

ABB BALDOR RELIANCE III

Customer information packet

CPX40146T

100//75HP, 1780//1485RPM, 3PH, 60//50HZ, 405

Class - CLI GP C,D; CLII GP E,F,G

Division - Division I

Specifications

Enclosure	TEFC
Frame	405T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP C,D; CLII GP E,F,G
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	CCSAUSEEV CSA UL
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	224.000 A @ 230.0 V 112.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.4 %
Enclosure Modification	Severe Duty Features
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	112.0 a
Insulation Class	F

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0692
Layout	617433-605
Eff. date	05-06-2024
CD Diagram	416820-002
Poles	04
Leads	3#2,6#4
Proprietary	False
Created date	02-12-2019

Inverter Code	Inverter Ready
IP Rating	IP55
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.
CLASS II GROUP	E F G	
OPERATING TEMP CODE	T3C	

000901002AAA	
SUIT @ 55C AMB AT 1.00 SF AT S	INEWAVE

NP3140L

SPEC NO.	A40-7253-0692			CAT.NO.	CPX40146T					FRAME	405T
HP	100	VOLTS	230/460		PHASE	3	DESIGN	B	TYPE	P	
RPM	1785	AMPS	224/112		HZ	60	AMB	40	SF	1.00	
DRIVE END BEARING	80BC03J30X		DUTY	CONT	INSUL.CLASS			F			
OPP D.E. BEARING	80BC03J30X		ENCL	TEFC	CODE	G					
SF	1.15	WK2	26.3	MAG CUR	28.6	RPM MAX		3600			
CT HZ	6-60	VT HZ	0-60	CHP HZ	60-90	NEMA-NOM-EFF			95.4		
	IP66										
SER.NO.				MOTOR WEIGHT							

Parts List

Part number	Description	Quantity
SA366133	SA A40-7253-0692	1.000 ea
RA355539	RA A40-7253-0692	1.000 ea
421948032	LABEL, MYLAR	1.000 ea
NP2496L	MOTOR LUBE NAMEPLATE	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
LB1073	ALUM XP CAUTION LABEL	1.000 ea
000613006PC	N/P U/L (REL QTY 500)	1.000 ea
000901002AAA	N/P BLANK (RELEASE QTY 1,500)	1.000 ea
NP3140L	INVERTER DUTY, SS, CC, CSA-C US, CSA EEV	1.000 ea
HW4505A02	BREATHER/DRAIN-EXP PROOF-.250-18 PTF AIS	2.000 ea
609158001E	SLGR - 400	1.000 ea
603284001Y	SLGR - 400	1.000 ea
089416503B	G400 BRKT MCHG 6316 BE OR FE TACONITE	1.000 ea
415072001B	CLAMP	1.000 ea
083198101A	G400 STD FAN COVER MACHINING	1.000 ea
034180012DA	KEY 1X4X1/4X1-1/2 L	1.000 ea
078548001R	FAN KB 234/150 (84) 400	1.000 ea
004824015A	GREASE POLYREX EM	0.880 lb
032130022GB	HSHCS 7/8-9X2-3/4 PLTD.	4.000 ea
032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
415044051AX	SLINGER,DE 6316 G400	1.000 ea
410700000DA	WAVY SPRING WASHER	1.000 ea
034000014AB	WSH ID.406 OD.812 TH.065	4.000 ea
034530052AB	P/NIP 1/8X6-1/2 Zinc	1.000 ea
034530056BB	P/NIP 1/4X7 SCHED 40	1.000 ea
032620016KB	HSHSS; 1/4X1/2	2.000 ea
034690001AB	1/8" NPT SQHDPLG	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
034690002AB	PPLG 1/4" PLTD.	1.000 ea

