

ABB BALDOR RELIANCE III

Customer information packet

EM44354TS-4

350HP, 1780RPM, 3PH, 60HZ, 449TS, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	449TS
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	350.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CURUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	389.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	96.2 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	389.0 a
Insulation Class	F
Inverter Code	Not Inverter
IP Rating	NONE
KVA Code	G
Motor Lead Quantity/Wire Size	12 @ 1 AWG
Motor Standards	NEMA
Motor Type	A44160M
Mounting Arrangement	F1

Part Detail

Revision	D
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG5597
Layout	617427-445
Eff. date	11-06-2020
CD Diagram	416820-008
Poles	04
Leads	6#1 (02 per group)
Proprietary	False
Created date	04-06-2015

Number of Poles	4
Overall Length	49.47 IN
Power Factor	88
Product Family	General Industrial
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	1785 rpm
Speed Code	Single Speed
Starting Method	Wye Start - Delta Run
Thermal Device - Winding	None

Nameplate

NP2496L	
MOBIL POLYREX EM	

NP2349L

SPEC NO.	A44-7095-3038			CAT.NO.	EM44354TS-4					FRAME	449TS			
HP	350	VOLTS	460		PHASE	3	DESIGN	B	TYPE	P				
RPM	1785	AMPS	389		HZ	60	AMB	40	SF	1.15				
DRIVE END BEARING	90BC03J30X		DUTY	CONT	INSUL.CLASS			F						
OPP D.E. BEARING	90BC03J30X		ENCL	TEFC	CODE	G								
SER.NO.			POWER FACTOR			88		NEMA-NOM-EFFICIENCY				96.2		
						MAX CORR KVAR			60		GUARANTEED EFFICIENCY		95.4	
						NEMA NOM/CSA QUOTED EFF								
											MOTOR WEIGHT			

CUSTOMER INFORMATION PACKET	EM44354TS-4 - 350HP, 1780RPM, 3PH, 60HZ, 449TS, TEFC, F1	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
		449T	350	P	3/60	1785	460

AMPS	DUTY	AMB °C/ INSUL	S.F.	NEMA DESIGN	CODE LETTER	ENCLOSURE
389	CONT	40/F	1.15	B	G	TEFC

E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)
---	418143059AEQ	---	---	.00938

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	108	1800	3.69	0
1/4	87.6	142	1796	60.8	94.8
2/4	175	211	1792	80.5	96.4
3/4	262	296	1788	86.0	96.5
4/4	350	389	1783	87.6	96.2
5/4	438	485	1779	88.2	95.7

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	187	1930	2550
PULL UP	600	160	1645	2280
BREAKDOWN	1726	250	2580	1325
FULL LOAD	1783	100	1031	389

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

TYPICAL DATA

XE MOTOR-NEMA NOM. EFF. 96.2 PCT.

