ABB BALDOR RELIANCE

Customer information packet

AEM4312-4

50HP, 1185RPM, 3PH, 60HZ, 405U, A40048M, TEFC
Class - None
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/18/2026 2:44:26 AM

Specifications

Enclosure	TEFC
Frame	405U
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	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	58.200 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	58.2 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 4 AWG
Motor Standards	Other
Motor Type	A40048M
Mounting Arrangement	F1

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	INA/A
Elec. spec.	A40WG0470
Layout	617429-100
Eff. date	12-15-2016
CD Diagram	416820-036
Poles	06
Leads	3#4
Proprietary	False
Created date	07-19-2013

Number of Poles	6
Overall Length	38.08 IN
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1185 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP2436L												
SPEC NO.	P40G3943			**CAT.NO.**						**FRAME**	405U	
HP	50	**VOLTS**	460	**PHASE**	3	**DESIGN**	B	**TYPE**	P			
RPM	1185	**AMPS**	58.2	**HZ**	60	**AMB**	40	**SF**	1.15			
DRIVE END BEARING		**BLANK**		**DUTY**	CONT			**INSUL.CLASS**	F			
OPP D.E. BEARING				**ENCL**	TEFC	**CODE**	G					
NEMA-NOM-EFF	94.1											
GUARANTEED EFFICIENCY	93											
SER.NO.												
MOTOR WEIGHT	1184											

NP2496L
MOBIL POLYREX EM

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405U	50	P	3/60	1185	460

AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
58.2	CONT	40/F	1.15	B	G	TEFC

E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES.@25 °C OHMS (BETWEEN LINES)
496173	418142-71-AE	---	---	.142

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	21.0	1200	4.92	0
1/4	12.5	25.1	1197	51.3	91.1
2/4	25.0	34.1	1193	72.9	94.0
3/4	37.5	45.4	1190	81.8	94.4
4/4	50.0	58.2	1186	85.4	94.1
5/4	62.5	72.2	1182	86.8	93.4

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	145	321	360
PULL UP	300	126	280	340
BREAKDOWN	1120	249	551	213
FULL LOAD	1186	100	221	58.2

