ABB BALDOR RELIANCE

Customer information packet

XT31002TS

100HP, 3560RPM, 3PH, 60HZ, 405TS, A40060M, TEF
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	405TS
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	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	UR
	NEMA_PREMIUM
	NEMA PREMIUM
	CCSAUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	110.000 A @ 460.0 V
	220.000 A @ 230.0 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	110.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG1107
Layout	617429-746
Eff. date	07-08-2024
CD Diagram	416820-002
Poles	02
Leads	3#2,6#4
Proprietary	False
Created date	12-02-2020

KVA Code	F
Max Speed	4500 rpm
Motor Lead Quantity/Wire Size	3 @ 2 AWG
Motor Standards	NEMA
Motor Type	A40060M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	35.19 IN
Power Factor	90
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3560 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP4152LUA

CAT #	XT31002TS			**SER**				**CC**	010A										
SPEC	A40-7211-1107			**RATING**	40C AMB-CONT														
HZ	**VOLTS**		**AMPS**		**RPM**	**HP**	**CODE**	**SF**	**DES**	**PF**	**NEMA NOM. EFF**								
60	230/460		220/110		3560	100	F	1.15	B	90	%	94.1	%						
											%		%						
PH	3	**CL**	F	**MAX RPM**	4500		**MAX CORR KVAR**	10											
BRG	**DE**	6313	**ODE**	6313	**ENCL**	TEFC	**FR**	405TS	**IP**	54									
GREASE	POLYREX EM						**MTR WT**		**LBS**										
	CL I DIV 2 GRPS A,B,C,D			**CL I ZONE 2 GRPS**				**IIA,IIB,IIC**		**TEMP T**	200	**C**							
INV READY	**CT**	10:1	**HZ**	6-60	**VT**	0-60	**HZ**	1000:1	**CHP**	60-75	**HZ**	1:1.25							
INV TEMP CL	T3	**C**	**USABLE AT**	50HZ 75HP 190/380V 202/101A							1.0SF								
SFA 254/127																			

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405HPZ	100	P	3/60	3560	230/460

AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
220/110	CONT	40/F	1.15	B	F	TEFC

E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES.@25 °C OHMS (BETWEEN LINES)
596932	418142005PE	---	---	.0131/.0526

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	25.6	3600	8.43	0
1/4	25.0	36.8	3590	70.1	90.8
2/4	50.0	58.0	3581	85.9	94.0
3/4	75.0	83.0	3571	89.4	94.6
4/4	100	110	3560	89.9	94.4
5/4	125	138	3549	90.2	93.9

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	205	302	688
PULL UP	1545	184	271	626
BREAKDOWN	3398	253	374	387
FULL LOAD	3560	100	148	110

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 MOTOR-NEMA NOM. EFF. 94.1 %
GUARANTEED MIN. EFF. 93.0%

