

ABB BALDOR RELIANCE III

Customer information packet

EM7087T-I

75//60HP, 1185//985RPM, 3PH, 60//50HZ, 405T

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	TEFC
Frame	405T
Frame Material	Iron
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	75.000 HP @ 60 HZ 60.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1000 RPM @ 50 HZ
Voltage @ Frequency	190.0 V @ 50 HZ 230.0 V @ 60 HZ 380.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV CCSA US CSA UL
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	84.200 A @ 460.0 V 82.000 A @ 380.0 V 168.000 A @ 230.0 V 164.000 A @ 190.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %

Part Detail

Revision	J
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0493
Layout	617433-513
Eff. date	05-06-2024
CD Diagram	416820-002
Poles	06
Leads	3#4,6#6
Proprietary	False
Created date	04-27-2015

Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	82.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 4 AWG
Motor Standards	NEMA
Motor Type	A40072M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	38.21 IN
Power Factor	88
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1185 rpm 985 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

NP2496L	
MOBIL POLYREX EM	

000613006PC		
CLASS I GROUP	C D X	NO.
CLASS II GROUP	X X X	
OPERATING TEMP CODE	T3C	

NP2293L

CAT.NO.	EM7087T-I	SPEC NO.	A40-6593-0493	FRAME	405T
HP	75//60	PHASE	3	DESIGN	B
RPM	1185//985	HZ	60//50	TYPE	P
VOLTS	230/460//190/380	AMB	40	SF	1.15
DUTY	CONT	INSUL.CLASS	F	ENCL	TEFC
AMPS	168/84.2//164/82	CODE	G	DRIVE END BEARING	80BC03J30X
OPP D.E. BEARING	80BC03J30X	NEMA-NOM-EFFICIENCY	94.5	SER.NO.	NEMA MG-1 PT 5, IP55
	SUITABLE FOR 55C AMB @ 1.0 SF	MOTOR WEIGHT			

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405T	75	P	3/60	1185	230/460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
168/84.2	CONT	40/F	1.15	B	G	XPFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
596180	418142073DE	---	---	.0241/.0964		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	24.7	1200	5.02	0	
1/4	18.8	31.9	1196	59.5	92.6	
2/4	37.5	46.8	1193	79.3	94.8	
3/4	56.2	64.5	1189	85.9	95.0	
4/4	75.0	84.2	1184	88.3	94.5	
5/4	93.8	105	1180	88.8	93.8	
SPEED TORQUE						
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES		
LOCKED ROTOR	0	168	557	537		
PULL UP	180	142	471	513		
BREAKDOWN	1117	250	832	312		
FULL LOAD	1184	100	333	84.2		
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE REMARKS: TYPICAL DATA NEMA PREMIUM - 94.5 PCT NOMINAL EFFICIENCY						
		DR. BY W. L. SMITH CK. BY J. J. HARRISON APP. BY W. L. SMITH DATE 08/25/10		A-C MOTOR PERFORMANCE A40WG0493-R001 DATA ISSUE DATE 01/07/11		

