ABB BALDOR RELIANCE

Customer information packet

IDVSM4316T

75HP, 1780RPM, 3PH, 60HZ, 365T, A36070M, TEFC
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	365T
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	75.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CCSA US
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Constant Torque Speed Range	1000:1
Current @ Voltage	172.000 A @ 230.0 V
	86.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.4 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	86.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	H
Lifting Lugs	Standard Lifting Lugs

Part Detail

Revision	F
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A36WG4073
Layout	617431-412
Eff. date	02-13-2025
CD Diagram	416820-002
Poles	04
Leads	3#4,6#6
Proprietary	False
Created date	06-06-2019

Max Speed	3600 rpm
Motor Lead Quantity/Wire Size	3 @ 4 AWG
Motor Standards	NEMA
Motor Type	A36070M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	33.48 IN
Power Factor	83
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	2.374 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	Normally Closed Thermostat

Nameplate

NP2496L
MOBIL POLYREX EM

000613007HV

CAT NO	IDVSM4316T		**SPEC NO.**	A36-5002-4073								
SER.NO.			**FRAME**	365T								
	HP	**RPM**	**VOLTS**	**AMPS**	**HZ**	**TYPE**	P					
BASE	75	1780	230/460	172/86.2	60	**SF**	1.00					
MAX	75	2675	230/460	169/84.5	90	**INSUL.CLASS**	F					
DRIVE END BEARING	65BC03J30X		**CONSTANT TORQUE**		**DUTY**	CONT	**AMB**	40				
OPP D.E. BEARING	65BC03J30X		1000:1	**ENCL**	TEFC	**PHASE**	3					
DESIGN NO.	A36WG4073-R002		**FLUX AMPS**	62/31		**VPWM INVERTER READY**						
MAX SPEED/RPM	3600		**OVERTEMP PROT**	2	**WK2**	13.7	**POLES**	4	**WEIGHT**			

				WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP VOLTS	230/460						
NP AMPS	172/86	Base Volt	460	R1	0.045	X1	0.239
HP	75	NL AMPS	30.80	R2	0.225	X2	0.110
BASE SPEED	1783	Slip (HZ)	0.57	R2B	0.021	X2B	0.339
PHASE/HZ	3/60	WK^2 (lb-ft^2)	0.000	R2E	0.005	XM	7.820

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1782.8	74.9	220.5	460	60	86.2
Max Speed	2673	74.8	147.0	460	90	83.5
CT Min Speed	1.7828	0.075	220.5	0.46	0.06	86.2

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1798.9	0.0	0.0	460	60	30.8
1/4	1795.7	18.8	54.9	460	60	36.9
1/2	1791.7	37.5	109.8	460	60	50.3
3/4	1787.7	56.2	164.9	460	60	67.3
Full Load	1782.8	74.9	220.5	460	60	86.2
O/L	1762	149.7	446.0	460	60	179.0

