ABB BALDOR RELIANCE

Customer information packet

EM4413T-4

150HP, 3570RPM, 3PH, 60HZ, 445TS, A4478M, TEFC
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	445TS
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	150.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CURUSEEV
	CCSAUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	164.000 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	164.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	6 @ 2 AWG
Motor Standards	NEMA
Motor Type	A4478M

Part Detail

Revision	S
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG3535
Layout	617435-049
Eff. date	02-16-2026
CD Diagram	416820-036
Poles	02
Leads	3#2 (02 per group)
Proprietary	False
Created date	08-13-2012

Mounting Arrangement	F1
Number of Poles	2
Overall Length	41.08 IN
Power Factor	90
Product Family	Other
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3570 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP2349L												
SPEC NO.	P44G3906	**CAT.NO.**	EM4413T-4							**FRAME**	445TS	
HP	150	**VOLTS**	460	**PHASE**	3	**DESIGN**	B	**TYPE**	P			
RPM	3570	**AMPS**	164	**HZ**	60	**AMB**	40	**SF**	1.15			
DRIVE END BEARING	65BC03J30X	**DUTY**	CONT	**INSUL.CLASS**	F							
OPP D.E. BEARING	65BC03J30X	**ENCL**	TEFC	**CODE**	G							
SER.NO.		**POWER FACTOR**	90							**NEMA-NOM-EFFICIENCY**	95	
						MAX CORR KVAR	20.0			**GUARANTEED EFFICIENCY**	94.1	
										NEMA NOM/CSA QUOTED EFF		
										MOTOR WEIGHT		

Parts List

Part number	Description	Quantity
SA249401	SA P44G3906	1.000 ea
RA236266	RA P44G3906	1.000 ea
421948051	LABEL, MYLAR	1.000 ea
000613006PU	N/P (RELEASE QTY 10,000) UL CSA LABEL	1.000 ea
000692000FF	N/P	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
NP2349L	SUPER-E ,SS, CURUS EEV, CC, LASER	1.000 ea
412118006A	DRAIN	2.000 ea
089490097A	BRKT 089490102WCA	1.000 ea
415072001B	CLAMP	1.000 ea
083199126RA	G28 MOLDED FAN COVER W/BAFFLE ASSEMBLY	1.000 ea
034180014DA	KEY 1/4X1/4X1-3/4 L	1.000 ea
034530056AB	1/8 X 7 PP NIPPLE	1.000 ea
078546004C	FAN 440 702675001D	1.000 ea
004824015A	GREASE POLYREX EM	0.540 lb
032018020FK	HHCS 3/4-10X2-1/2 PLTD.	4.000 ea
032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
032018022CK	HHCS 3/8-16X2-3/4 PLTD	3.000 ea
032018022CK	HHCS 3/8-16X2-3/4 PLTD	3.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
410700004F	WSHR	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
034017014AB	LCKW 3/8 STD. PLATED	4.000 ea
034530072AB	P/NIP 1/8X9"L Threaded both ends	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
034690005AB	PPLG 3/4 PLATED	2.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
034530072BB	PIPE NIPPLE,DE - 440-BS	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
034530056BB	P/NIP 1/4X7 SCHED 40	1.000 ea
702623012A	THERMAL BARRIER, G28	1.000 ea

032018004BK	HHCS 5/16-18X1/2 PLATED	3.000 ea
034017013AB	LCKW 5/16 STD. PLATED	3.000 ea
415915007K	GASK, 26" LAC	1.000 ea
089490097A	BRKT 089490102WCA	1.000 ea
032018020FK	HHCS 3/4-10X2-1/2 PLTD.	4.000 ea
415045002E	SLGR	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
032018006BK	HHCS 5/16-18X3/4 PLATED	3.000 ea
702658001A	CONDUIT BOX, E440	1.000 ea
415000115H	T/LUG #2AWG-4/0AWG	1.000 ea
032018005DL	1/2-13 X 5/8 SILICON BRONZE HHCS	1.000 ea
702658002A	+C/BOX CVR, PAINTED 440	1.000 ea
406056008A	GASKET, TERBD 440	1.000 ea
418153001A	GASK 440	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
MG1025Y17	WILKOFAST, 789.701, SUPER E PEARL GOLD	0.250 ga
032018008DK	HHCS 1/2-13X1 PLATED	4.000 ea
032620016LA	SOCKET SET SCREW-449	3.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
033512006LB	HHTTS 1/4-20X3/4 PLTD.	8.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	2.000 ea
034180024HA	KEY 5/8X5/8X3 L	1.000 ea
PK5004A09	BASE 48 X 39-1/4 WITH STACKED 2X4 RUUNER	1.000 ea

