ABB BALDOR RELIANCE

Customer information packet

ECP84312T-5

50HP, 1185RPM, 3PH, 60HZ, 365T, A3668M, TEFC, F
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	365T
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	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM NEMA_PREMIUM UR CCSAUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Constant Torque Speed Range	6-60
Current @ Voltage	48.000 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Enclosure Modification	841
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	48.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G

Part Detail

Revision	D
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A36WG4276
Layout	617428-603
Eff. date	08-26-2024
CD Diagram	416820-036
Poles	06
Leads	3#4
Proprietary	False
Created date	05-30-2023

Lifting Lugs	Standard Lifting Lugs
Max Speed	1800 rpm
Motor Lead Quantity/Wire Size	3 @ 4 AWG
Motor Standards	None
Motor Type	A3668M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	33.49 IN
Power Factor	81
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	Phase Seq-Std Rot (CCWODE)
Shaft Slinger Indicator	No Slinger
Speed	1185 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP4388																			
CAT #	ECP84312T-5					**FR**	365T			IP56									
SPEC	A36-9123-4276					**ENCL**	TEFC			**DES**	B								
HZ	60	**PH**	3	**CL**	F	**HP**	50	**SF**	1.15	**PF**	81	**%**	**CODE**	G					
VOLTS	575					**AMPS**	48												
RPM	1185			**MAX RPM**	1800		**SER**												
NEMA NOM. EFF	94.1	**%**		**RATING**	40C AMB-CONT														
GUAR MIN. EFF	93	**%**		**BRG DE**	6313		**BRG ODE**	6313											
CL I DIV 2 GRPS A,B,C,D				**CL I ZONE 2 GRPS**			**IIA,IIB,IIC**			**TEMP T**			3-200	**C**					
CT HZ	6-60			**VT HZ**	0-60														
CHP HZ	60-90					**INV TEMP CL**	200	**C**											
	SFA 55						**MTR WT**	973	**LBS**										

NP4333			
CAT #	ECP84312T-5	**ROTOR BARS**	55
SPEC	A36-9123-4276	**STATOR SLOTS**	72
SER		**MAX CORR KVAR**	12.7
GREASE	POLYREX EM		
ABMA DE BRG	65BC03J30X **ODE**	65BC03J30X	
	SFA 55		

SPACE HEATER LEADS H1-H2: **TIE LIKE NUMBERS TOGETHER**

MAX. SPACE HEATER TEMP. **C** **V** **A** **W**

Parts List

Part number	Description	Quantity
SA414669	SA A36-9123-4276	1.000 ea
RA406430	RA A36-9123-4276	1.000 ea
NP4388	SS SUPER E INVERTER DUTY IEEE 841 MAIN N	1.000 ea
NP4333	SS SUPER-E SD IEEE 841 CLI DIV2 UR CSA C	1.000 ea
004824015A	GREASE POLYREX EM	0.544 lb
032018008AK	HHCS 1/4-20X1 PLATED	4.000 ea
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
034180012DA	KEY 1X4X1/4X1-1/2 L	1.000 ea
034530032BB	P/NIP 1/4X4" SCHED 40	1.000 ea
034530052AB	P/NIP 1/8X6-1/2 Zinc	1.000 ea
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 ea
034630002AB	CPLG 1/4" PLATED	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
702676001C	FAN 360	1.000 ea
078559034A	+F/C A 078559001A - 360	1.000 ea
085922083BH	BRKT 360 085922072WCC KB	1.000 ea
410700004F	WSHR	1.000 ea
412118006A	DRAIN	1.000 ea
415028079E	INPRO SEAL,.625 WIDE,313 BRG	1.000 ea
415072001B	CLAMP	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
423709011C	WASHER	3.000 ea
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
034530020BB	P/NIP 1/4X2-1/2 PLATED	1.000 ea
034530032AB	P/NIP 1/8X4 PLATED	1.000 ea
034600001AA	BUSH 1/4TO1/8 BLACK	1.000 ea
034630002AB	CPLG 1/4" PLATED	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
085922083BH	BRKT 360 085922072WCC KB	1.000 ea

