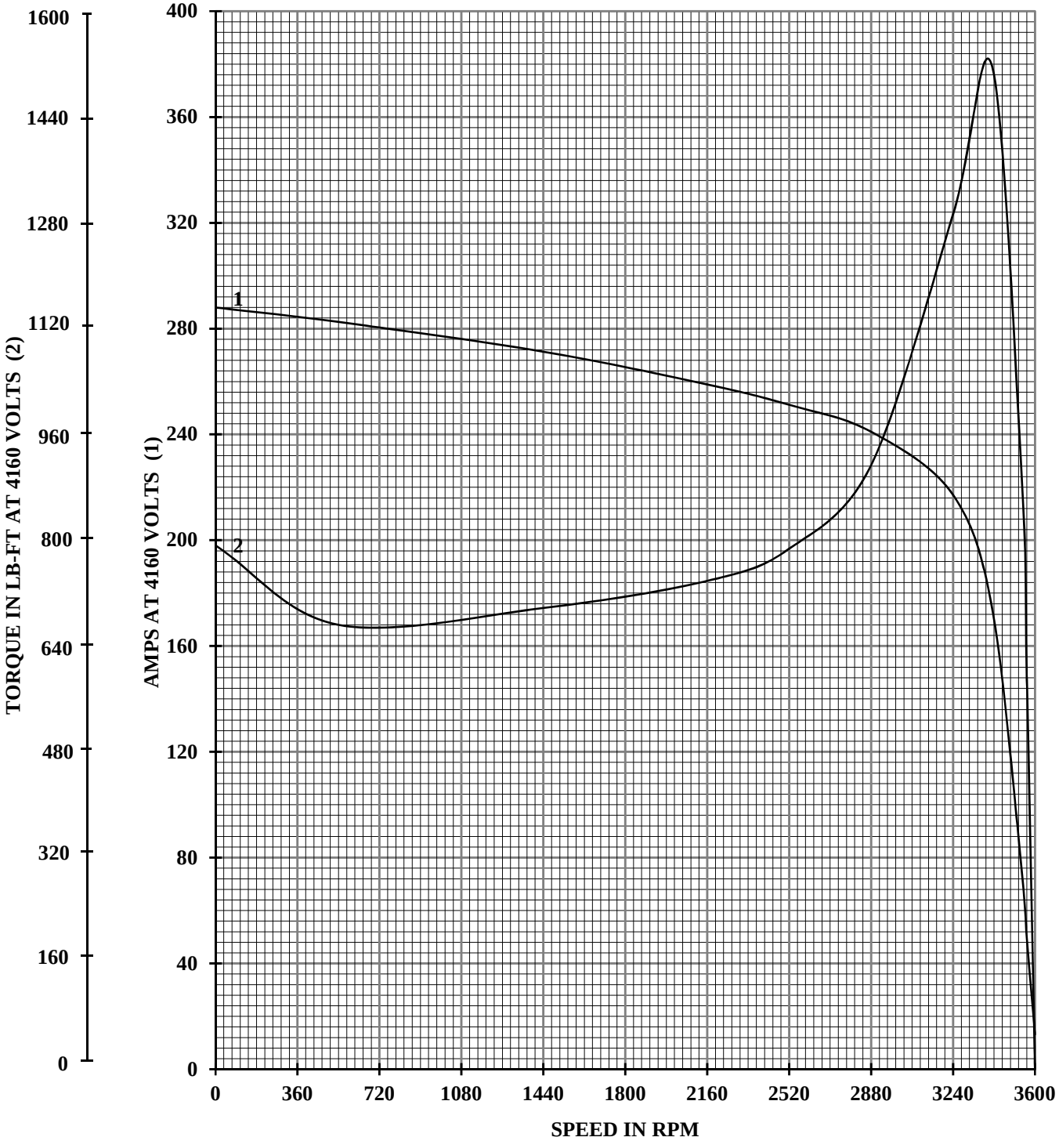
SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB-FT	AMPERES
LOCKED ROTOR	0	134	792	288.0
PULL UP	540	114	672	282.5
BREAKDOWN	3413	260	1530	173.4
FULL LOAD	3564	100	589	48.9

AMPERES SHOWN FOR **4160** VOLT CONNECTION(S). IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE VOLTAGE.