FRAME 405T

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 75

AMPS 168/84.2

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE XPFC

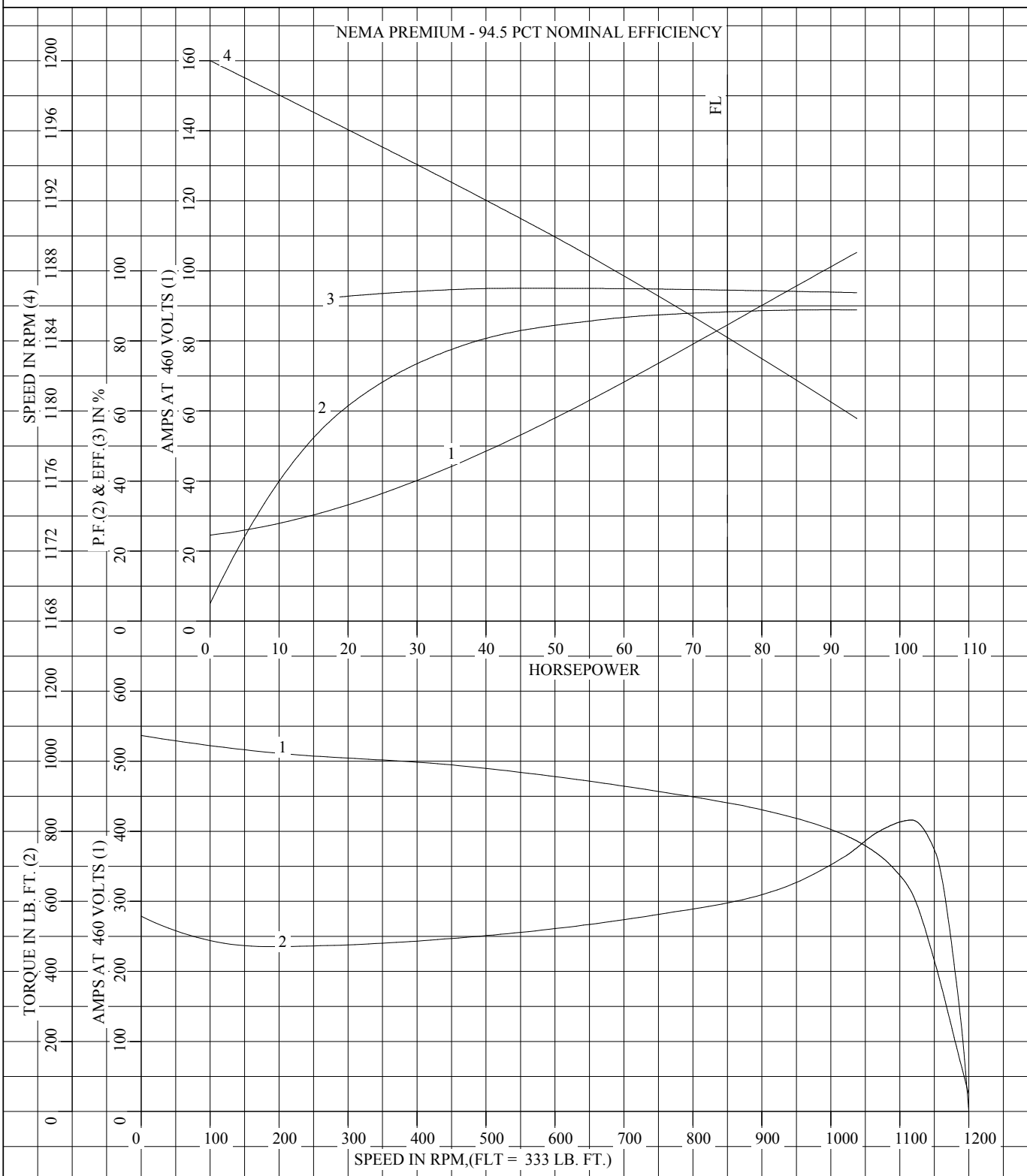
STATOR RES. @ 25 °C .0241/.0964

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 596180

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 J.J. HARRISON
APP. BY W. L. SMITH
DATE 08/25/10

**A-C MOTOR
PERFORMANCE CURVES** A40WG0493-R001
ISSUE DATE 01/07/11

REL. S.O.