FRAME 449T

HP 350

TYPE P

PHASE / HERTZ 3/60

CUSTOMER INFORMATION PACKET

RPM 1785

VOLTS 460

AMPS 389

DUTY CONT

AMB °C / INSUL 40/F

EM44354TS-4 350HP, 1780RPM, 3PH, 60HZ, 440TS, TEFC, F1

S.F. 1.15

NEMA DESIGN B

CODE LETTER G

ENCLOSURE TEFC

E/S ---

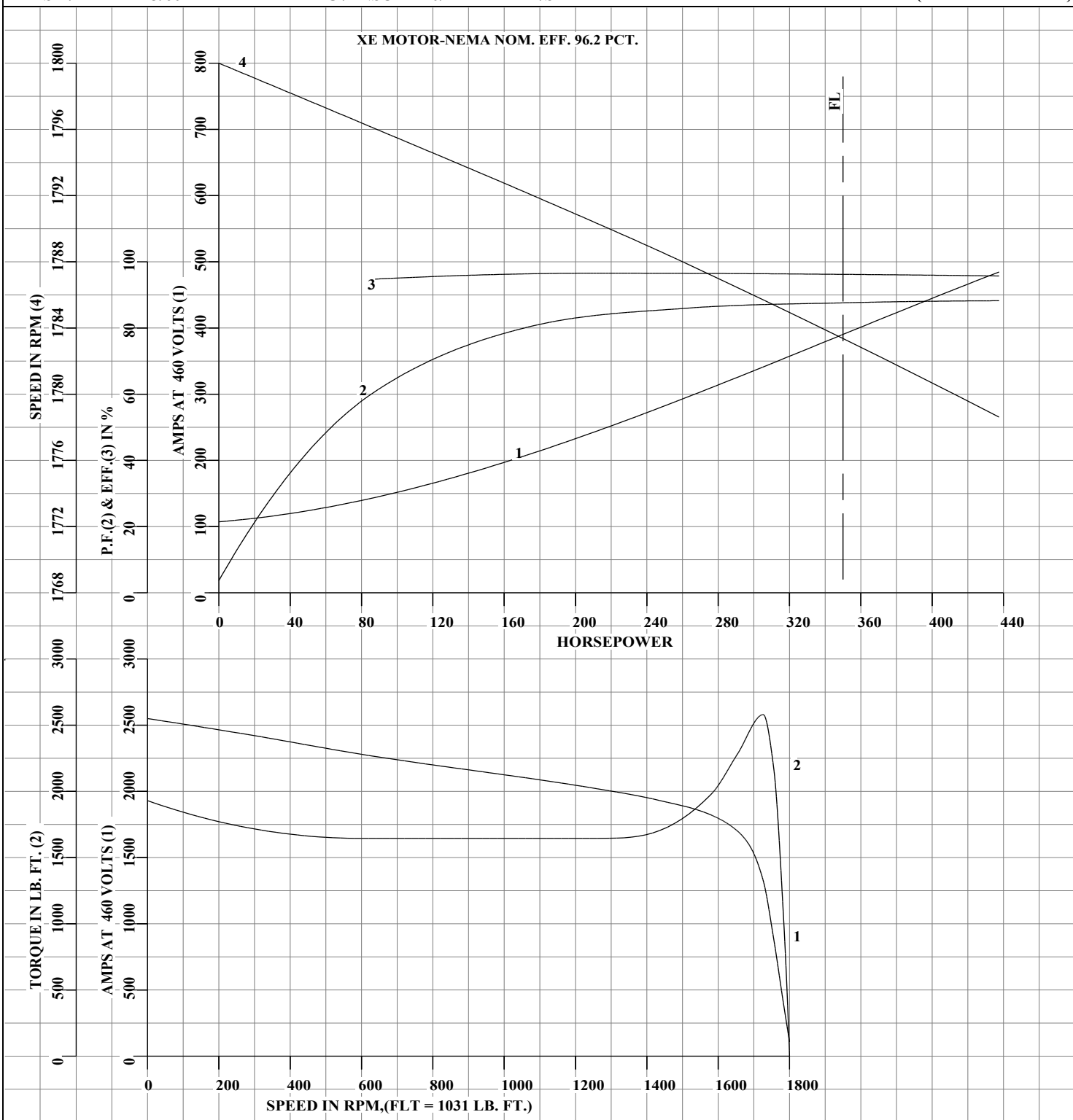
ROTOR 48143055AEQ

TEST S.O. TYPICAL DATA

TEST DATE ---

STATOR RES. @ 25°C .00938

OHMS (BETWEEN LINES)