REVISION 0

B-R S.O.		HERTZ	60	AMB°C	40	CODE LETTER	F
FRAME	449	RPM	3564	INSUL	F	ENCLOSURE	ODP
HP	400	VOLTS	4160	S.F.	1.15	STATOR RES.@25°C	0.95932
TYPE	P	AMPS	48.9	NEMA DESIGN	---	OHMS (BETWEEN LINES)	
PHASE	3	DUTY	CONT	ROTOR WK^2 (lb-ft^2)	29	TYPICAL DATA	



AMPERES SHOWN FOR **4160** 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

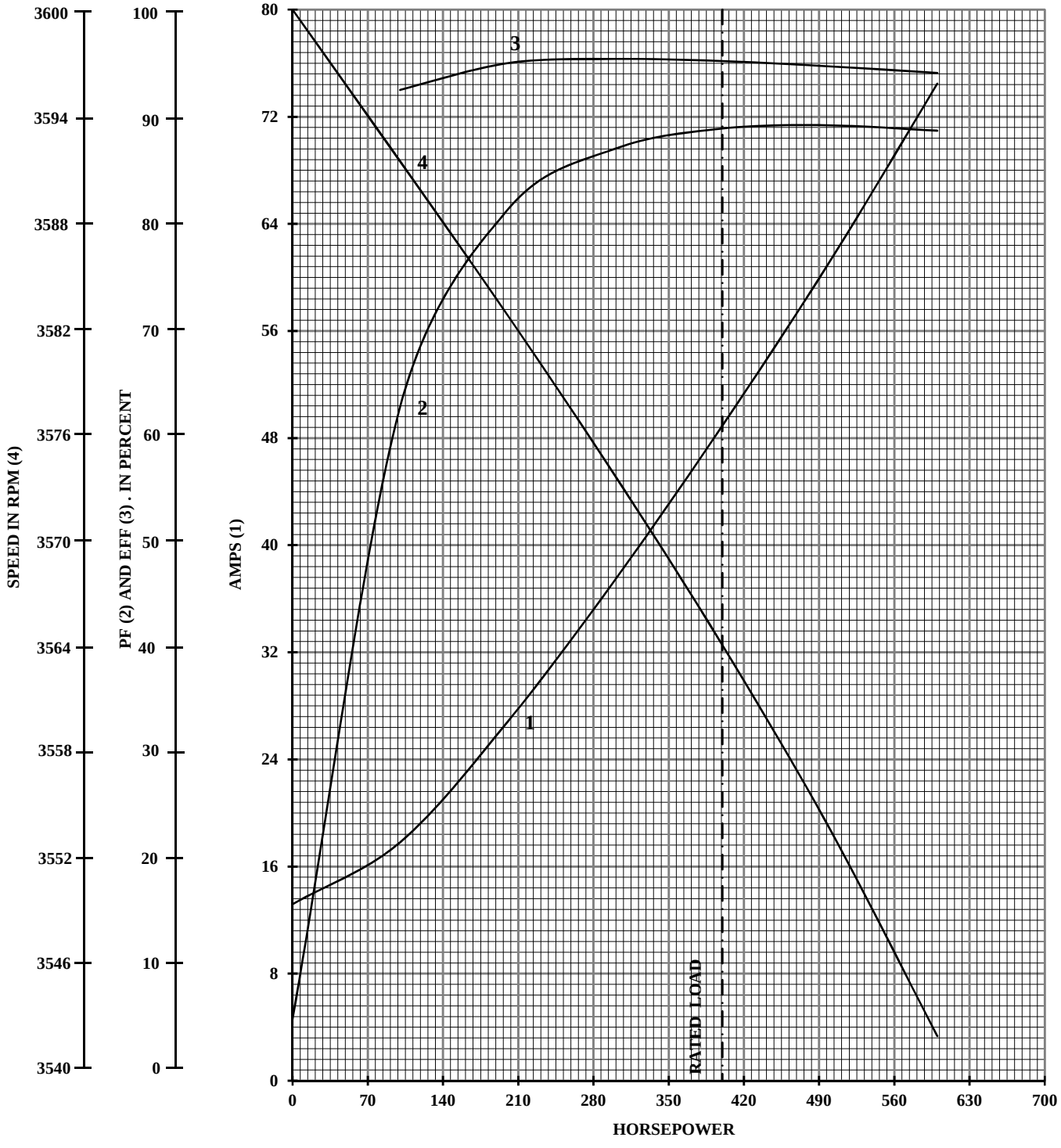
DR. BY CD
CK. BY T. Kelati
APP. BY T. Kelati
DATE 4/28/2015

