ABB BALDOR RELIANCE

Customer information packet

ECP84400T-5

100HP, 1780RPM, 3PH, 60HZ, 405T, A40072M, TEFC
Class - CLI GP A,B,C,D
Division - Division II

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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				

S/O	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

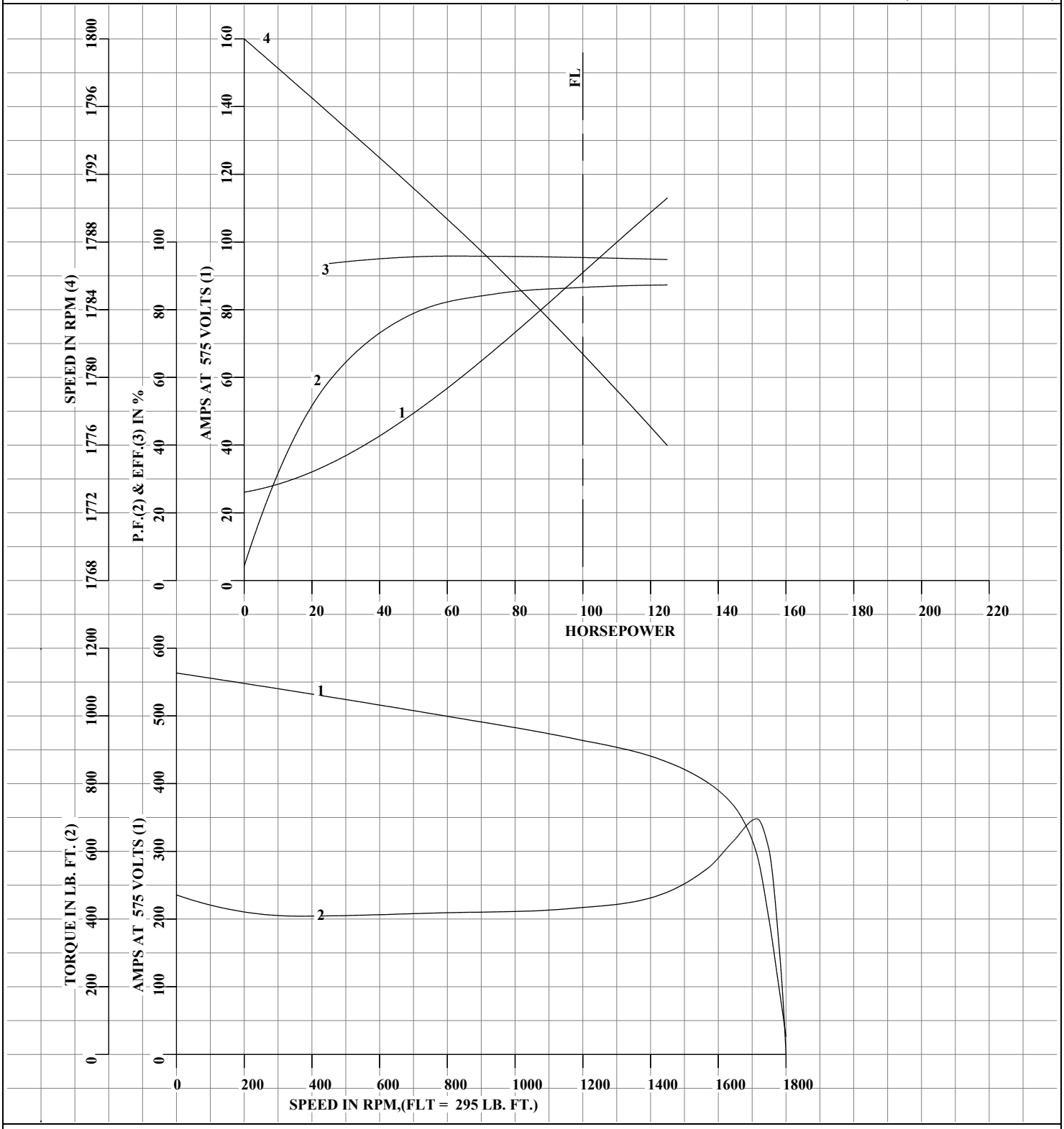
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	160	471	563
PULL UP	360	139	409	535
BREAKDOWN	1715	236	696	295
FULL LOAD	1781	100	295	90.7

