

ABB BALDOR RELIANCE III

Customer information packet

DRX40144T

100HP, 1785RPM, 3PH, 60HZ, 405T, TEFC, F1

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	TEFC
Frame	405T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	100.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	UL CSA CCSAUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Constant Torque Speed Range	6-60
Current @ Voltage	112.000 A @ 460.0 V 224.000 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.4 %
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	112.0 a
Insulation Class	F
Inverter Code	Inverter Ready

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0692
Layout	617433-608
Eff. date	05-06-2024
CD Diagram	416820-002
Poles	04
Leads	3#2,6#4
Proprietary	False
Created date	03-08-2019

IP Rating	NONE
KVA Code	G
Max Speed	3600 rpm
Motor Lead Quantity/Wire Size	3 @ 2 AWG
Motor Standards	NEMA
Motor Type	A40064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	38.22 IN
Power Factor	87
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1785 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.	
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CLASS II GROUP	X X X		
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OPERATING TEMP CODE	T3C		
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NP3140L

SPEC NO.	A40-7255-0692	CAT.NO.	DRX40144T	FRAME	405T
HP	100	VOLTS	230/460	PHASE	3
RPM	1785	AMPS	224/112	DESIGN	B
DRIVE END BEARING	80BC03J30X	DUTY	CONT	TYPE	P
OPP D.E. BEARING	80BC03J30X	ENCL	TEFC	INSUL.CLASS	F
SF	1.15	WK2	26.346	HZ	60
CT HZ	6-60	MAG CUR	28.6	AMB	40
		RPM MAX	3600	SF	1.00
		VT HZ	0-60	CODE	G
		CHP HZ	60-90	NEMA-NOM-EFF	95.4
SER.NO.		MOTOR WEIGHT		SUIT FOR 55C AMB AT 1.00 SF IP55	

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405HP	100	P	3/60	1785	230/460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
224/112	CONT	40/F	1.15	B	G	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
596956	418142-33-RE	---	---	.0123/.0492		

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	28.6	1800	5.49	0
1/4	25.0	39.2	1796	64.3	93.0
2/4	50.0	59.5	1792	82.5	95.4
3/4	75.0	84.6	1788	86.7	95.7
4/4	100	112	1783	87.4	95.4
5/4	125	141	1778	87.3	94.9

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	151	445	725
PULL UP	360	136	400	706
BREAKDOWN	1721	250	735	382
FULL LOAD	1783	100	295	112

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

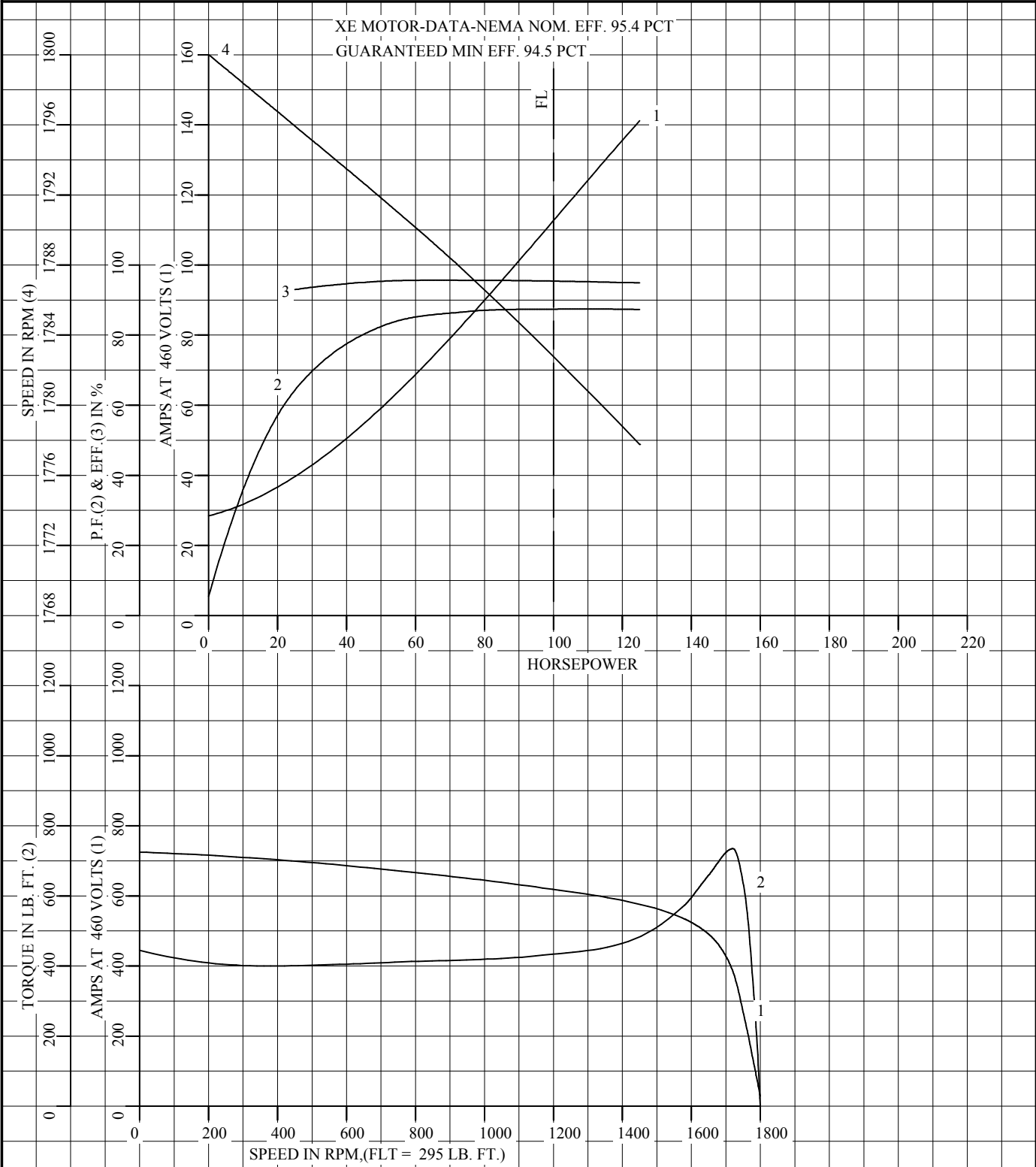
REMARKS: TYPICAL DATA
 XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT
 GUARANTEED MIN EFF. 94.5 PCT



