

ABB BALDOR RELIANCE III

Customer information packet

EM25454T-4

450HP, 1780RPM, 3PH, 60HZ, 449T, DP, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	DP
Frame	449T
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	450.000 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
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	507.000 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	507.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	12 @ 1 AWG
Motor Standards	NEMA
Motor Type	A44144M
Mounting Arrangement	F1

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG3143
Layout	604989-505
Eff. date	03-01-2017
CD Diagram	416820-008
Poles	04
Leads	6#1 (02 per group)
Proprietary	False
Created date	11-25-2015

Number of Poles	4
Overall Length	48.12 IN
Power Factor	86
Product Family	General Industrial
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	No Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Wye Start - Delta Run
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP2496L	
MOBIL POLYREX EM	

NP2349L

SPEC NO.	A44-8067-3143			CAT.NO.	EM25454T-4				FRAME	449T	
HP	450	VOLTS	460	PHASE	3	DESIGN	B	TYPE	P		
RPM	1780	AMPS	507	HZ	60	AMB	40	SF	1.15		
DRIVE END BEARING	90BC03J30X		DUTY	CONT	INSUL.CLASS		F				
OPP D.E. BEARING	90BC03J30X		ENCL	DP	CODE	F					
SER.NO.				POWER FACTOR		86	NEMA-NOM-EFFICIENCY			96.2	
						MAX CORR KVAR		89	GUARANTEED EFFICIENCY		95.4
						NEMA NOM/CSA QUOTED EFF					
									MOTOR WEIGHT		2475

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS			
	449T	450	P	3/60	1780	460			
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.			
507	CONT	40/B	1.15	B	F	PRXE			
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)					
433784	418143043BE	---	---	.00749					
PERFORMANCE									
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY				
NO LOAD	0	137	1800	3.65	0				
1/4	113	183	1795	60.7	94.8				
2/4	225	273	1791	80.1	96.4				
3/4	337	384	1786	85.1	96.5				
4/4	450	507	1780	86.3	96.2				
5/4	563	635	1774	86.7	95.7				
SPEED TORQUE									
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES					
LOCKED ROTOR	0	154	2044	3117					
PULL UP	1360	137	1823	2548					
BREAKDOWN	1723	240	3183	1628					
FULL LOAD	1780	100	1328	507					
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. 96.2 PCT.									
		DR. BY <u>W. L. SMITH</u> CK. BY <u>R. H. KIRK</u> APP. BY <u>K. W. KANOUFF</u> DATE <u>09/27/04</u>		A-C MOTOR PERFORMANCE A44WG3143-R001 DATA ISSUE DATE 09/24/04					

