

ABB BALDOR RELIANCE III

Customer information packet

ECP4400TR-4

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

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	Mobil SHC 220 (Athens Only)
Constant Torque Speed Range	10-60
Current @ Voltage	112.000 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	112.0 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	L
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0028
Layout	617429-501
Eff. date	10-24-2024
CD Diagram	416820-036
Poles	04
Leads	3#2
Proprietary	False
Created date	11-27-2013

Motor Type	A40064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	38.20 IN
Power Factor	87
Product Family	General Industrial
Pulley End Bearing Type	Roller
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

NP2496L	
MOBIL SHC -220 GREASE	

NP3238

CAT NO	ECP4400TR-4			SPEC NO.		A40-4839-0028							
HP	100	AMPS	112	VOLTS		460		DESIGN	B				
FRAME	405T	RPM	1785	HZ	60	AMB	40	SF	1.15				
D.E. BRG.DATA	NU316		O.D.E. BRG.DATA			6316		PH	3	DUTY	CONT	INSUL.CLASS	F
D.E. BRG.	80RU03M30X			TYPE	P	ENCL	TEFC	CODE	G				
O.D.E. BRG.	80BC03J30X			POWER FACTOR			87		NEMA NOM EFFICIENCY			95.4	
3/4 LOAD EFF.	95.7		MAX CORR KVAR			18.0		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									

REL. S.O.

