

ABB BALDOR RELIANCE III

Customer information packet

ECP84400T-5

100HP, 1780RPM, 3PH, 60HZ, 405T, A40072M, TEFC

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	575.0 V @ 60 HZ
Agency Approvals	C UR US CCSA US CCSAUSEEV CURUS
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Constant Torque Speed Range	15-60
Current @ Voltage	90.700 A @ 575.0 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	T3
Heater Indicator	No Heater
High Voltage Full Load Amps	90.7 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G

Part Detail

Revision	-
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG3405
Layout	617429-818
Eff. date	06-19-2025
CD Diagram	416820-036
Poles	04
Leads	3#2
Proprietary	False
Created date	05-14-2025

Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 2 AWG
Motor Standards	None
Motor Type	A40072M
Mounting Arrangement	F1
No Load Current	26.2 a
Number of Poles	4
Overall Length	38.19 IN
Power Factor	87
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	No Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP4566

CAT NO	ECP84400T-5	SPEC NO.	A40-0003-3405						
HP	100	AMPS	90.7	VOLTS	575	DESIGN	B		
FRAME SIZE	405T	RPM	1780	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	ENCL	TEFC	CODE	G			
O.D.E. BRG.	80BC03J30X	POWER FACTOR	87	NEMA-NOM-EFFICIENCY	95.4				
3/4 LOAD EFF.	95.8	IP	56	MAX CORR KVAR	18	GUARANTEED EFFICIENCY	94.5		
TEMP CODE	T3	TEMP =	200						
CHP HZ	60-90	CT HZ	15-60	VT HZ	0-60				
INVERTER-TEMP-CODE	T3								
SER.NO.		MOTOR WEIGHT							

000613007EX

CAT NO	ECP84400T-5	SPEC NO.	A40-0003-3405	
NO. ROTOR BARS	47	GREASE TYPE	POLYREX EM	
NO. SLOTS	60	NL AMPS AT RATED VOLTAGE	26.2	
5 YEAR WARRANTY		WINDING RES @25 C	.0789	OHMS
MFG. DATE		SER.NO		
	SFA 104			

CUSTOMER INFORMATION PACKET		ECP84400T-5 - 100HP, 1780RPM, 3PH, 60HZ, 405T, A40072M, TEFC				
FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS	
405TSC	100	P	3/60	1780	575	

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

E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)	
---	418142037CE	---	---	.0789	

PERFORMANCE


LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	26.2	1800	4.28	0
1/4	25.0	34.0	1796	58.8	93.6
2/4	50.0	49.6	1791	78.9	95.6
3/4	75.0	69.2	1786	84.8	95.8
4/4	100	90.7	1781	86.6	95.4
5/4	125	113	1776	87.3	94.8

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	160	471	563
PULL UP	360	139	409	535
BREAKDOWN	1715	236	696	295
FULL LOAD	1781	100	295	90.7

AMPERES SHOWN FOR 575 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>	AC MOTOR PERFORMANCE DATA	A40WG3405-R001
	CHECKED BY: <u>C.E. JAMISON</u>		
	APPROVED BY: <u>E.J. CHRISTIAN</u>		
	DATE: <u>06/07/18</u>		DATE ISSUED <u>08/24/23</u>