DR. BY G. R. WEBB
 CK. BY W. L. SMITH
 APP. BY W. L. SMITH
 DATE 01/19/12

**A-C MOTOR
 PERFORMANCE A40WG0692-R004
 DATA** ISSUE DATE 08/06/20

REL S.O.	RPM 1785	S.F. 1.15	ROTOR 418142-33-RE
FRAME 405HP	VOLTS 230/460	NEMA DESIGN B	TEST S.O. TYPICAL DATA
HP 100	AMPS 224/112	CODE LETTER G	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES. @ 25 °C .0123/.0492
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 596956	OHMS (BETWEEN LINES)



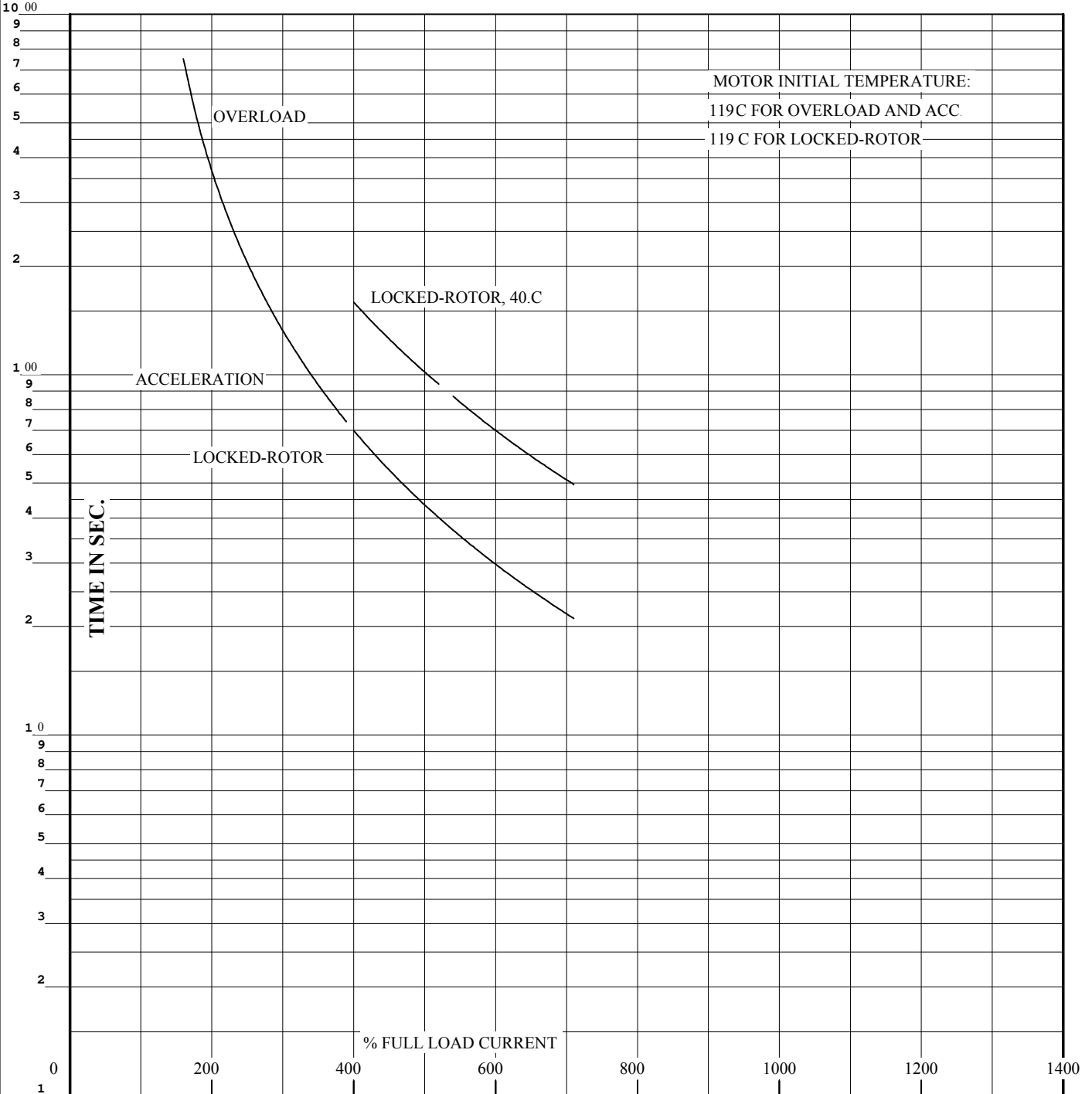
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PERFORMANCE
CURVES** A40WG0692-R004
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PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 596956	OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS: XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT
GUARANTEED MIN EFF. 94.5 PCT

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**A-C MOTOR
PERFORMANCE CURVES**
A40WG0692-R004
ISSUE DATE 08/06/20 Page 9 of 12