RPM **1785**

S.F. **1.15**

ROTOR **418142-33-RE**

FRAME **405T**

VOLTS **460**

NEMA DESIGN **B**

TEST S.O. **TYPICAL DATA**

HP **100**

AMPS **112**

CODE LETTER **G**

TEST DATE **---**

TYPE **P**

DUTY **CONT**

ENCLOSURE **TEFC**

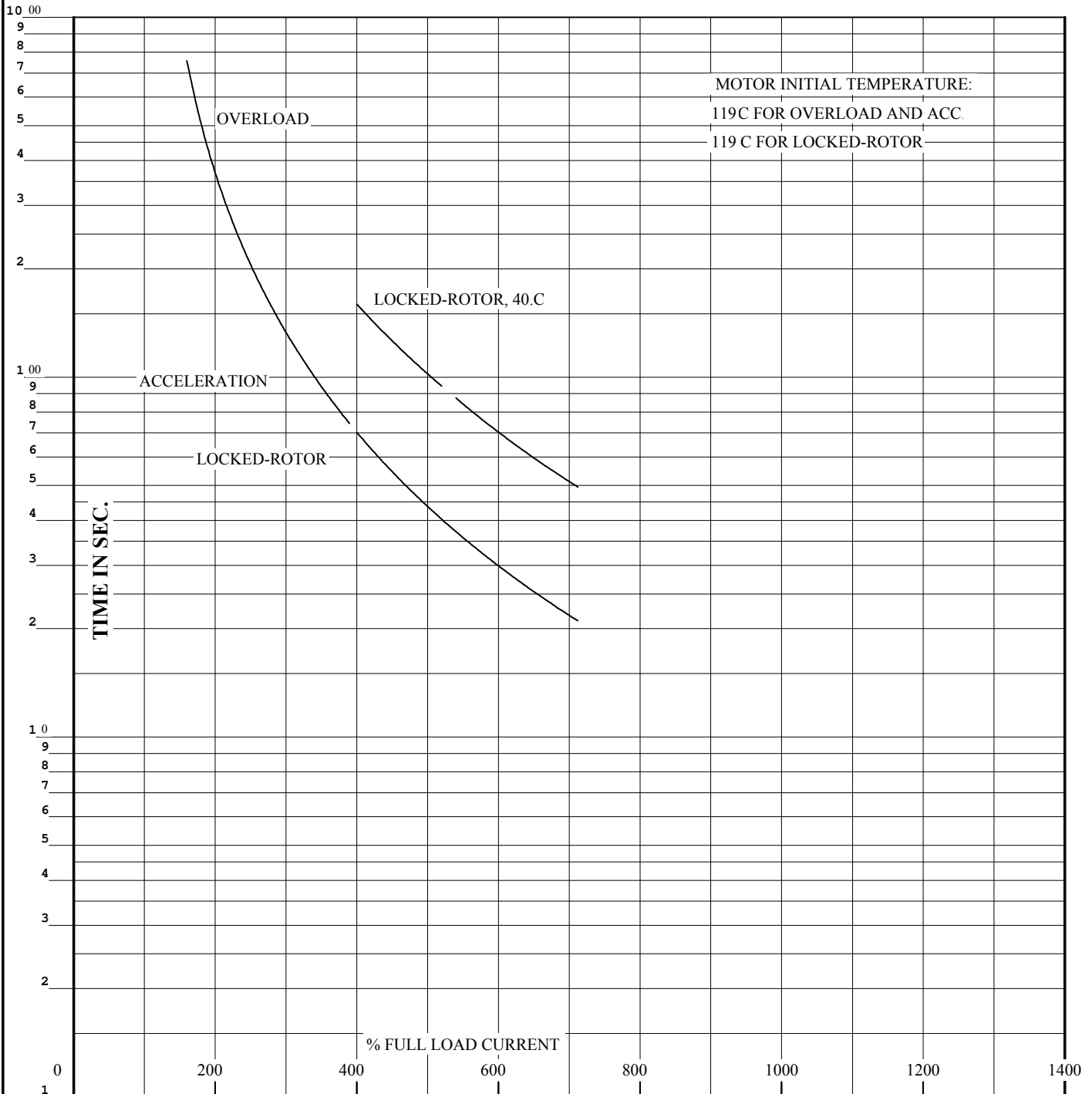
STATOR RES. @ 25 °C **.0492**

PHASE/HERTZ **3/60**

AMB °C/INSUL **40/F**

E/S **596909**

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:

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

GURANTEED MIN EFF. 95.0 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 J.J.HARRISON
CK. BY W.L.SMITH
APP. BY W.L.SMITH
DATE 02/05/09

**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0028-R001

ISSUE DATE 03/04/2014 Page 6 of 11

REL. S.O.	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	ENCL.		
112	CONT	40/F	1.15	B	G	TEFC		
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)				
596909	418142-33-RE	---	---	.0492				
PERFORMANCE								
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY			
NO LOAD	0	28.7	1800	5.48	0			
1/4	25.0	39.2	1796	64.3	93.0			
2/4	50.0	59.4	1792	82.6	95.4			
3/4	75.0	84.4	1788	86.9	95.7			
4/4	100	112	1783	87.6	95.4			
5/4	125	141	1778	87.4	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 GURANTEED MIN EFF. 95.0 PCT								
		DR. BY	J. J. HARRISON	A-C MOTOR PERFORMANCE DATA				
		CK. BY	W. L. SMITH					
		APP. BY	W. L. SMITH					
		DATE	02/05/09					
				A40WG0028-R001 ISSUE DATE 03/04/20				

REL S.O.

