

ABB BALDOR RELIANCE III

Customer information packet

ECR91004T-4

100HP, 1785RPM, 3PH, 60HZ, 405T, A40076M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	405T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
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	6-60
Current @ Voltage	115.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.4 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	115.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Max Speed	3600 rpm
Motor Lead Quantity/Wire Size	3 @ 1 AWG
Motor Standards	NEMA

Part Detail

Revision	J
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0454
Layout	617429-501
Eff. date	03-12-2020
CD Diagram	416820-036
Poles	04
Leads	3#1
Proprietary	False
Created date	01-31-2015

Motor Type	A40076M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	38.04 IN
Power Factor	85
Product Family	Crusher / Chipper
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.25
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

000613007PV															
CAT NO	ECR91004T-4			SPEC NO.		P40G1704									
HP	100	AMPS		115		VOLTS		460		DESIGN		A			
RPM	1785	RPM MAX		3600		HZ		60	AMB		40	SF	1.25		
D.E. BRG.DATA	6316		O.D.E. BRG.DATA				6316		PH	3	DUTY		CONT	INSUL.CLASS	F
FRAME	405T		I.P.		55	TYPE		P	ENCL		TEFC	CODE		H	
POWER FACTOR	85		3/4 LOAD EFF.				95.7		NEMA NOM EFFICIENCY				95.4		
CHP HZ	60-90		CT HZ		6-60		VT HZ		6-60						
SER.NO.					MOTOR WEIGHT										
	1.25SF AMPS= 132														

NP2496L	
MOBIL POLYREX EM	

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.		
115	CONT	40/F	1.25	A	H	TEFC		
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)				
596166	418142034ZE	---	---	.0366				
PERFORMANCE								
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY			
NO LOAD	0	33.5	1800	5.30	0			
1/4	25.0	48.9	1796	52.0	92.2			
2/4	50.0	67.4	1792	73.2	95.0			
3/4	75.0	90.1	1788	81.6	95.5			
4/4	100	115	1783	85.1	95.4			
5/4	125	142	1778	86.4	95.1			
SPEED TORQUE								
		RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES			
LOCKED ROTOR		0	249	732	853			
PULL UP		1260	206	608	678			
BREAKDOWN		1716	297	875	462			
FULL LOAD		1783	100	295	115			
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE REMARKS: TYPICAL DATA								
		DR. BY	W. L. SMITH	A-C MOTOR PERFORMANCE DATA				
		CK. BY	J. J. HARRISON					
		APP. BY	W. L. SMITH					
		DATE	06/09/10					
				A40WG0454-R002 ISSUE DATE 02/19/21				

REL S.O.