FRAME 405TSC

RPM 1780

S.F. 1.15

ROTOR 418142037CE

HP 100

VOLTS 575

NEMA DESIGN B

TEST S.O. TYPICAL DATA

TYPE P

AMPS 90.7

CODE LETTER G

TEST DATE ---

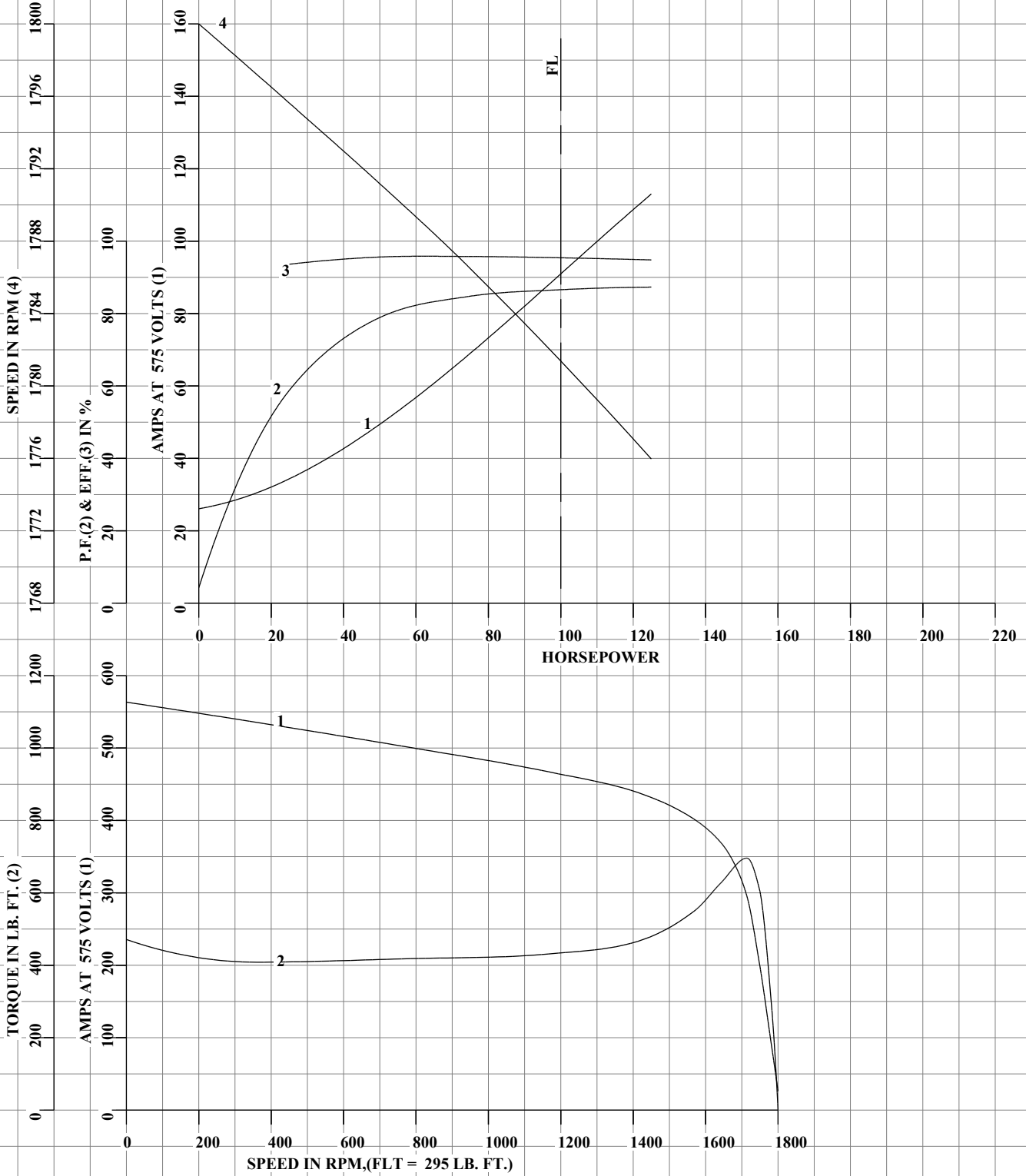
PHASE / HERTZ 3/60

DUTY CONT

ENCLOSURE TEFC

STATOR RES. @ 25°C .0789

OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 575 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: E.J. CHRISTIAN
 DATE: 06/07/18