412118006A	DRAIN	1.000 ea
415028079E	INPRO SEAL,.625 WIDE,313 BRG	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
423709011C	WASHER	3.000 ea
032018010CK	HHCS 3/8-16X1-1/4 PLTD. 032018010CR	4.000 ea
033512008LB	HHTTS 1/4-20X1 PLATED	4.000 ea
034000014AB	WSH ID.406 OD.812 TH.065	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
067053000B	GASK 320-400	1.000 ea
076708000BB	CONDUIT BOX-360	1.000 ea
076709000A	C/B Cover - 360	1.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
415000115H	T/LUG #2AWG-4/0AWG	1.000 ea
415039016A	TERBD, 360-400	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
034180034HA	KEY 5/8X5/8X4-1/4 L	1.000 ea
MG1025N19	WILKO 778.50 BLUE GREEN - 55 GAL DRUMS	0.250 ga
004824003CBY	WILKO PAINT 060.02 - ACTIVATOR	0.063 ga
482403003BEF	RUST VETO 342	0.013 ga
MG1500G03-5	LACQUER PRIMER, GRAY	0.063 ga
421948051	LABEL, MYLAR	1.000 ea
14PA1000	PACKAGING 314 GROUP COMBINED PRINT	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
032018005DL	1/2-13 X 5/8 SILICON BRONZE HHCS	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
000692000JP	N/P	1.000 ea
000692000VH	N/P (RELEASE 1000 PCS)	1.000 ea

AC induction motor performance data

Record #95960 - Typical performance - not guaranteed values

Winding	A36WG4276
Type	A3668M
Enclosure	TEFC

Nameplate data			
Rated Output			50
Volts			575
Full Load Amps			48
R.P.M.			1185
Hz	60	Phase	3
KVA Code			G
S.F.			1.15
NEMA Nom. Eff.	94.1	Power Factor	81
Duty			CONT
S.F. Amps			

575 V. 60 Hz:

Single Voltage Motor	
Full Load Torque	223 LB-FT
Start Configuration	direct on line
Breakdown Torque	531 LB-FT
Pull-up Torque	314 LB-FT
Locked-rotor Torque	387 LB-FT
Starting Current	286 A
No-load Current	16.64
Line-line Res. @ 25°C	0.168 Ω
Temp. Rise @ Rated Load	62°C
Temp. Rise @ S.F. Load	71°C
Locked-rotor Power Factor	27.8
Rotor inertia	22 lb-ft²

Load Characteristics 575 V, 60 Hz, 50 HP

% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	5	51	72	80	83	84	83	84
Efficiency	0	91.9	94.5	94.9	94.3	93.4	92.5	93.8
Speed	1199	1196	1193	1189	1185	1180	1175	1182
Line amperes	16.64	20.33	27.71	37.04	47.95	59.9	73.28	55.1