A-C MOTOR PERFORMANCE CURVES

A44WG5198-R001

ISSUE DATE 4/28/2015

B-R S.O.		HERTZ	60	AMB°C	40	CODE LETTER	F
FRAME	449	RPM	3564	INSUL	F	ENCLOSURE	ODP
HP	400	VOLTS	4160	S.F.	1.15	STATOR RES.@25°C	0.95932
TYPE	P	AMPS	48.9	NEMA DESIGN	---	OHMS (BETWEEN LINES)	
PHASE	3	DUTY	CONT	ROTOR WK^2 (lb-ft^2)	29	TYPICAL DATA	



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FRAME	449	RPM	3564	INSUL	F	ENCLOSURE	ODP
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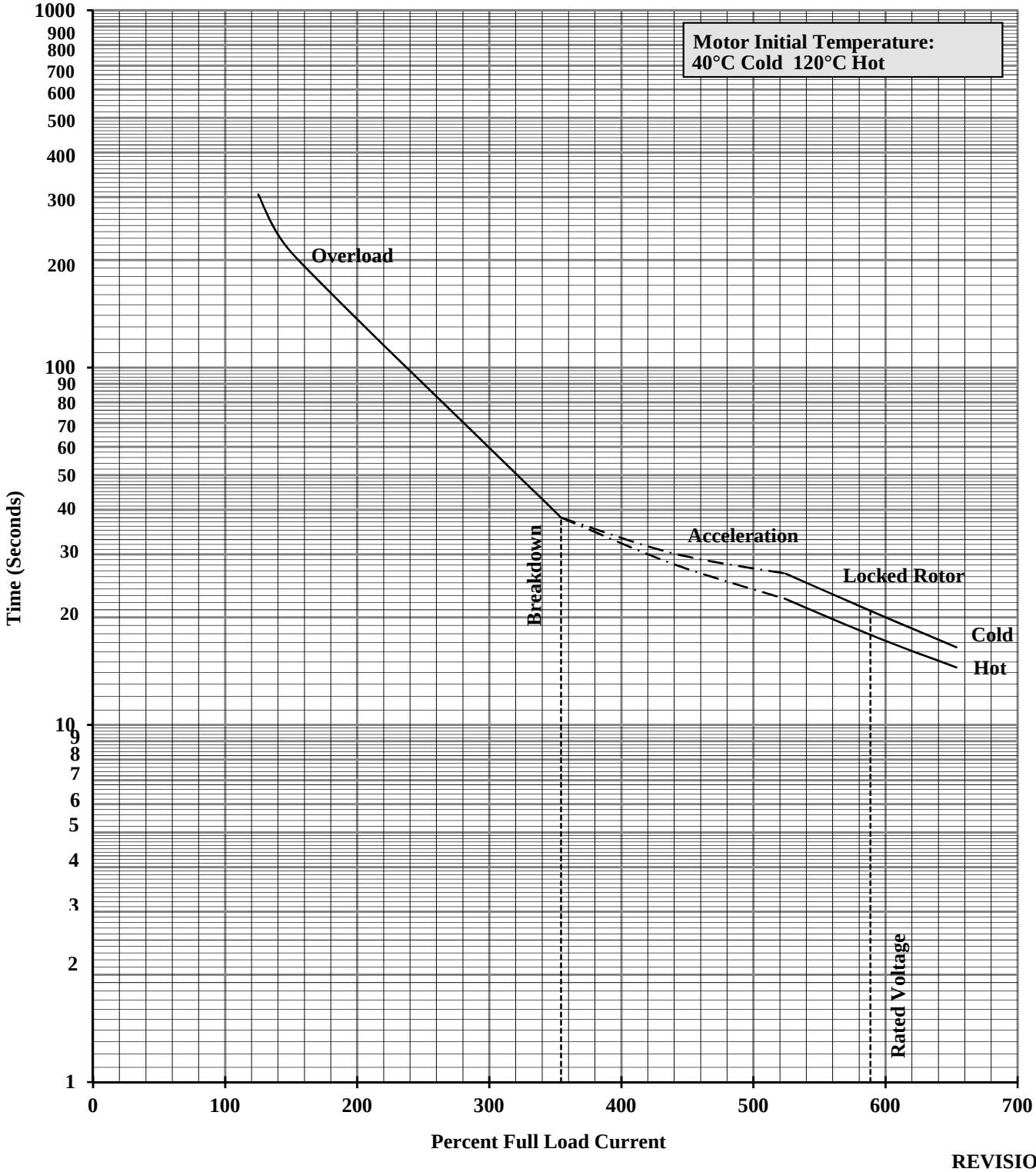
PHASE	3	DUTY	CONT	ROTOR WK^2 (lb-ft^2)	29	TYPICAL DATA	