089416503B	G400 BRKT MCHG 6316 BE OR FE TACONITE	1.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
415044051AX	SLINGER,DE 6316 G400	1.000 ea
032620016KB	HSHSS; 1/4X1/2	1.000 ea
034530024AB	PNIPL 1/8X3L PLATED	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
032130024GB	HSHCS 7/8-9NC X 3" LONG PLATED	4.000 ea
16CB1001A01	CONDUIT BOX MACH GRP C MTRS 16CB1001	1.000 ea
16CB1501A01	CONDUIT BOX LID MACH.GRP C MTRS 16CB1501	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
406055001D	GRFTG	1.000 ea
034017018AB	5/8 MED LOCK WASHER ZP (034017018AF)	8.000 ea
034017014AB	LCKW 3/8 STD. PLATED	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
032130016EB	HSHCS 5/8-11X2 PLTD.	8.000 ea
415000115H	T/LUG #2AWG-4/0AWG	1.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
032018008DK	HHCS 1/2-13X1 PLATED	1.000 ea
034017016AB	LCKW 1/2" PLATED	1.000 ea
032130014CB	HSHCS 3/8-16X1-3/4 PLTD.	4.000 ea
406055001D	GRFTG	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
MG1025G29	WILKOFAS, 789.229, DARK CHARCOAL GRAY	0.375 ga
033775004EA	DRSCR #6-1/4 304 S.S.	8.000 ea
034180045JA	KEY,DE	1.000 ea
604797045	STD. 400 FRAME SKID	1.000 ea
032510024D	CARRIAGE BOLT - 444	2.000 ea
034001014AB	FLAT WASHER 3/8"PLATED	2.000 ea
034001016AB	WSHR .562ID 1.375OD .109	2.000 ea
033300014AC	HEX NUT, SHIPPING - 400	2.000 ea
604799003C	PLASTIC BAG 42X32X46	1.000 ea

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	A-C MOTOR PERFORMANCE DATA		
		CK. BY	W. L. SMITH			
		APP. BY	W. L. SMITH			
		DATE	01/19/12			
				A40WG0692-R004 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