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

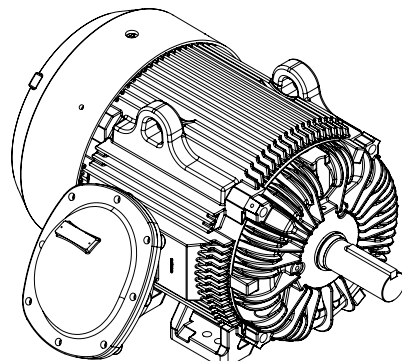
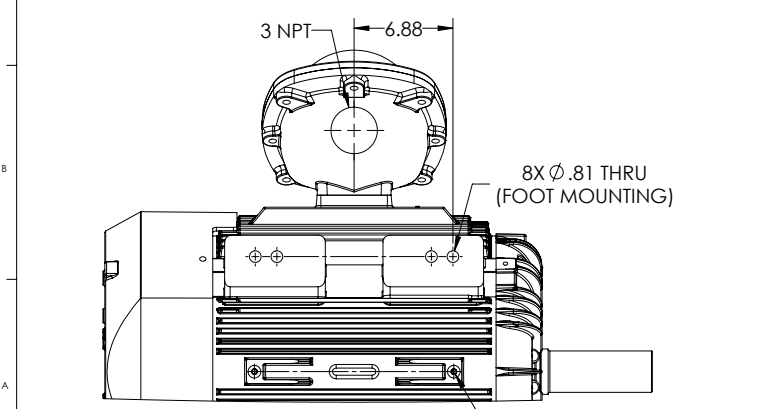
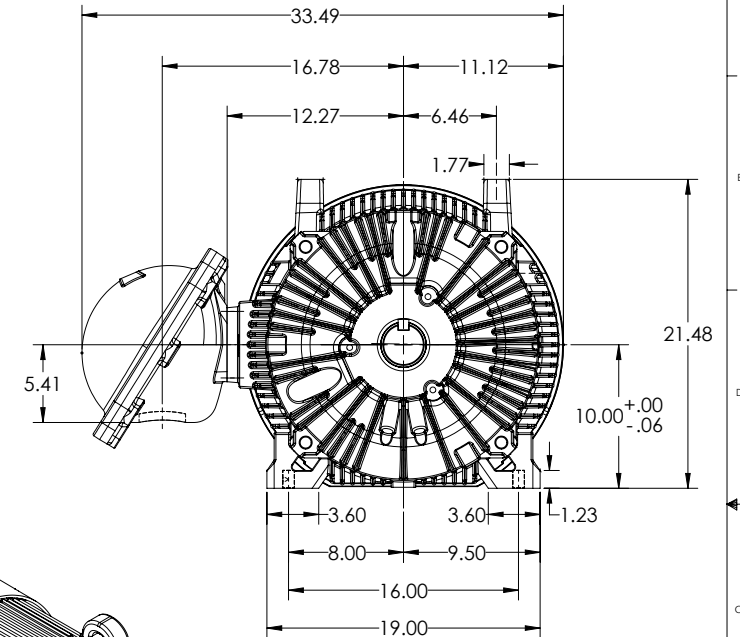
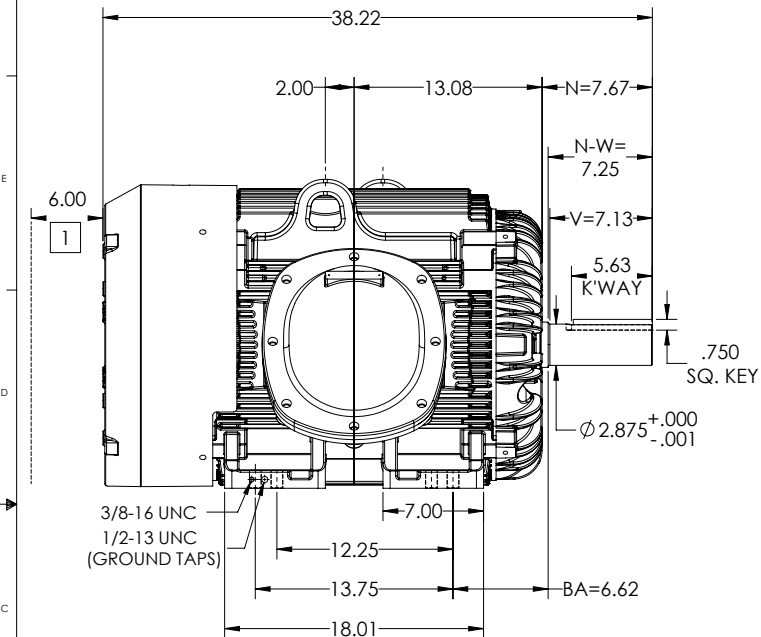
ENCLOSURE: X/P, UNDERWRITERS LISTED

MOUNTING: FOOT, F-1 MOUNT

G405T/G404T FRAME MOUNTING HOLES

COOLING: FAN COOLED

CL. 1, GRP. C & D



DIMENSIONS ARE IN INCHES.
WEIGHT: 1400 LBS ± 15% DEPENDING ON RATING.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAX PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003" T.I.R.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER 1 OF 1	OBSTRUCTION MUST NOT ENCR OACH ON AIR INLET.
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REV. DESC: NEW DRAWING	VERSION: 00	REVISED: 02-53-03 03.08/2019	TDR: 000001101608
