

ABB BALDOR RELIANCE III

Customer information packet

EM44304TS-4

300HP, 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	300.000 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	327.000 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	327.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G
Motor Lead Quantity/Wire Size	12 @ 2 AWG
Motor Standards	NEMA
Motor Type	A44144M
Mounting Arrangement	F1

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG2960
Layout	617427-445
Eff. date	11-06-2020
CD Diagram	416820-008
Poles	04
Leads	6#2 (02 per group)
Proprietary	False
Created date	04-09-2015

Number of Poles	4
Overall Length	49.47 IN
Power Factor	89
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	1780 rpm
Speed Code	Single Speed
Starting Method	Wye Start - Delta Run
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

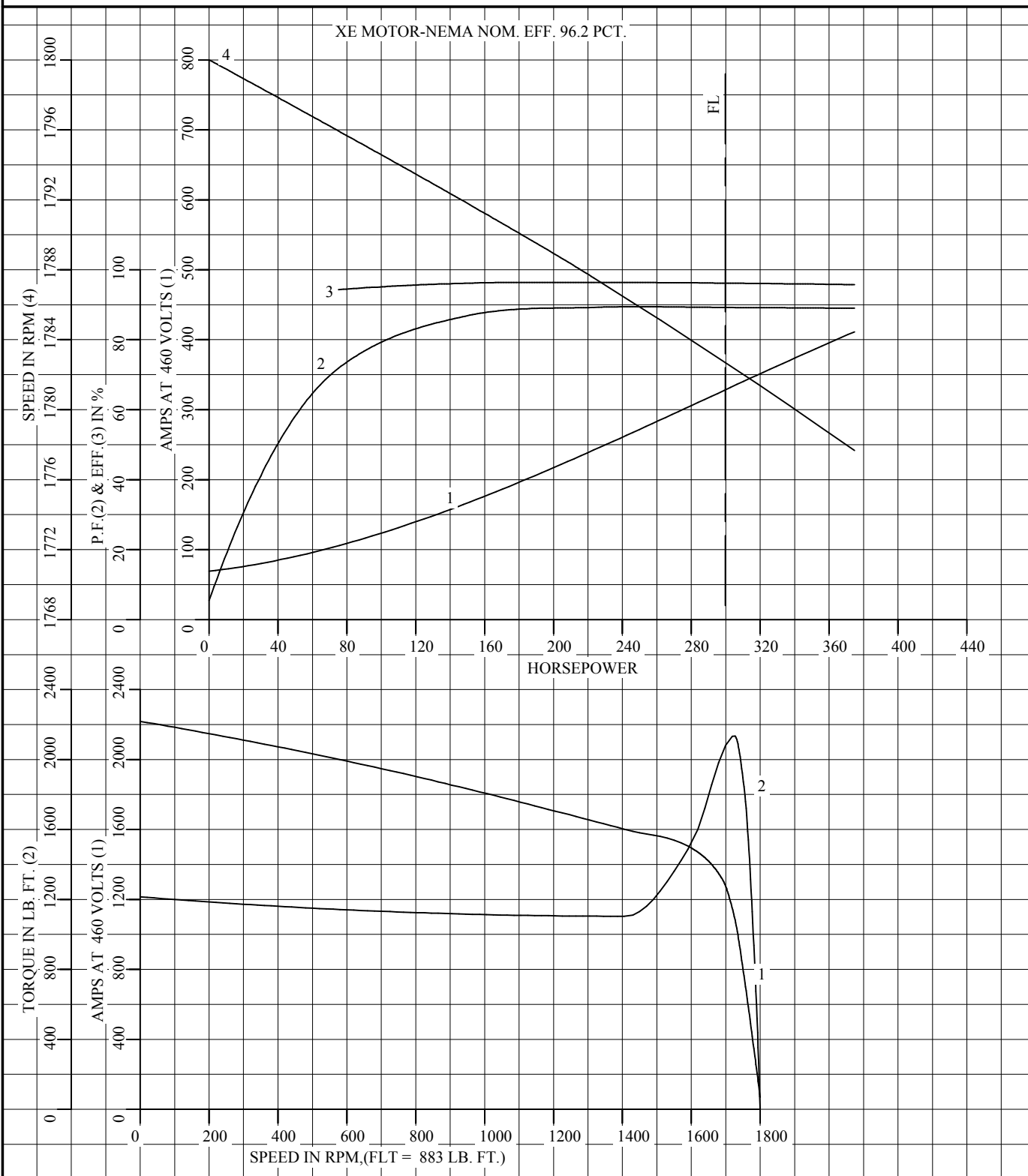
NP2496L	
MOBIL POLYREX EM	

NP2349L

SPEC NO.	A44-7110-2960			CAT.NO.	EM44304TS-4				FRAME	449TS	
HP	300	VOLTS	460	PHASE	3	DESIGN	B	TYPE	P		
RPM	1780	AMPS	327	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	89	NEMA-NOM-EFFICIENCY			96.2		
						MAX CORR KVAR	41	GUARANTEED EFFICIENCY		95.4	
NEMA NOM/CSA QUOTED EFF											
						MOTOR WEIGHT			2764		