FRAME 449T

RPM 1780

VOLTS 460

NEMA DESIGN B

TEST S.O. CALCULATED DATA

HP 450

AMPS 507

CODE LETTER F

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE PRXE

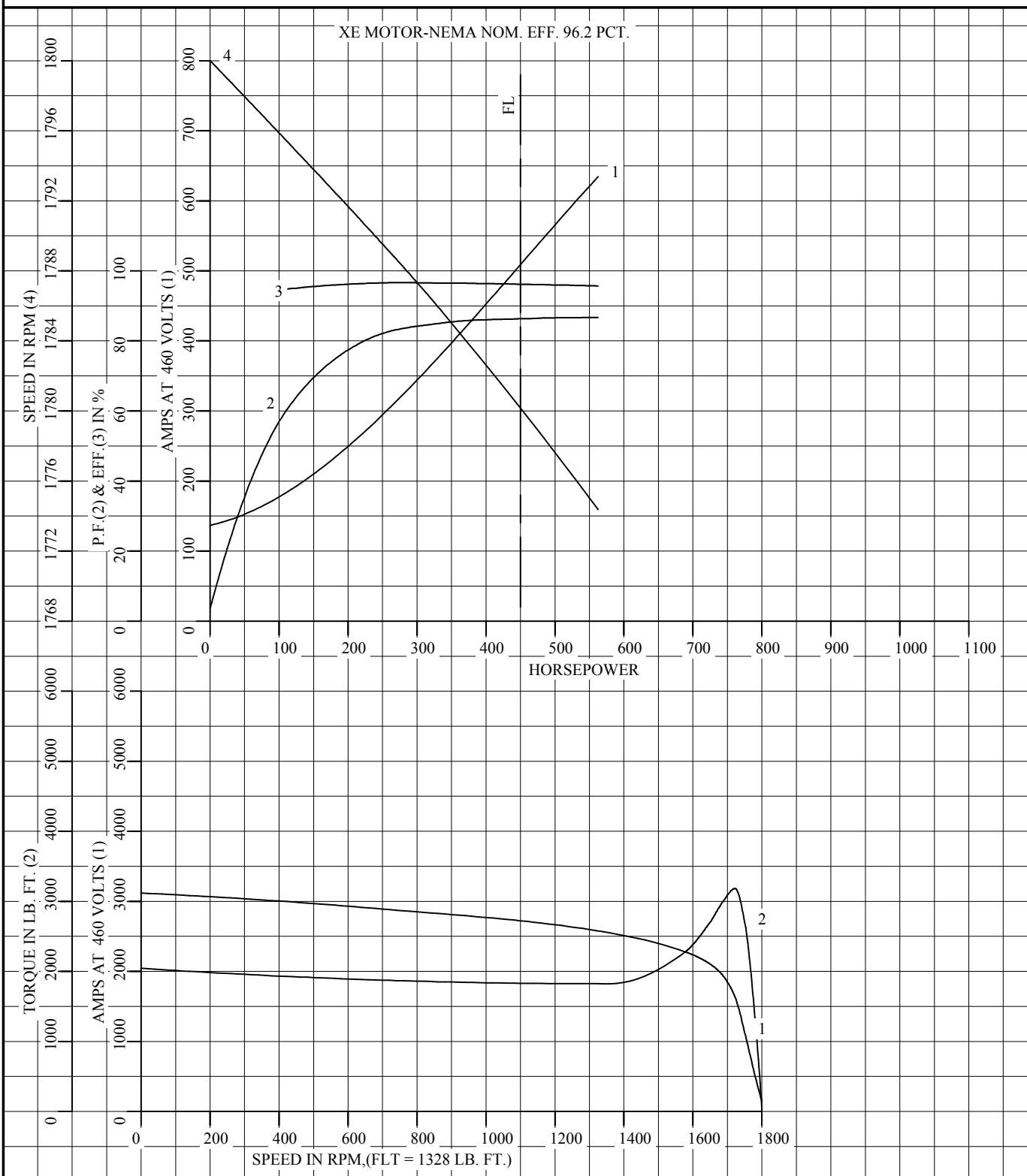
STATOR RES. @ 25 °C .00749

PHASE/HERTZ 3/60

AMB °C/INSUL 40/B

E/S 433784

OHMS (BETWEEN LINES)