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

FRAME 449T

RPM 1785

S.F. 1.15

ROTOR 41813059AEQ

HP 350

VOLTS 460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

TYPE P

AMPS 389

CODE LETTER G

TEST DATE ---

PHASE / HERTZ 3/60

DUTY CONT

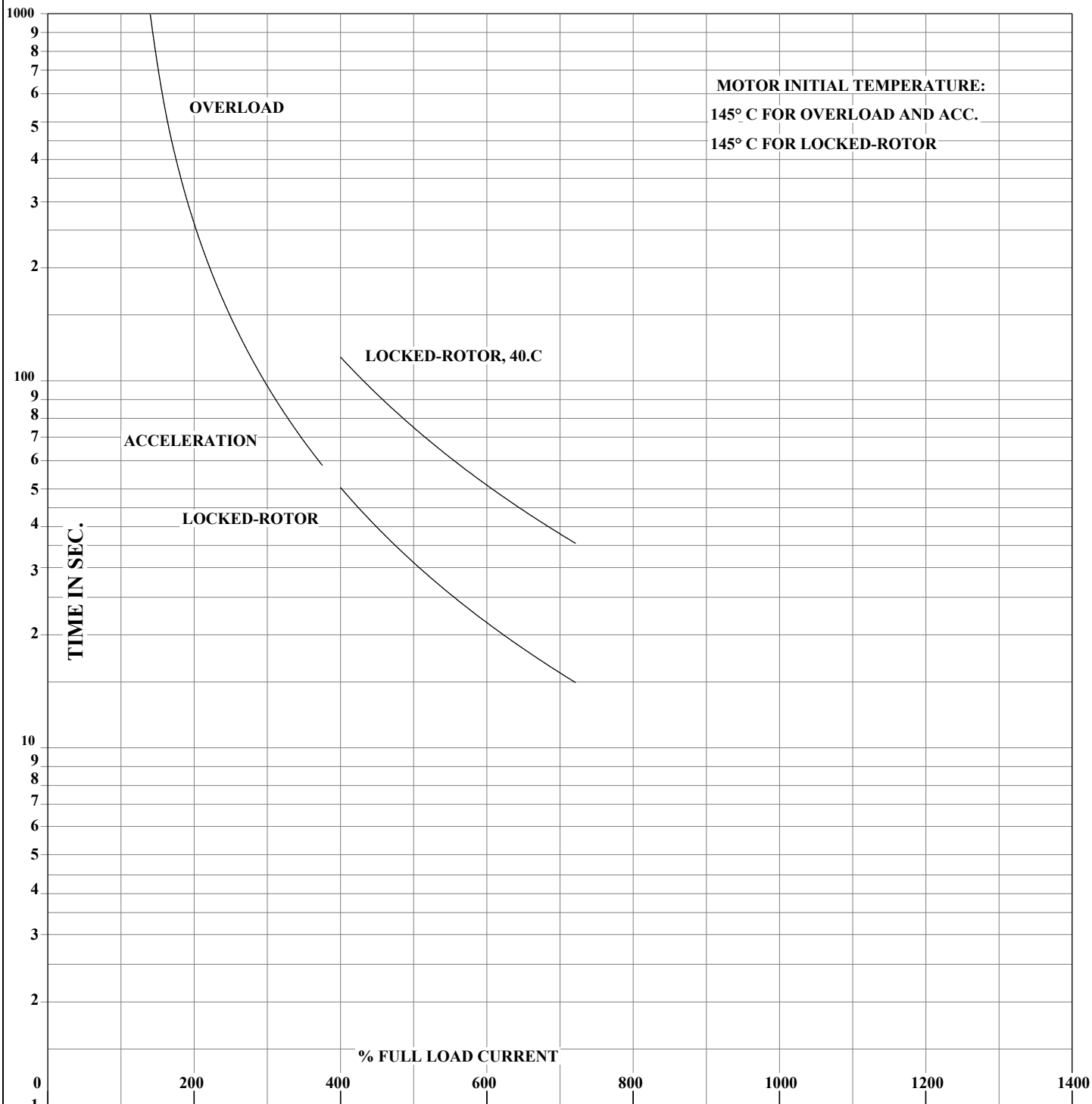
ENCLOSURE TEFC

STATOR RES. @ 25°C .00938

AMB °C / INSUL 40/F

E/S ---

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

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

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

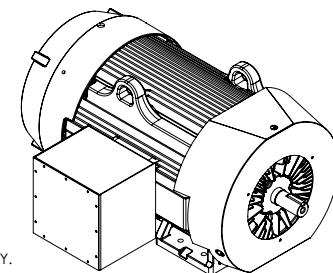
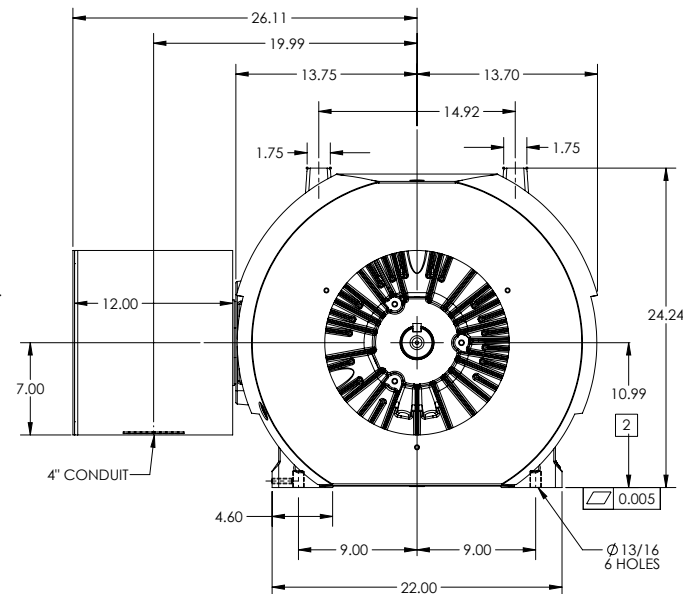
