

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									

Parts List

Part number	Description	Quantity
SA379566	SA A40-0003-5476	1.000 ea
RA369580	RA A40-0003-5476	1.000 ea
000692000FF	N/P	1.000 ea
NP3238	SS CP XEX SEVERE DUTY MAIN NP,CURUS EEV	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
004824015A	GREASE POLYREX EM	0.884 lb
032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
032018020EK	HHCS 5/8-11X2-1/2 PLTD.	4.000 ea
032018026CK	HHCS 3/8-16X3-1/4 PLTD.	3.000 ea
034000014AB	WSH ID.406 OD.812 TH.065	4.000 ea
034180008DA	KEY 1/4X1/4X1 L (shipping)	1.000 ea
034530060AB	P/NIP 1/8X7-1/2 GALV.	1.000 ea
034530056BB	P/NIP 1/4X7 SCHED 40	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
078548001R	FAN KB 234/150 (84) 400	1.000 ea
083198101A	G400 STD FAN COVER MACHINING	1.000 ea
034692005AA	P PLUG 3/4"BLK.	1.000 ea
089412501A	BRKT FTMT G400 FIN MACH 6316 89412500WCA	1.000 ea
410700000DA	WAVY SPRING WASHER	1.000 ea
415045002B	SLGR	1.000 ea
415072001B	CLAMP	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
032018020EK	HHCS 5/8-11X2-1/2 PLTD.	4.000 ea
032018026CK	HHCS 3/8-16X3-1/4 PLTD.	3.000 ea
034530040AB	P/NIP 1/8X5 GALV.	1.000 ea
034530040BB	P/NIP 1/4X5	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
089412501A	BRKT FTMT G400 FIN MACH 6316 89412500WCA	1.000 ea
415045002B	SLGR	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
032018010CK	HHCS 3/8-16X1-1/4 PLTD. 032018010CR	4.000 ea

033512008LB	HHTTS 1/4-20X1 PLATED	4.000 ea
034000014AB	WSH ID.406 OD.812 TH.065	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
065776000C	GASKET,MAIN CBOX, 320-400	1.000 ea
067053000B	GASK 320-400	1.000 ea
076708000BB	CONDUIT BOX-360	1.000 ea
076709000A	C/B Cover - 360	1.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
415000115H	T/LUG #2AWG-4/0AWG	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
034180044JA	KEY 3/4X3/4X5-1/2 L	1.000 ea
MG1025N19	WILKO 778.50 BLUE GREEN - 55 GAL DRUMS	0.375 ga
004824003CBY	WILKO PAINT 060.02 - ACTIVATOR	0.063 ga
421948051	LABEL, MYLAR	1.000 ea
604797045	STD. 400 FRAME SKID	1.000 ea
000613006PU	N/P (RELEASE QTY 10,000) UL CSA LABEL	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
032018005DL	1/2-13 X 5/8 SILICON BRONZE HHCS	1.000 ea
412118006A	DRAIN	2.000 ea

