

ABB BALDOR RELIANCE III

Customer information packet

AEM4314-4

60HP, 1785RPM, 3PH, 60HZ, 405U, TEFC, FOOT,

Class - None

Division - Not Applicable

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	60.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CSA EEV CCSA US
Ambient Temperature	65 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	66.600 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.0 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	66.6 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 2 AWG
Motor Standards	Other
Motor Type	A40064M

Part Detail

Revision	B
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG5174
Layout	617429-100
Eff. date	05-07-2024
CD Diagram	416820-036
Poles	04
Leads	3#2
Proprietary	False
Created date	07-21-2016

Mounting Arrangement	F1
Number of Poles	4
Overall Length	38.08 IN
Power Factor	89
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	2.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

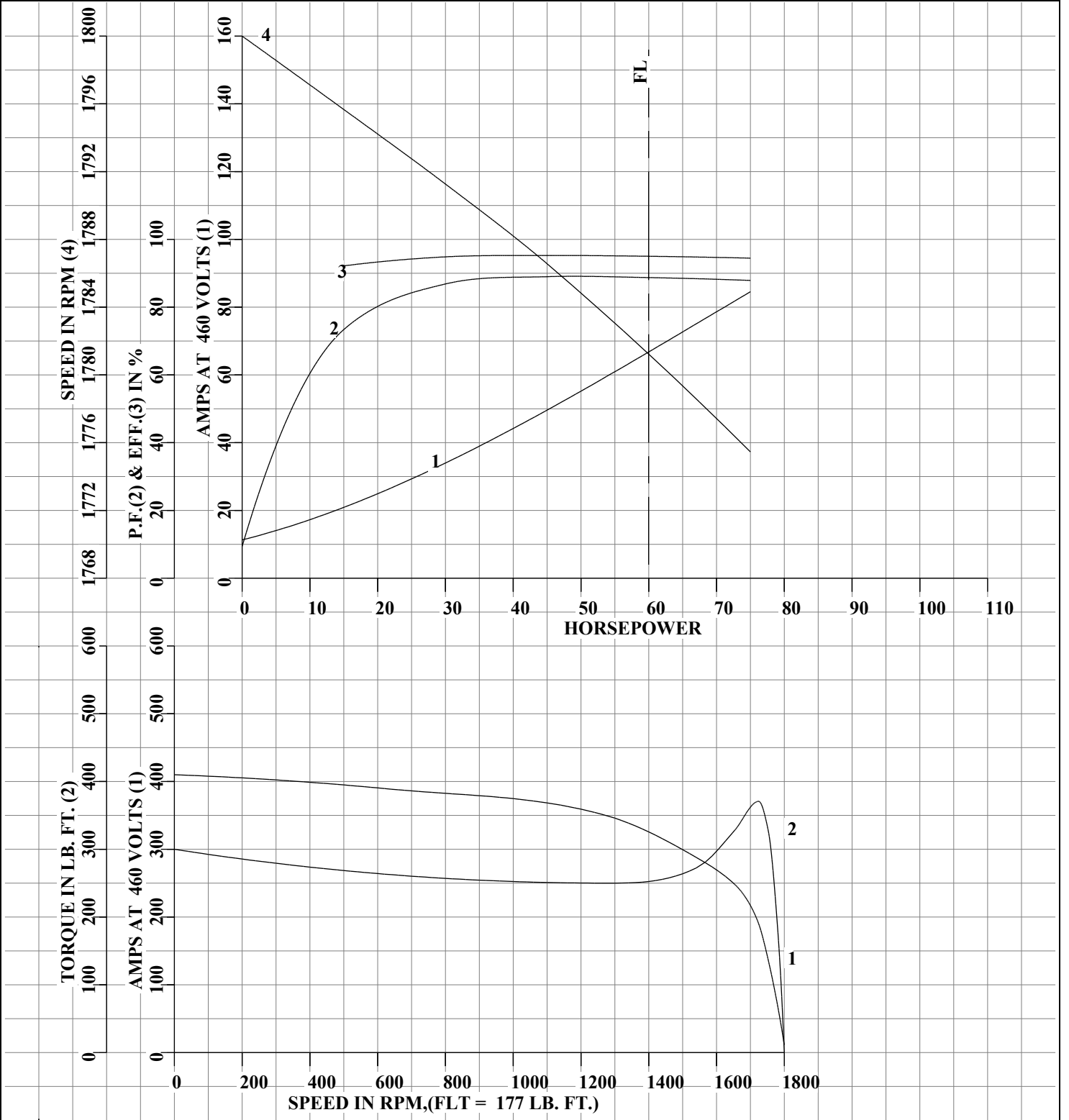
NP2492L											
SPEC NO.	P40G3946			CAT.NO.	AEM4314-4					FRAME	405U
HP	60	VOLTS	460	PHASE	3	DESIGN	B	TYPE	P		
RPM	1780	AMPS	66.6	HZ	60	AMB	65	SF	1.00		
DRIVE END BEARING	80BC03JPP30A			LUBRICATION	DUTY	CONT	INSUL.CLASS			F	
OPP D.E. BEARING	80BC03JPP30A			MOBIL POLYREX EM		ENCL	TEFC	CODE	F		
AMB	ALERNATE RATING-S.F.			ALTITUDE			NEMA-NOM-EFF			95	
65	1.00	3300	GUARANTEED EFFICIENCY			94.1					
SER.NO.											
MOTOR WEIGHT											

