

ABB BALDOR RELIANCE III

Customer information packet

ECP4400T-4

100HP, 1785RPM, 3PH, 60HZ, 405T, TEFC, FOOT,
Class - CLI GP A,B,C,D
Division - Division II

Specifications

Enclosure	TEFC
Frame	405T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	100.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSAUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Constant Torque Speed Range	10-60
Current @ Voltage	115.000 A @ 460.0 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	T2D
Heater Indicator	No Heater
High Voltage Full Load Amps	115.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 2 AWG
Motor Standards	NEMA

Part Detail

Revision	D
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG5476
Layout	617429-501
Eff. date	10-24-2024
CD Diagram	416820-036
Poles	04
Leads	3#2
Proprietary	False
Created date	02-28-2020

Motor Type	A40072M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	38.20 IN
Power Factor	85
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	None

Nameplate

NP3238															
CAT NO	ECP4400T-4				SPEC NO.	A40-0003-5476									
HP	100	AMPS	115		VOLTS		460		DESIGN	B					
FRAME	405T	RPM	1785	HZ	60	AMB	40	SF	1.15						
D.E. BRG.DATA	6316		O.D.E. BRG.DATA			6316		PH	3	DUTY	CONT	INSUL.CLASS	F		
D.E. BRG.	80BC03J30X			TYPE	P	ENCL	TEFC	CODE	G						
O.D.E. BRG.	80BC03J30X			POWER FACTOR			85		NEMA NOM EFFICIENCY			95.4			
3/4 LOAD EFF.	95.7		MAX CORR KVAR			22.0		GUARANTEED EFFICIENCY			94.5				
TEMP CODE	T2D	TEMP =	215												
CHP HZ	60-90	CT HZ	10-60		VT HZ	0-60									
INVERTER-TEMP-CODE	T2D														
SER.NO.					MOTOR WEIGHT										

ECP4400T-4 - 100HP, 1785RPM, 3PH, 60HZ, 405T, TEFC, FOOT, 460V						
ABB BALDOR RELIANCE III S/O	CUSTOMER INFORMATION FRAME	PACKET HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405T	100	P	3/60	1785	460
AMPS	DUTY	AMB °C/ INSUL	S.F.	NEMA DESIGN	CODE LETTER	ENCLOSURE
115	CONT	40/F	1.15	B	G	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
-	418142037CE	---	---	.0482		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	36.1	1800	4.27	0	
1/4	25.0	48.4	1796	52.0	93.0	
2/4	50.0	66.6	1792	73.7	95.4	
3/4	75.0	89.4	1788	82.0	95.7	
4/4	100	115	1783	85.3	95.5	
5/4	125	143	1778	86.4	95.0	
SPEED TORQUE						
		RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES	
LOCKED ROTOR		0	169	498	725	
PULL UP		270	145	427	674	
BREAKDOWN		1719	255	751	382	
FULL LOAD		1783	100	295	115	
AMPERES SHOWN FOR 460 VOLT CONNECTION. IF OTHER CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.						
TYPICAL DATA 95.4 PCT NOMINAL EFFICIENCY						
		DRAWN BY: <u>W. L. SMITH</u> CHECKED BY: <u>J. P. TSAO</u> APPROVED BY: <u>W. L. SMITH</u> DATE: <u>02/28/20</u>		AC MOTOR PERFORMANCE DATA	A40WG5476-R002 DATE ISSUED 08/28/23	