RPM 1785

S.F. 1.15

ROTOR 418142-33-RE

FRAME 405T

VOLTS 460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 100

AMPS 112

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

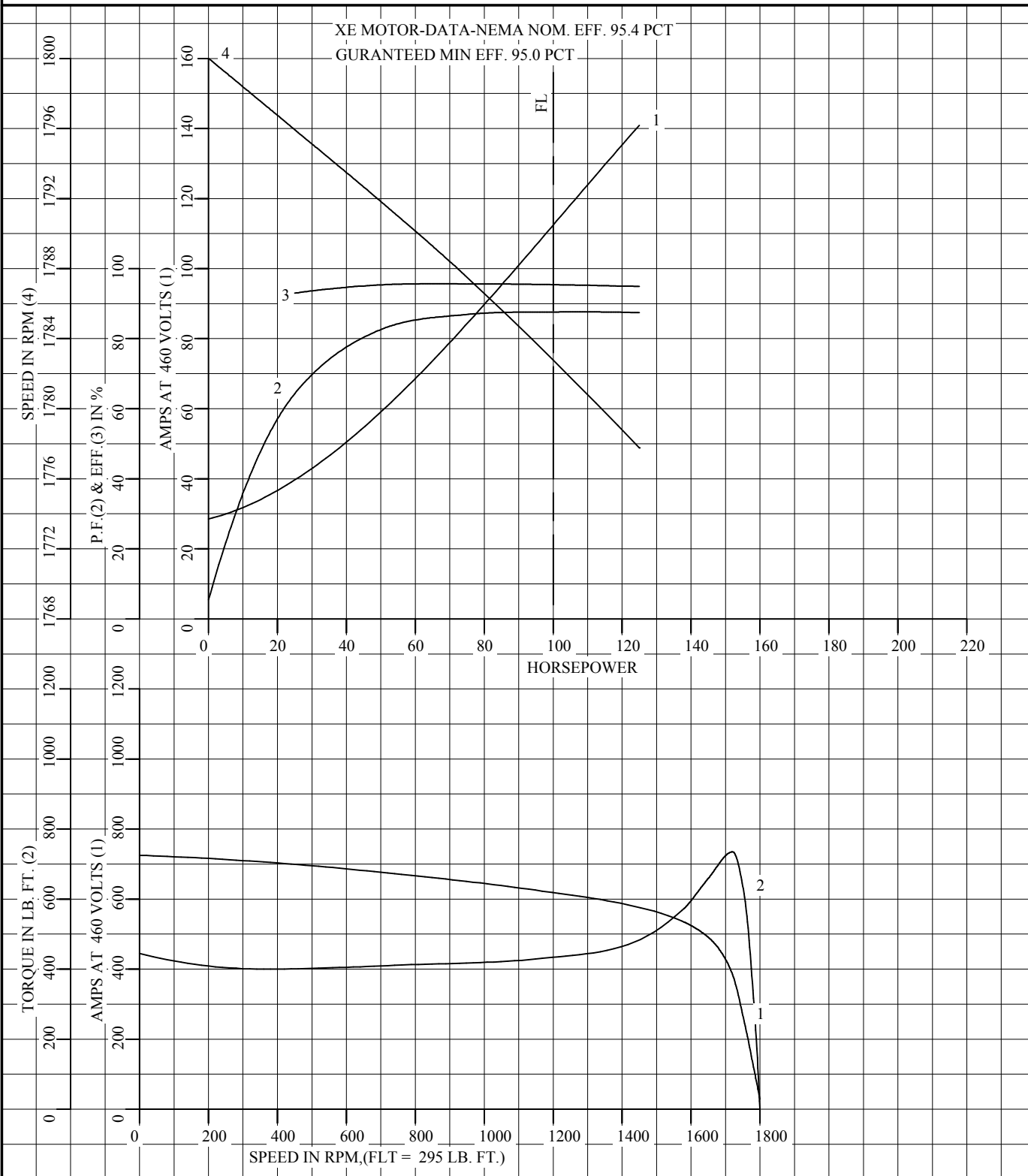
STATOR RES. @ 25 °C .0492

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 596909

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 J.J.HARRISON
CK. BY W.L.SMITH
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DATE 02/05/09

**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0028-R001
ISSUE DATE 03/04/2014

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

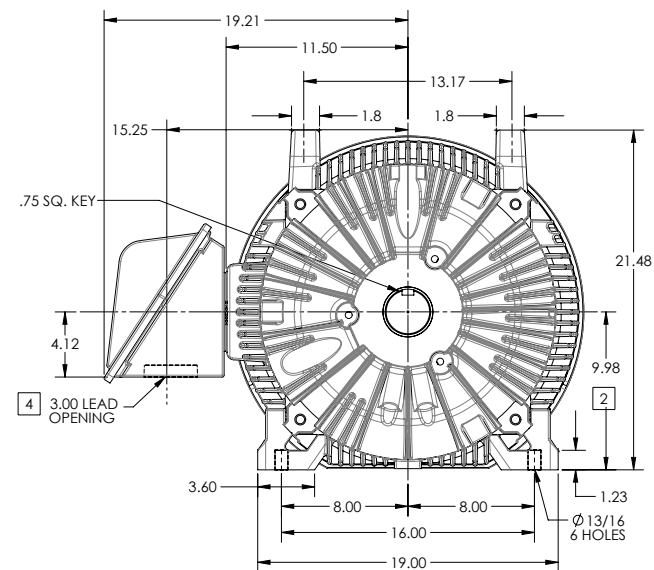
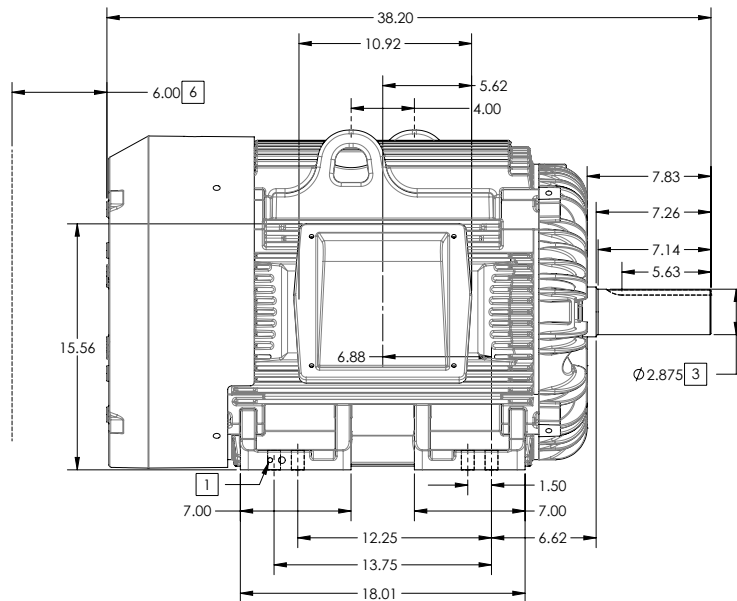
FRAME G405T ABOVE NEMA RATINGS