ABB BALDOR RELIANCE III S/O		CUSTOMER INFORMATION PACKET					AEM4314-4 - 60HP 1785RPM, 3PH, 60HZ, 405U, TEFC, FOOT,	
	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS		
	405T	60	P	3/60	1780	460		
AMPS	DUTY	AMB °C/ INSUL	S.F.	NEMA DESIGN	CODE LETTER	ENCLOSURE		
66.6	CONT	65/F	1.00	B	F	TEFC		
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)				
-	418142031WE	---	---	.0919				
PERFORMANCE								
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY			
NO LOAD	0	11.4	1800	9.40	0			
1/4	15.0	20.8	1796	73.5	92.2			
2/4	30.0	34.1	1791	86.8	94.8			
3/4	45.0	49.7	1787	89.0	95.3			
4/4	60.0	66.6	1781	88.7	95.0			
5/4	75.0	84.6	1775	87.9	94.5			
SPEED TORQUE								
		RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES			
LOCKED ROTOR		0	170	300	410			
PULL UP		1280	141	250	349			
BREAKDOWN		1724	210	371	190			
FULL LOAD		1781	100	177	66.6			
AMPERES SHOWN FOR 460 VOLT CONNECTION. IF OTHER CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.								
TYPICAL DATA								
		DRAWN BY: <u>W. L. SMITH</u> CHECKED BY: <u>C.E.JAMISON</u> APPROVED BY: <u>W. L. SMITH</u> DATE: <u>01/03/25</u>		AC MOTOR PERFORMANCE DATA		A40WG5174-R004 DATE ISSUED 01/03/25		

CUSTOMER INFORMATION PACKET
 RPM 1780
 VOLTS 460
 AMPS 66.6
 DUTY CONT
 AMB °C / INSUL 65/F

AEM4344 - 60HP, 1785RPM, 3PH, 60HZ, 460V, TEFC, 190T
 S.F. 1.00
 NEMA DESIGN B
 CODE LETTER F
 ENCLOSURE TEFC
 E/S -

ROTOR 418142031WE
 TEST S.O. TYPICAL DATA
 TEST DATE ---
 STATOR RES. @ 25°C .0919
 OHMS (BETWEEN LINES)



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: C.E. JAMISON
APPROVED BY: W. L. SMITH
DATE: 01/03/25

**AC MOTOR
PERFORMANCE
DATA**

A40WG5174-R004

ISSUE DATE 01/03/25

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

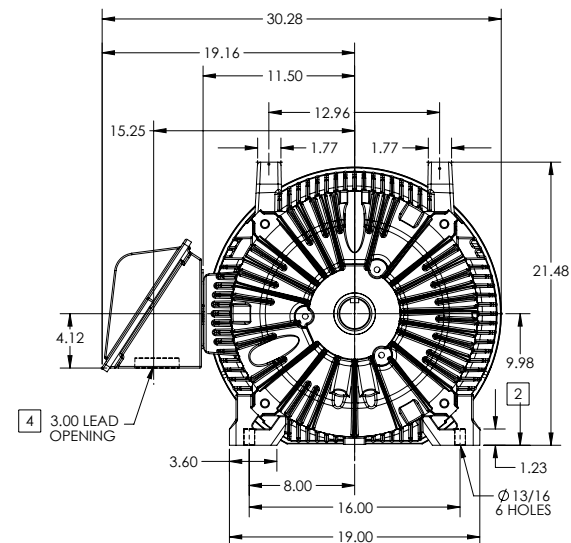
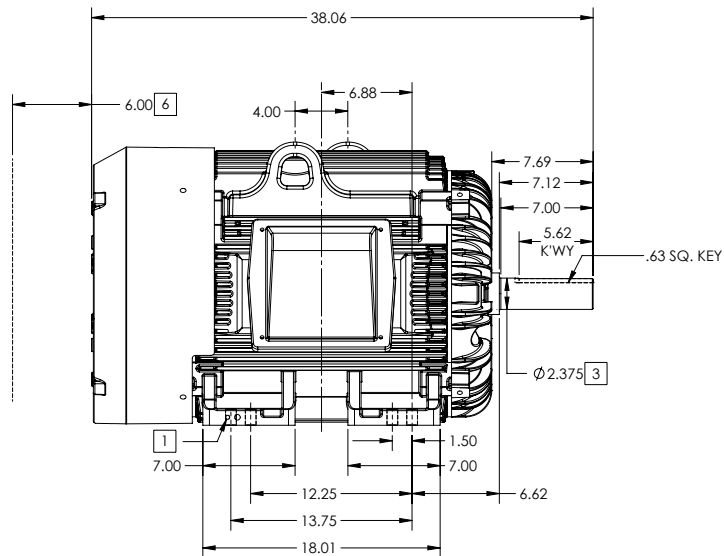
FRAME G405U ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404U 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 +.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