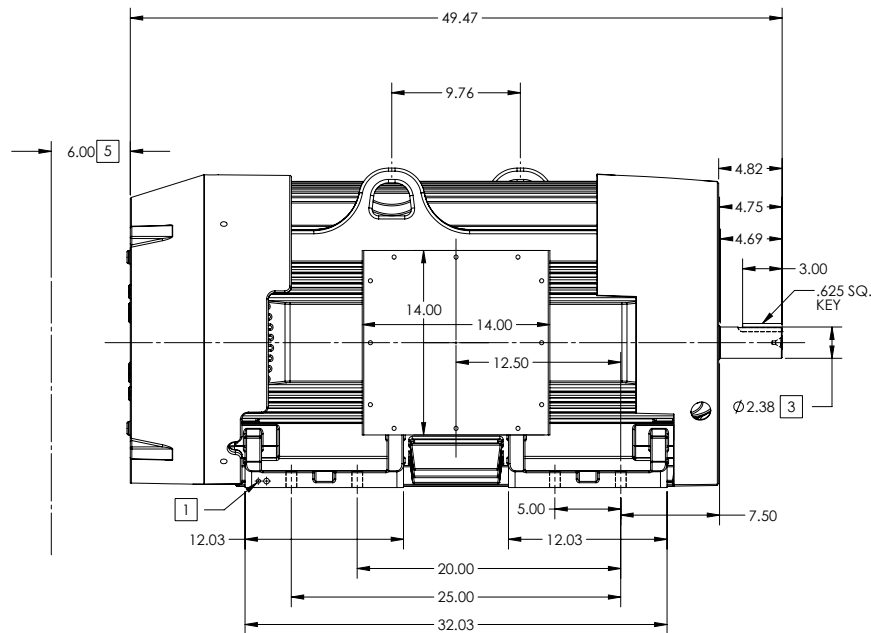
ENCLOSURE: TOTALLY ENCLOSED

FRAME 449TS ABOVE NEMA RATINGS (3600 RPM MAX)

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 447TS FRAME MOUNTING HOLES



4 WEIGHT (LBS): 3080

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN INCHES

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

1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00, -.06
3. VARIES +.000, -.001
4. MOTOR WEIGHTS MAY VARY BY 1.5% DEPENDING ON RATING.
5. OBSTRUCTION MUST NOT ENCR OACH 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 .003" T.I.R. TO 5 INCH DIA.