Blower Data	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data

BALDOR · RELIANCE

DR BY USBRRAN1
CK BY CD
APP BY USBRRAN1
DATE 11/5/2024

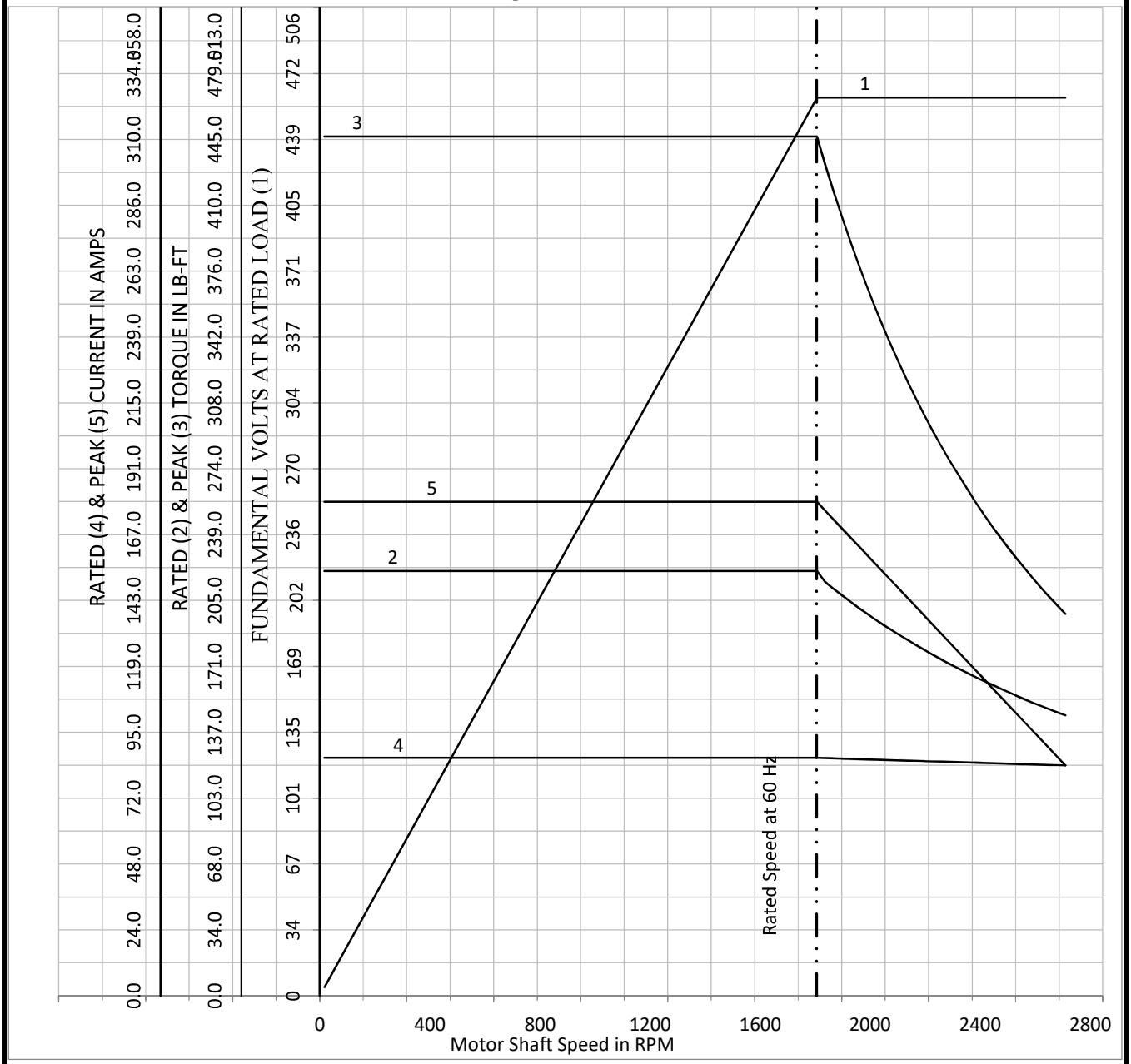
A-C MOTOR PERFORMANCE CURVES

A36WG4073

Record: 76727

				WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP VOLTS	230/460						
NP AMPS	172/86	Base Volt	460	R1	0.045	X1	0.239
HP	75	NL AMPS	30.80	R2	0.225	X2	0.110
BASE SPEED	1782.80005	Slip (HZ)	0.57	R2B	0.021	X2B	0.339
PHASE/HZ	3/60	WK^2 (lb-ft^2)	0.000	R2E	0.005	XM	7.820

Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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DATE 11/5/2024

