

ABB BALDOR RELIANCE III

Customer information packet

EM25404T-4

400HP, 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	400.000 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	437.000 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	437.0 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	A44140M

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG3164
Layout	604989-505
Eff. date	03-01-2017
CD Diagram	416820-008
Poles	04
Leads	6#1 (02 per group)
Proprietary	False
Created date	11-24-2015

Mounting Arrangement	F1
Number of Poles	4
Overall Length	48.12 IN
Power Factor	89
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

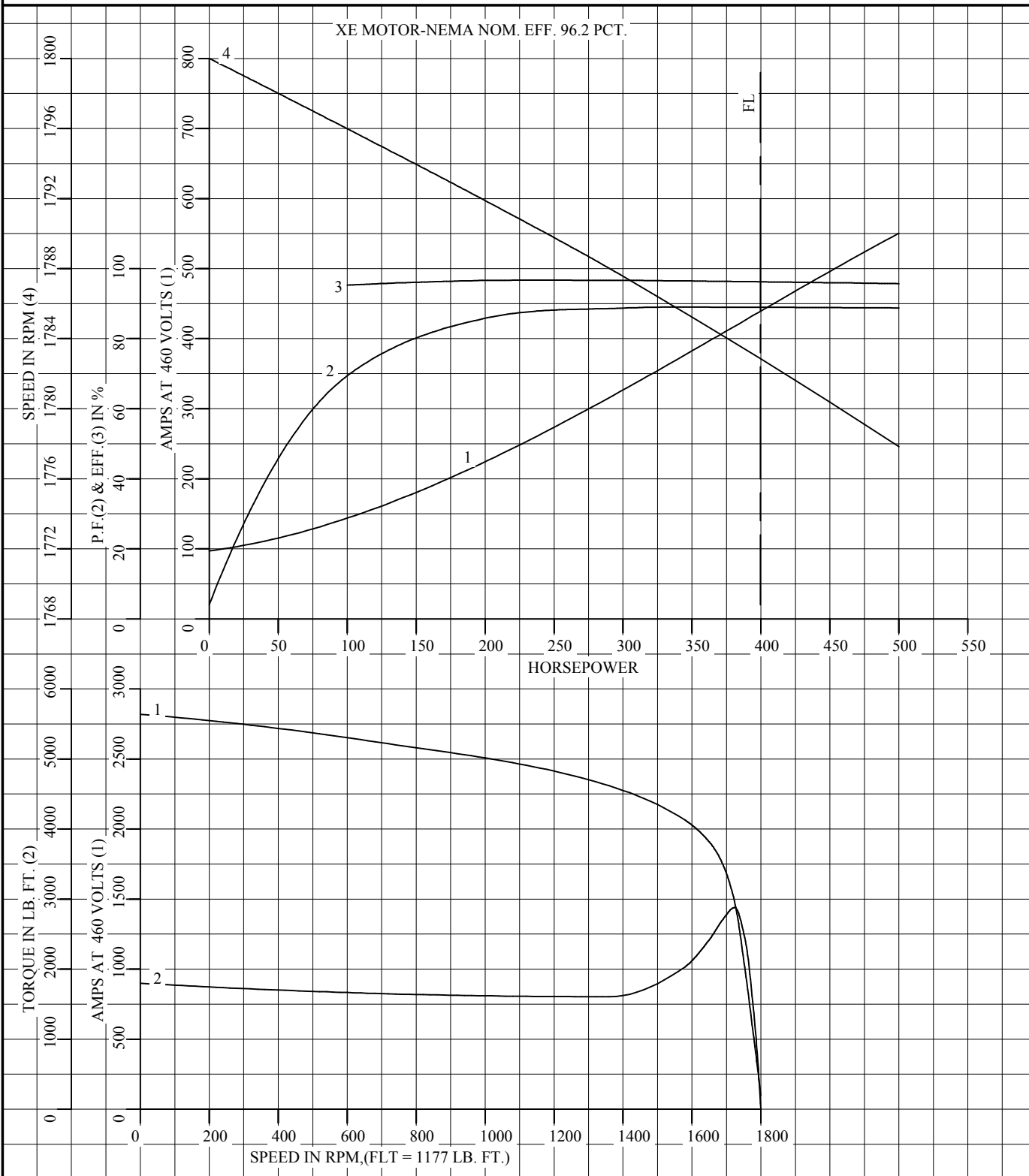
NP2496L	
MOBIL POLYREX EM	

NP2349L

SPEC NO.	A44-8061-3164			CAT.NO.	EM25404T-4				FRAME	449T	
HP	400	VOLTS	460	PHASE	3	DESIGN	B	TYPE	P		
RPM	1780	AMPS	437	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		89	NEMA-NOM-EFFICIENCY			96.2	
						MAX CORR KVAR		57	GUARANTEED EFFICIENCY		95.4
						NEMA NOM/CSA QUOTED EFF					
										MOTOR WEIGHT	2424

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	449T	400	P	3/60	1780	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
437	CONT	40/F	1.15	B	F	PROT
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
433997	418143049GE	---	---	.0107		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	97.7	1800	4.12	0	
1/4	100	142	1796	69.5	95.3	
2/4	200	226	1792	85.8	96.6	
3/4	300	327	1788	88.7	96.6	
4/4	400	437	1783	88.9	96.2	
5/4	500	551	1778	88.8	95.7	
SPEED TORQUE						
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES		
LOCKED ROTOR	0	153	1798	2819		
PULL UP	1360	136	1606	2308		
BREAKDOWN	1724	245	2880	1477		
FULL LOAD	1783	100	1177	437		
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 G. R. WEBB CK. BY W. L. SMITH APP. BY W. L. SMITH DATE 04/02/14		A-C MOTOR PERFORMANCE DATA A44WG3164-R003 ISSUE DATE 04/02/14		

REL S.O.	RPM 1780	S.F. 1.15	ROTOR 418143049GE
FRAME 449T	VOLTS 460	NEMA DESIGN B	TEST S.O. CALCULATED DATA
HP 400	AMPS 437	CODE LETTER F	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE PROT	STATOR RES. @ 25 °C .0107
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 433997	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
A MEMBER OF THE ABB GROUP