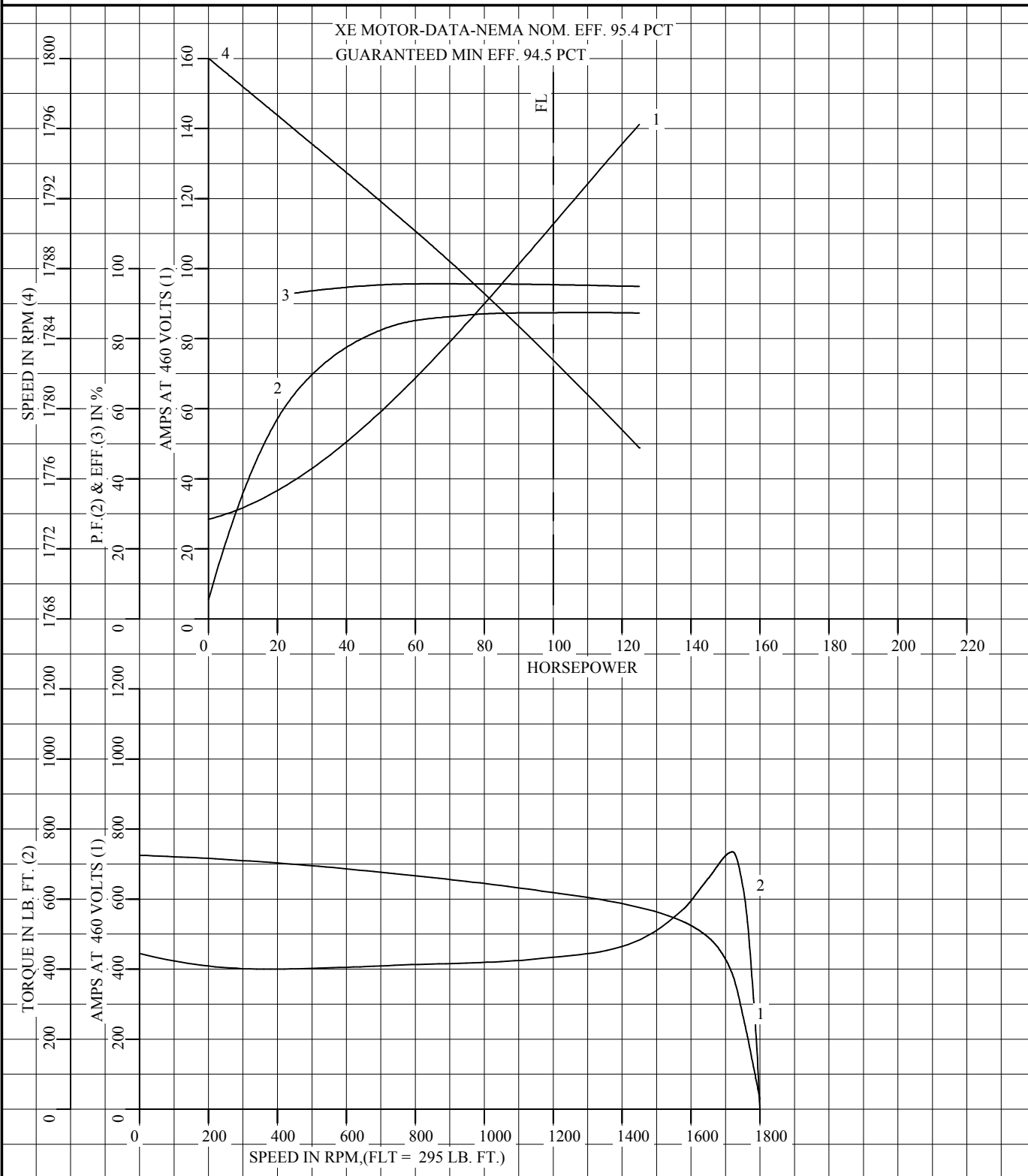
STATOR RES. @ 25 °C .0123/.0492

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 596956

OHMS (BETWEEN LINES)