FRAME 405T

RPM 1785

S.F. 1:15

ROTOR 418142039CE

HP 100

VOLTS 460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

TYPE P

AMPS 115

CODE LETTER G

TEST DATE ---

PHASE / HERTZ 3/60

DUTY CONT

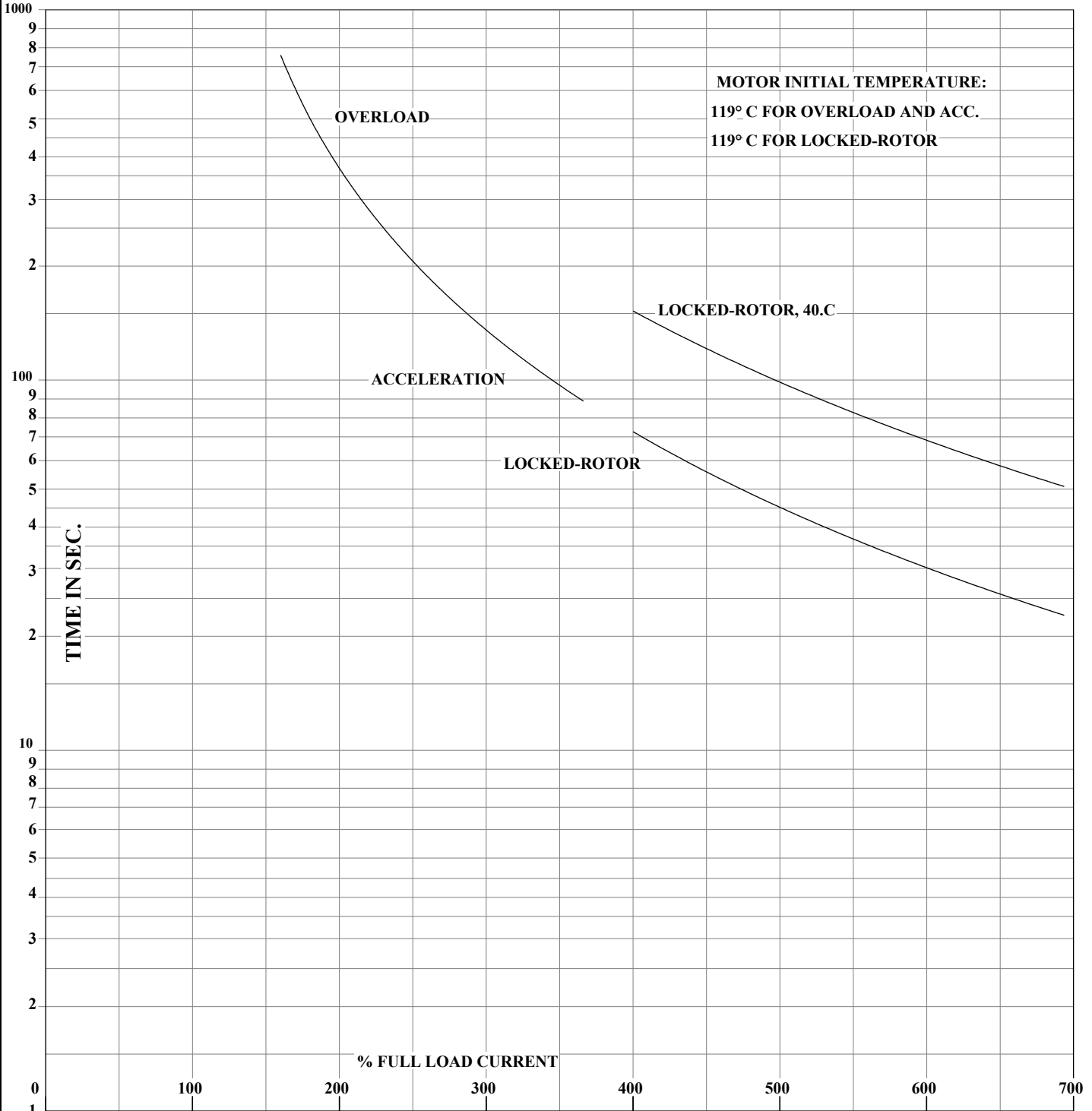
ENCLOSURE TEFC

STATOR RES. @ 25°C .0482

AMB °C / INSUL 40/F

E/S -

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE
95.4 PCT NOMINAL EFFICIENCY