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

TYPICAL DATA

ABB	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 DATE ISSUED 08/24/23

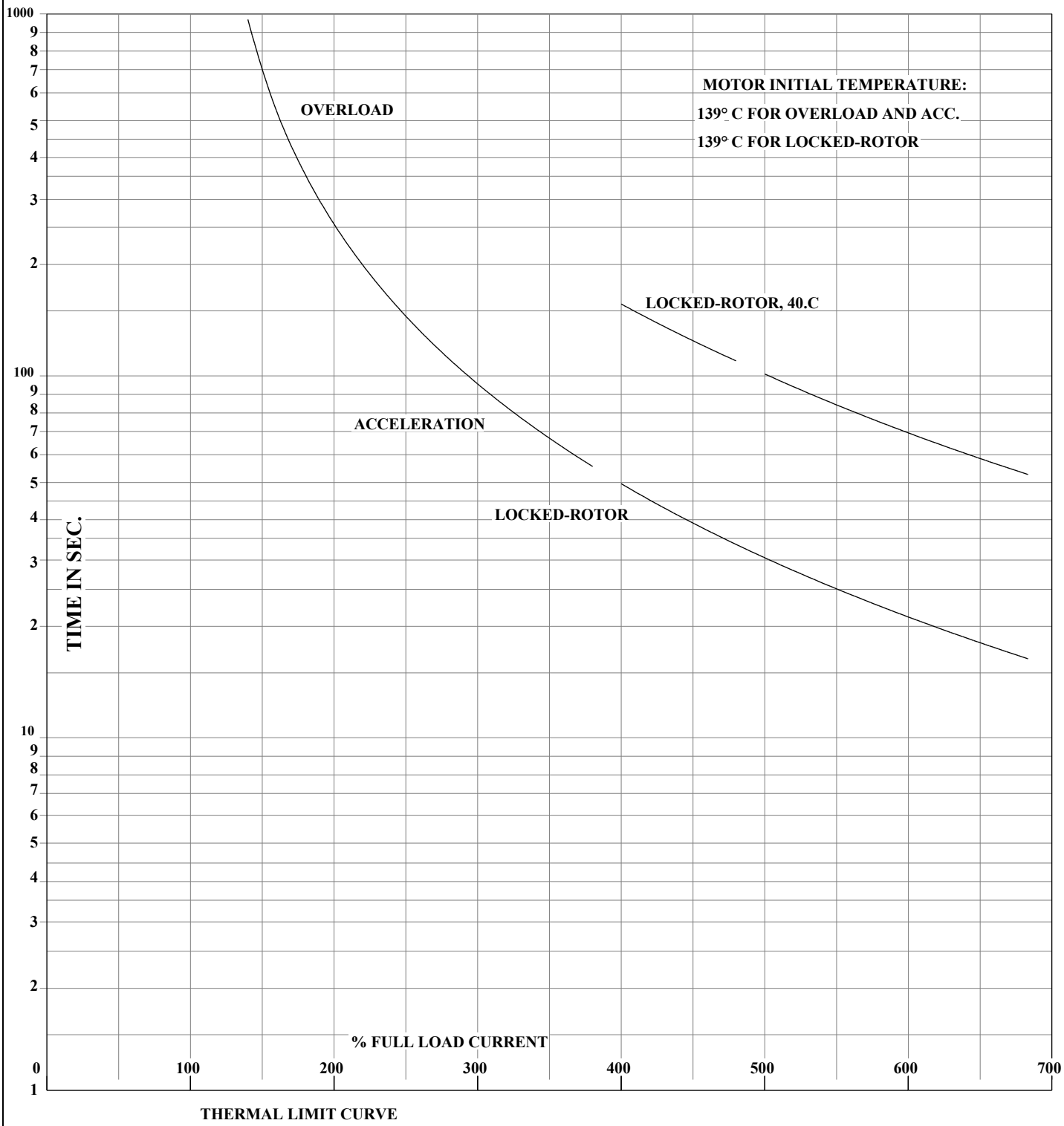
FRAME 405TSC	RPM 1780	S.F. 1.15	ROTOR 418142037CE
HP 100	VOLTS 575	NEMA DESIGN B	TEST S.O. TYPICAL DATA
TYPE P	AMPS 90.7	CODE LETTER G	TEST DATE ---
PHASE / HERTZ 3/60	DUTY CONT	ENCLOSURE TEFC	STATOR RES. @ 25°C .0789
	AMB °C / INSUL 40/F	E/S ---	OHMS (BETWEEN LINES)