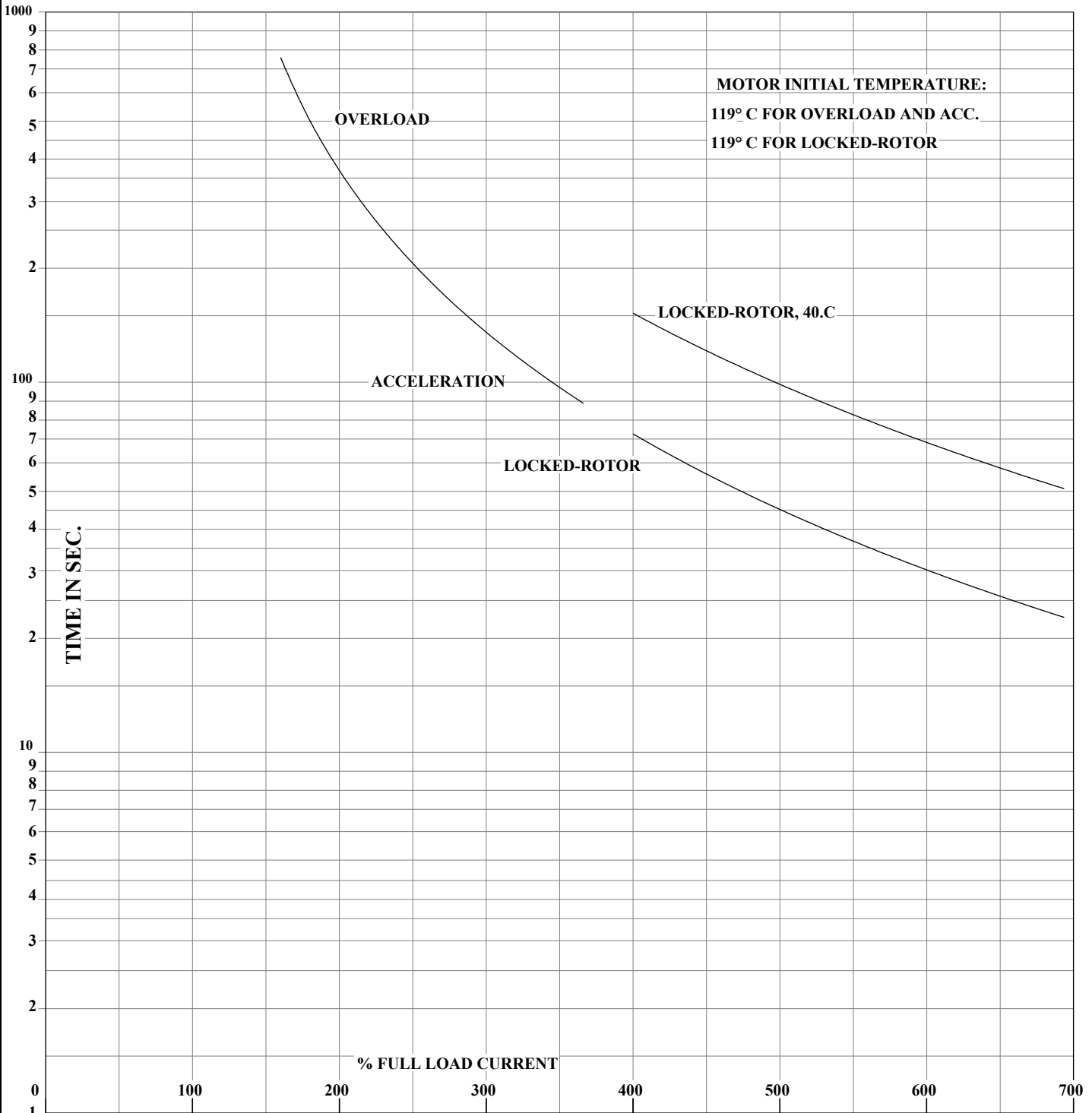
ECP4400T-4 - 100HP, 1785RPM, 3PH, 60HZ, 405T, TEFC, FOOT, 460V							
ABB BALDOR RELIANCE III S/O	CUSTOMER INFORMATION PACKET	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405T	100	P	3/60	1785	460	
AMPS	DUTY	AMB °C/ INSUL	S.F.	NEMA DESIGN	CODE LETTER	ENCLOSURE	
115	CONT	40/F	1.15	B	G	TEFC	
E/S	ROTOR	TEST S.O.	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
HP 100
TYPE P
PHASE / HERTZ 3/60

RPM 1785
VOLTS 460
AMPS 115
DUTY CONT
AMB °C / INSUL 40/F

S.F. 1:15
NEMA DESIGN B
CODE LETTER G
ENCLOSURE TEFC
E/S -

ROTOR 418142039CE
TEST S.O. TYPICAL DATA
TEST DATE ---
STATOR RES. @ 25°C .0482
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
APPROVED BY: W. L. SMITH
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