RPM 1185

S.F. 1.15

ROTOR 418142073DE

FRAME 405T

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 75

AMPS 168/84.2

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE XPFC

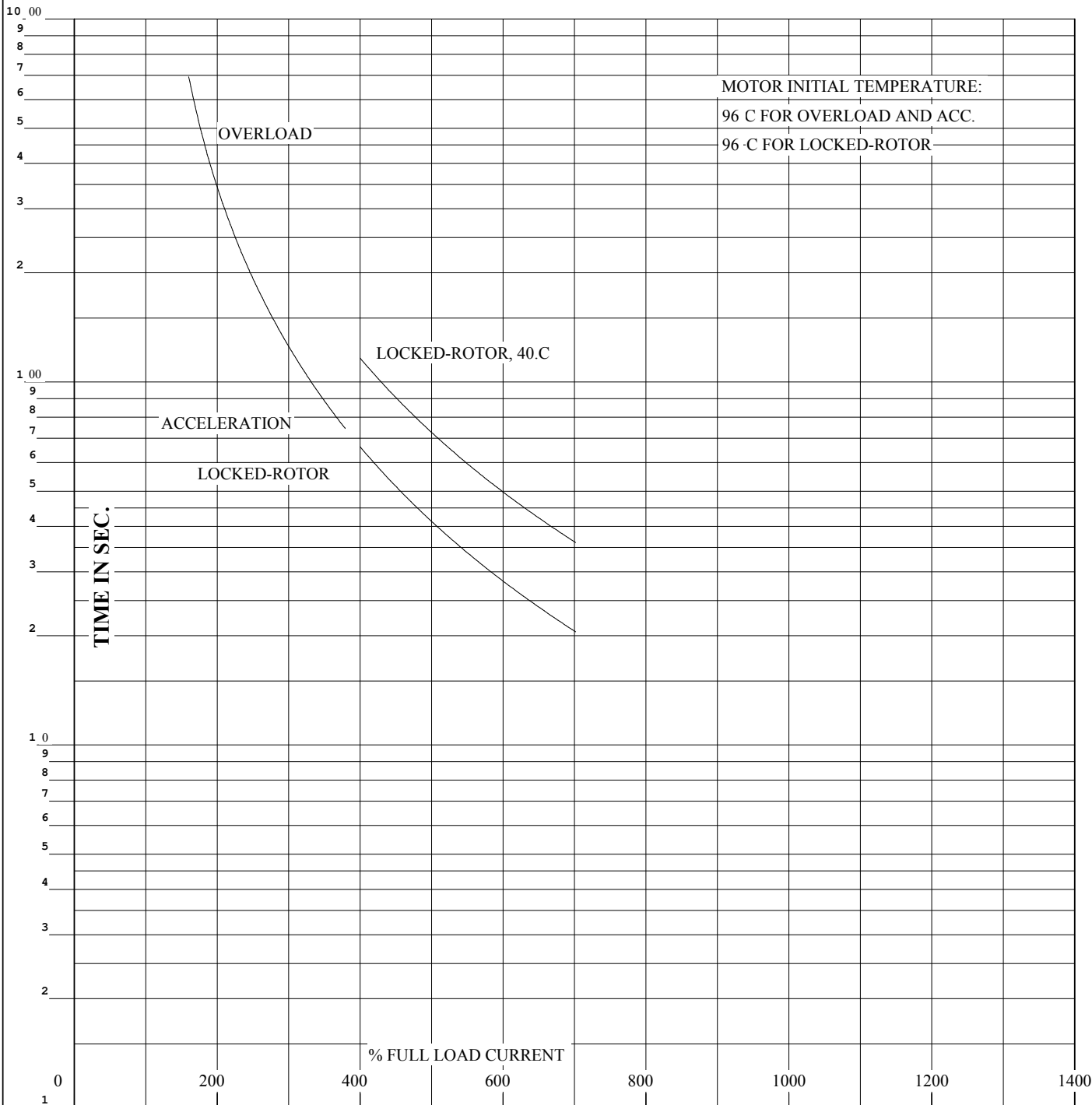
STATOR RES. @ 25 °C .0241/.0964

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 596180

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS: NEMA PREMIUM - 94.5 PCT NOMINAL EFFICIENCY

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



DR. BY W. L. SMITH
CK. BY J.J.HARRISON
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DATE 08/25/10

**A-C MOTOR
PERFORMANCE A40WG0493-R001
CURVES** ISSUE DATE 01/07/11

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: X/P, UNDERWRITERS LISTED

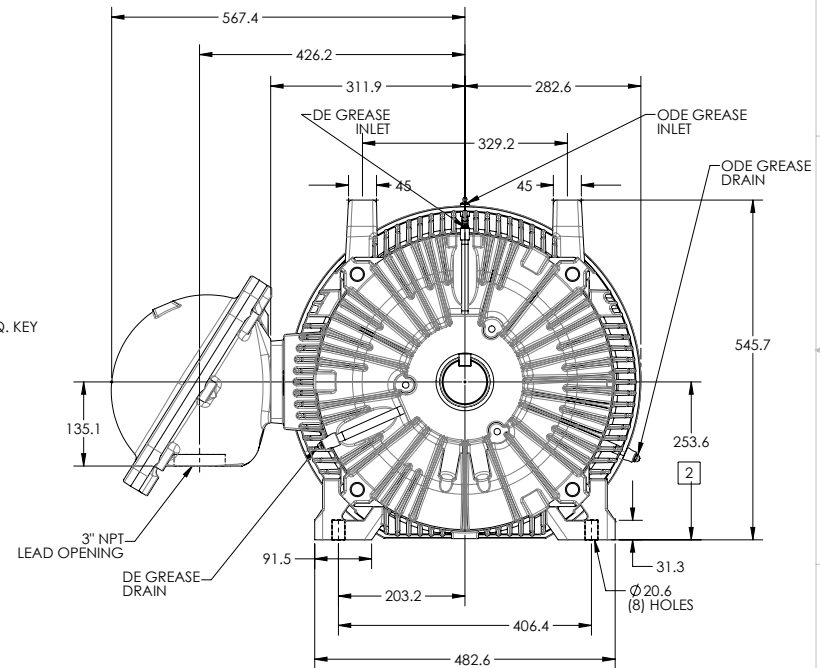
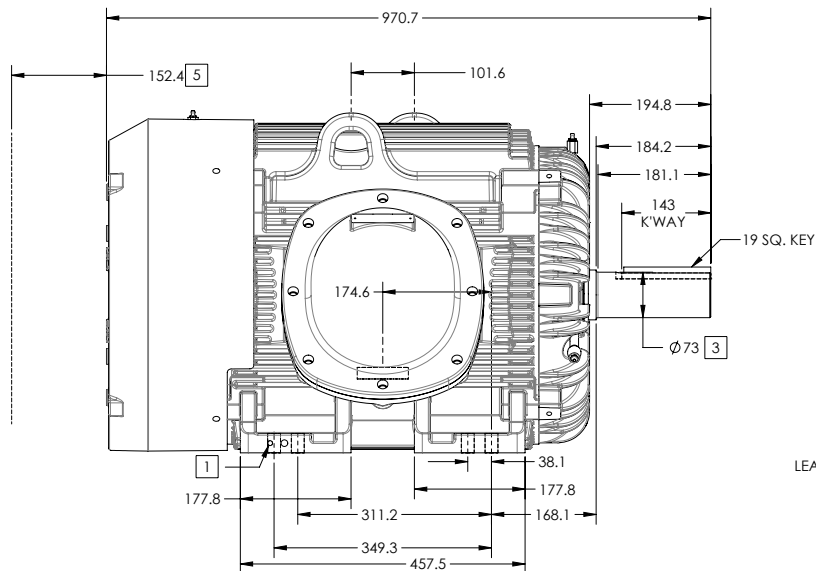
FRAME G405T