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 01/19/12

**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0692-R004

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**

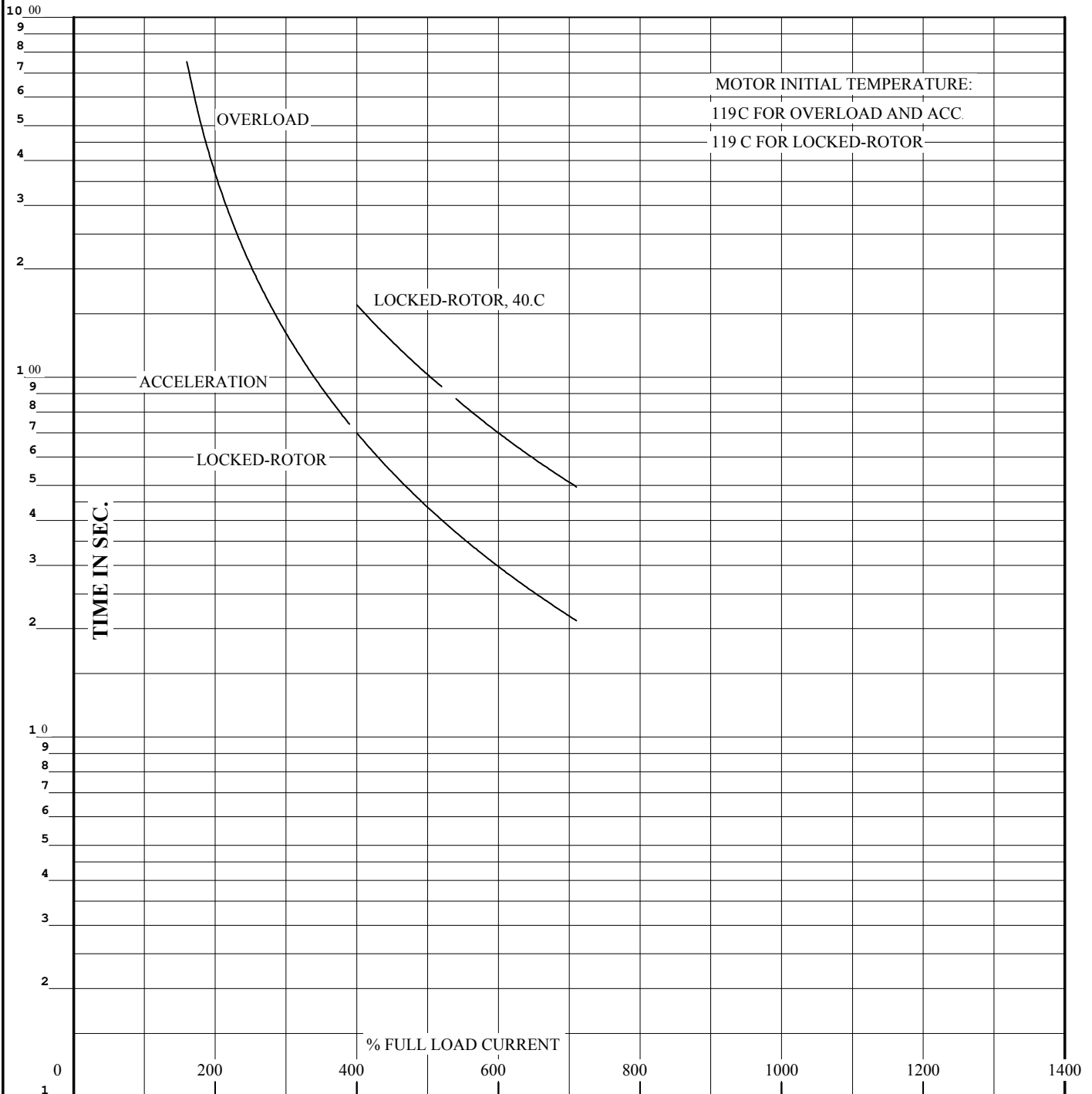
 STATOR RES. @ 25 °C **.0123/.0492**

 PHASE/HERTZ **3/60**

 AMB °C/INSUL **40/F**

 E/S **596956**

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:

XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT

GUARANTEED MIN EFF. 94.5 PCT

 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 01/19/12
**A-C MOTOR
PERFORMANCE
CURVES**
A40WG0692-R004