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



DRAWN BY: W. L. SMITH
CHECKED BY: J. P. TSAO
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DATE: 02/28/20

AC MOTOR
PERFORMANCE
DATA

A40WG5476-R002

ISSUE DATE 08/28/23

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

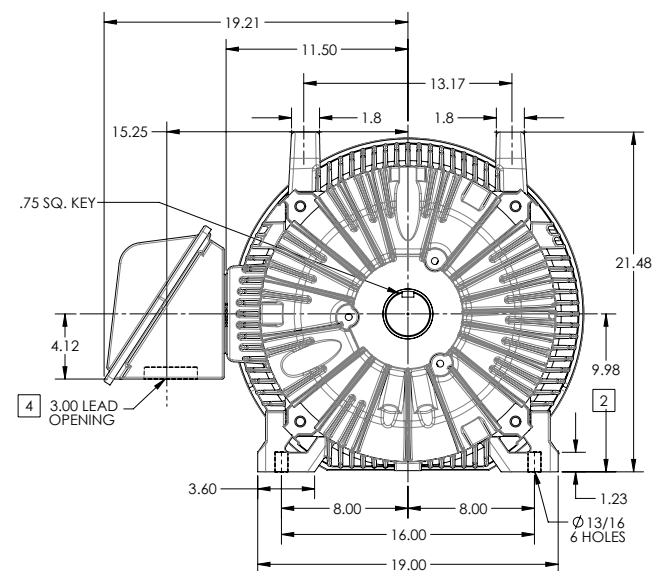
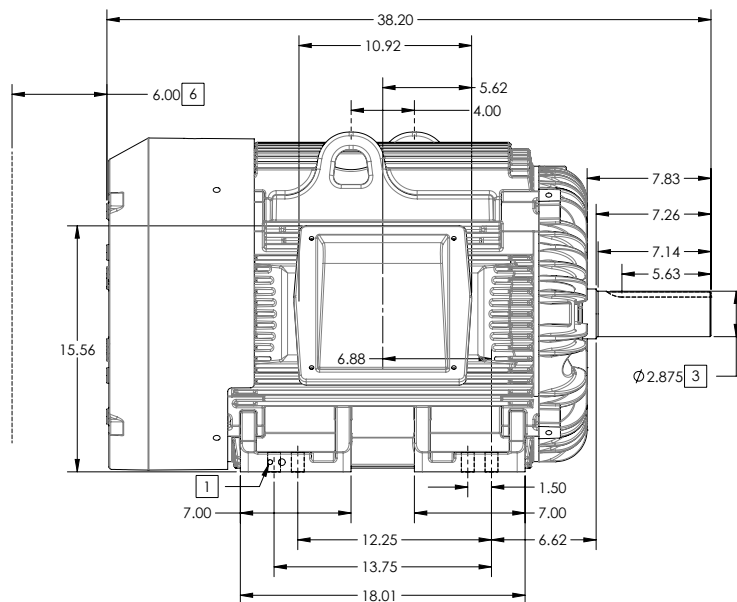
FRAME G405T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T FRAME MOUNTING HOLES

XT/ECP SEVERE DUTY ENCLOSURE



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00,-.06
3. VARIES +.00,-.001
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. 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.

[5] WEIGHT (LBS): 1370

DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

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

 SHEET NUMBER
1 OF 2

105-627219

REV. DESC: CHANGE BA FROM 6.76 TO 6.62

REV: B	VERSION: 02	REVISED: 01-11-16 04/14/2014	TDR: 000000848770
MODEL NO. 617429-501	REF:		
BY: MGHUMZ2	Material:		

