

# **ABB BALDOR RELIANCE III**

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## **Customer information packet**

ECP84404T-4

75HP, 1185RPM, 3PH, 60HZ, 405T, A40072M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	405T
<b>Frame Material</b>	Iron
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	CLI GP A,B,C,D
<b>Haz Area Division</b>	Division II
<b>Motor Letter Type</b>	Three Phase
<b>Output @ Frequency</b>	75.000 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1200 RPM @ 60 HZ
<b>Voltage @ Frequency</b>	460.0 V @ 60 HZ
<b>Agency Approvals</b>	C UR US CCSA US CCSAUSEEV CURUS
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Constant Torque Speed Range</b>	10-60
<b>Current @ Voltage</b>	84.200 A @ 460.0 V
<b>Design Code</b>	B
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	94.5 %
<b>Feedback Device</b>	NO FEEDBACK
<b>Haz Area Temp Code</b>	T3
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	84.2 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	G

**Part Detail**

<b>Revision</b>	-
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	A40WG3693
<b>Layout</b>	617429-818
<b>Eff. date</b>	06-19-2025
<b>CD Diagram</b>	416820-036
<b>Poles</b>	06
<b>Leads</b>	3#4
<b>Proprietary</b>	False
<b>Created date</b>	05-16-2025

<b>Lifting Lugs</b>	<b>Standard Lifting Lugs</b>
<b>Motor Lead Quantity/Wire Size</b>	3 @ 4 AWG
<b>Motor Standards</b>	None
<b>Motor Type</b>	A40072M
<b>Mounting Arrangement</b>	F1
<b>No Load Current</b>	21.5 a
<b>Number of Poles</b>	6
<b>Overall Length</b>	38.19 IN
<b>Power Factor</b>	88
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	2.875 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1185 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None

**Nameplate**

**NP4566**

<b>CAT NO</b>	ECP84404T-4	<b>SPEC NO.</b>	A40-0004-3693						
<b>HP</b>	75	<b>AMPS</b>	84.2	<b>VOLTS</b>	460	<b>DESIGN</b>	B		
<b>FRAME SIZE</b>	405T	<b>RPM</b>	1185	<b>HZ</b>	60	<b>AMB</b>	40	<b>SF</b>	1.15
<b>D.E. BRG.DATA</b>	6316	<b>O.D.E. BRG.DATA</b>	6316	<b>PH</b>	3	<b>DUTY</b>	CONT	<b>INSUL.CLASS</b>	F
<b>D.E. BRG.</b>	80BC03J30X	<b>TYPE</b>	ENCL	TEFC	<b>CODE</b>	G			
<b>O.D.E. BRG.</b>	80BC03J30X	<b>POWER FACTOR</b>	88	<b>NEMA-NOM-EFFICIENCY</b>	94.5				
<b>3/4 LOAD EFF.</b>	94.9	<b>IP</b>	56	<b>MAX CORR KVAR</b>	12	<b>GUARANTEED EFFICIENCY</b>	93.6		
<b>TEMP CODE</b>	T3	<b>TEMP =</b>	200						
<b>CHP HZ</b>	60-90	<b>CT HZ</b>	10-60	<b>VT HZ</b>	0-60				
<b>INVERTER-TEMP-CODE</b>	T3								
<b>SER.NO.</b>		<b>MOTOR WEIGHT</b>							

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**000613007EX**

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<b>CAT NO</b>	ECP84404T-4	<b>SPEC NO.</b>	A40-0004-3693
<b>NO. ROTOR BARS</b>	71	<b>GREASE TYPE</b>	POLYREX EM
<b>NO. SLOTS</b>	90	<b>NL AMPS AT RATED VOLTAGE</b>	21.5
<b>5 YEAR WARRANTY</b>		<b>WINDING RES @25 C</b>	.096 <b>OHMS</b>
<b>MFG. DATE</b>		<b>SER.NO</b>	

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REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405LP	75	P	3/60	1185	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
84.2	CONT	40/F	1.15	B	G	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
-	418142073DE	---	---	.0964		