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	449T	300	P	3/60	1780	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
327	CONT	40/F	1.15	B	G	FCXE
E/S	ROTOR	TEST S.O.		TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)	
-	418143047SE	---		---	.0108	
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	69.7	1800	5.43	0	
1/4	75.1	104	1796	71.8	94.3	
2/4	150	168	1792	86.9	96.2	
3/4	225	245	1787	89.3	96.4	
4/4	300	327	1783	89.2	96.2	
5/4	375	412	1778	89.0	95.7	
SPEED TORQUE						
		RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES	
LOCKED ROTOR		0	138	1215	2218	
PULL UP		1410	125	1104	1599	
BREAKDOWN		1726	242	2136	1096	
FULL LOAD		1783	100	883	327	
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 W. L. SMITH		A-C MOTOR PERFORMANCE A44WG2960-R008 DATA ISSUE DATE 04/07/15		
		CK. BY C. E. JAMISON				
		APP. BY W. L. SMITH				
		DATE 04/07/15				
		Page 6 of 10				

REL S.O.	RPM 1780	S.F. 1.15	ROTOR 418143047SE
FRAME 449T	VOLTS 460	NEMA DESIGN B	TEST S.O. CALCULATED DATA
HP 300	AMPS 327	CODE LETTER G	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE FCXE	STATOR RES. @ 25 °C .0108
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S -	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 W. L. SMITH
CK. BY C. E. JAMISON
APP. BY W. L. SMITH
DATE 04/07/15