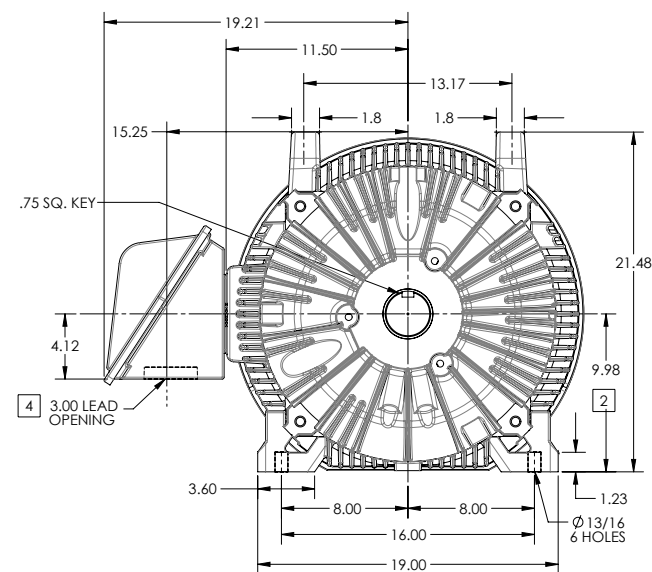
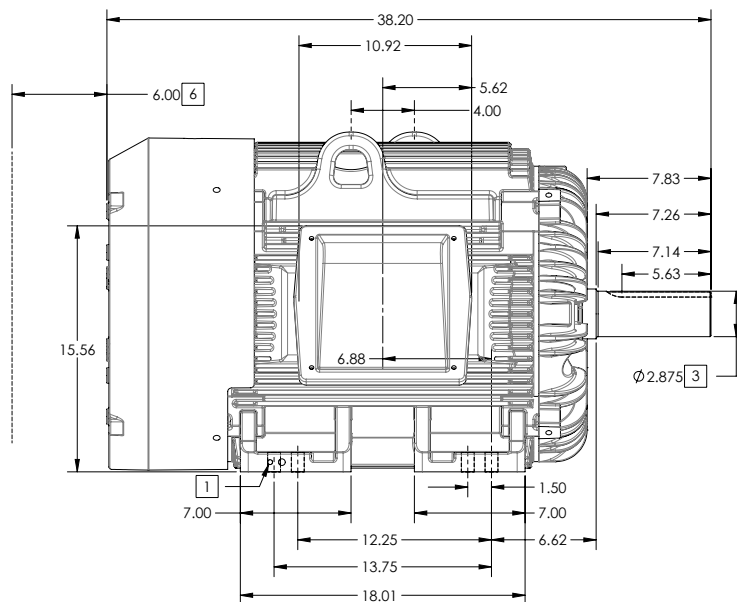
FRAME G405T ABOVE NEMA RATINGS

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 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 .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

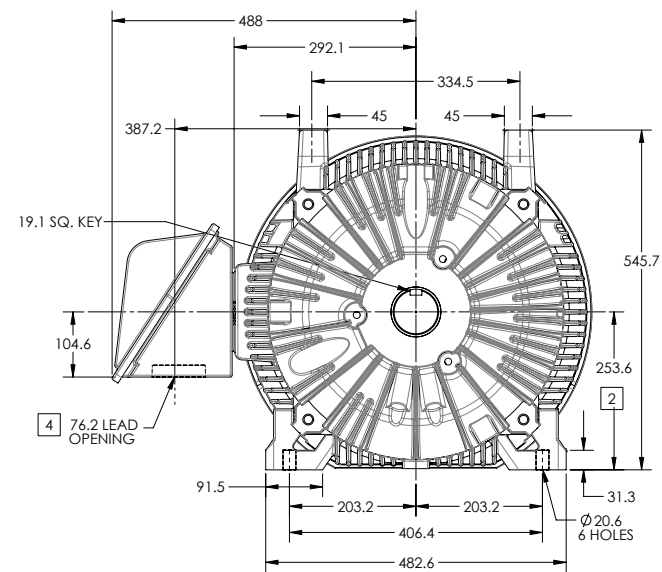
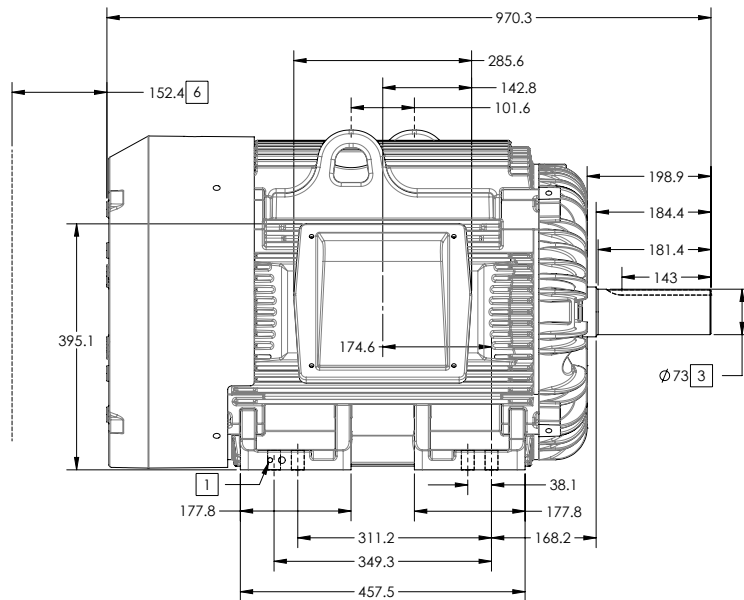
FRAME G405T ABOVE NEMA RATINGS

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:

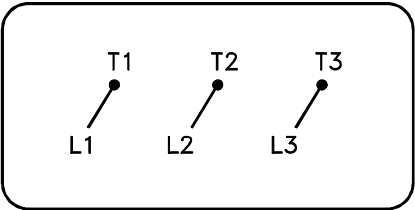
BALDOR

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