DR. BY G. R. WEBB
CK. BY W. L. SMITH
APP. BY W. L. SMITH
DATE 04/02/14

**A-C MOTOR
PERFORMANCE
CURVES**

A44WG3164-R003
ISSUE DATE 04/02/14

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

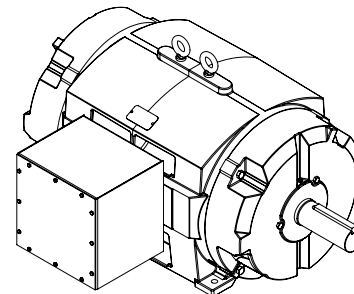
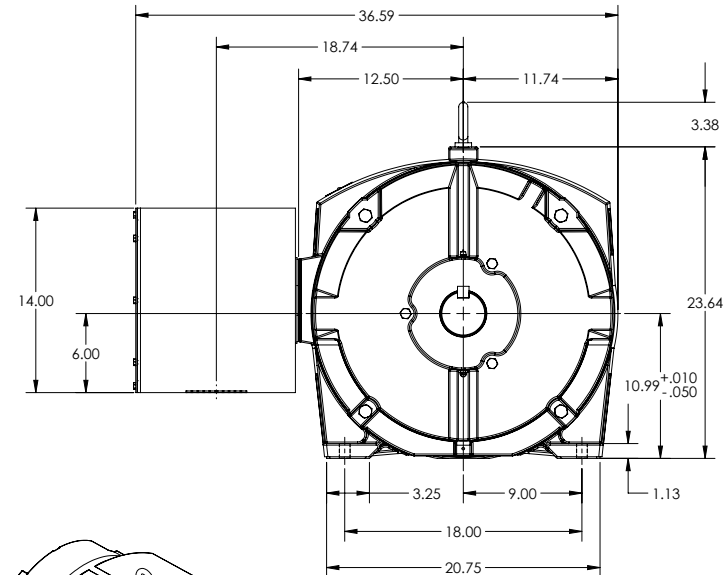
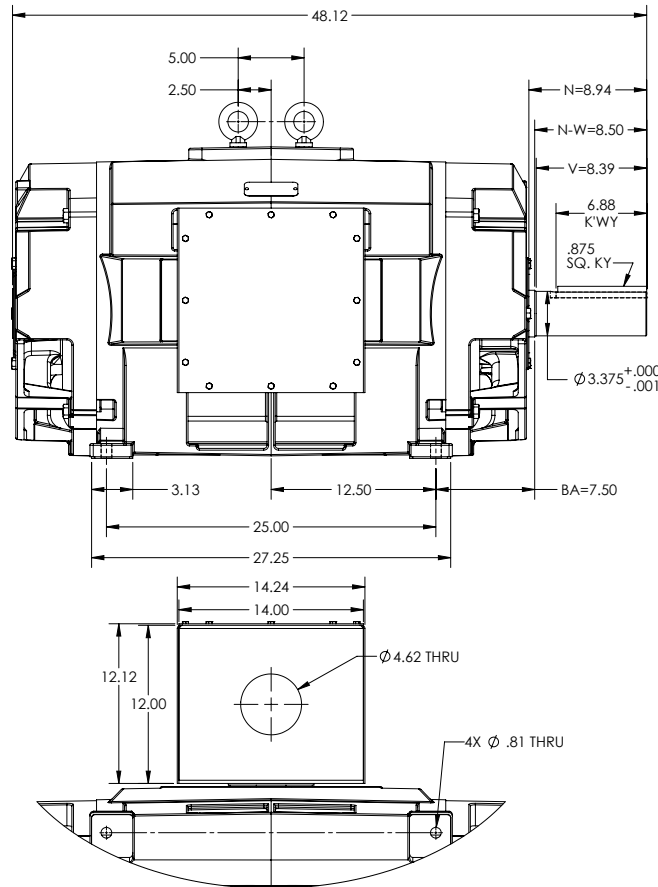
ENCLOSURE: PROTECTED; OPEN DRIP PROOF

FRAME E449T

COOLING: SELF-VENTILATED

MOUNTING: FOOT, F-1 SIDE

14X14X12 FABRICATED STEEL C/BOX



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.