THERMAL LIMIT CURVES



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BALDOR A MEMBER OF THE ABB GROUP	DR. BY CD CK. BY T. Kelati APP. BY T. Kelati DATE 4/28/2015	A-C MOTOR PERFORMANCE	A44WG5198-R001 ISSUE DATE: 4/28/2015

B-R S.O.		HERTZ	60	AMB°C	40	CODE LETTER	F
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HP	400	VOLTS	4160	S.F.	1.15	STATOR RES.@25°C	0.95932
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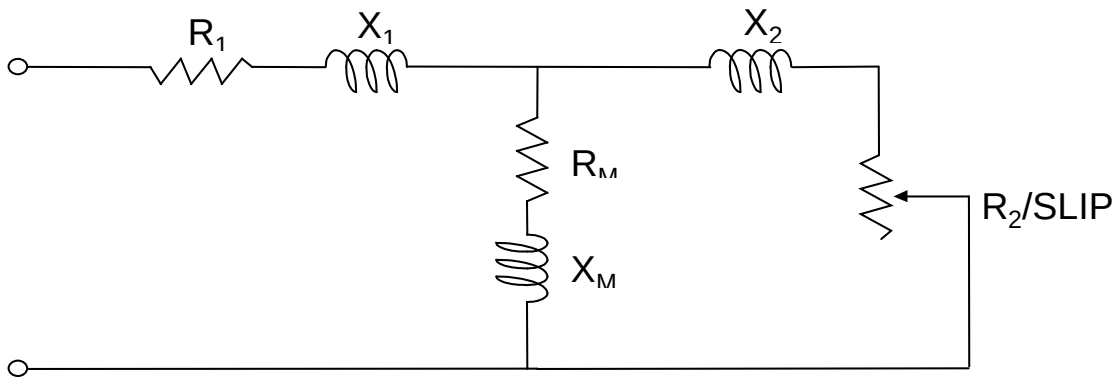
PHASE	3	DUTY	CONT	ROTOR WK^2 (lb-ft^2)	29	TYPICAL DATA	