ABB BALDOR RELIANCE III

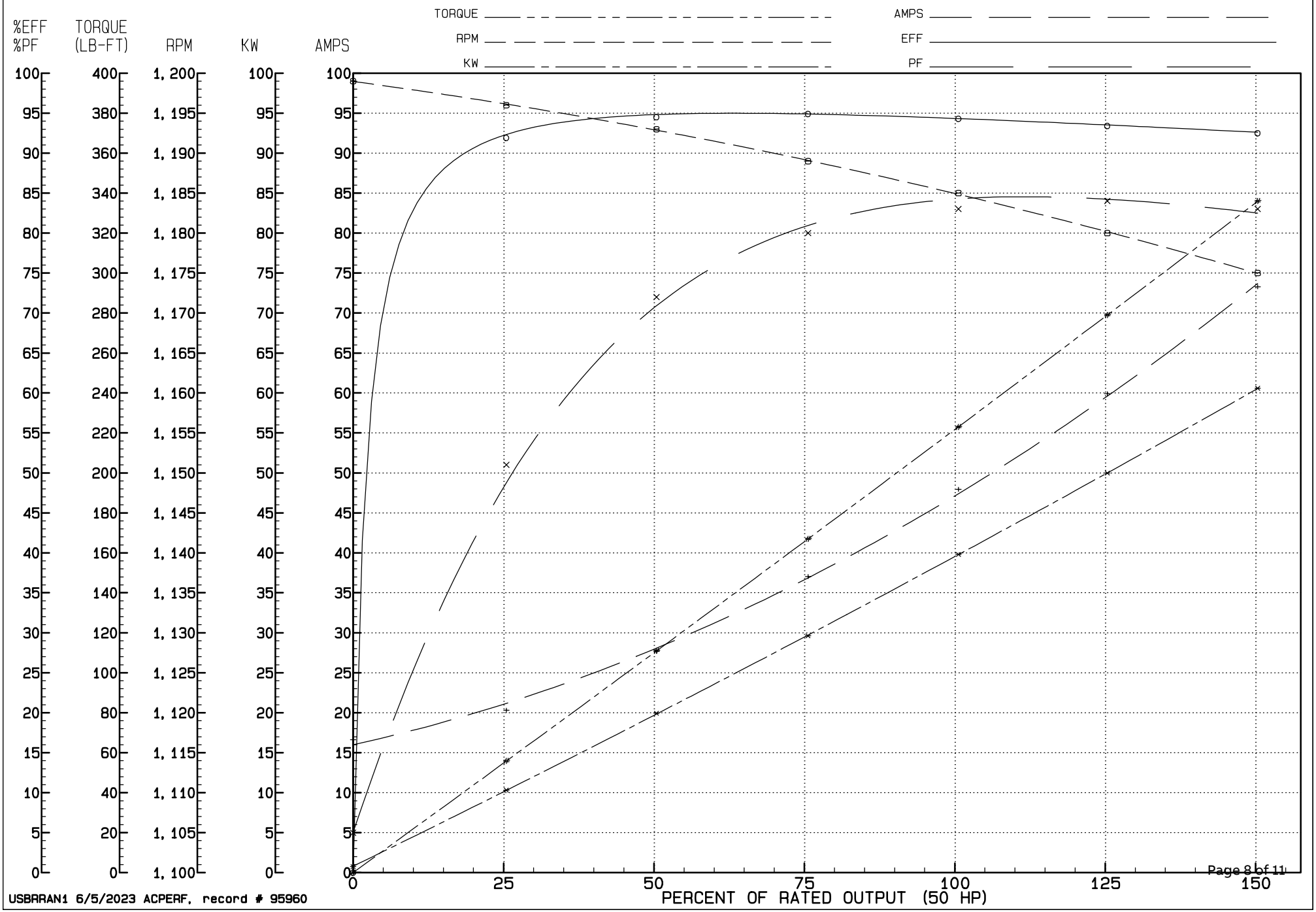
CUSTOMER INFORMATION PACKET ECP84312T-5 - 50HP, 1185RPM, 3PH, 60HZ, 365T, A3668M, TEFC, F