**PERFORMANCE**

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	21.5	1200	5.80	0
1/4	18.8	29.4	1196	64.6	92.6
2/4	37.5	44.9	1193	82.6	94.8
3/4	56.2	63.6	1189	87.2	94.9
4/4	75.0	84.2	1184	88.3	94.5
5/4	93.8	106	1180	88.7	93.8

**SPEED TORQUE**

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	167	557	537
PULL UP	180	142	471	513
BREAKDOWN	1117	250	832	312
FULL LOAD	1184	100	333	84.2

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

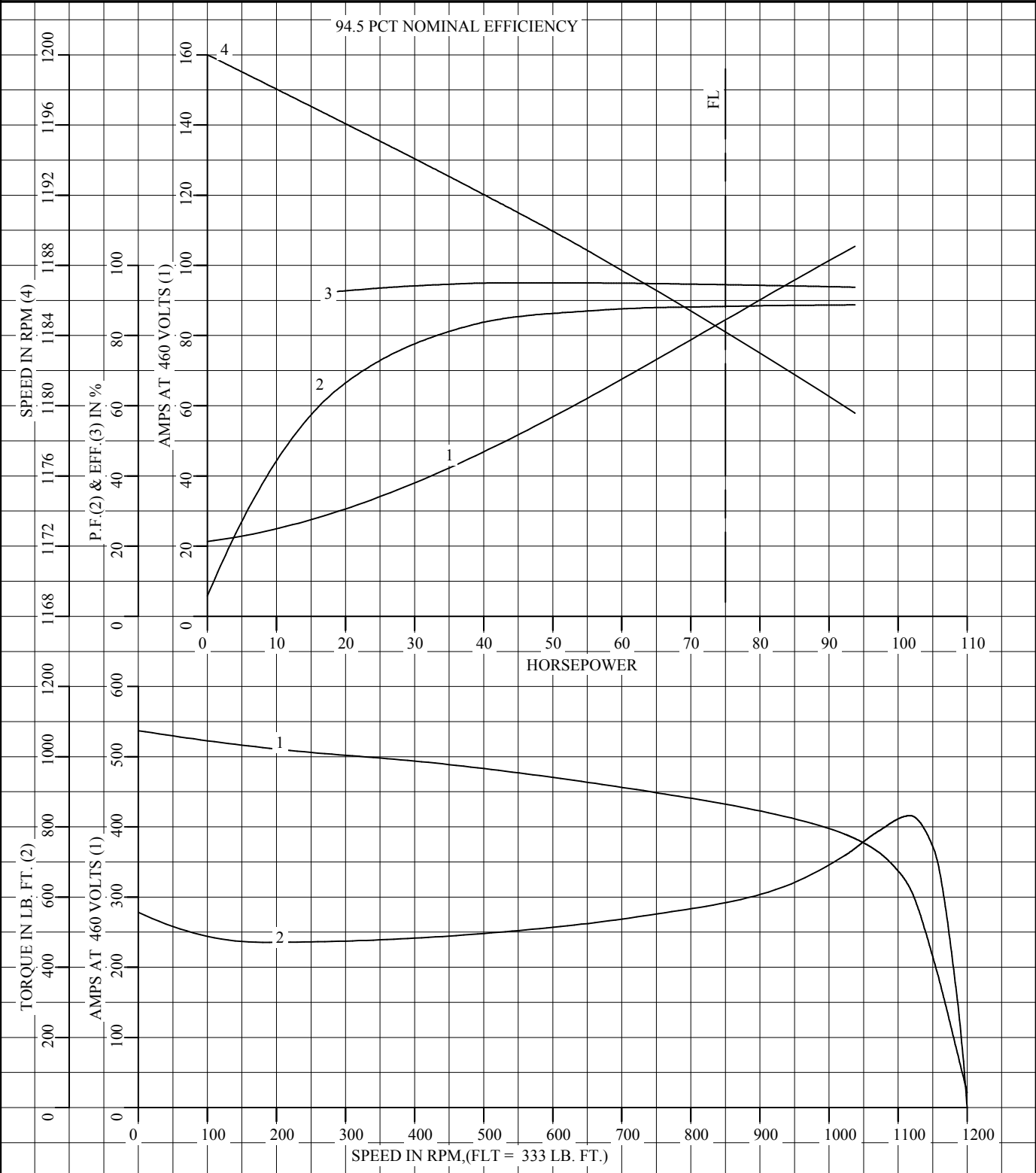
REMARKS: TYPICAL DATA  
94.5 PCT NOMINAL EFFICIENCY