AC MOTOR
 PERFORMANCE
 DATA

A40WG3405-R001

ISSUE DATE 08/24/23

FRAME 40STSC

RPM 1780

S.F. 1.15

ROTOR 418142037CE

HP 100

VOLTS 575

NEMA DESIGN B

TEST S.O. TYPICAL DATA

TYPE P

AMPS 90.7

CODE LETTER G

TEST DATE ---

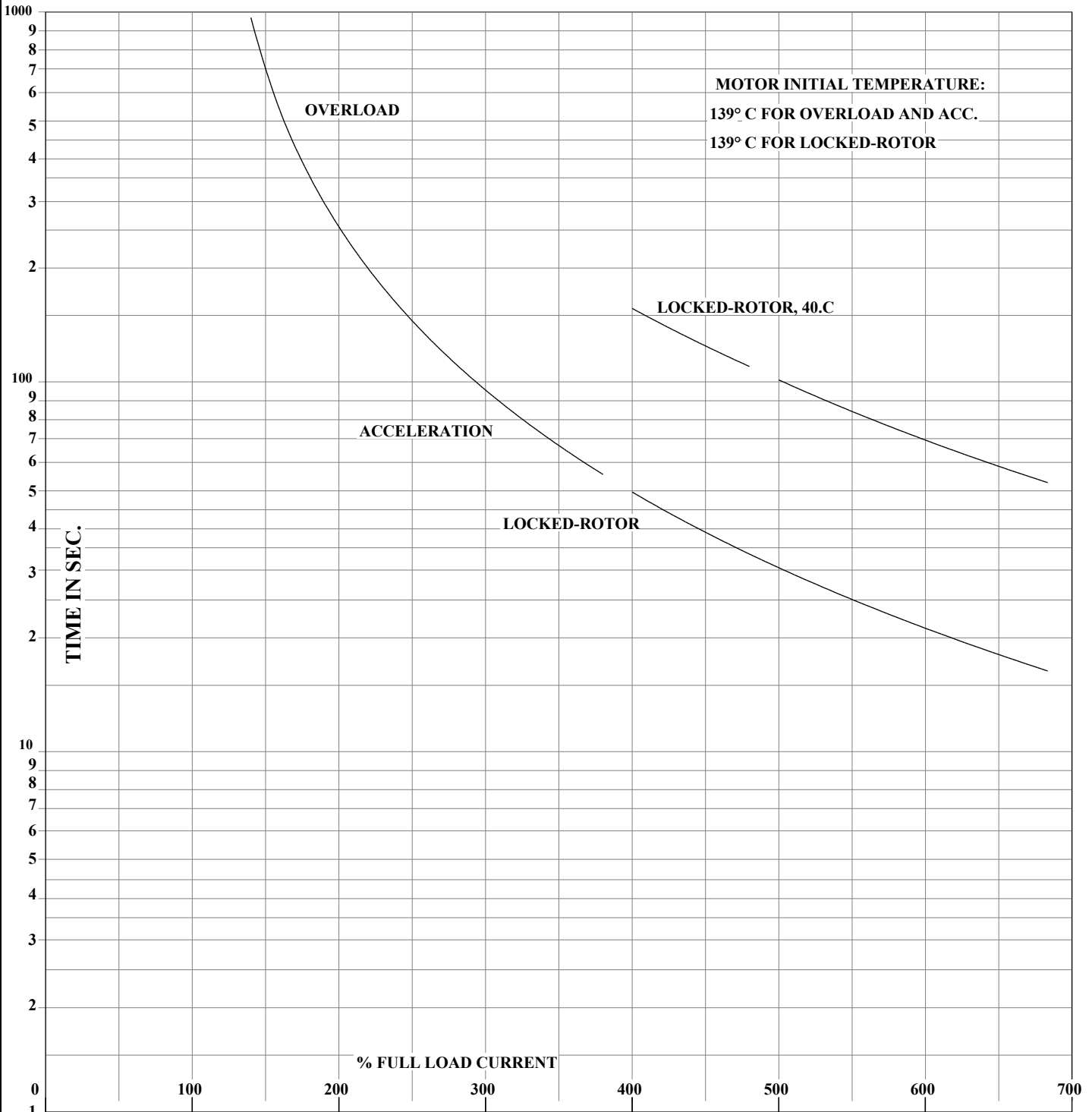
PHASE / HERTZ 3/60

DUTY CONT

ENCLOSURE TEFC

STATOR RES. @ 25°C .0789

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

AMPERES SHOWN FOR 575 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



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 CHECKED BY: C.E. JAMISON
 APPROVED BY: E.J. CHRISTIAN
 DATE: 06/07/18