REVIEW

WINDING # A36WG4276

50 HP 3 PH 60 HZ 1185 RPM 575 V A3668M

TORQUES(LB-FT): PO=531.00 PU=314.00 LR=387.00 LRA=286.00



USBRRAN1 6/5/2023 ACPERF, record # 95960

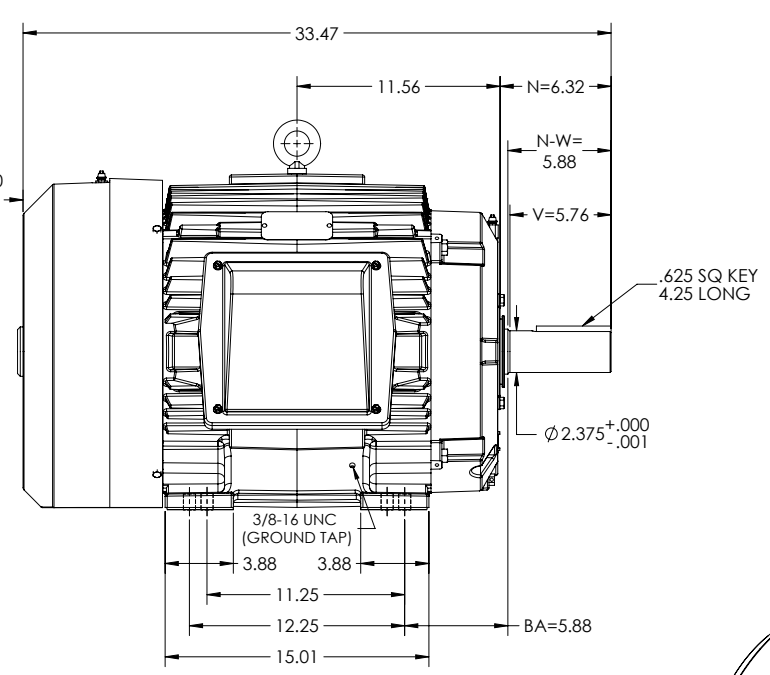
SHEET NUMBER 1 OF 2

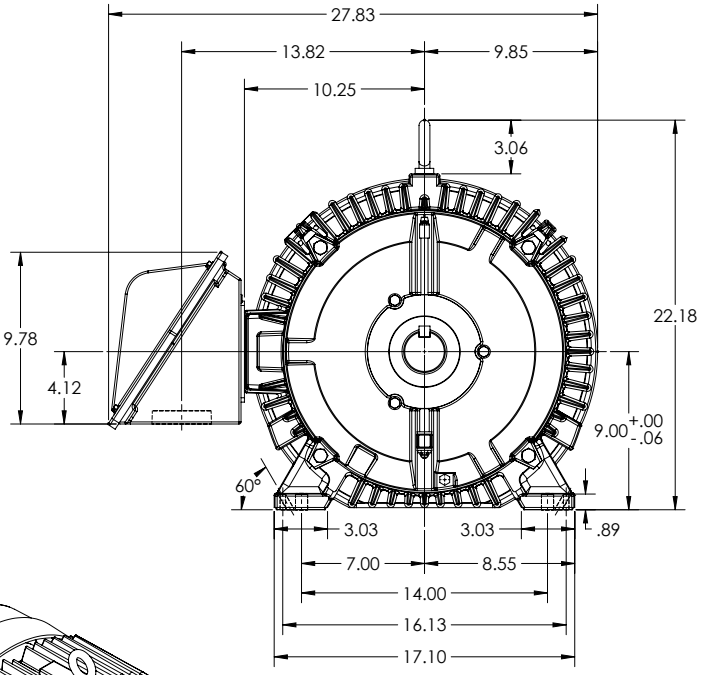
DUTY MASTER ALTERNATING CURRENT MOTORS

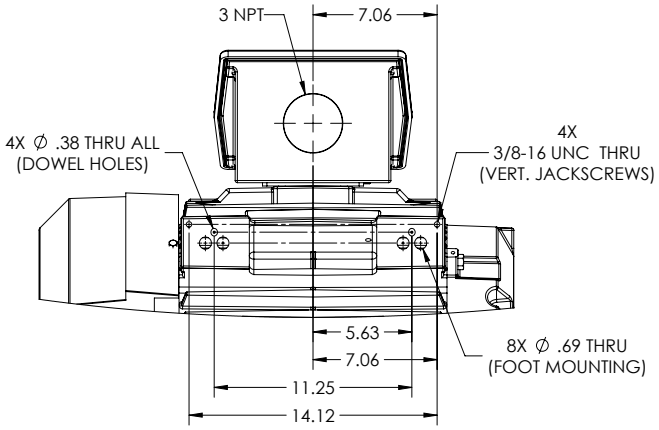
617428-603

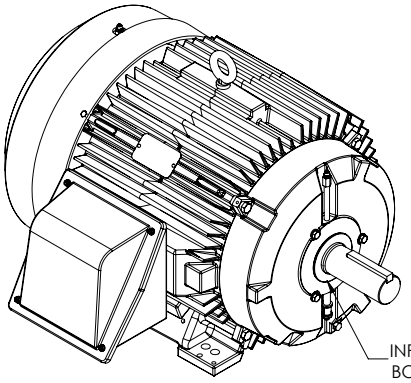
ENCLOSURE: TOTALLY ENCLOSED | SQUIRREL-CAGE INDUCTION | COOLING: FAN COOLED

MOUNTING: FOOT, F-1 | E364T/ E365T FRAME MOUNTING HOLES | ENCLOSURE ENAHNCEMENT: 841-XL









1 OBSTRUCTION MUST NOT ENCROACH ON AIR INLET.