Accessories

Part number	Description	Multiplier
089490104B	BRKT,DE 089490103WCA, C-Face	P1
089490108A	D-FLANGE EP MACHINING, G28 W/6313 BRG	P1

S/O	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	445	150	P	3/60	3570	460

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

E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)
0	0	---	---	.0292

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	34.7	3600	6.89	0
1/4	37.5	59.2	3593	63.9	92.9
2/4	75.1	90.3	3585	81.7	95.3
3/4	113	125	3578	87.8	95.7
4/4	150	164	3570	89.9	95.6
5/4	187	204	3562	90.4	95.2

SPEED TORQUE

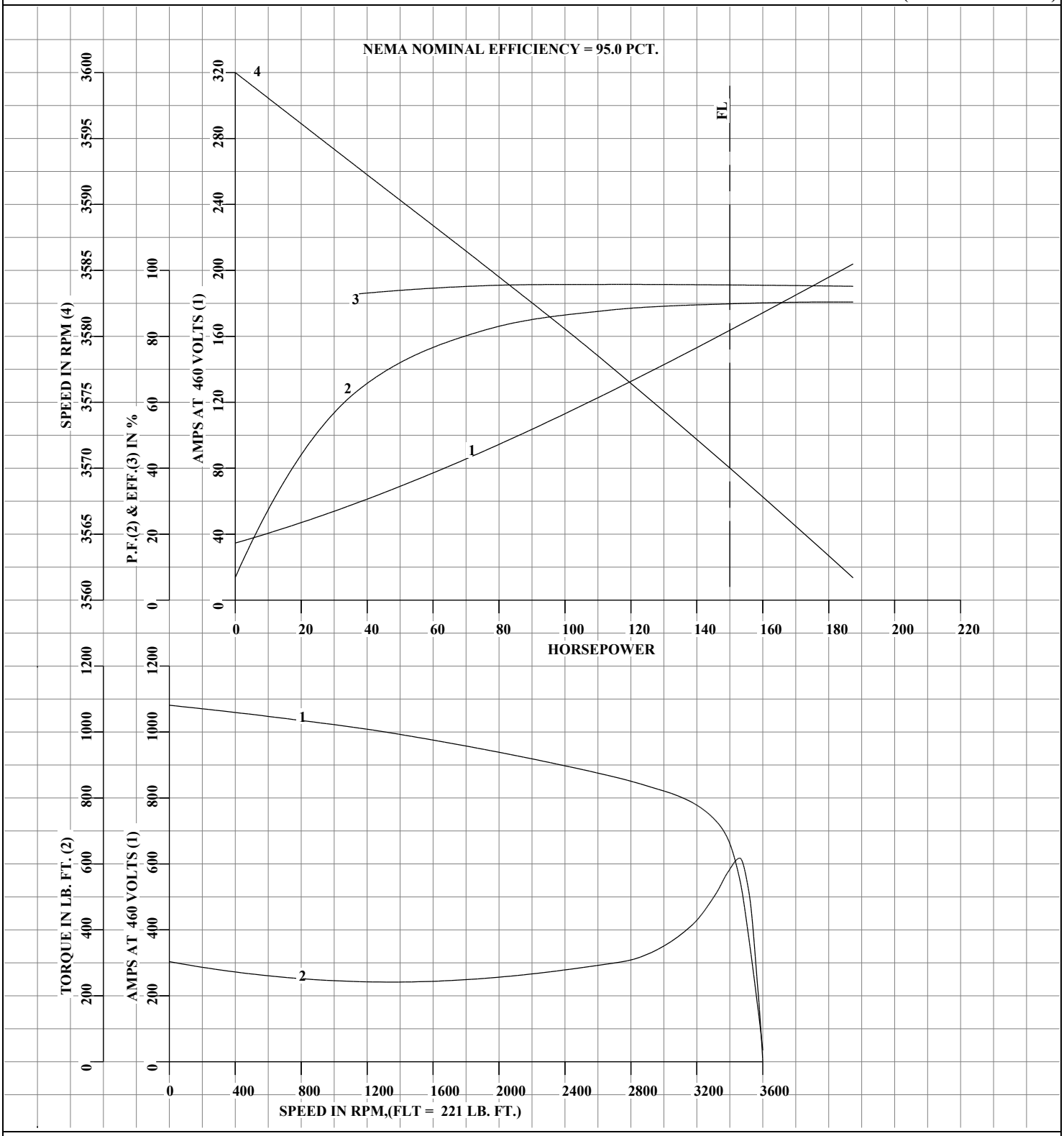
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	138	304	1081
PULL UP	1350	110	242	997
BREAKDOWN	3461	280	618	552
FULL LOAD	3570	100	221	164