 RPM **1785**

 S.F. **1.25**

 ROTOR **418142034ZE**

 FRAME **405T**

 VOLTS **460**

 NEMA DESIGN **A**

 TEST S.O. **TYPICAL DATA**

 HP **100**

 AMPS **115**

 CODE LETTER **H**

 TEST DATE **---**

 TYPE **P**

 DUTY **CONT**

 ENCLOSURE **TEFC**

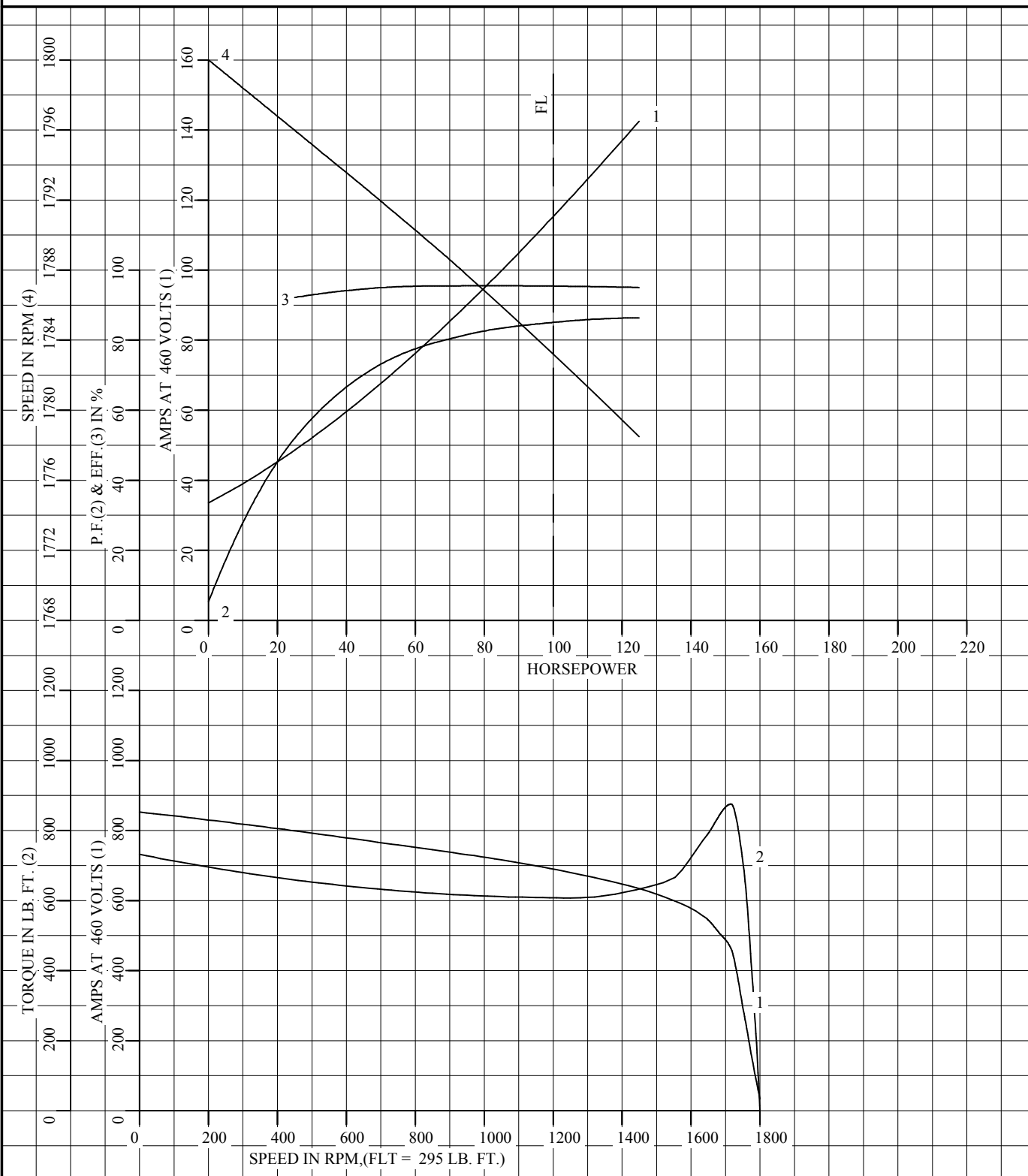
 STATOR RES. @ 25 °C **.0366**

 PHASE/HERTZ **3/60**

 AMB °C/INSUL **40/F**

 E/S **596166**

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 W. L. SMITH
CK. BY J. J. HARRISON
APP. BY W. L. SMITH
DATE 06/09/10

**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0454-R002

ISSUE DATE 02/19/21 Page 7 of 11

REL. S.O.