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 DESIGN--MEETS GM 7EHQ

BALDOR

DR. BY P.B. GREENE
CK. BY K.W. KANOUFF
APP. BY K.W. KANOUFF
DATE 10/20/91

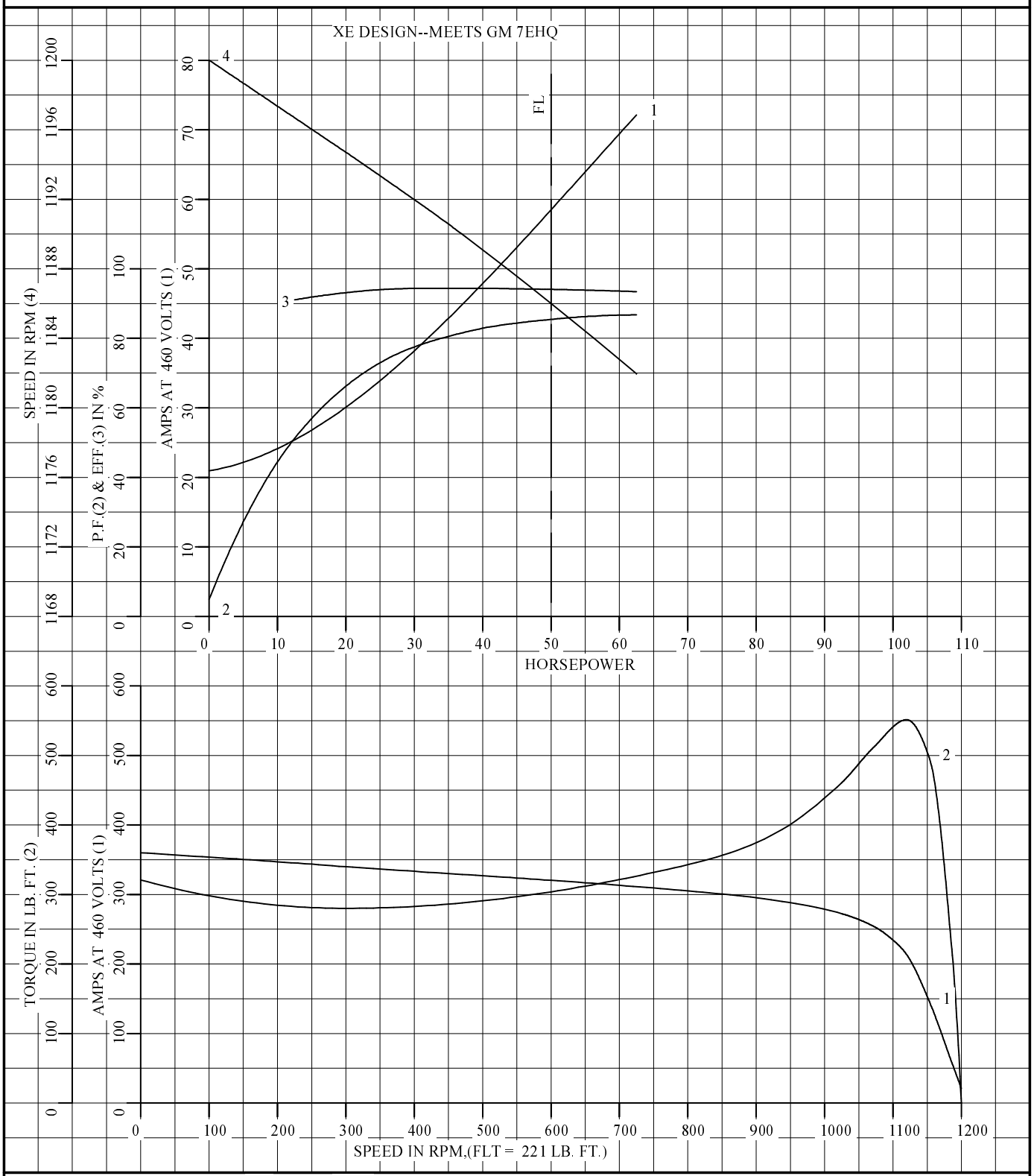
A-C MOTOR PERFORMANCE DATA

A40WG0470-R001
ISSUE DATE 12/15/10

ABB BALDOR RELIANCE

CUSTOMER INFORMATION PACKET AEM4312-4 - 50HP, 1185RPM, 3PH, 60HZ, 405U, A40048M, TEFC

FRAME 405U	RPM 1185	S.F. 1.15	ROTOR 418142-71-AE
HP 50	VOLTS 460	NEMA DESIGN B	TEST S.O. TYPICAL DATA
TYPE P	AMPS 58.2	CODE LETTER G	TEST DATE ---
PHASE/HERTZ 3/60	DUTY CONT	ENCLOSURE TEFC	STATOR RES.@ 25 ℃ .142
	AMB ℃/INSUL 40/F	E/S 496173	OHMS (BETWEEN LINES)



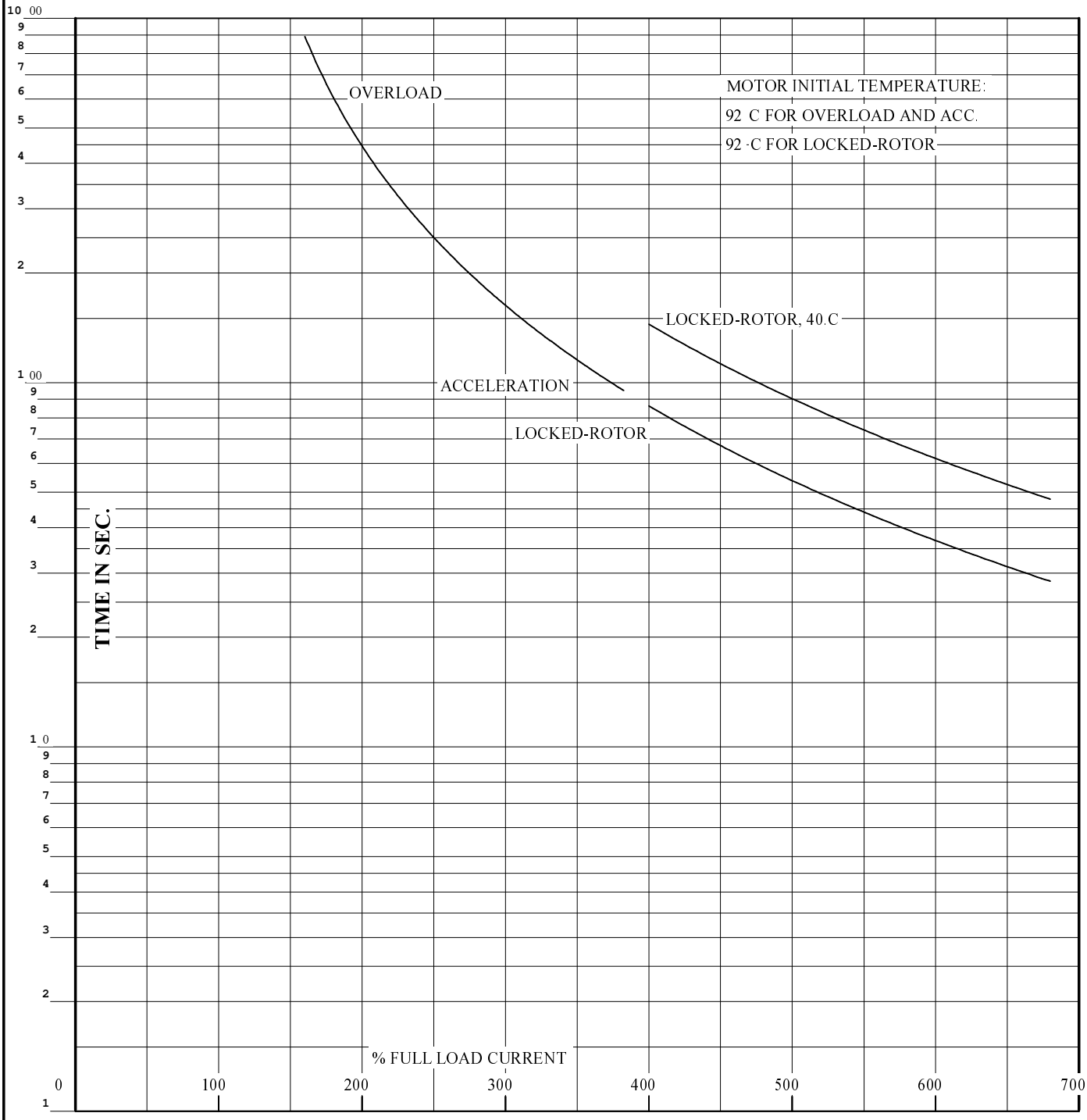
AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