AC MOTOR
PERFORMANCE
DATA

A40WG3405-R001

ISSUE DATE 08/24/23

617429-818

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

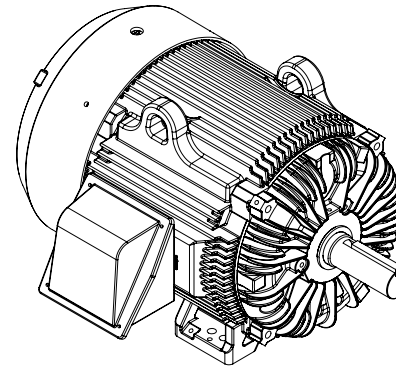
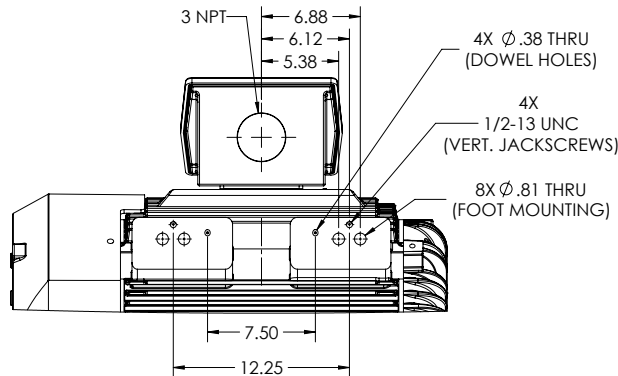
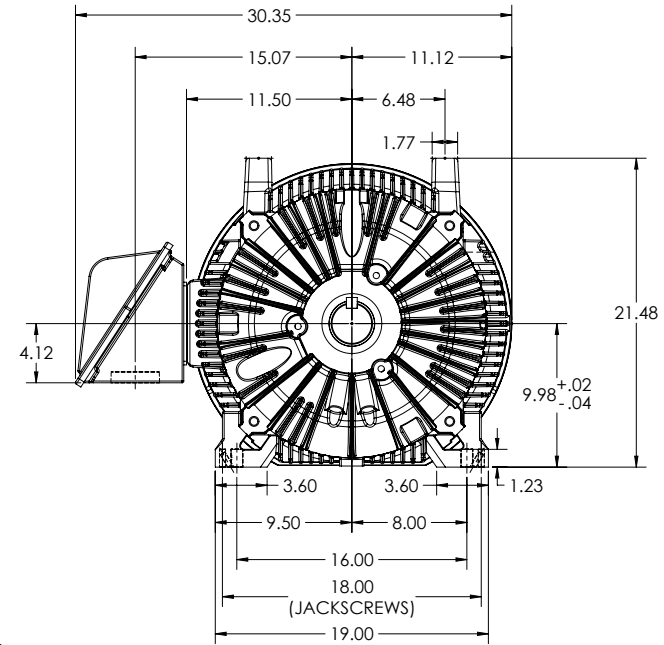
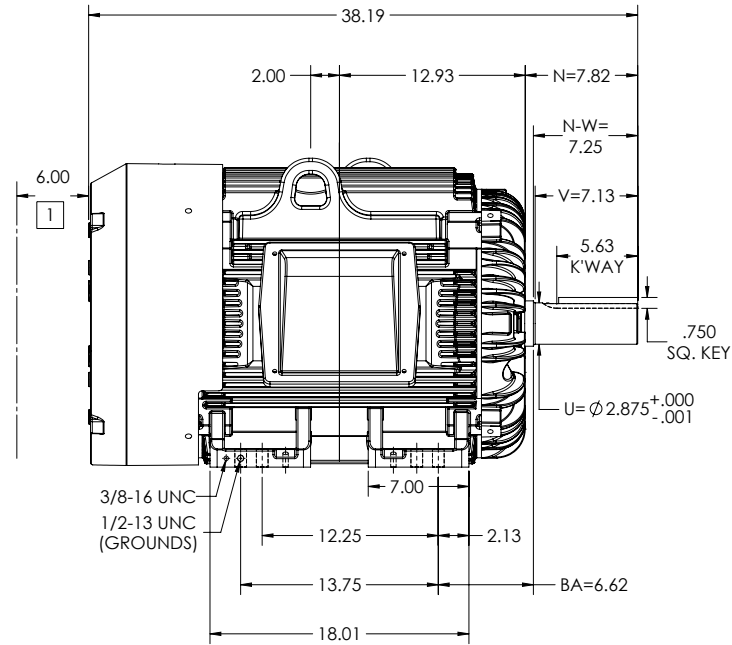
ENCLOSURE: TOTALLY ENCLOSED