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

CALCULATED DATA
NEMA NOMINAL EFFICIENCY = 95.0 PCT.

ABB	DRAWN BY: CD CHECKED BY: CD APPROVED BY: R. MCELVEEN DATE: 1/18/11	AC MOTOR PERFORMANCE DATA	A44WG3535-R001 DATE ISSUED 03/04/20

FRAME 445	VOLTS 460	NEMA DESIGN B	TEST S.O. CALCULATED DATA
HP 150	AMPS 164	CODE LETTER G	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES. @ 25°C .0292
PHASE / HERTZ 3/60	AMB °C / INSUL 40/F	E/S 0	OHMS (BETWEEN LINES)



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

ABB	DRAWN BY: CD CHECKED BY: CD APPROVED BY: R. MCELVEEN DATE: 1/18/11	AC MOTOR PERFORMANCE DATA	A44WG3535-R001 ISSUE DATE 03/04/2014

DUTY MASTER ALTERNATING CURRENT MOTORS

617435-049

ENCLOSURE: TOTALLY ENCLOSED

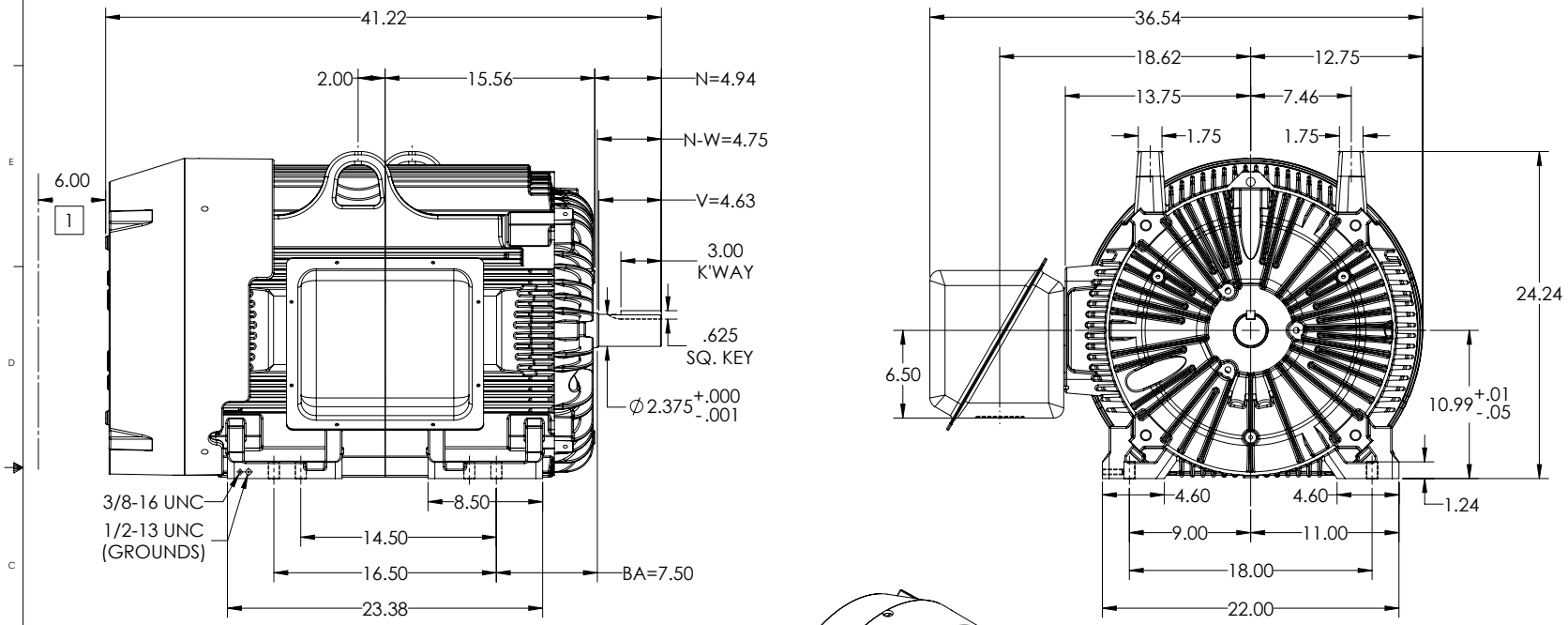
SQUIRREL-CAGE INDUCTION

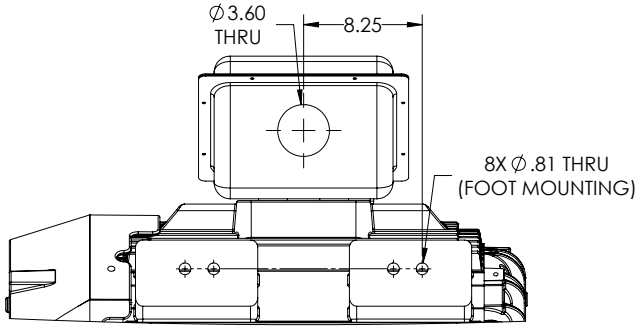
MOUNTING: FOOT, F-1 SIDE

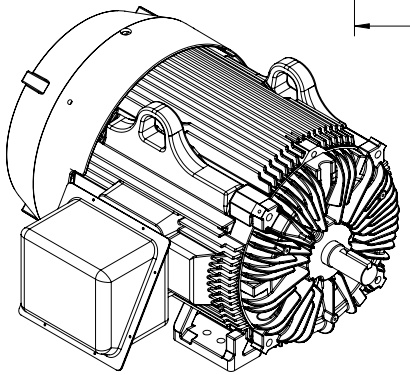
G445TS/G444TS FRAME MOUNTING HOLES

COOLING: FAN COOLED

STEEL CONDUIT BOX







DIMENSIONS ARE IN INCHES
WEIGHT (LBS): 2130, 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

617435-049

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: UPDATE DS QUALITY/ADD METRIC DS			
REV: A	VERSION: 01	REVISED: 11:45:13 09/22/2021	TDR: 000001177991
MODEL NO. 617435-049			REF:
BY: USJEDIL	Material:		C