**A-C MOTOR
PERFORMANCE
CURVES**

A44WG2960-R008

ISSUE DATE 04/07/15 Page 7 of 10

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

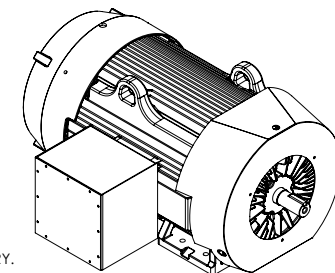
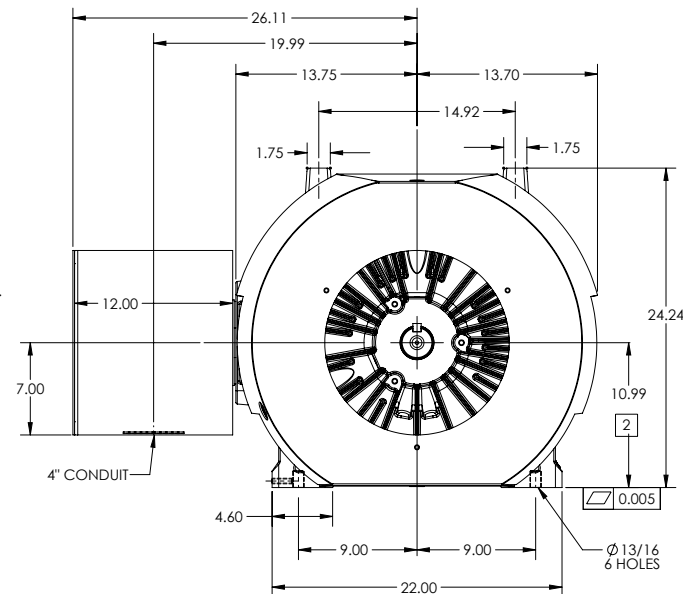
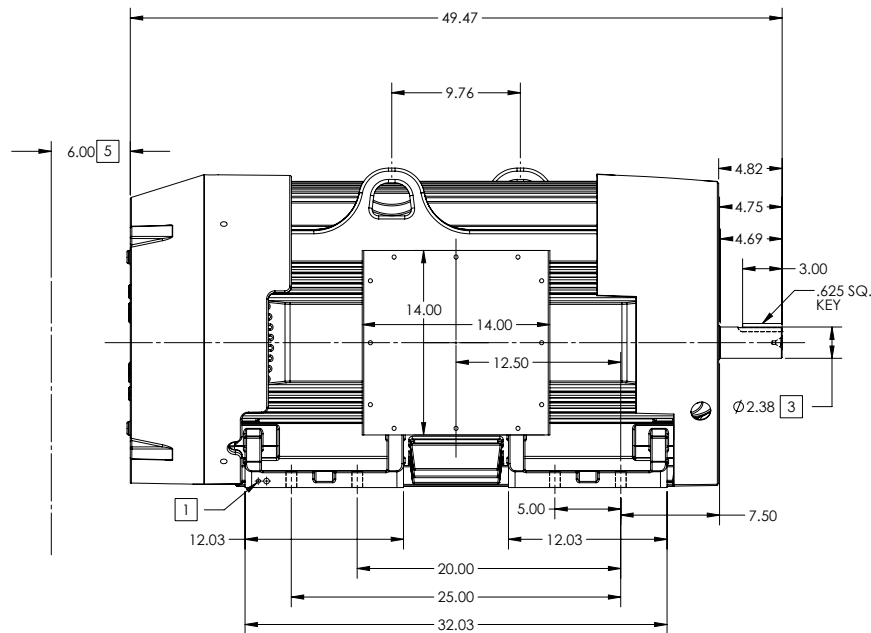
ENCLOSURE: TOTALLY ENCLOSED