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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FRAME 405TSC	RPM 1780	S.F. 1.15	ROTOR 418142037CE
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PHASE / HERTZ 3/60	DUTY CONT	ENCLOSURE TEFC	STATOR RES. @ 25°C .0789
	AMB °C / INSUL 40/F	E/S ---	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.

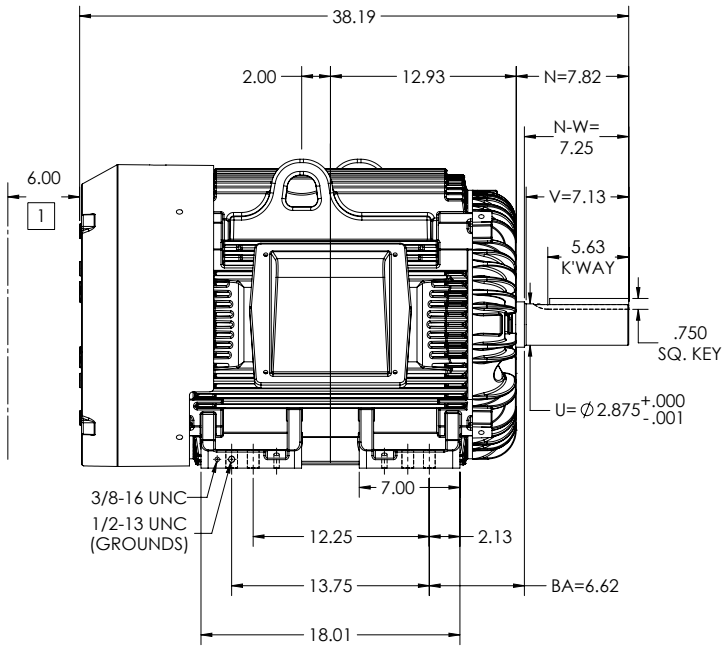
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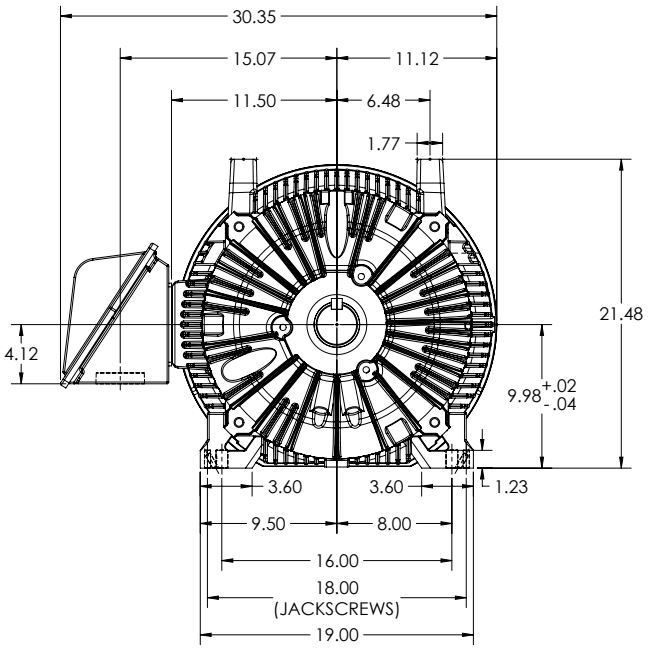
DUTY MASTER ALTERNATING CURRENT MOTORS