DR. BY R.K. BRIDGES  
CK. BY W.L. SMITH  
APP. BY W. L. SMITH  
DATE 06/09/14

**A-C MOTOR  
PERFORMANCE A40WG3693-R001  
DATA** ISSUE DATE 05/10/21

REL S.O.	RPM <b>1185</b>	S.F. <b>1.15</b>	ROTOR <b>418142073DE</b>
FRAME <b>405LP</b>	VOLTS <b>460</b>	NEMA DESIGN <b>B</b>	TEST S.O. <b>TYPICAL DATA</b>
HP <b>75</b>	AMPS <b>84.2</b>	CODE LETTER <b>G</b>	TEST DATE ---
TYPE <b>P</b>	DUTY <b>CONT</b>	ENCLOSURE <b>TEFC</b>	STATOR RES. @ 25 °C <b>.0964</b>
PHASE/HERTZ <b>3/60</b>	AMB °C/INSUL <b>40/F</b>	E/S <b>-</b>	OHMS (BETWEEN LINES)



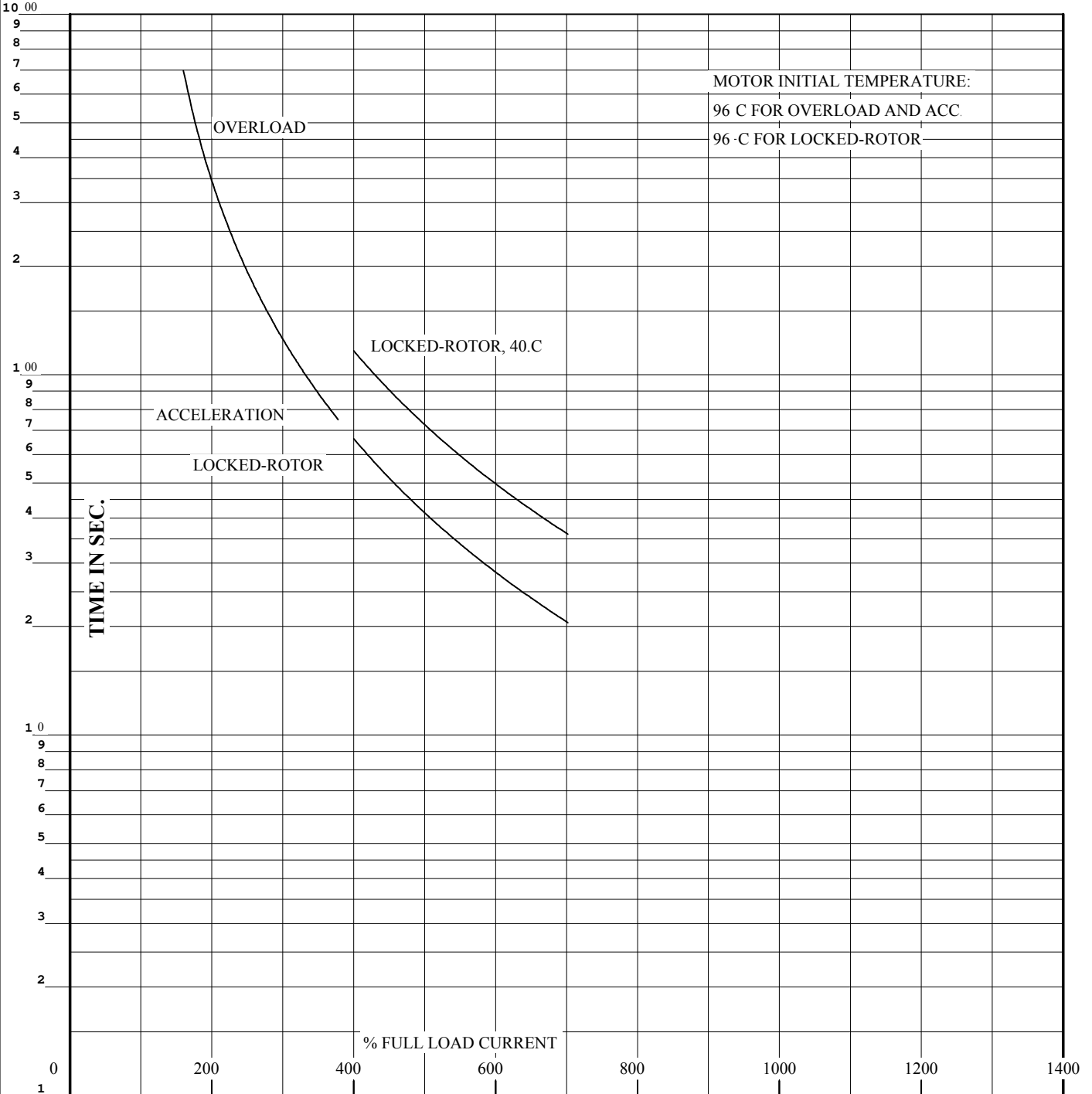
AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