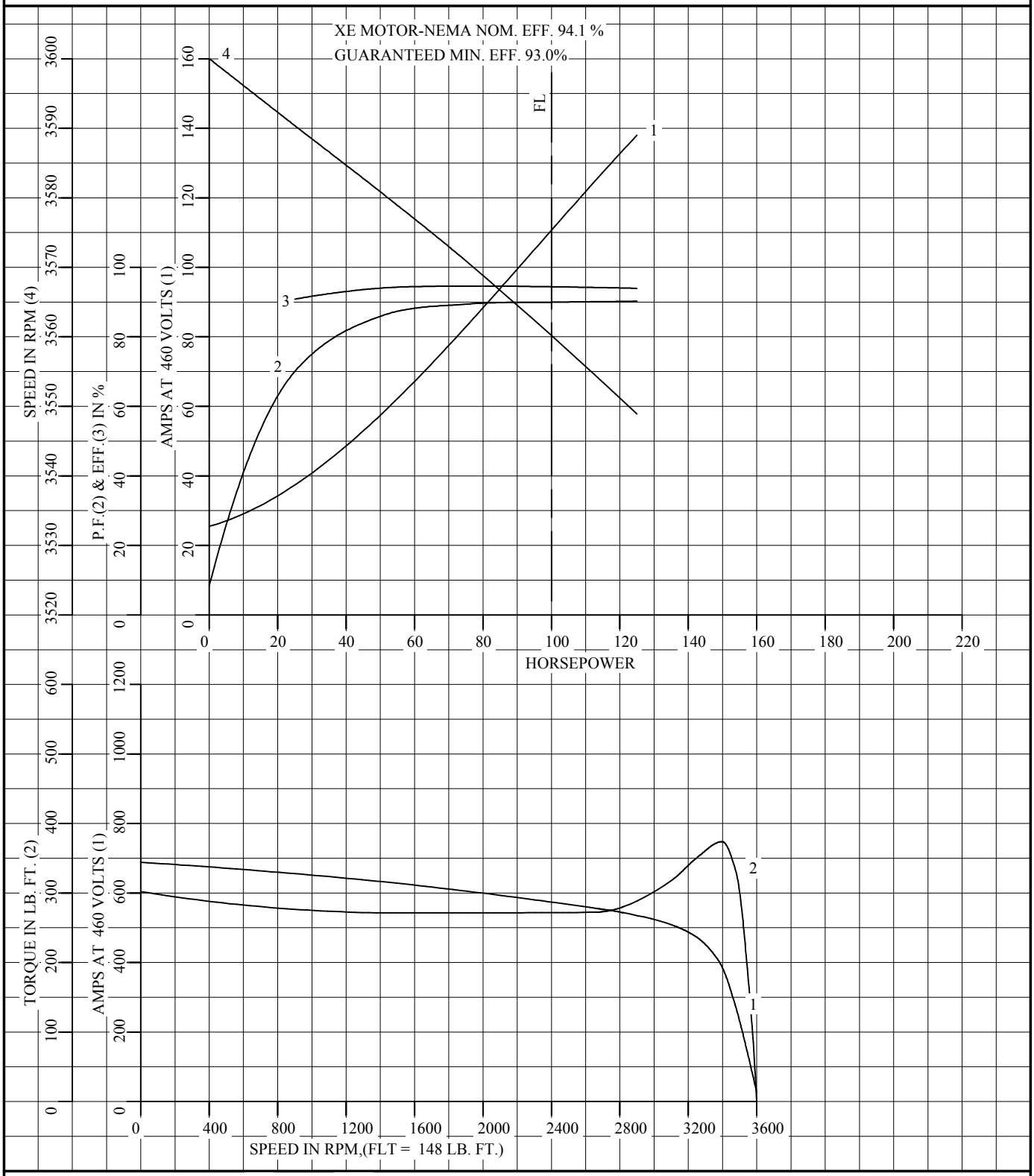
BALDOR
A MEMBER OF THE ABB GROUP

DR. BY J.J.HARRISON
CK. BY W.L.SMITH
APP. BY E.J.CHRISTIAN
DATE 12/09/03

A-C MOTOR PERFORMANCE DATA

A40WG1107-R009
ISSUE DATE 05/05/21

REL S.O.	RPM 3560	S.F. 1.15	ROTOR 418142005PE
FRAME 405HPZ	VOLTS 230/460	NEMA DESIGN B	TEST S.O. TYPICAL DATA
HP 100	AMPS 220/110	CODE LETTER F	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES.@ 25 °C .0131/.0526
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 596932	OHMS (BETWEEN LINES)