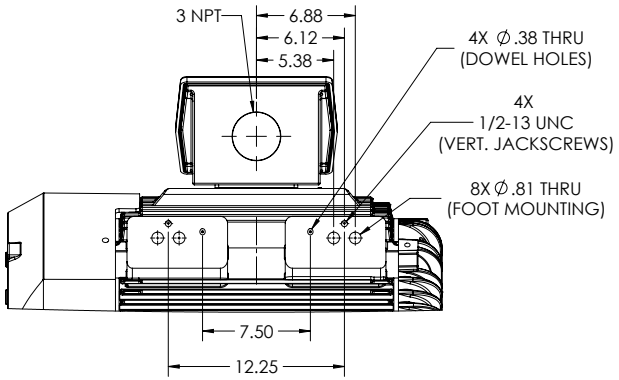
617429-818

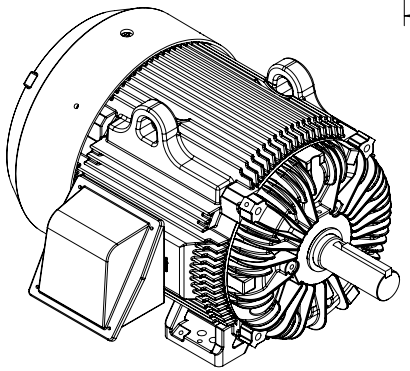
ENCLOSURE: TOTALLY ENCLOSED | SQUIRREL-CAGE INDUCTION | COOLING: FAN COOLED

MOUNTING: FOOT, F-1 | G405T/G404T FRAME MOUNTING HOLES | ENCLOSURE ENHANCEMENT: 841-XL









1 OBSTRUCTION MUST NOT ENCROACH 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.

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

617429-818

REV. DESC: CORRECT WEIGHT ON DS 2			
REV: E	VERSION: 05	REVISED: 11:12:45 03/21/2022	TDR: 000001187880
MODEL NO. 617429-818			REF:
BY: USJEDIL	Material:	C	