COOLING: FAN COOLED

MOUNTING: FOOT, F-1

G405T/G404T FRAME MOUNTING HOLES

ENCLOSURE ENHANCEMENT: 841-XL



DIMENSIONS ARE IN INCHES.
MOTOR WEIGHT (LBS) = 1350 ± 15% DEPENDING ON RATING.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER
1 OF 2
818-627219

1 OBSTRUCTION MUST NOT ENCR OACH ON AIR INLET.

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAX PERMISSIBLE SHAFT RUNOUT IS .0015 T.I.R. FOR BALL & .002 T.I.R. FOR ROLLER BEARING.

REV. E	VERSION: 05	REVISED: 11-12-45 03/21/2022	TDR: 00001187880
MODEL NO. 617429-818		REF:	
BY: USJEDIL	Material:	C	

BALDOR

G405-404T TEFC F1 FOOT CAST IRON BOX 841-XL

617429-818

DUTY MASTER ALTERNATING CURRENT MOTORS
SQUIRREL-CAGE INDUCTION

617429-818

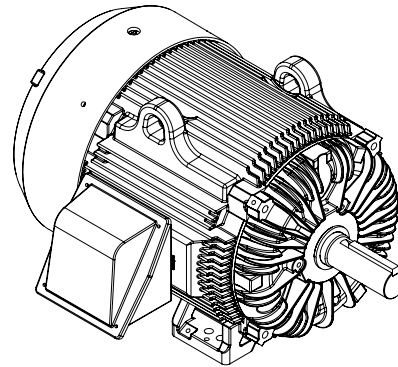
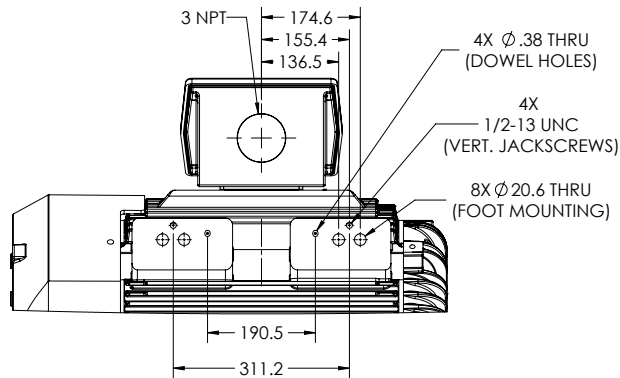
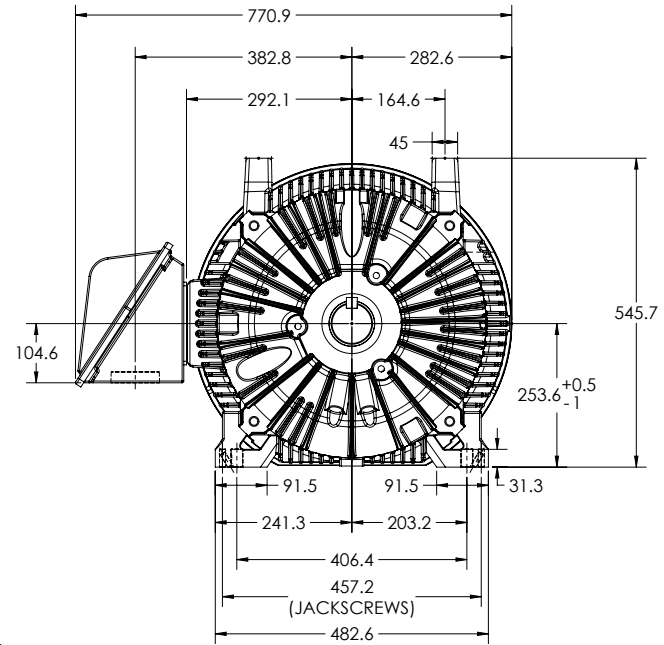