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

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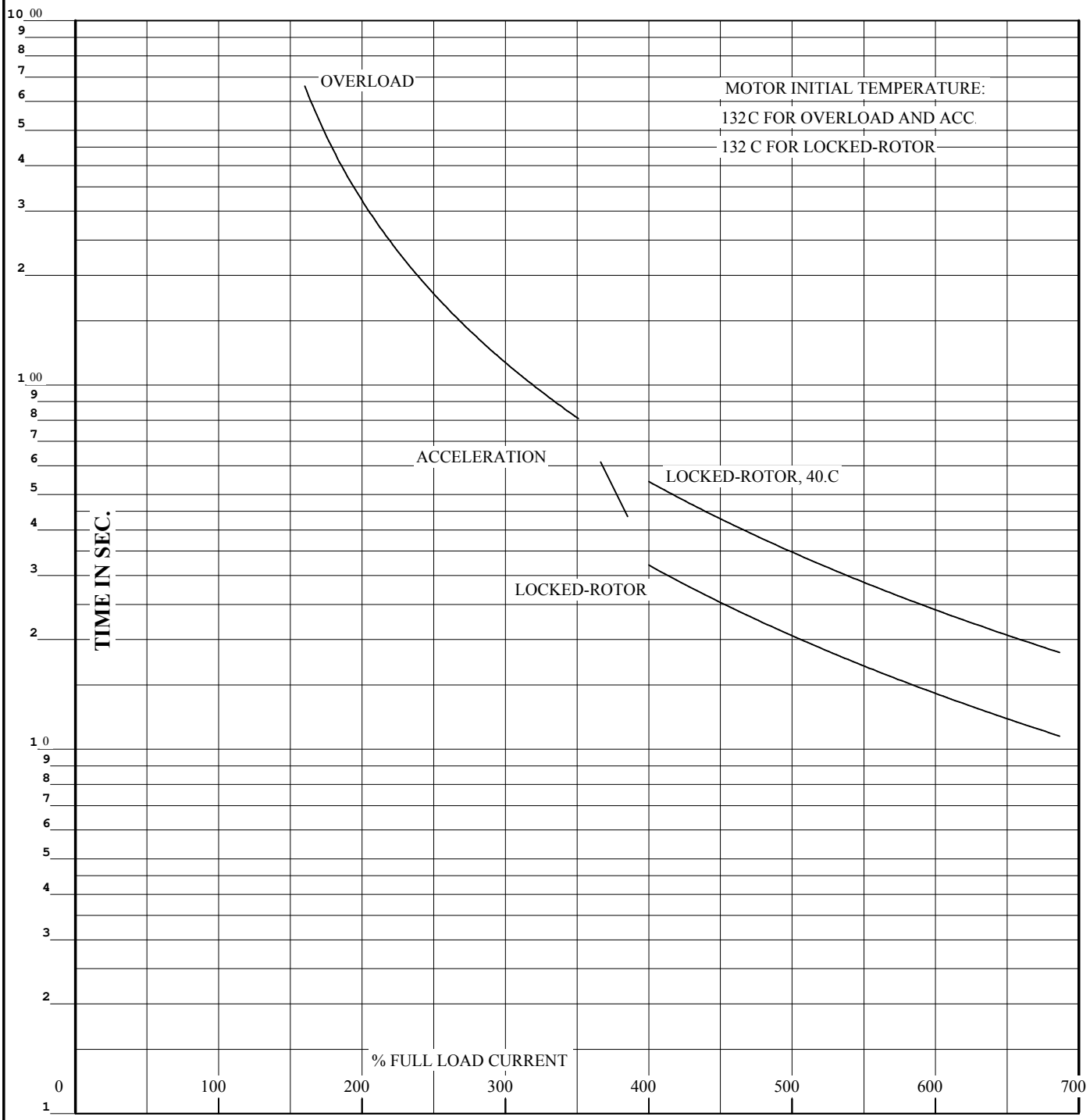
DR. BY	J.J.HARRISON
CK. BY	W.L.SMITH
APP. BY	E.J.CHRISTIAN
DATE	12/09/03

A-C MOTOR PERFORMANCE CURVES

A40WG1107-R009

ISSUE DATE 05/05/21

REL. S.O.	RPM 3560	S.F. 1.15	ROTOR 418142005PE
FRAME 405HPZ	VOLTS 230/460	NEMA DESIGN B	TEST S.O. TYPICAL DATA
HP 100	AMPS 220/110	CODE LETTER F	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES.@ 25 ℃.0131/.0526
PHASE/HERTZ 3/60	AMB ℃/INSUL 40/F	E/S 596932	OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS: XE MOTOR-NEMA NOM. EFF. 94.1 %