BALDOR

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

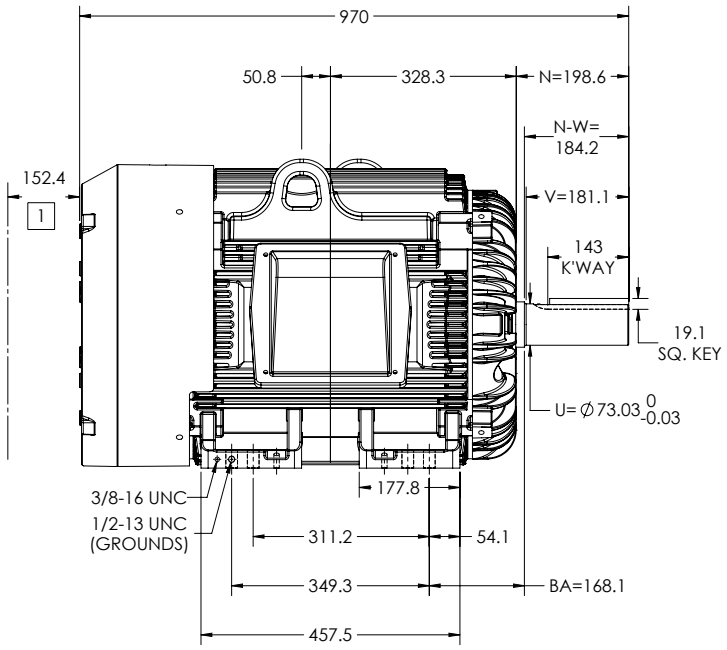
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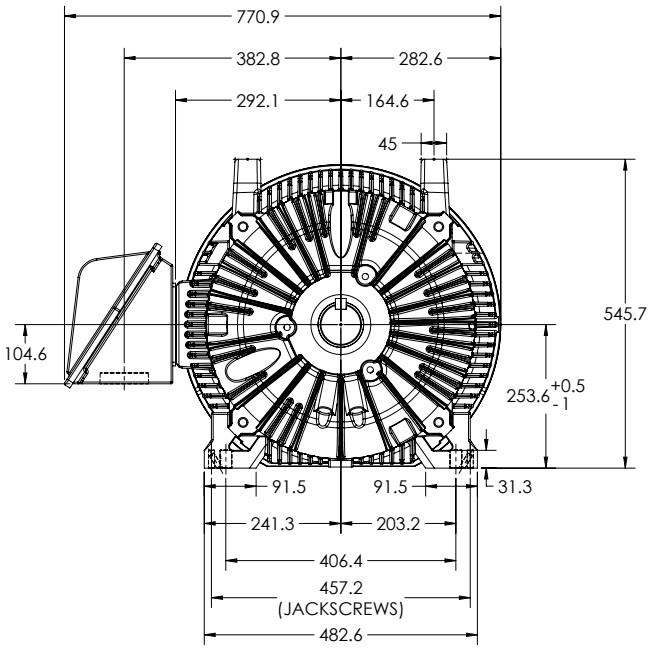
DUTY MASTER ALTERNATING CURRENT MOTORS

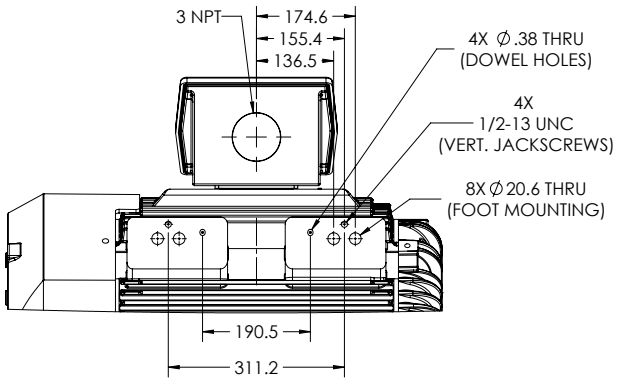
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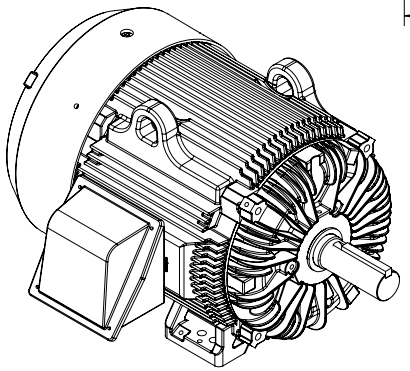
ENCLOSURE: TOTALLY ENCLOSED | SQUIRREL-CAGE INDUCTION | COOLING: FAN COOLED

MOUNTING: FOOT, F-1 | G405T/G404T FRAME MOUNTING HOLES | ENCLOSURE ENHANCEMENT: 841-XL









SHEET NUMBER 2 OF 2

617429-818

1 OBSTRUCTION MUST NOT ENCROACH ON AIR INLET.

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: 000001187880
MODEL NO. 617429-818			REF:
BY: USJEDIL	Material:	C	

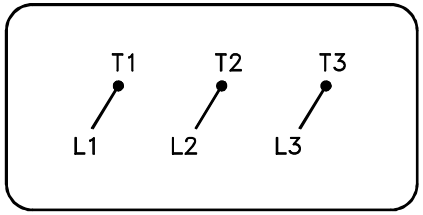
BALDOR

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)

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