BALDOR

DR. BY	P.B. GREENE
CK. BY	K.W. KANOUFF
APP. BY	K.W. KANOUFF
DATE	10/20/91

A-C MOTOR PERFORMANCE CURVES A40WG0470-R001 ISSUE DATE 12/15/10

REL. S.O.	RPM 1185	S.F. 1.15	ROTOR 418142-71-AE
FRAME 405U	VOLTS 460	NEMA DESIGN B	TEST S.O. TYPICAL DATA
HP 50	AMPS 58.2	CODE LETTER G	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES.@ 25 ℃.142
PHASE/HERTZ 3/60	AMB ℃/INSUL 40/F	E/S 496173	OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS: XE DESIGN--MEETS GM 7EHQ

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

BALDOR

DR. BY	P.B. GREENE
CK. BY	K.W. KANOUFF
APP. BY	K.W. KANOUFF
DATE	10/20/91

A-C MOTOR PERFORMANCE CURVES A40WG0470-R001 ISSUE DATE 12/15/10

617429-100

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

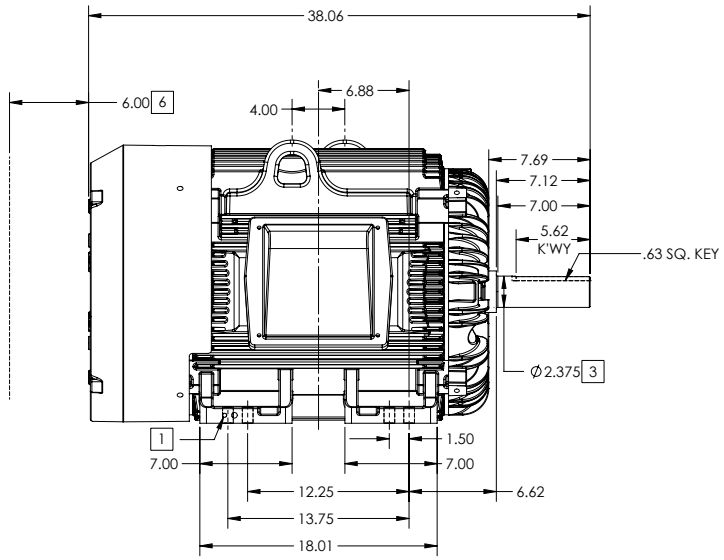
MOUNTING: FOOT

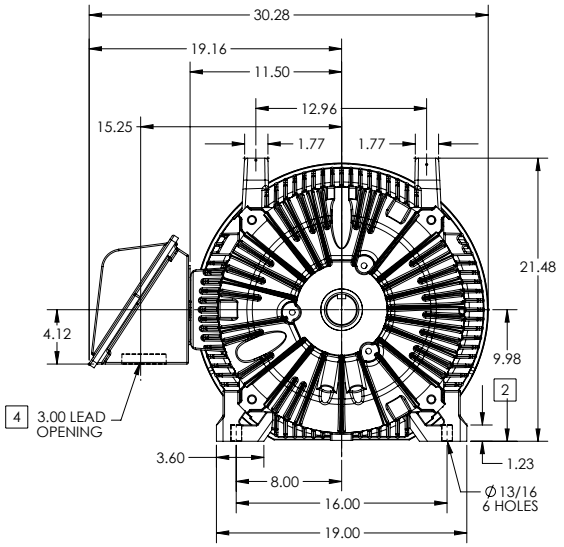
FRAME G405U ABOVE NEMA RATINGS

INCLUDES 404U FRAME MOUNTING HOLES

COOLING: FAN COOLED

U-FRAME/ AUTOMOTIVE DUTY ENCLOSURE





1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00,-.06
3. VARIES +.000,-.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