DR. BY R.K. BRIDGES  
 CK. BY W.L. SMITH  
 APP. BY W. L. SMITH  
 DATE 06/09/14

**A-C MOTOR  
PERFORMANCE  
CURVES** **A40WG3693-R001**  
 ISSUE DATE **05/10/21**

REL. S.O.	RPM <b>1185</b>	S.F. <b>1.15</b>	ROTOR <b>418142073DE</b>
FRAME <b>405LP</b>	VOLTS <b>460</b>	NEMA DESIGN <b>B</b>	TEST S.O. <b>TYPICAL DATA</b>
HP <b>75</b>	AMPS <b>84.2</b>	CODE LETTER <b>G</b>	TEST DATE <b>---</b>
TYPE <b>P</b>	DUTY <b>CONT</b>	ENCLOSURE <b>TEFC</b>	STATOR RES. @ 25 °C <b>.0964</b>
PHASE/HERTZ <b>3/60</b>	AMB °C/INSUL <b>40/F</b>	E/S <b>-</b>	OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS: 94.5 PCT NOMINAL EFFICIENCY

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



DR. BY	R.K. BRIDGES
CK. BY	W.L. SMITH
APP. BY	W.L. SMITH
DATE	06/09/14

**A-C MOTOR  
PERFORMANCE CURVES** A40WG3693-R001  