EQUIVALENT CIRCUIT DATA

(Per Unit, Per Phase)

FULL LOAD				LOCKED ROTOR			
R_1	0.01050	X_1	0.09121	R_1	0.00939	X_1	0.09387
R_2	0.00854	X_2	0.08619	R_2	0.03261	X_2	0.04366
R_M	0.09334	X_M	3.11105	R_M	0.41054	X_M	2.76961
BASE OHMS		57.99500		BASE VOLTS		2402	
SC Time Constant		0.043 Sec		X" = X_S		0.13753	
OC Time Constant		0.993 Sec		X/R Ratio		10.92	



Parallel Equivalent			
FL R_M' pu	103.7855	LR R_M' pu	19.09505
FL X_M' pu	3.11385	LR X_M' pu	2.83046

R_1 = Stator dc resistance
R_2 = Rotor resistance
R_M = Core loss resistance
SC = Short circuit
OC = Open circuit
X_1 = Stator leakage reactance
X_2 = Rotor leakage reactance
X_M = Magnetizing reactance
FL = Full load
LR = Locked rotor

X" = X_S = Subtransient reactance

REVISION 0

604989-506

DUTY MASTER ALTERNATING CURRENT MOTORS

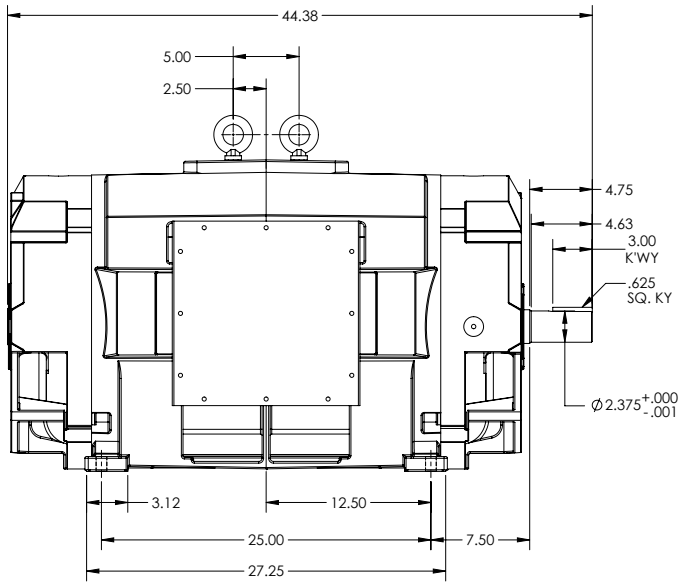
SQUIRREL-CAGE INDUCTION

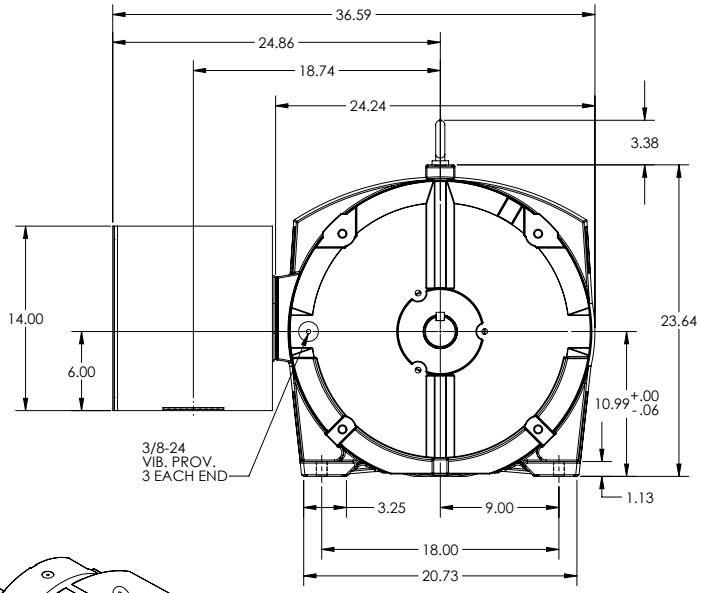
ENCLOSURE: PROTECTED