WEIGHT (LBS) 846, WEIGHT MAY VARY BY 15% DEPENDING ON RATING
DIMENSIONS ARE IN INCHES.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

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

617428-603

REV. DESC: UPDATE MODEL TO ADD EXTERNAL HARDWARE PER PROD MGM			
REV: C	VERSION: 03	REVISED: 02-09-45 10/03/2022	TDR: 000001196512
MODEL NO. 617428-603			
BY: ENFRAJ0			C

BALDOR

E364/365T TEFC F1 FOOT/CI BOX/GRND TAP/841-XL

617428-603

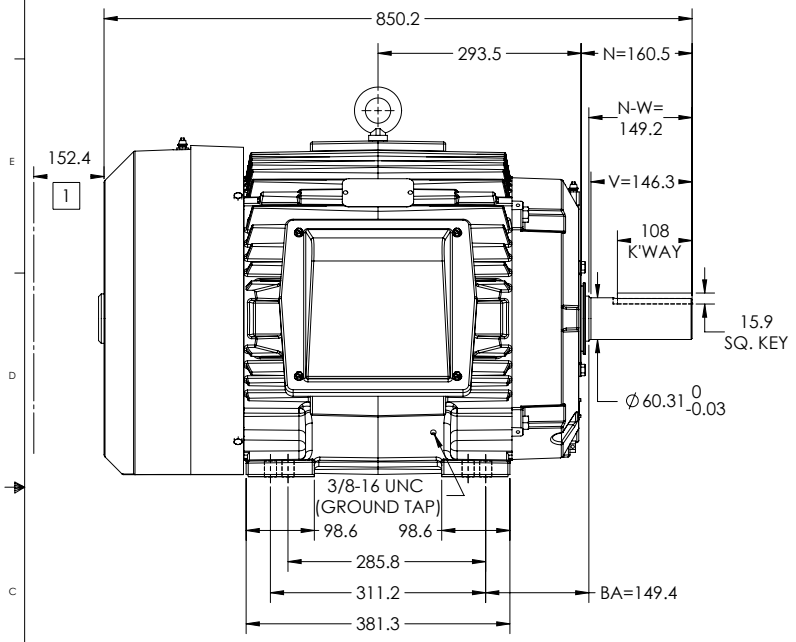
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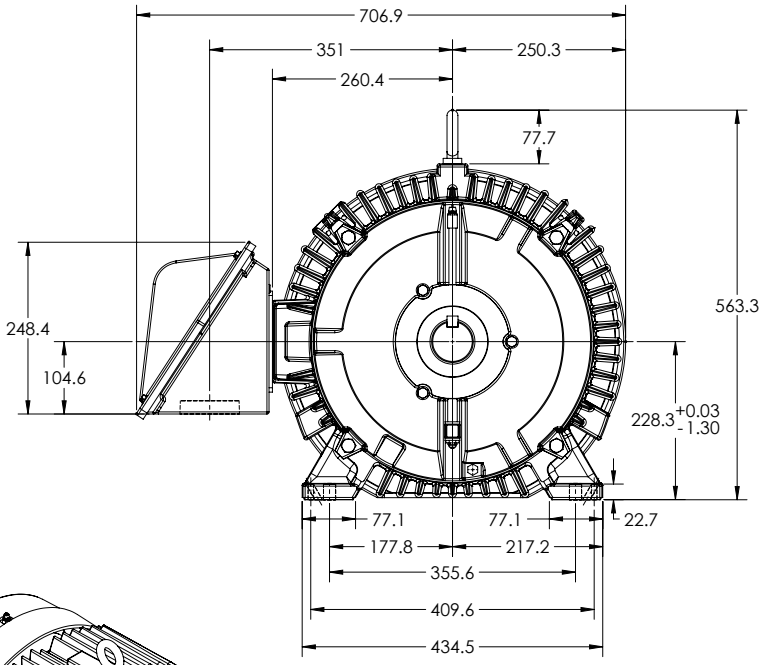
DUTY MASTER ALTERNATING CURRENT MOTORS