001-627219

REV. DESC	CHG SHAFT TO MEET "BA" REQUIREMENT OF 6.62	TDR: 00000983755
REV: B	VERSION: 02	REVISED: 08-54-51 05/31/2017
MODEL NO. 617429-100	REF:	
BY: RAGGDM	Material:	

BALDOR

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

617429-100

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

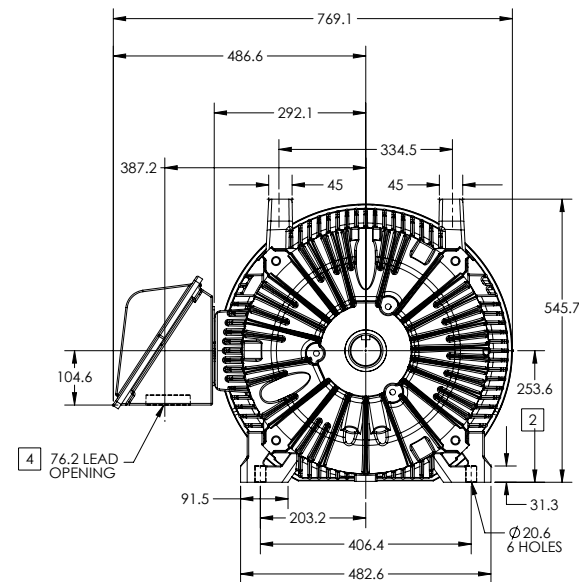
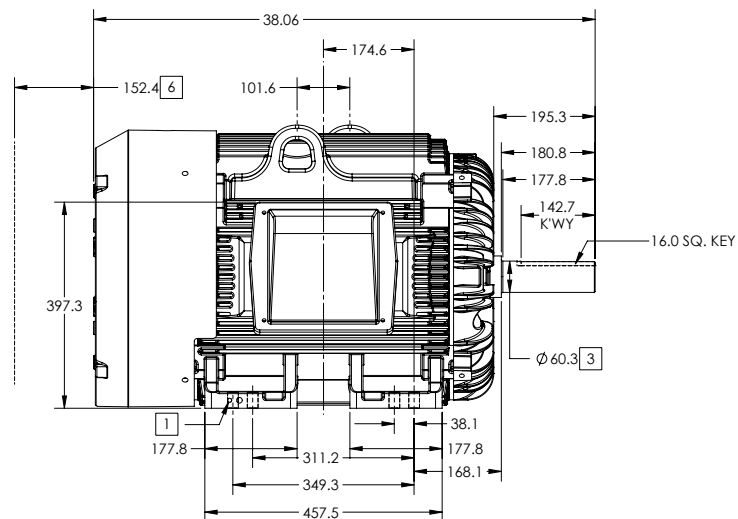
FRAME G405T ABOVE NEMA RATINGS

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 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

001-6272119

REV. DESC	CHG SHAFT TO MEET "BA" REQUIREMENT OF 6.62	TDR: 00000983755
REV: B	VERSION: 02	REVISED: 08-54-51 05/31/2017
MODEL NO. 617429-100	REF:	
BY: RAGGDM	Material:	

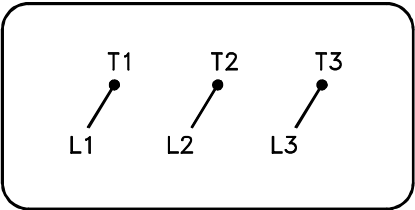
BALDOR

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)

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

416820-036