A-C MOTOR PERFORMANCE CURVES

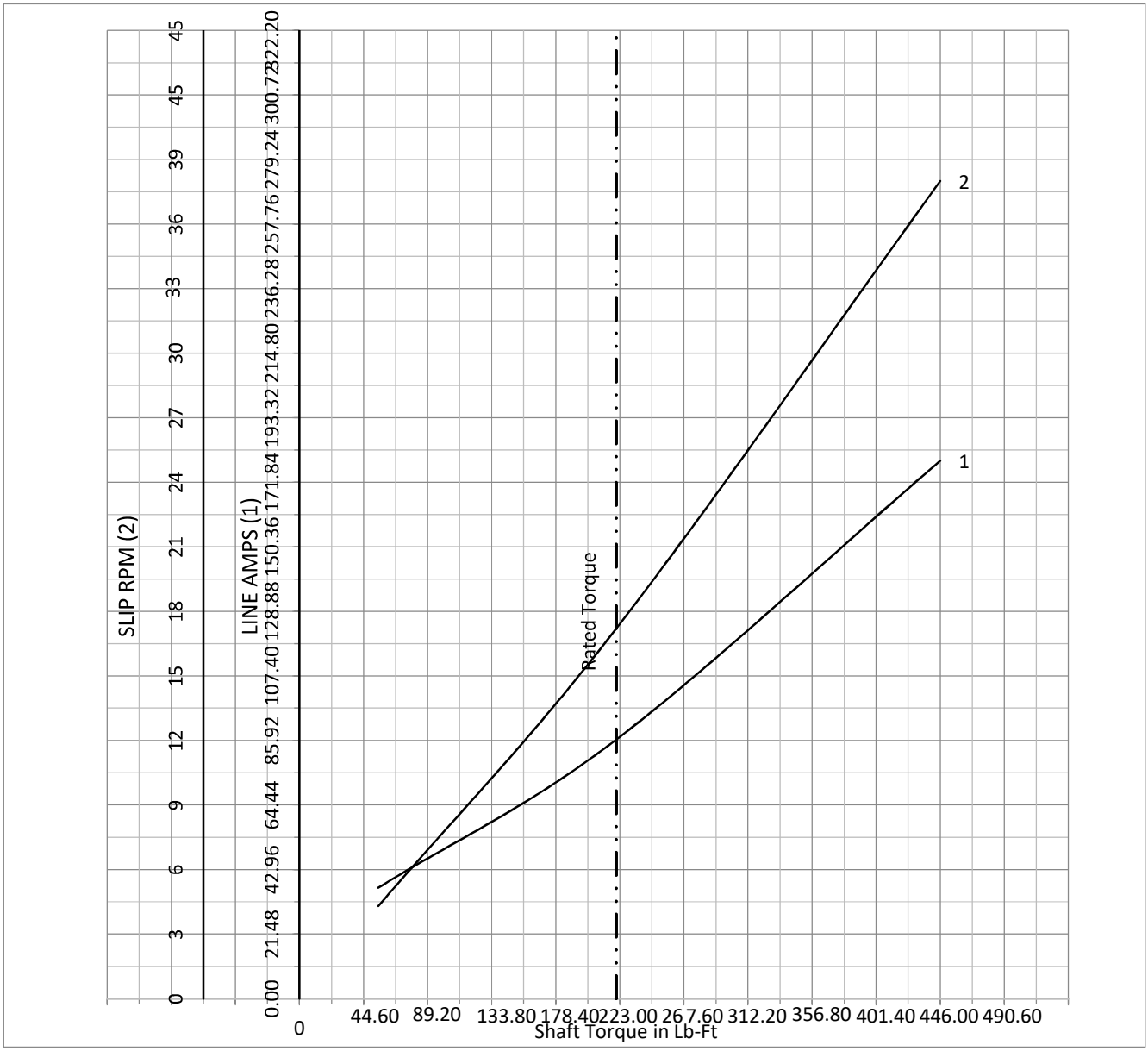
A36WG4073

Record: 76727

NP VOLTS	230/460	0	0	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	172/86	Base Volt	460	R1	0.045	X1	0.239
HP	75	NL AMPS	30.80	R2	0.225	X2	0.110
BASE SPEED	1782.800049	Slip (HZ)	0.57	R2B	0.021	X2B	0.339
PHASE/HZ	3/60	WK2 (lb-ft2)	0.000	R2E	0.005	XM	7.820