ISSUE DATE 05/10/21 Page 8 of 11



**DUTY MASTER ALTERNATING CURRENT MOTORS**  
SQUIRREL-CAGE INDUCTION

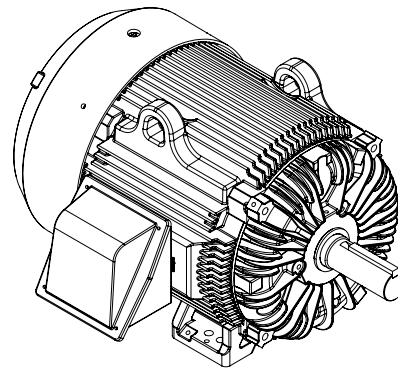
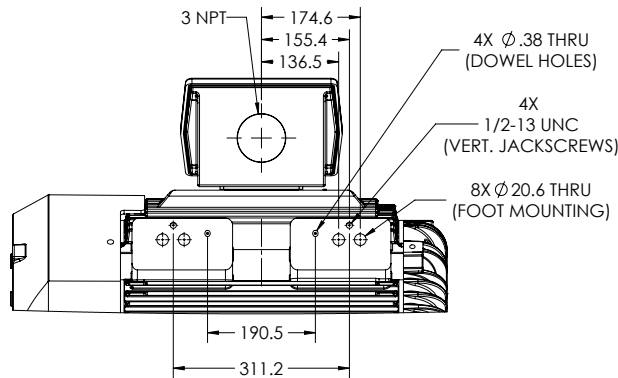
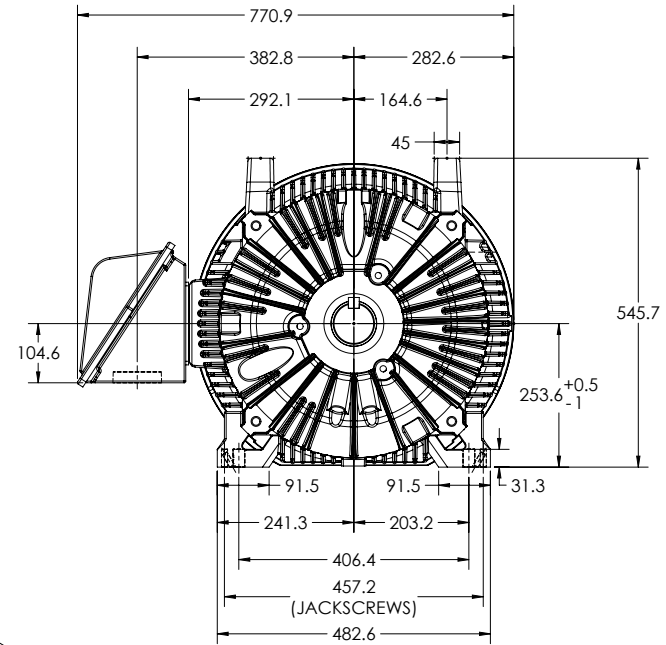
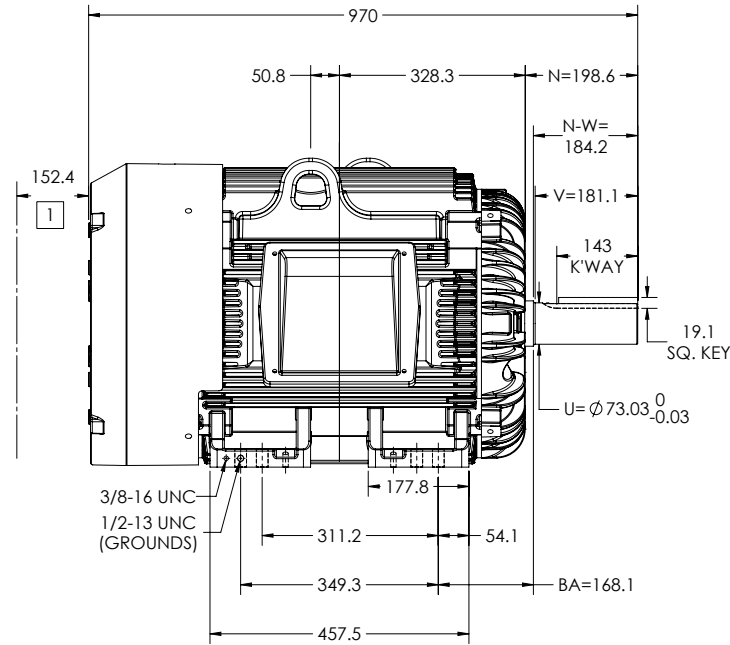
ENCLOSURE: TOTALLY ENCLOSED

COOLING: FAN COOLED

MOUNTING: FOOT, F-1

G405T/G404T FRAME MOUNTING HOLES

ENCLOSURE ENHANCEMENT: 841-XL



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

SHEET NUMBER  
**2 OF 2**  
818-627-119

1 OBSTRUCTION MUST NOT ENCR OACH 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.

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

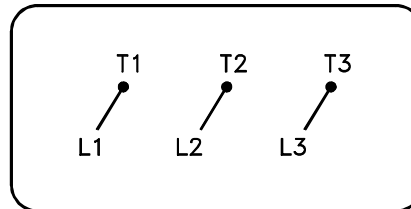
**BALDOR**

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)

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