 RPM **1785**

 S.F. **1.25**

 ROTOR **418142034ZE**

 FRAME **405T**

 VOLTS **460**

 NEMA DESIGN **A**

 TEST S.O. **TYPICAL DATA**

 HP **100**

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 ENCLOSURE **TEFC**

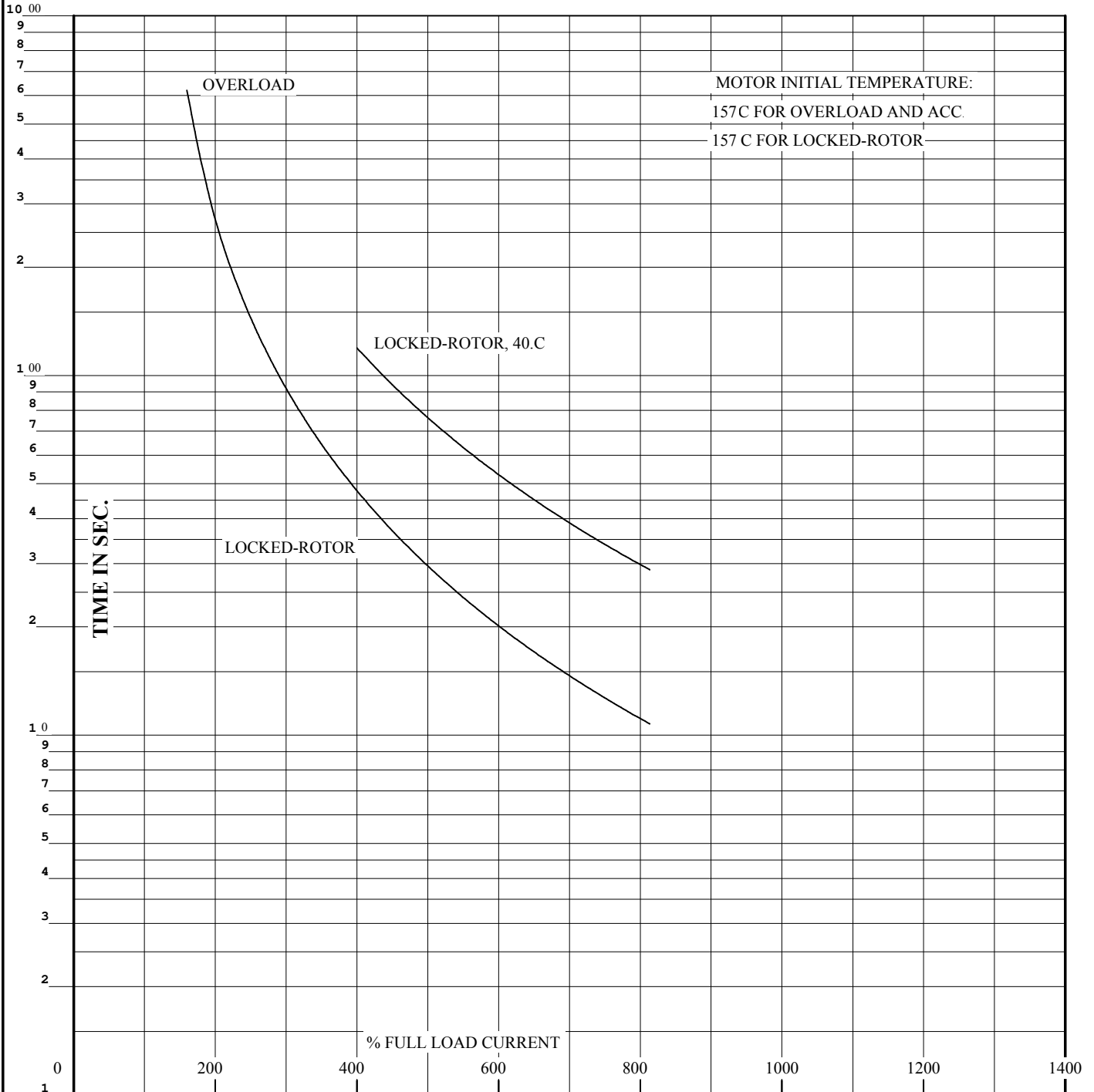
 STATOR RES. @ 25 °C **.0366**

 PHASE/HERTZ **3/60**

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 E/S **596166**

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:

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


DR. BY	W. L. SMITH
CK. BY	J.J. HARRISON
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**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0454-R002

ISSUE DATE 02/19/21 Page 8 of 11

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

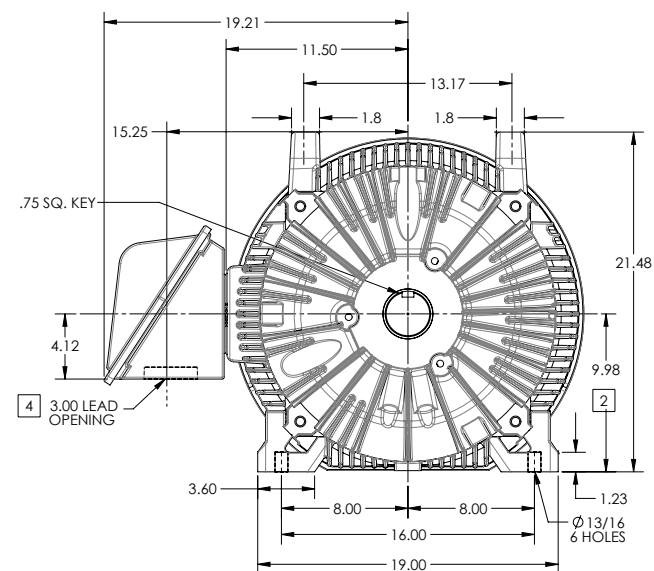
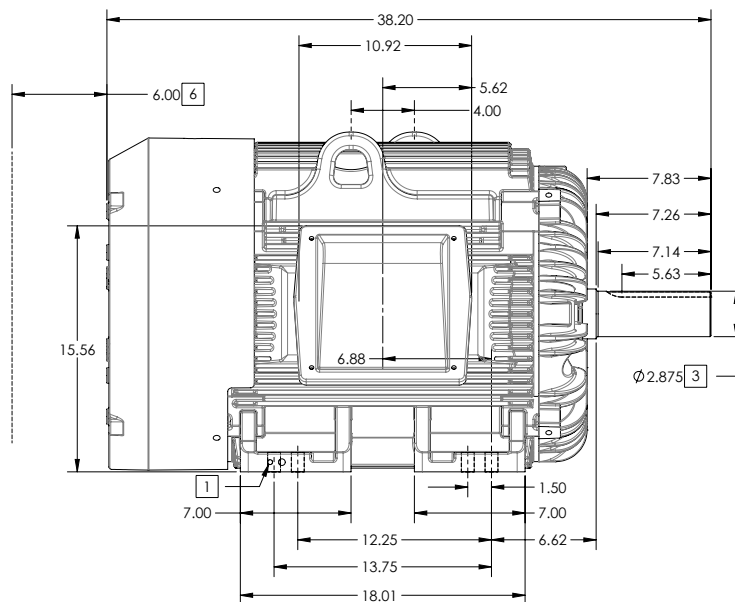
FRAME G405T ABOVE NEMA RATINGS