GUARANTEED MIN. EFF. 93.0%

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

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DR. BY	J.J.HARRISON
CK. BY	W.L.SMITH
APP. BY	E.J.CHRISTIAN
DATE	12/09/03

A–C MOTOR PERFORMANCE CURVES **A40WG1107-R009**

ISSUE DATE 05/05/21

DUTY MASTER ALTERNATING CURRENT MOTORS

617429-746

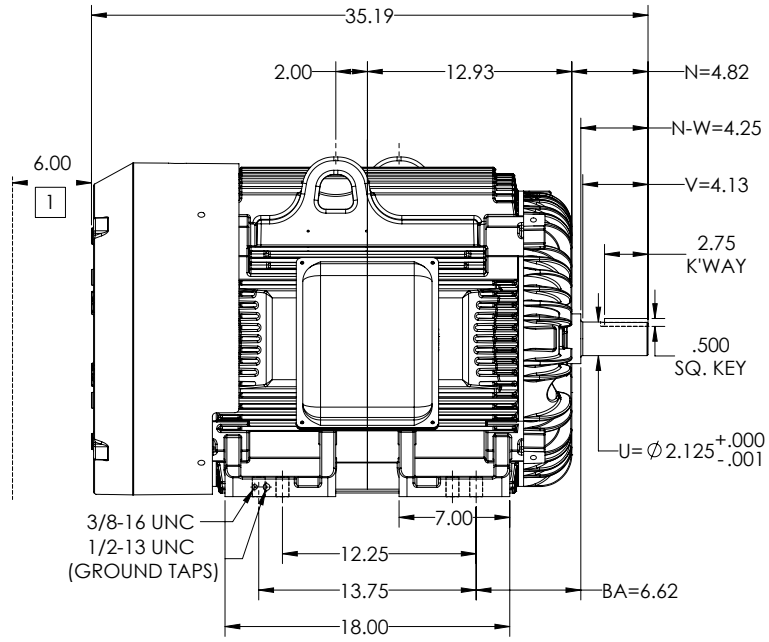
ENCLOSURE: TOTALLY ENCLOSED

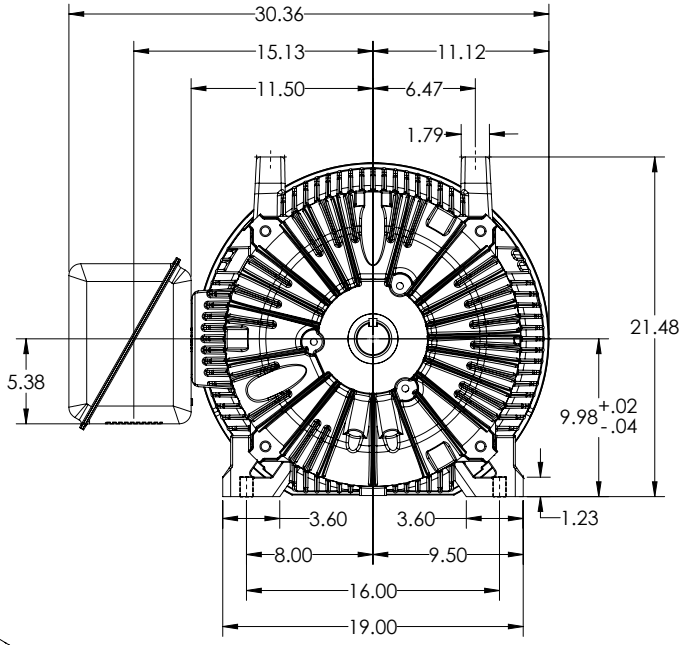
SQUIRREL-CAGE INDUCTION

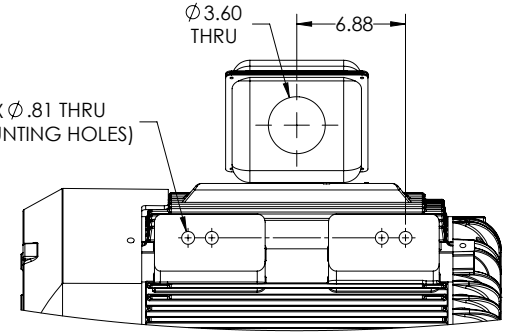
MOUNTING: FOOT, F-1

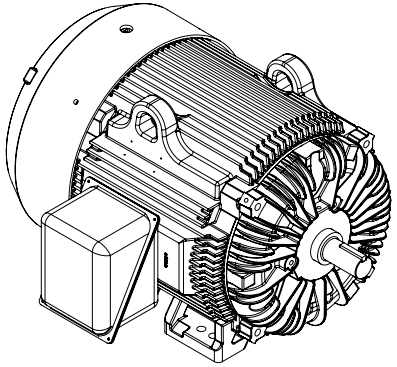
G405TS/G404TS FRAME MOUNTING HOLES

COOLING: FAN COOLED









DIMENSIONS ARE IN INCHES