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	TDR: 000000848770
REV: B VERSION: 02	REVISED: 01-11-16 04/14/2014
MODEL NO. 617429-501	REF:
BY: MGH/MZ2	Material:

BALDOR

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

617429-501

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

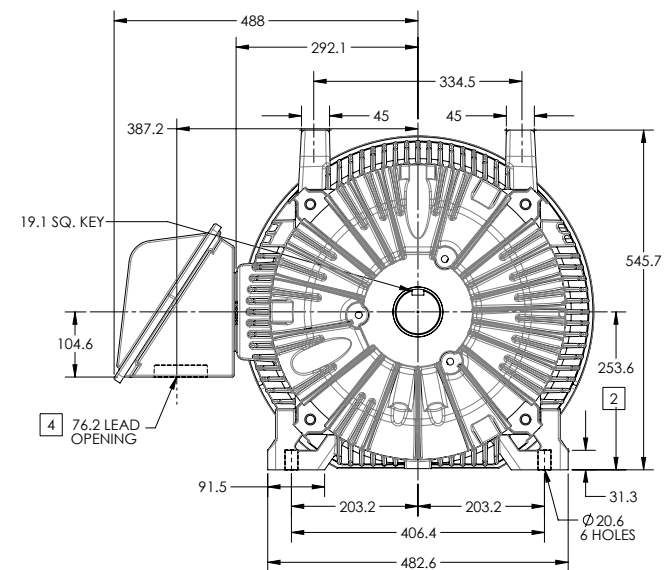
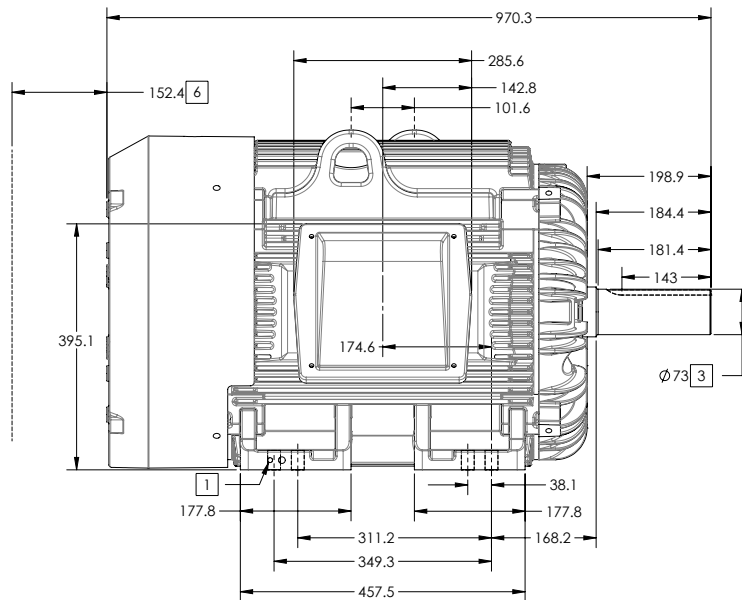
FRAME G405T ABOVE NEMA RATINGS

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:

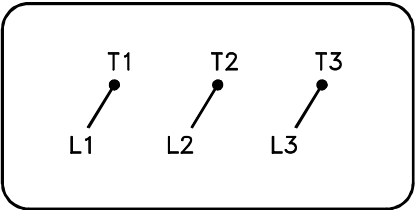
BALDOR

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