Vector PWM Inverer Duty

Vaiable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

BALDOR · RELIANCE

DR BY USBRRAN1
CK BY CD
APP BY USBRRAN1
DATE 11/5/2024

A-C MOTOR PERFORMANCE CURVES

A36WG4073

Record: 76727

617431-412

DUTY MASTER ALTERNATING CURRENT MOTORS

ENCLOSURE: TOTALLY ENCLOSED

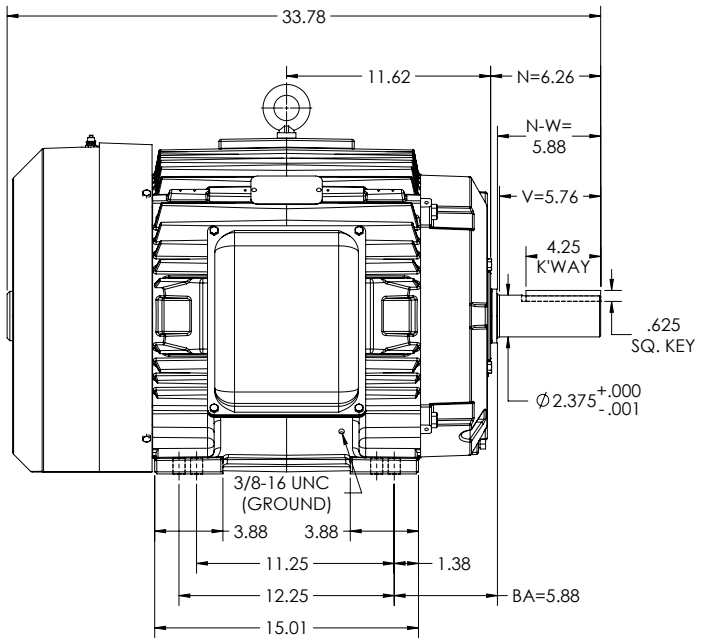
SQUIRREL-CAGE INDUCTION

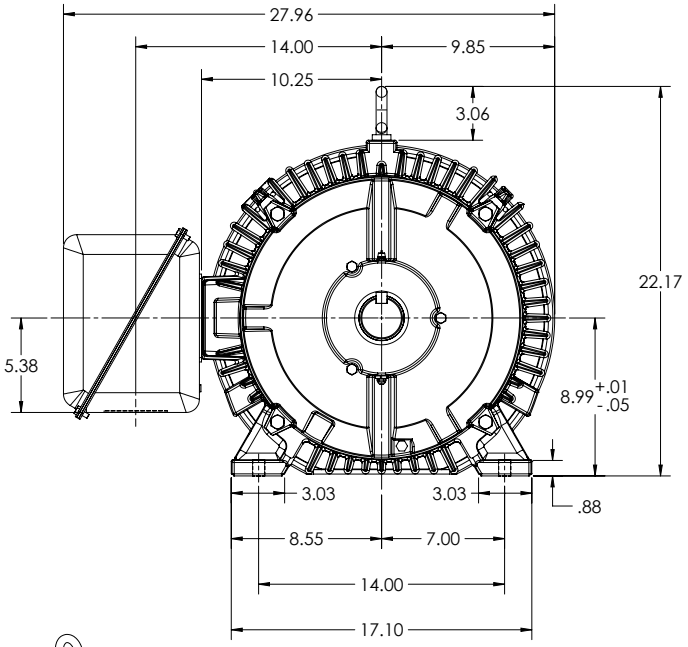
MOUNTING: FOOT, F-1 SIDE

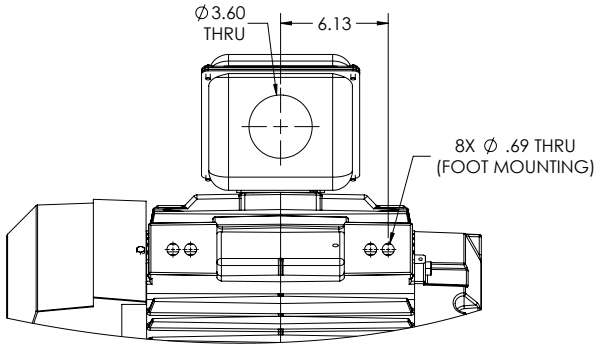
E365T/E364T FRAME MOUNTING

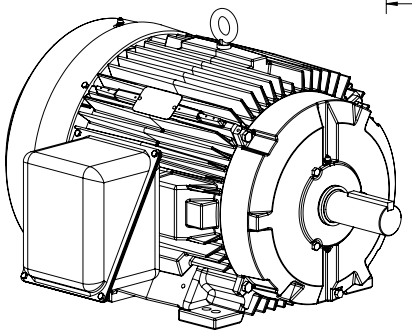
COOLING: FAN COOLED

STEEL CONDUIT BOX









DIMENSIONS ARE IN INCHES.
WEIGHT (LBS.) 800, MOTOR WEIGHT MAY VARY 15% DEPENDING ON RATING.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER 1 OF 2

617431-412

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			
REV: F	VERSION: 06	REVISED: 01:00:49 01/02/2024	TDR: 000001222947
MODEL NO. 617431-412			
BY: USJEDIL			C