BALDOR

G445/444TS TEFC FOOT F1/STEEL BOX

617435-049

DUTY MASTER ALTERNATING CURRENT MOTORS

617435-049

ENCLOSURE: TOTALLY ENCLOSED

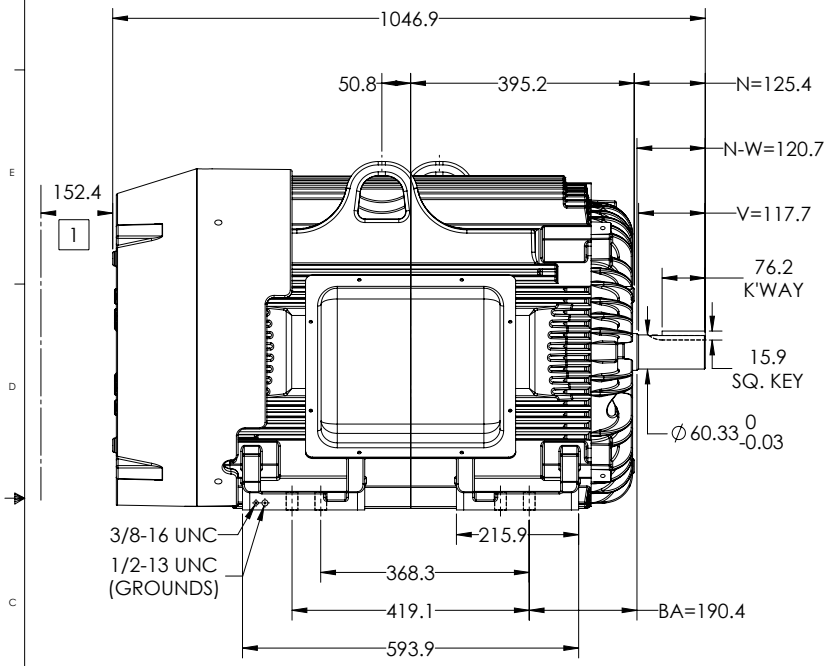
SQUIRREL-CAGE INDUCTION

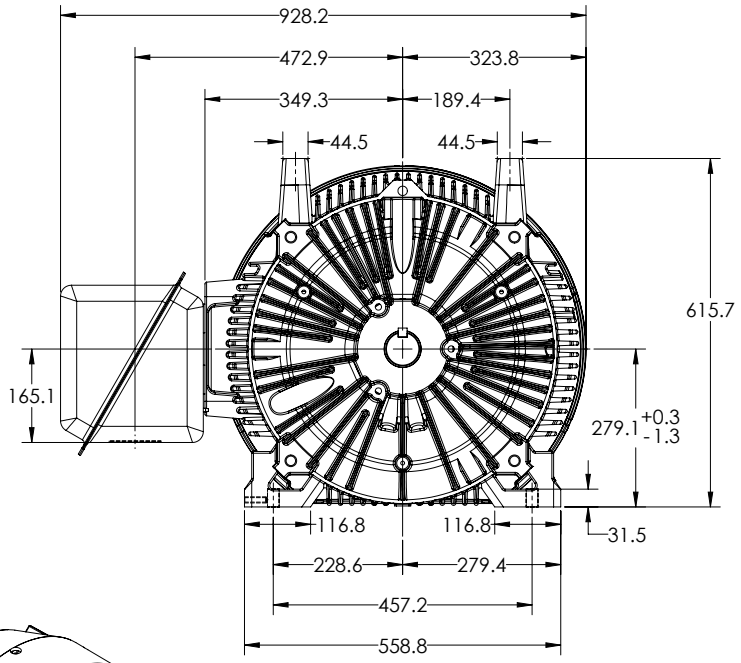
MOUNTING: FOOT, F-1 SIDE

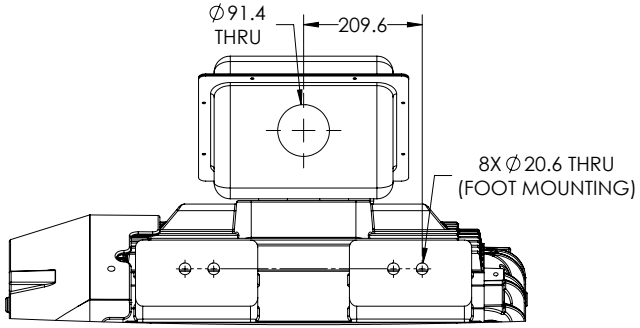
G445TS/G444TS FRAME MOUNTING HOLES

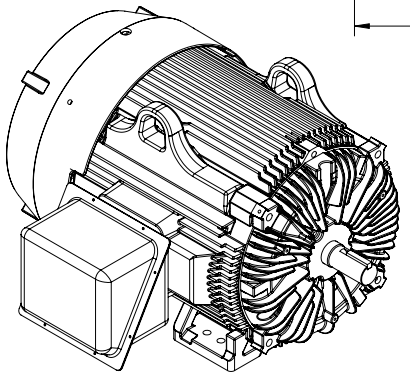
COOLING: FAN COOLED

STEEL CONDUIT BOX









DIMENSIONS ARE IN MILLIMETERS.
WEIGHT (KG): 966. 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

617435-049

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.

REV. DESC: UPDATE DS QUALITY/ADD METRIC DS			
REV: A	VERSION: 01	REVISED: 11:45:13 09/22/2021	TDR: 000001177991
MODEL NO. 617435-049			REF:
BY: USJEDIL	Material:		C

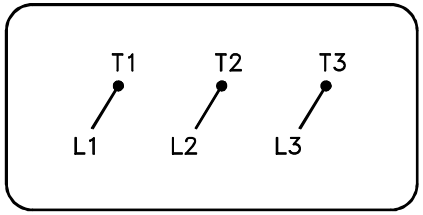
BALDOR

G445/444TS TEFC FOOT F1/STEEL BOX

617435-049

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