BALDOR

G405T/404T STD - FOOTED - XT/ECP SEVERE DUTY ENCLOSURE

617429-501

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

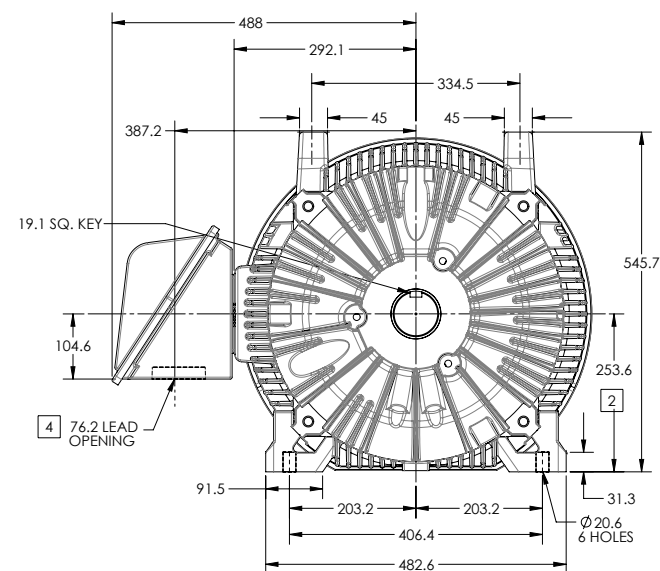
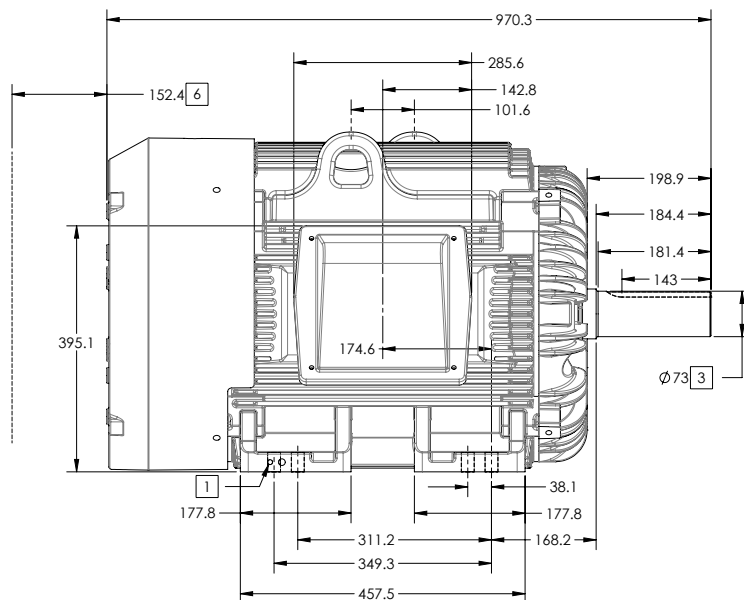
FRAME G405T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T FRAME MOUNTING HOLES

XT/ECP SEVERE DUTY ENCLOSURE



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +0,-1.5
3. VARIES +00,-.03
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. OBSTRUCTION MUST NOT ENCROACH 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): 630

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

105-627219

REV. DESC: CHANGE BA FROM 6.76 TO 6.62	TDR: 000000848770
REV: B VERSION: 02	REVISED: 01-11-16 04/14/2014
MODEL NO. 617429-501	REF:
BY: MGHUMZ2	Material:

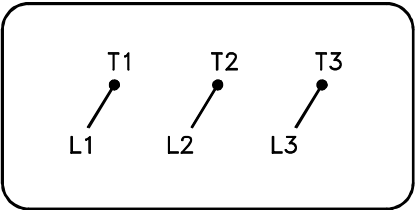
BALDOR

G405T/404T STD - FOOTED - XT/ECP SEVERE DUTY ENCLOSURE

617429-501

416820-036

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 3 LEAD CONNECTED



(N.P. 1575-BA)

416820-036

REV. DESC: LOADED TO BUS, C/R 335225		
REV. LTR: -	VERSION: 00	TDR: 000000538207
FILE: \MGA\00000\682		REVISED: 11: 54: 06 04/30/2010
MTL: -		BY: RAGRA

BALDOR

CONN DIAG - STANDARD 3 LEAD
SH 1 of 1