 ISSUE DATE 08/06/20 Page 12 of 15

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

FRAME G405T

ENCLOSURE: X/P, UNDERWRITERS LISTED

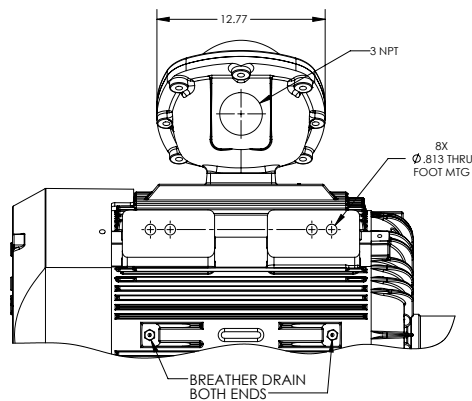
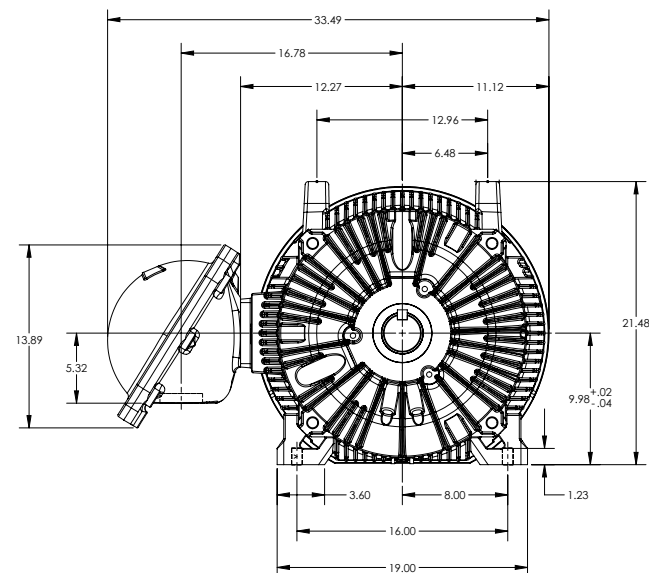
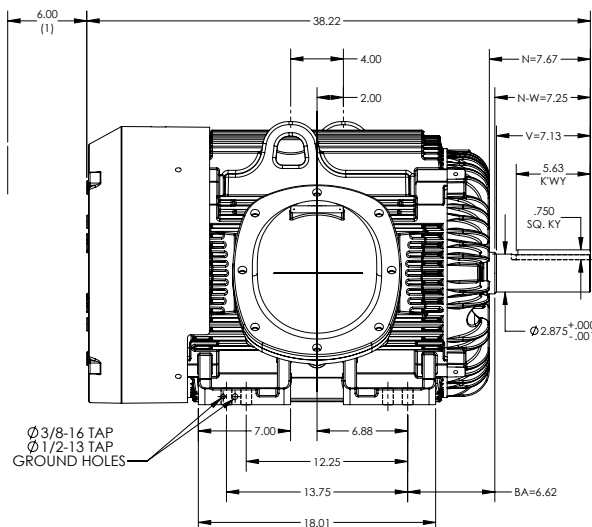
 INCLUDES 404T FRAME MOUNTING HOLES
STD CAST IRON C/BOX

COOLING: FAN COOLED

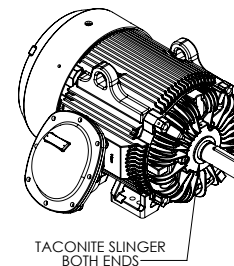
MOUNTING: FOOT, F-1

CL1-GROUP C&D - CL2-GROUP E,F & G

ENCLOSURE ENHANCEMENT: SEVERE DUTY



(1) OBSTRUCTION MUST NOT ENCROACH AIR INLET
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF
STANDARD SHAFT EXTENSION IS .003 MAX. T.I.R.

 WEIGHT: 1400 LBS $\pm 15\%$ DEPENDING ON RATING.


DIMENSIONS ARE IN INCHES.

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

REV. DESC: NEW	VERSION: 00	REVISED: 02-31-08 02/07/2019	TDR: 000001090248
MODEL NO. 617433-605	REF: -	BY: RAGISS1	Material: -

BALDOR

G405T-404T XP F1 FT-CL1 GRP C&D - CL2 GRP E,F&G

 SHEET NUMBER
1 OF 1

S09-1137-119

617433-605

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: -		

BALDOR

A-C MOTOR CONNECTION ACCESSORIES

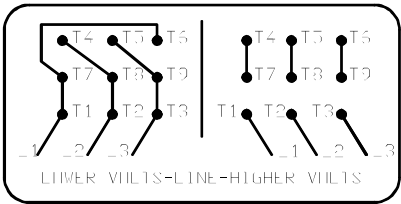
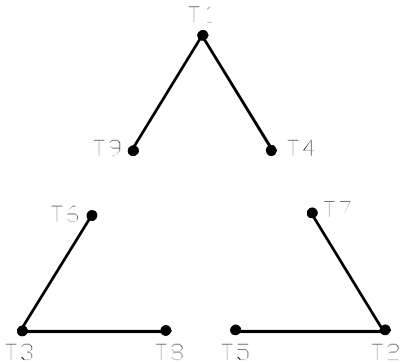
SH 1 of 1

418174-006

418174-006

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