MODEL NO. 617433-608			REF:
BY: USJEDIL	Material:		

BALDOR

G405/404T TEFC XP F1 FOOT/CAST IRON BOX/CL.1 GRP C & D

617433-608

CONNECTION DIAGRAM ACCESSORIES

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

NORMALLY CLOSED	THERMOSTATS	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. _____

418174-006

418174-006

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: -		

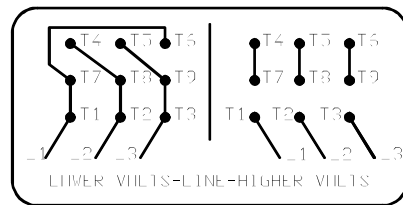
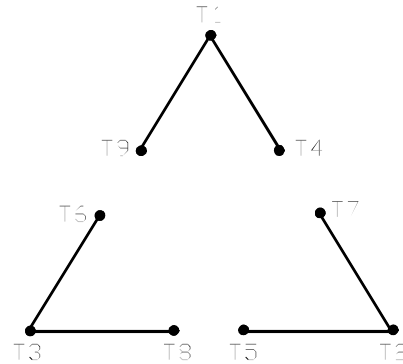
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A-C MOTOR CONNECTION ACCESSORIES

SH 1 of 1

416820-002

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



(N.P. 1575-B)

416820-002

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