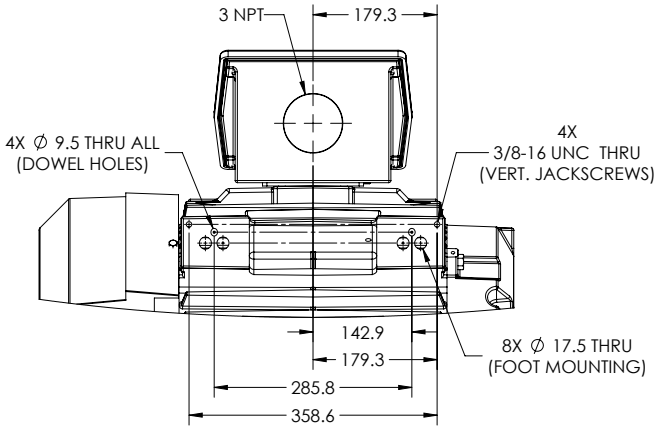
617428-603

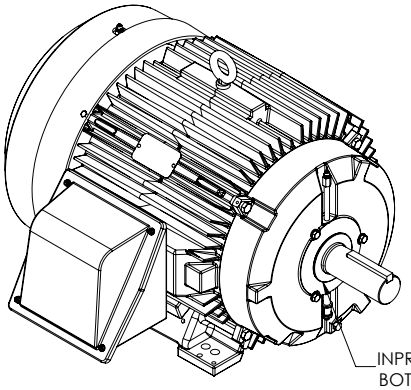
ENCLOSURE: TOTALLY ENCLOSED | SQUIRREL-CAGE INDUCTION | COOLING: FAN COOLED

MOUNTING: FOOT, F-1 | E364T/ E365T FRAME MOUNTING HOLES | ENCLOSURE ENAHNCEMENT: 841-XL









1 OBSTRUCTION MUST NOT ENCROACH ON AIR INLET.
WEIGHT (KG) 383.7, WEIGHT MAY VARY BY 15% DEPENDING ON RATING
DIMENSIONS ARE IN MILLIMETERS.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

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

REV. DESC: UPDATE MODEL TO ADD EXTERNAL HARDWARE PER PROD MGM			
REV: C	VERSION: 03	REVISED: 02-09-45 10/03/2022	TDR: 000001196512
MODEL NO. 617428-603			
BY: ENFRAJ0		C	

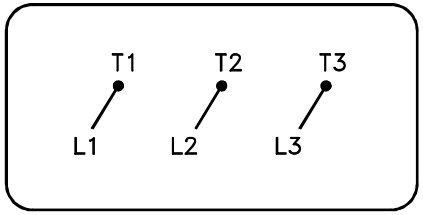
BALDOR

E364/365T TEFC F1 FOOT/CI BOX/GRND TAP/841-XL

617428-603

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