SHEET NUMBER
1 OF 2

617427-445

REV. DESC: NEW DRAWING
REV: - VERSION: 00
MODEL NO. 617427-445
BY: RAGEC

REVISED: 11-13-38 04/02/2015

TDR: 00000918312

BALDOR

G449TS/447TS-FOOTED-SIDE/CENTER CONDUIT BOX-14X14X12

617427-445

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

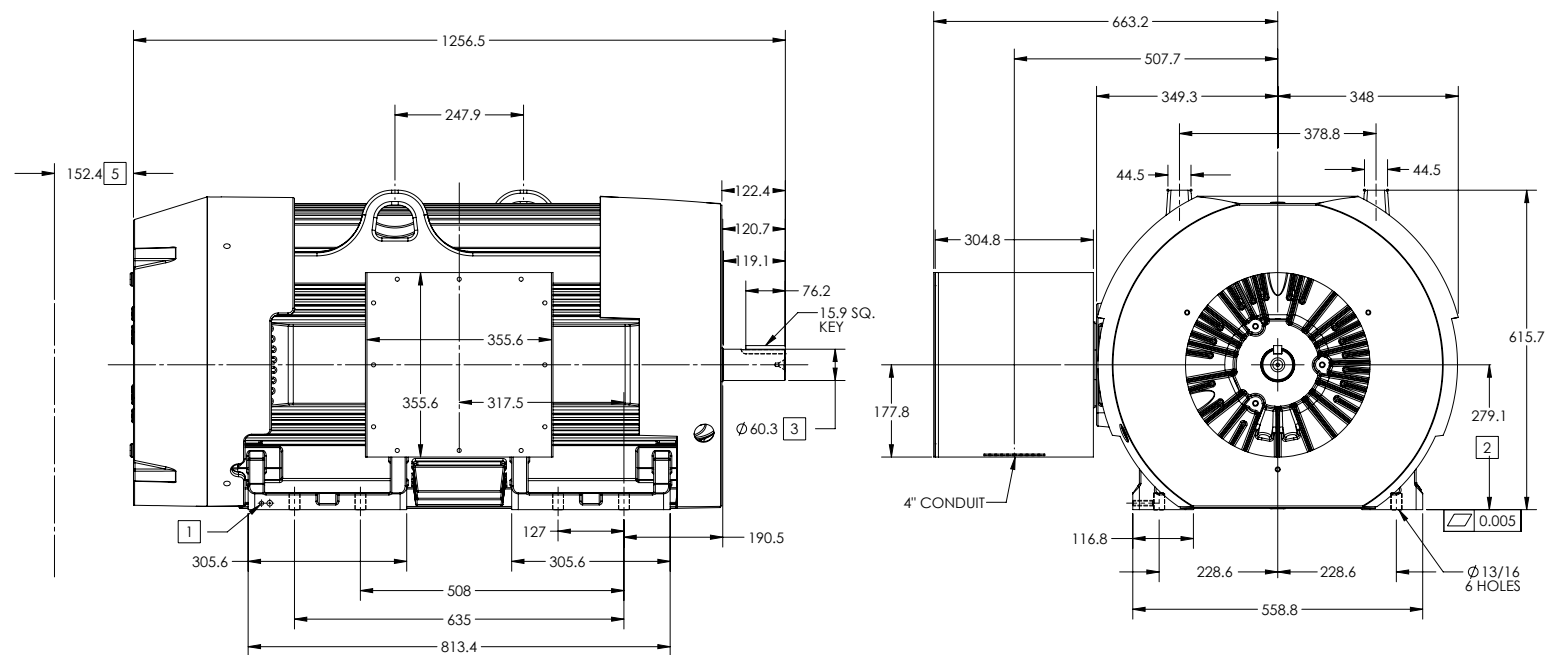
ENCLOSURE: TOTALLY ENCLOSED

FRAME 449TS ABOVE NEMA RATINGS (3600 RPM MAX)

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 447TS FRAME MOUNTING HOLES



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +0.1-1.5
3. VARIES +.00-.03
4. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
5. OBSTRUCTION MUST NO 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 .08 MM T.I.R. TO 127 MM DIA.

5 WEIGHT (KGS): 1400

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN MILLIMETERS

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

SHEET NUMBER
2 OF 2

577-17427-119

REV. DESC: NEW DRAWING
REV: - VERSION: 00
MODEL NO. 617427-445
BY: RAGEC

REVISED: 11-13-38 04/02/2015 TDR: 00000918312

BALDOR

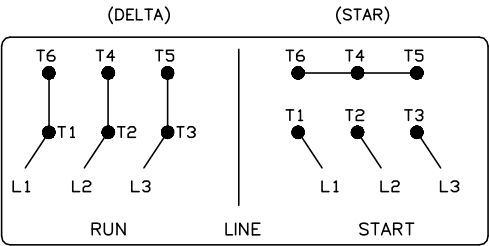
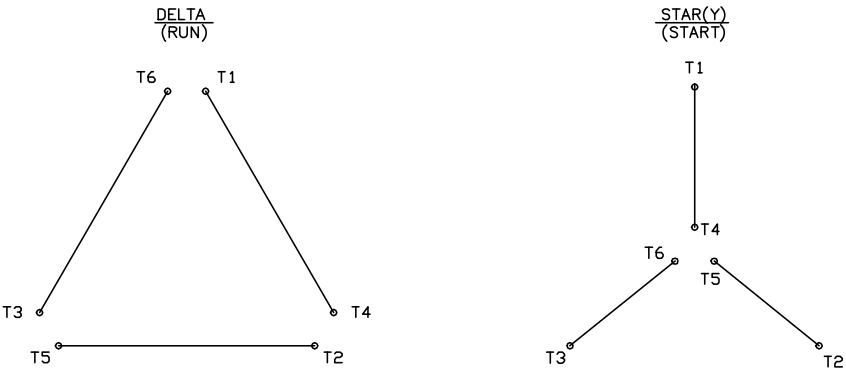
G449TS/447TS-FOOTED-SIDE/CENTER CONDUIT BOX-14X14X12

617427-445

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: 000000847713
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