617429-100

REV. DESC: CHG SHAFT TO MEET "BA' REQUIREMENT OF 6.62			
REV: B	VERSION: 02	REVISED: 08:54:51 05/31/2017	TDR: 000000983755
MODEL NO. 617429-100			REF:
BY: RAGGDM	Material:	C	G405U/404U STD – FOOTED – U-FRAME AUTOMOTIVE DUTY ENCLOSURE

BALDOR

617429-100

617429-100

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

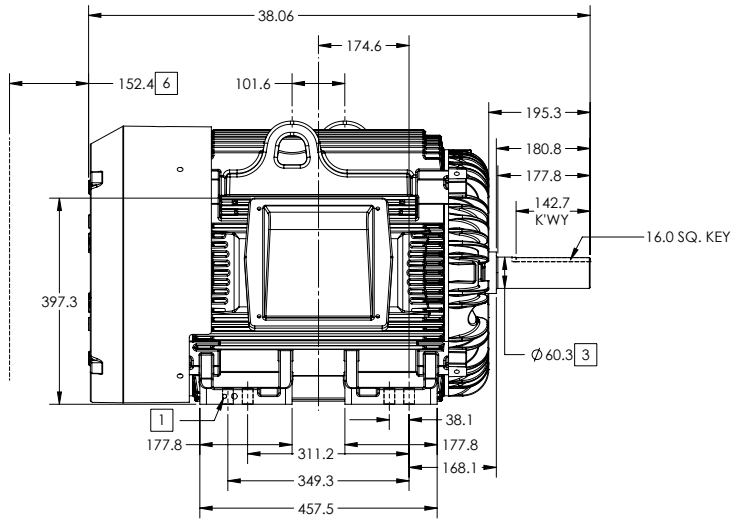
FRAME G405T ABOVE NEMA RATINGS

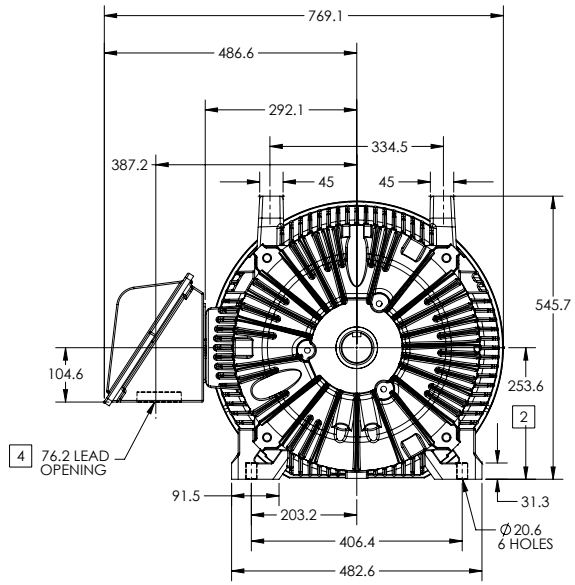
COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T FRAME MOUNTING HOLES

U-FRAME/ AUTOMOTIVE 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

5 WEIGHT (KGS): 630

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.

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

617429-100

REV. DESC: CHG SHAFT TO MEET "BA' REQUIREMENT OF 6.62			
REV: B	VERSION: 02	REVISED: 08:54:51 05/31/2017	TDR: 000000983755
MODEL NO. 617429-100			REF:
BY: RAGGDM	Material:	C	

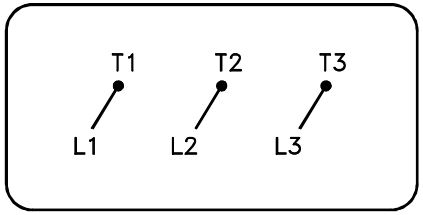
BALDOR

G405U/404U STD – FOOTED – U-FRAME AUTOMOTIVE DUTY ENCLOSURE

617429-100

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			BALDOR
REV. LTR: –	VERSION: 00	TDR: 000000538207	
FILE: \MGA\00000\682		REVISED: 11:54:06 04/30/2010	CONN DIAG – STANDARD 3 LEAD
MTL: –		BY: RAGRA	SH 1 of 1