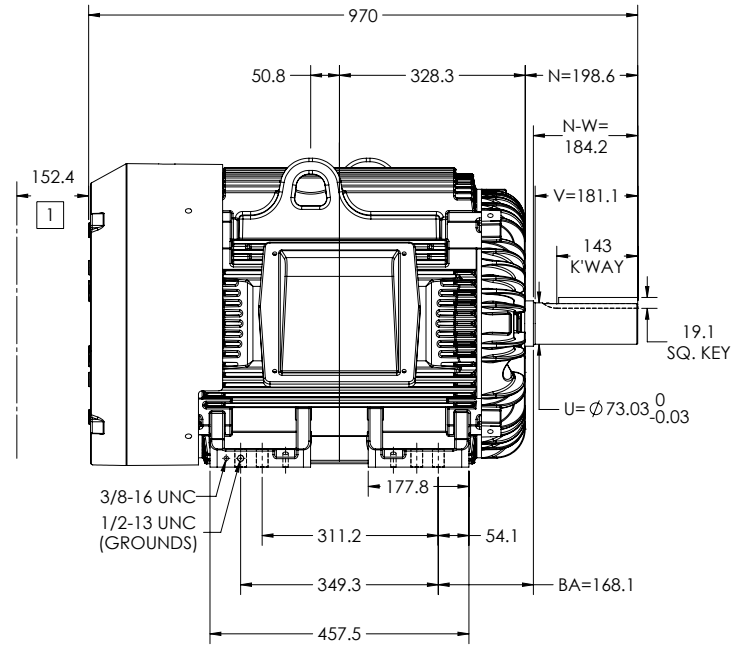
ENCLOSURE: TOTALLY ENCLOSED

COOLING: FAN COOLED

MOUNTING: FOOT, F-1

G405T/G404T FRAME MOUNTING HOLES

ENCLOSURE ENHANCEMENT: 841-XL



1 OBSTRUCTION MUST NOT ENCROACH ON AIR INLET.

SHEET NUMBER
2 OF 2

818-627-119

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAX PERMISSIBLE SHAFT RUNOUT IS .04 T.I.R. FOR BALL & .05 T.I.R. FOR ROLLER BEARING.

DIMENSIONS ARE IN MILLIMETERS.
MOTOR WEIGHT (KG) = 612 ± 15% DEPENDING ON RATING.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

REV. DESC: CORRECT WEIGHT ON DS 2			
REV: E	VERSION: 05	REVISED: 11-12-45 03/21/2022	TDR: 00001187880
MODEL NO. 617429-818			REF:
BY: USJEDIL	Material:		

BALDOR

G405-404T TEFC F1 FOOT CAST IRON BOX 841-XL

617429-818

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