WEIGHT (LBS): 1350, MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER 1 OF 2

617429-746

1 OBSTRUCTION MUST NOT ENCROACH ON AIR INLET

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAX PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003" T.I.R.

REV. DESC: ADDING METRIC DS			
REV: B	VERSION: 02	REVISED: 09-22-40 09/20/2022	TDR: 000001197276
MODEL NO. 617429-746			REF:
BY: USJEDIL	Material:	C	

BALDOR

G405/404TS TEFC F1 FOOT/STEEL CONDUIT BOX

617429-746

DUTY MASTER ALTERNATING CURRENT MOTORS

617429-746

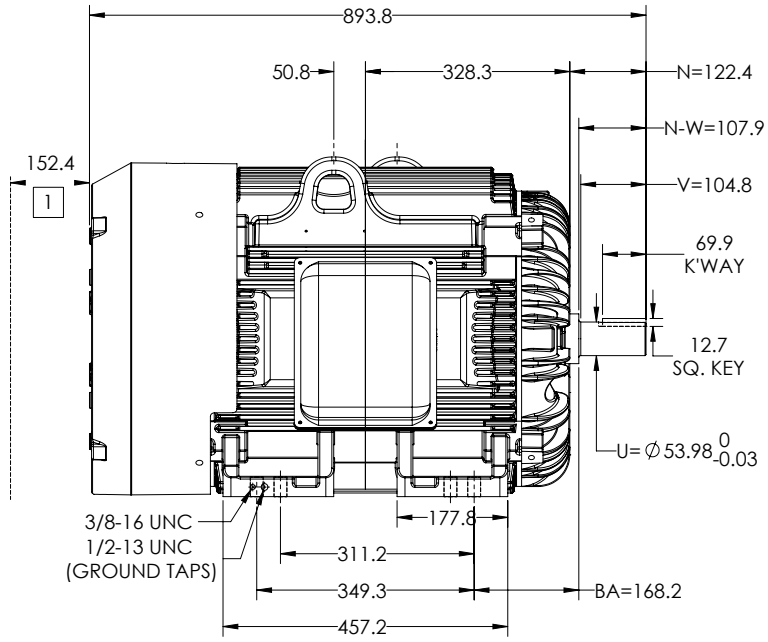
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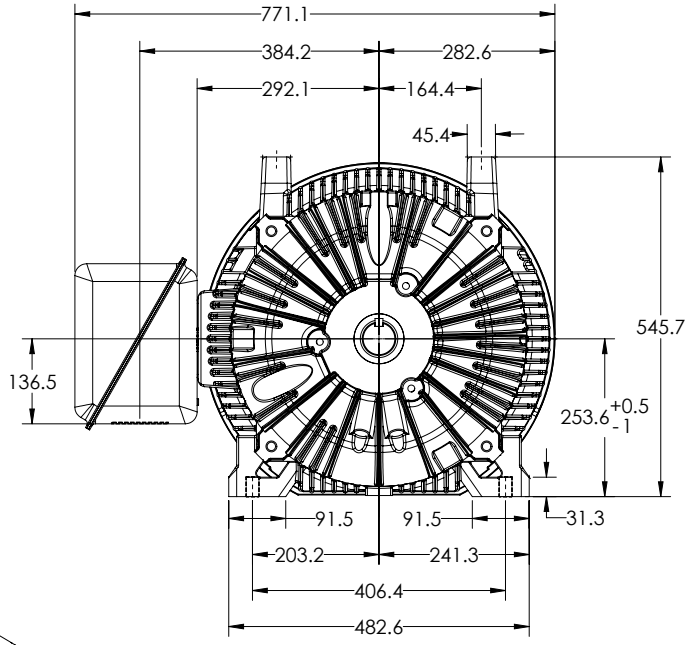
SQUIRREL-CAGE INDUCTION