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

BALDOR

DR. BY W. L. SMITH
CK. BY R. H. KIRK
APP. BY K. W. KANOUFF
DATE 09/27/04

**A-C MOTOR
PERFORMANCE CURVES** A44WG3143-R001
ISSUE DATE 09/24/04

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

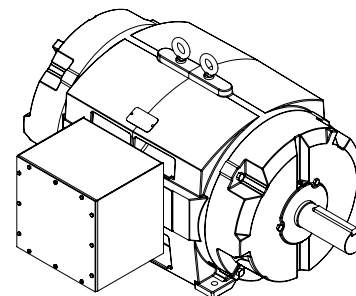
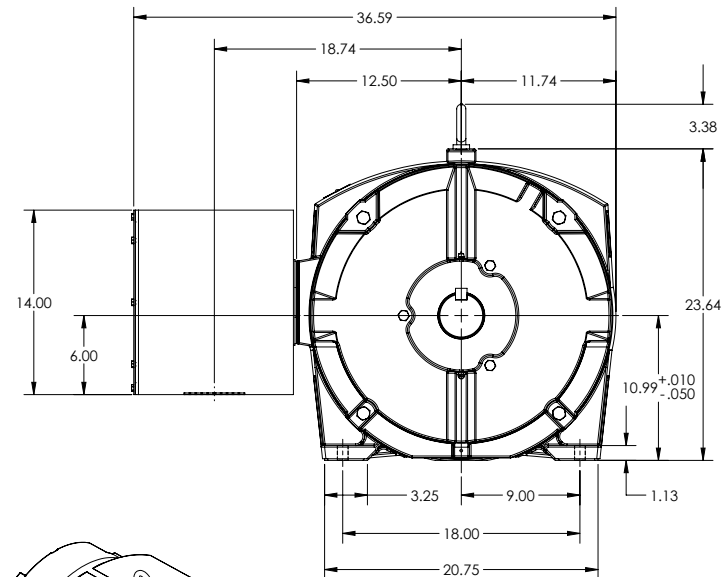
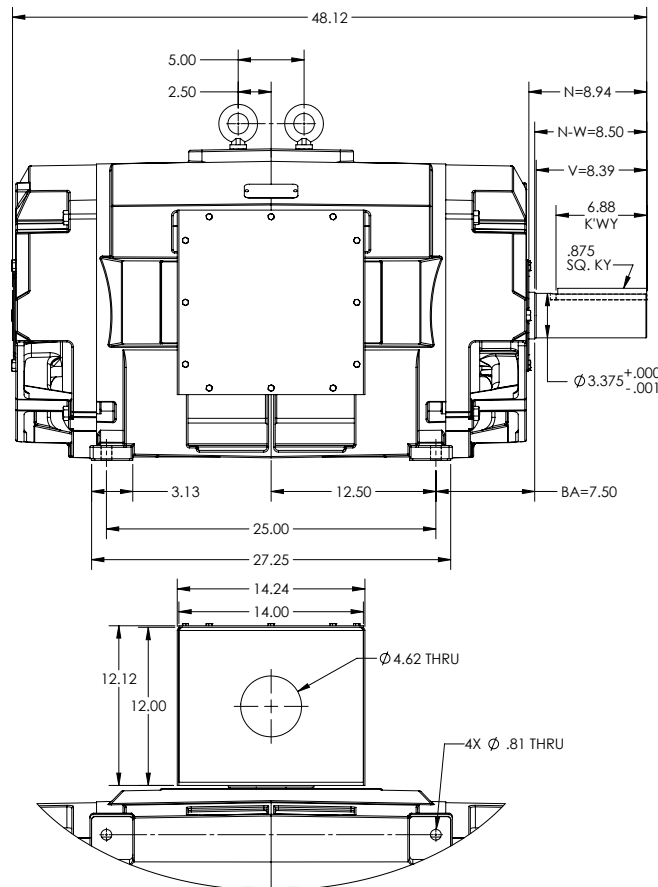
ENCLOSURE: PROTECTED; OPEN DRIP PROOF

FRAME E449T

COOLING: SELF-VENTILATED

MOUNTING: FOOT, F-1 SIDE

14X14X12 FABRICATED STEEL C/BOX



MOTOR WRIGHT: 2100 LBS
*MAY VARY BY 15% DEPENDING ON RATING

DIMENSIONS ARE IN INCHES

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

REV. DESC: UPDATE MODEL TO ADD EXTERNAL HARDWARE PER PROD MGM	
REV: B	VERSION: 02
MODEL NO. 604989-505	REVISED: 07-28-44 07/14/2022
BY: USBUFA	TDR: 000001193529