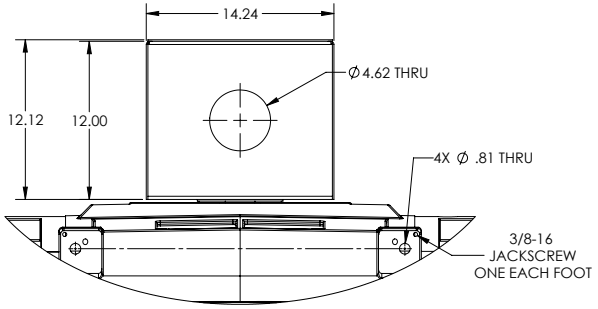
MOUNTING: FOOT, F-1 SIDE

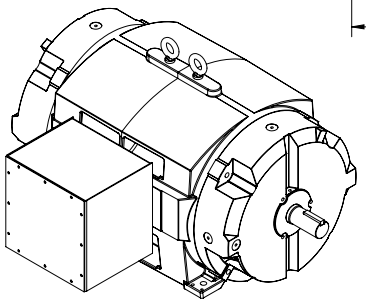
FRAME E449T
14X14X12 FABRICATED STEEL C/BOX

COOLING: SELF-VENTILATED
NON-VENTILATED









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.

DIMENSIONS ARE IN INCHES

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

SHEET NUMBER
1 OF 1
604989-506

REV. DESC: NEW			
REV: -	VERSION: 00	REVISED: 09:23:55 04/09/2015	TDR: 000000893222
MODEL NO. 604989-506			
BY: RAGBCS			C

BALDOR

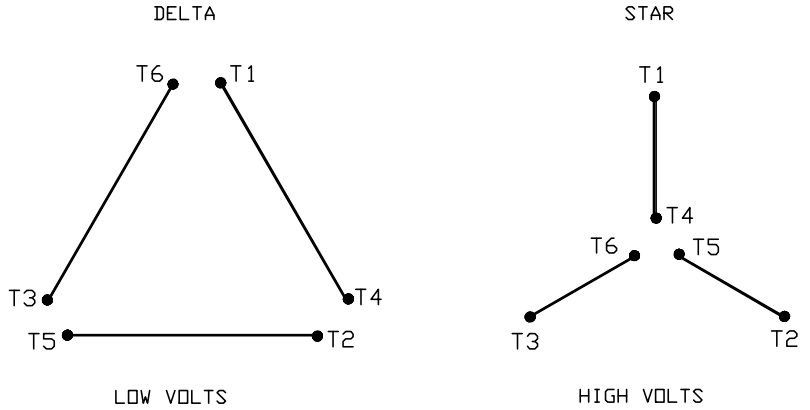
449TS PROT F-1 FT - 14X14X12 FAB STL C/BOX JACKSCREW DOWEL

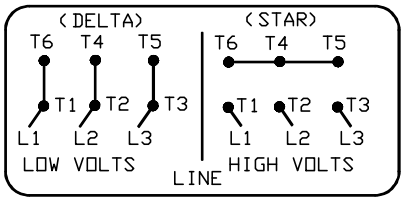
604989-506

416820-004

A-C MOTOR
CONNECTION DIAGRAM

STANDARD 6 LEAD (DELTA/STAR CONNECTED)
DUAL VOLTAGE (LOW VOLTS/HIGH VOLTS)





(N. P. 1767-CC)

416820-004

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BALDOR

A-C MOTOR CONNECTION DIAGRAM

SH 1 of 1