BALDOR

E365/364T TEFC FOOT F1/STEEL CONDUIT BOX

617431-412

617431-412

DUTY MASTER ALTERNATING CURRENT MOTORS

ENCLOSURE: TOTALLY ENCLOSED

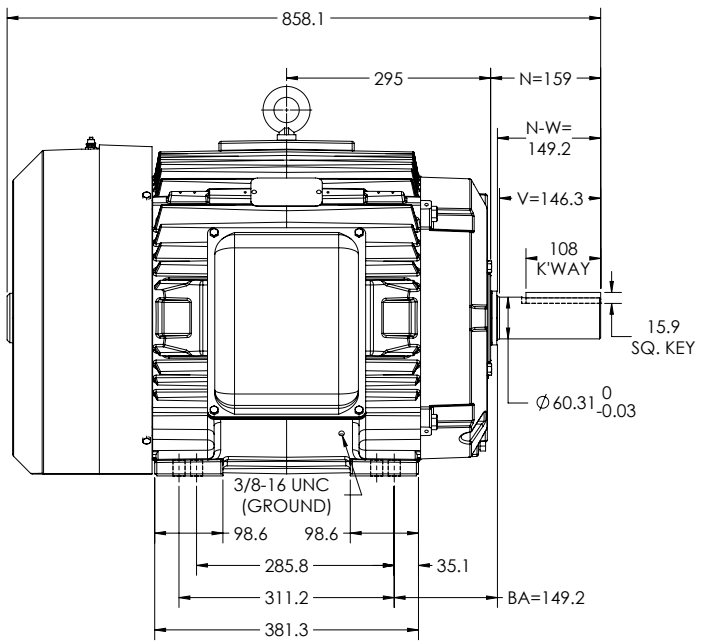
SQUIRREL-CAGE INDUCTION

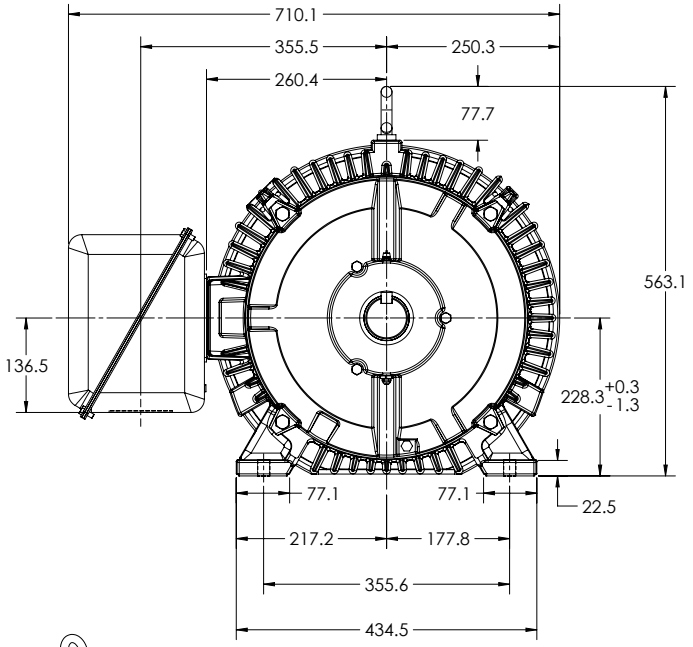
MOUNTING: FOOT, F-1 SIDE

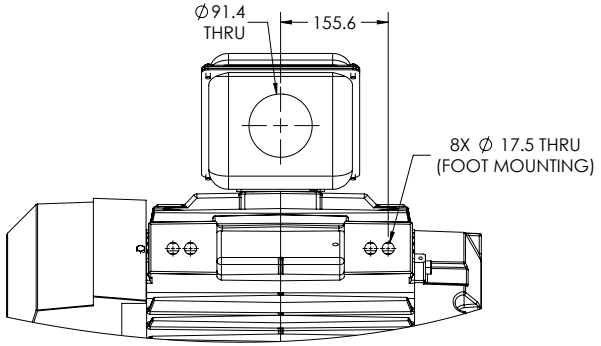
E365T/E364T FRAME MOUNTING

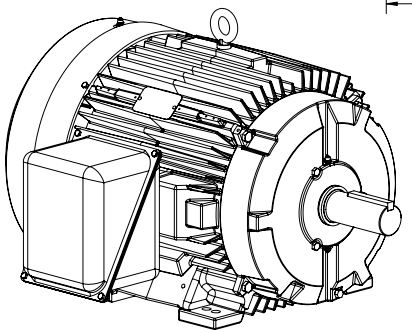
COOLING: FAN COOLED

STEEL CONDUIT BOX









DIMENSIONS ARE IN MILLIMETERS.
WEIGHT (KG) 362. MOTOR WEIGHT MAY VARY 15% DEPENDING ON RATING.
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 MEASURED AT END OF STANDARD SHAFT EXTENSION IS .08 T.I.R.

REV. DESC: UPDATE DS QUALITY			
REV: F	VERSION: 06	REVISED: 01:00:49 01/02/2024	TDR: 000001222947
MODEL NO. 617431-412			
BY: USJEDIL			C