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

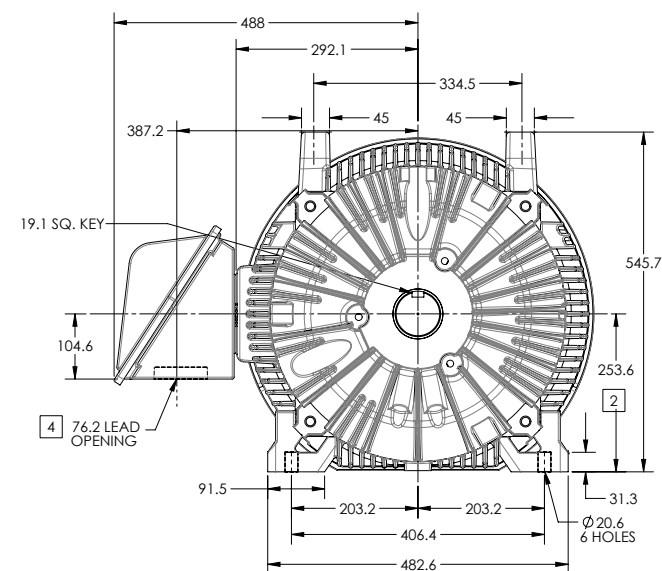
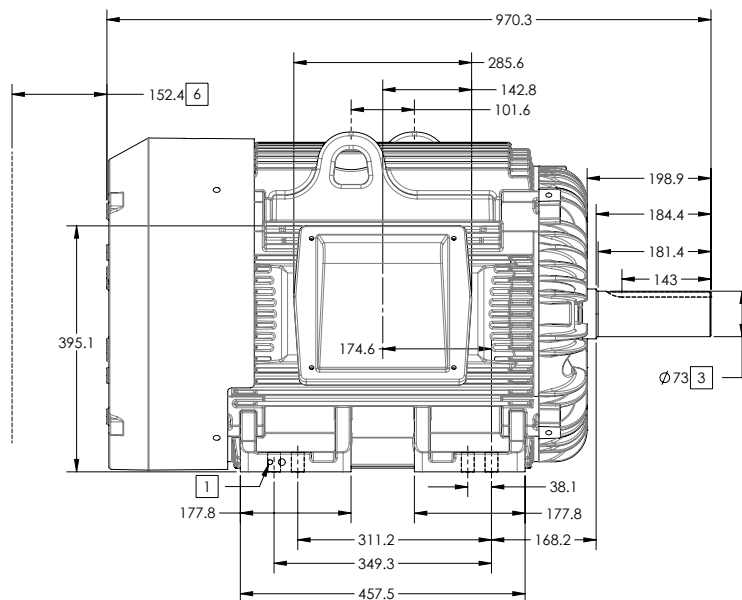
FRAME G405T ABOVE NEMA RATINGS

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 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 .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:

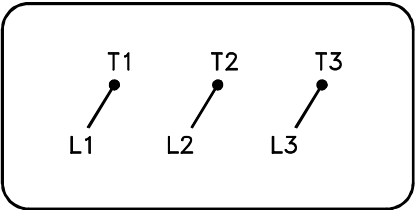
BALDOR

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