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

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

TDR: 00000918312

MODEL NO. 617427-445

BY: RAGEC

BALDOR

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

617427-445

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

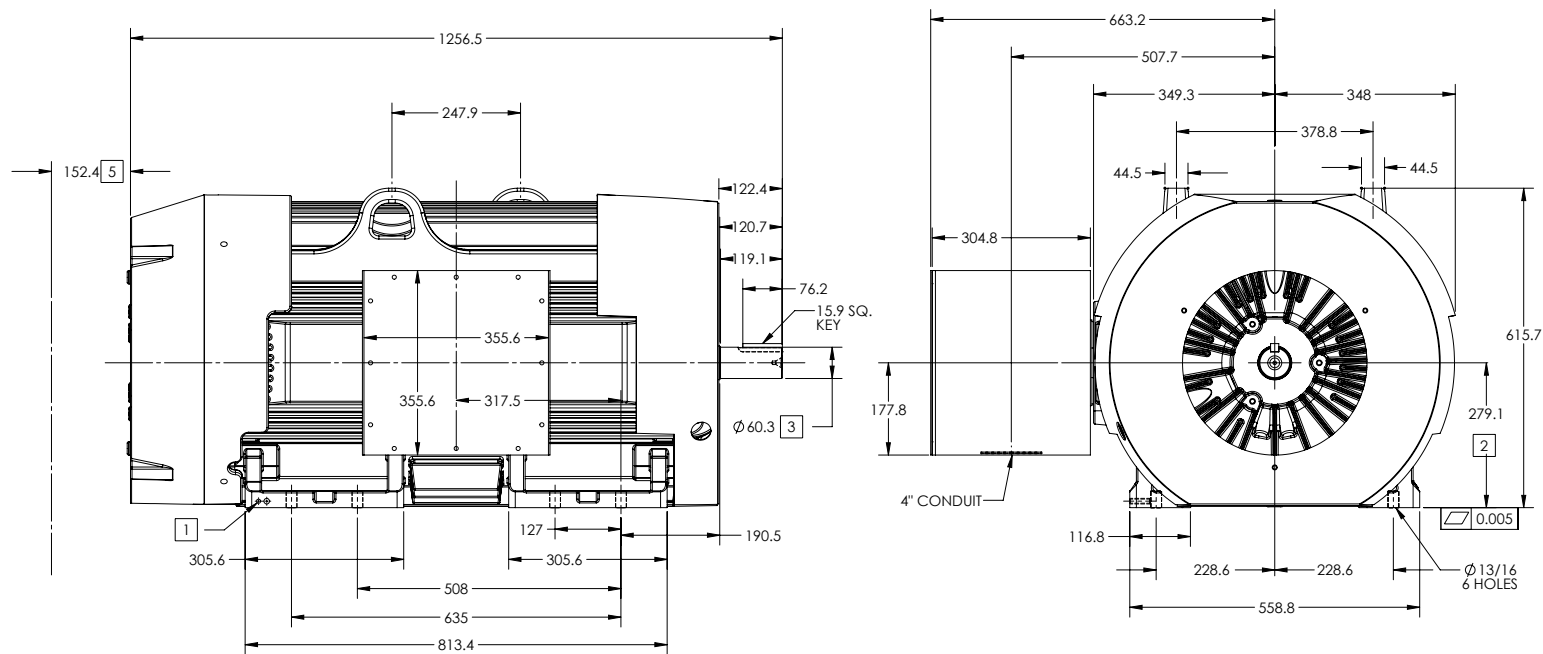
ENCLOSURE: TOTALLY ENCLOSED

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 $\pm 0.1-1.5$
3. VARIES $\pm 0.00-.03$
4. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
5. OBSTRUCTION MUST NO 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 .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

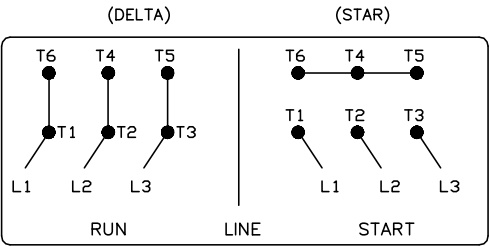
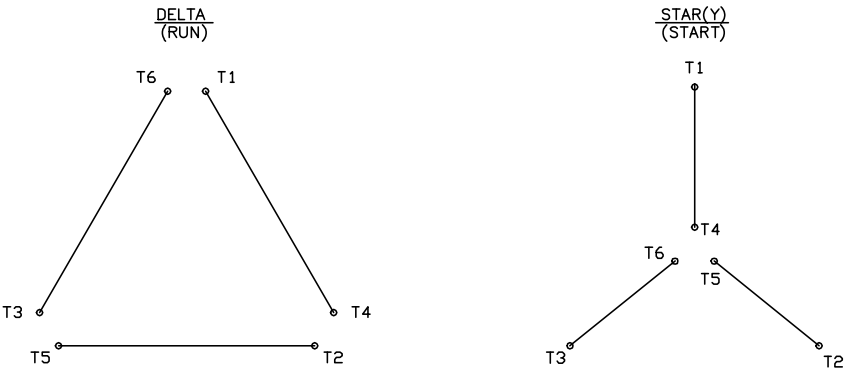
G449TS/447TS-FOOTED-SIDE/CENTER CONDUIT BOX-14X14X12

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