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

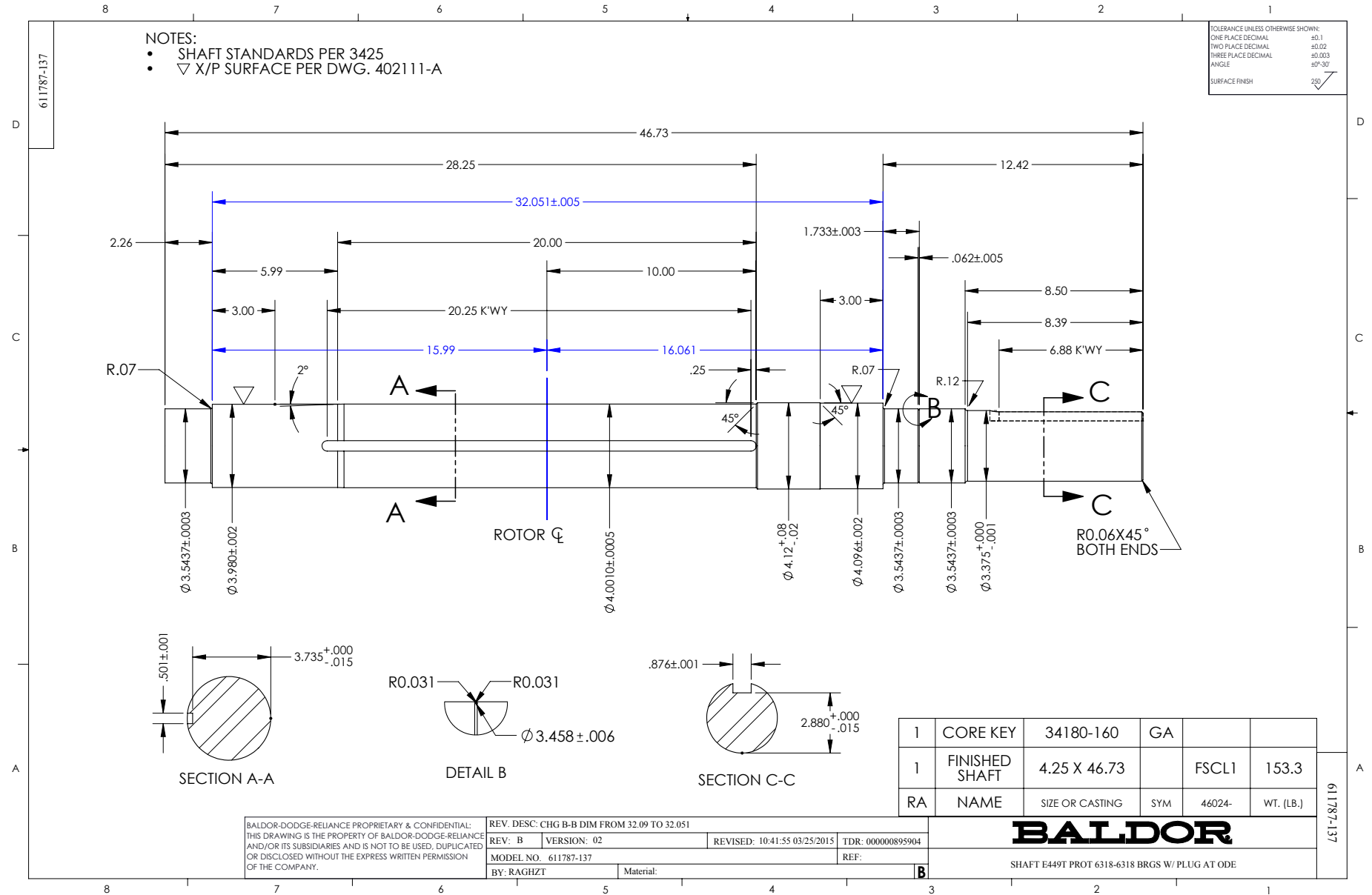
BALDOR

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

SHEET NUMBER
1 OF 1

505-686109

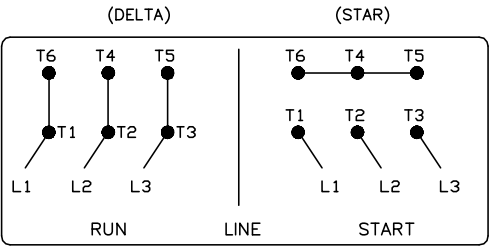
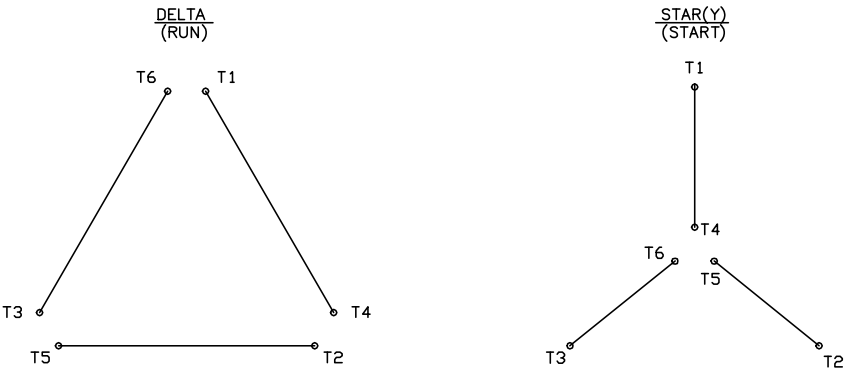
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416820-008

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