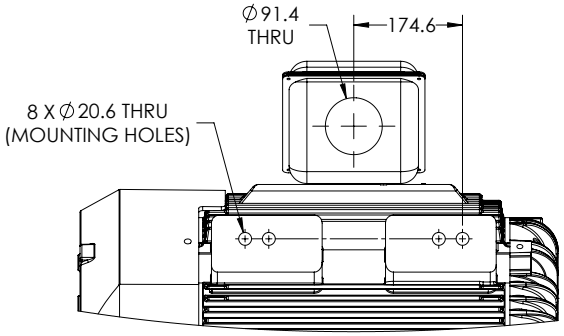
MOUNTING: FOOT, F-1

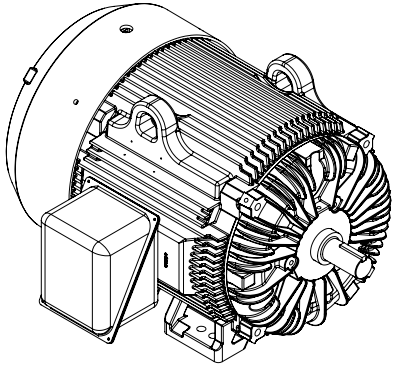
G405TS/G404TS FRAME MOUNTING HOLES

COOLING: FAN COOLED









1 OBSTRUCTION MUST NOT ENCROACH ON AIR INLET

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAX PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .08 T.I.R.

DIMENSIONS ARE IN MILLIMETERS.
WEIGHT (KG): 612, MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER 2 OF 2

617429-746

REV. DESC: ADDING METRIC DS			
REV: B	VERSION: 02	REVISED: 09-22-40 09/20/2022	TDR: 000001197276
MODEL NO. 617429-746			REF:
BY: USJEDIL	Material:		C

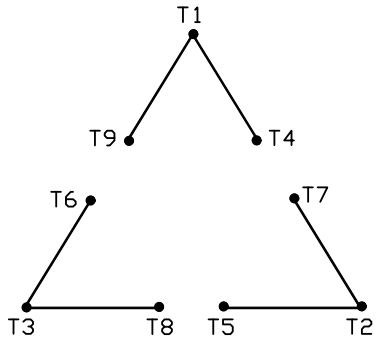
BALDOR

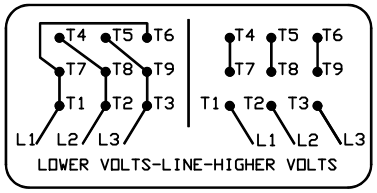
G405/404TS TEFC F1 FOOT/STEEL CONDUIT BOX

617429-746

416820-002

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 9 LEAD DELTA-CONNECTED





(N. P. 1575-B)

REV. DESC: ADJUST TEXT DARKNESS		
REV. LTR: B	VERSION: 02	TDR: 000001285318
FILE: \RAG\00022\453	REVISED: 09:36:26 09/24/2026	BY: USJOSUL
MTL: –		

ABB

CONN DIAG – STANDARD 9 LEAD, DELTA-CONNECTED

SH1 of 1

416820-002