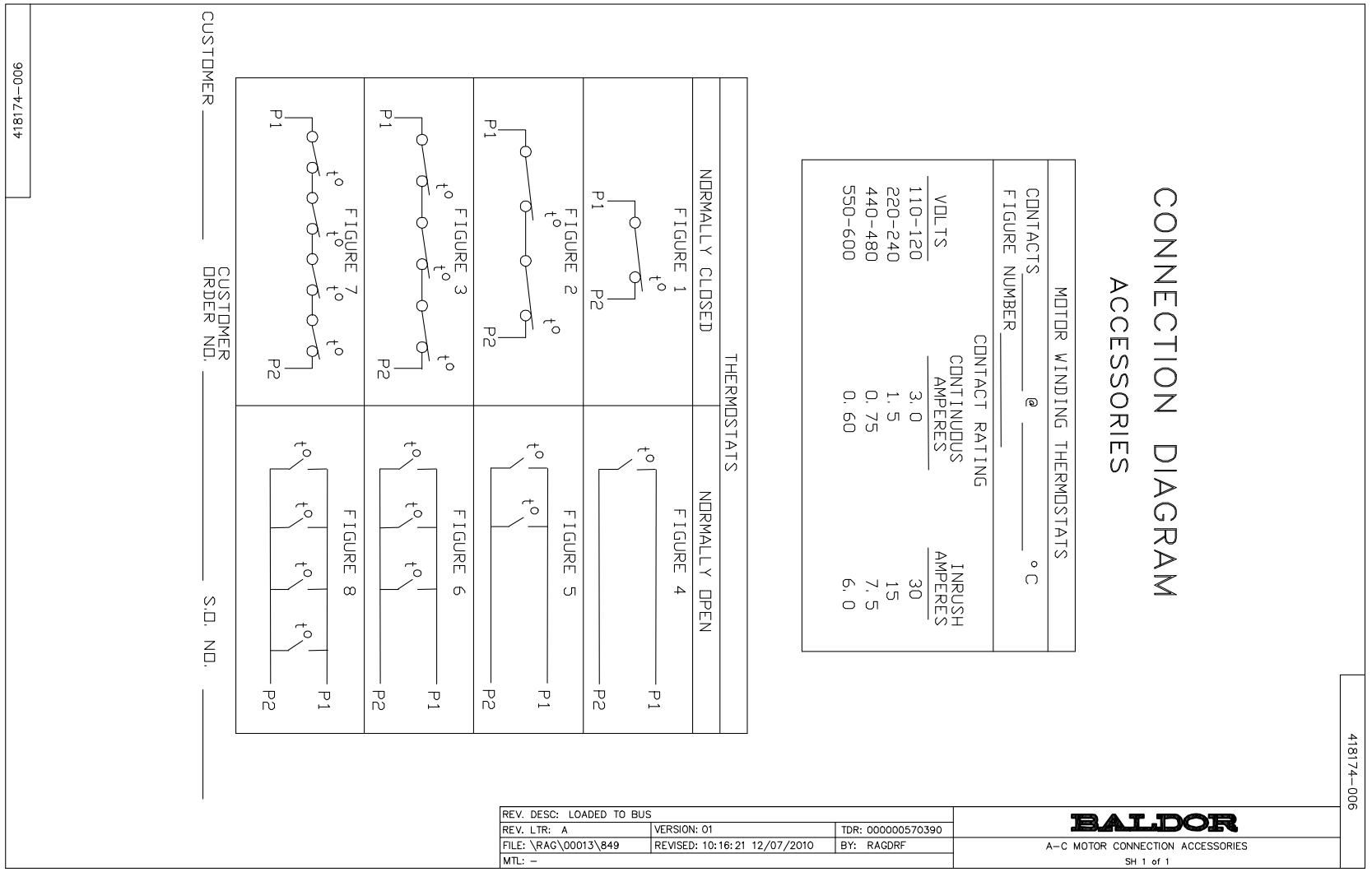
BALDOR

E365/364T TEFC FOOT F1/STEEL CONDUIT BOX

SHEET NUMBER 2 OF 2

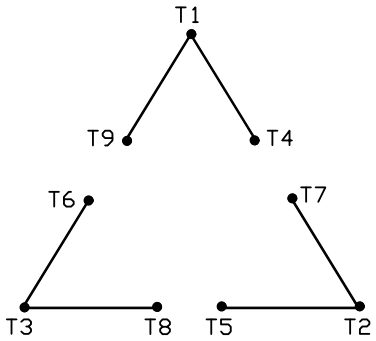
617431-412

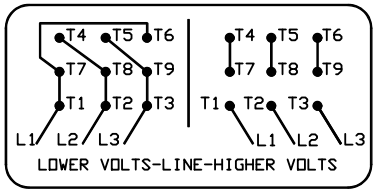
617431-412


CONNECTION DIAGRAM
ACCESSORIES
418174-006
MOTOR WINDING THERMOSTATS
CONTACTS _____ @ _____ °C
FIGURE NUMBER _____
CONTACT RATING
VOLTS
CONTINUOUS AMPERES
INRUSH AMPERES
110-120 3.0 30
220-240 1.5 15
440-480 0.75 7.5
550-600 0.60 6.0
THERMOSTATS
NORMALLY CLOSED
NORMALLY OPEN
FIGURE 1
FIGURE 2
FIGURE 3
FIGURE 4
FIGURE 5
FIGURE 6
FIGURE 7
FIGURE 8
P1
P2
CUSTOMER _____ CUSTOMER ORDER NO. _____ S.O. NO. _____
418174-006
REV. DESC: LOADED TO BUS
REV. LTR: A
VERSION: 01
TDR: 000000570390
FILE: \RAG\00013\849
REVISED: 10:16:21 12/07/2010
BY: RAGDRF
MTL: -
BALDOR
A-C MOTOR CONNECTION ACCESSORIES
SH 1 of 1

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