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T FRAME MOUNTING HOLES

XT/ECP SEVERE DUTY ENCLOSURE



- GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
- VARIES ± 0.00 -1.5MM
- VARIES ± 0.00 -.025MM
- MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
- OBSTRUCTION MUST NOT ENCROACH ON AIR INLET

[6] MASS (KGS): 635

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 .076MM T.I.R. TO 130MM DIA.

DIMENSIONS ARE IN MILLIMETERS; SEE SHEET 1 FOR DIMENSIONS IN INCHES

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

SHEET NUMBER
2 OF 2

515-552119

REV. DESC: NEW
REV: - VERSION: 00 REVISED: 08/51/52 11/20/2015 TDR: 00000926001
MODEL NO. 617433-513 REF:
BY: RAGTBM Material:

BALDOR

G405T/404T XP TEFC/FOOT, DRILL, RIG DUTY, 16CB1001A01 BOX

617433-513

CONNECTION DIAGRAM
ACCESSORIES

MOTOR WINDING THERMOSTATS		
CONTACTS _____ @ _____ °C		
FIGURE NUMBER _____		
CONTACT RATING		
VOLTS	CONTINUOUS AMPERES	INRUSH AMPERES
110-120	3.0	30
220-240	1.5	15
440-480	0.75	7.5
550-600	0.60	6.0

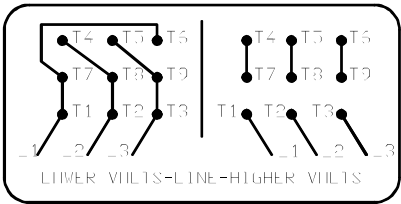
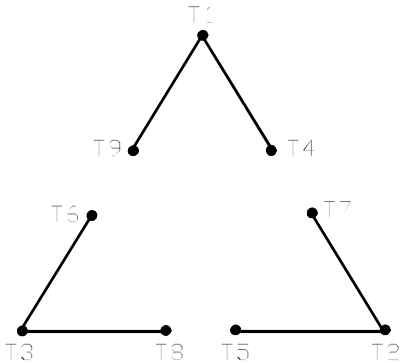
THERMOSTATS	
NORMALLY CLOSED	NORMALLY OPEN
FIGURE 1	FIGURE 4
FIGURE 2	FIGURE 5
FIGURE 3	FIGURE 6
FIGURE 7	FIGURE 8

CUSTOMER _____ CUSTOMER ORDER NO. _____ S.O. NO. _____

REV. DESC: LOADED TO BUS		
REV. LTR: A	VERSION: 01	TDR: 000000570390
FILE: \RAG\00013\849	REVISED: 10:16:21 12/07/2010	BY: RAGDRF
MTL: -		

416820-002

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 9 LEAD DELTA-CONNECTED



(N.P. 1575-B)

REV. DESC: FONT CHANGE FOR PDF SEARCHABLE		
REV. LTR: A	VERSION: 01	TDR: 000001009382
FILE: \MGA\00000\661	REVISED: 02:46:19 02/13/2020	BY: MGHMTT
MTL: —		

BALDOR - RELIANCE®

CONN DIAG — STANDARD 9 LEAD, DELTA-CONNECTED
SH 1 of 1

416820-002