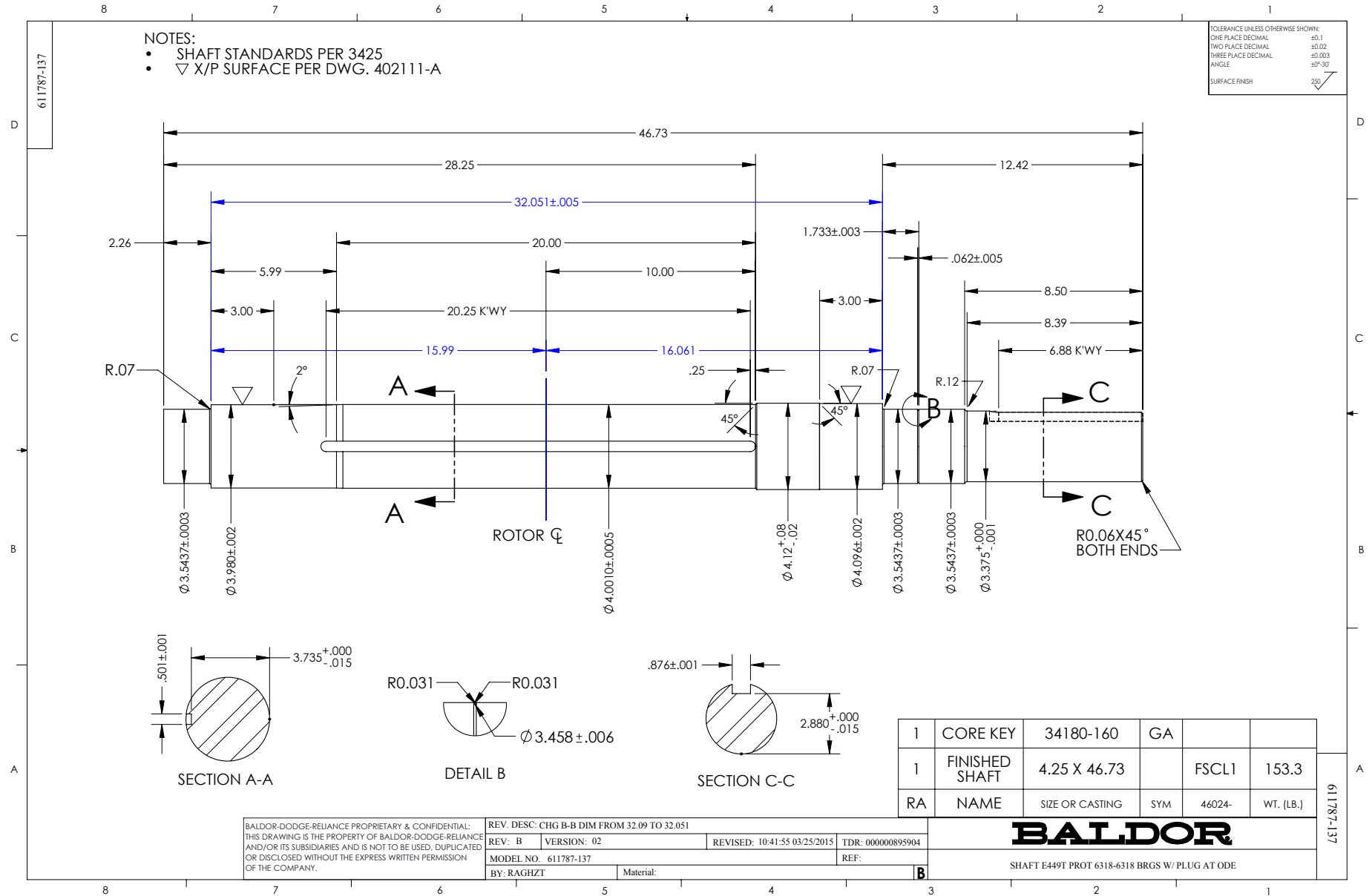
BALDOR

449T PROT F-1 FT - 14X14X12 FAB STL C/BOX

SHEET NUMBER
1 OF 1

505-686F09

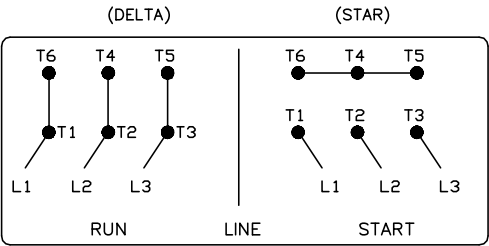
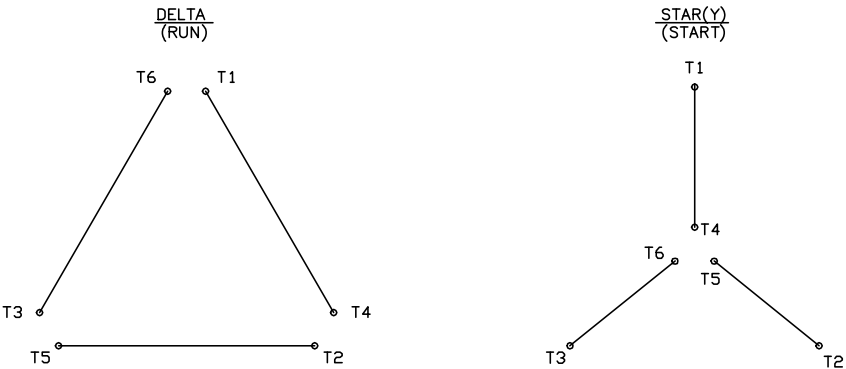
505-686F09



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: 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