ABB BALDOR RELIANCE

Customer information packet

ZDVSM4408T-4

250HP, 1790-2685RPM, 3PH, 60-90HZ, 449T, A441
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	449T
Frame Material	Iron
Frequency	60.00 Hz
	90.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	250.000 HP @ 90 HZ
	250.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
	460.0 V @ 90 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	272.000 A @ 460.0 V
	277.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.8 %
Feedback Device	ENCODER
Heater Indicator	No Heater
High Voltage Full Load Amps	272.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	L

Part Detail

Revision	M
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG0225
Layout	617427-070
Eff. date	09-25-2025
CD Diagram	416820-036
Poles	04
Leads	3#2/0 (02 per group)
Proprietary	False
Created date	08-27-2012

Lifting Lugs	Standard Lifting Lugs
Max Speed	3600 rpm
Motor Lead Quantity/Wire Size	6 @ 2/0 AWG
Motor Standards	NEMA
Motor Type	A44128M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	56.66 IN
Power Factor	87
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1790 rpm
	2685 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

000613007HV

CAT NO	ZDVSM4408T-4		**SPEC NO.**	P44G4016								
SER.NO.			**FRAME**	449T								
	HP	**RPM**	**VOLTS**	**AMPS**	**HZ**	**TYPE**	P					
BASE	250	1790	460	277	60	**SF**	1.00					
MAX	250	2685	460	272	90	**INSUL.CLASS**	F					
DRIVE END BEARING	90BC03J30X		**CONSTANT TORQUE**		**DUTY**	CONT	**AMB**	40				
OPP D.E. BEARING	6318C3VL0241		1000:1	**ENCL**	TEFC	**PHASE**	3					
DESIGN NO.	A44WG0225-R001		**FLUX AMPS**	83.3		**VPWM INVERTER READY**						
MAX SPEED/RPM	3600		**OVERTEMP PROT**	2	**WK2**	84.1	**POLES**	4	**WEIGHT**			

REL S.O.	–	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	449T	AMPS	277	MAX SAFE RPM	3600	(AT BASE RATING, 25 °C)			
HP	250	DUTY	CONT	IM (AMPS)	83.3	R1	.00598	X1	.0788
BASE SPEED	1790	S.F.	1.00	P.F.@NL/FL	.061/.881	R2	.00435	X2	.0795
PHASE/HERTZ	3/60	AMB °C/INSUL	40/F	WK^2 ($Lb-Ft^2$)	84.1			XM	2.72

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1790	250	733	460	60	277
MAX SPEED	2684	250	489	460	90	272
MIN SPEED	0	0	733	5.90	.332	277

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	83.3
1/4	1798	62.5	183	460	60	117
1/2	1795	125	366	460	60	163
3/4	1793	187	549	460	60	217
FULL LOAD	1790	250	733	460	60	277
O/L	1778	497	1467	460	60	543

BLOWER DATA	VOLTS	PH/HZ	FL AMPS	LR AMPS	FRAME	CFM

REMARKS: TYPICAL DATA
VECTOR PWM INVERTER DUTY

BALDOR

DR. BY	W. L. SMITH
CK. BY	J.J.HARRISON
APP. BY	D. M. BYRD
DATE	04/23/04

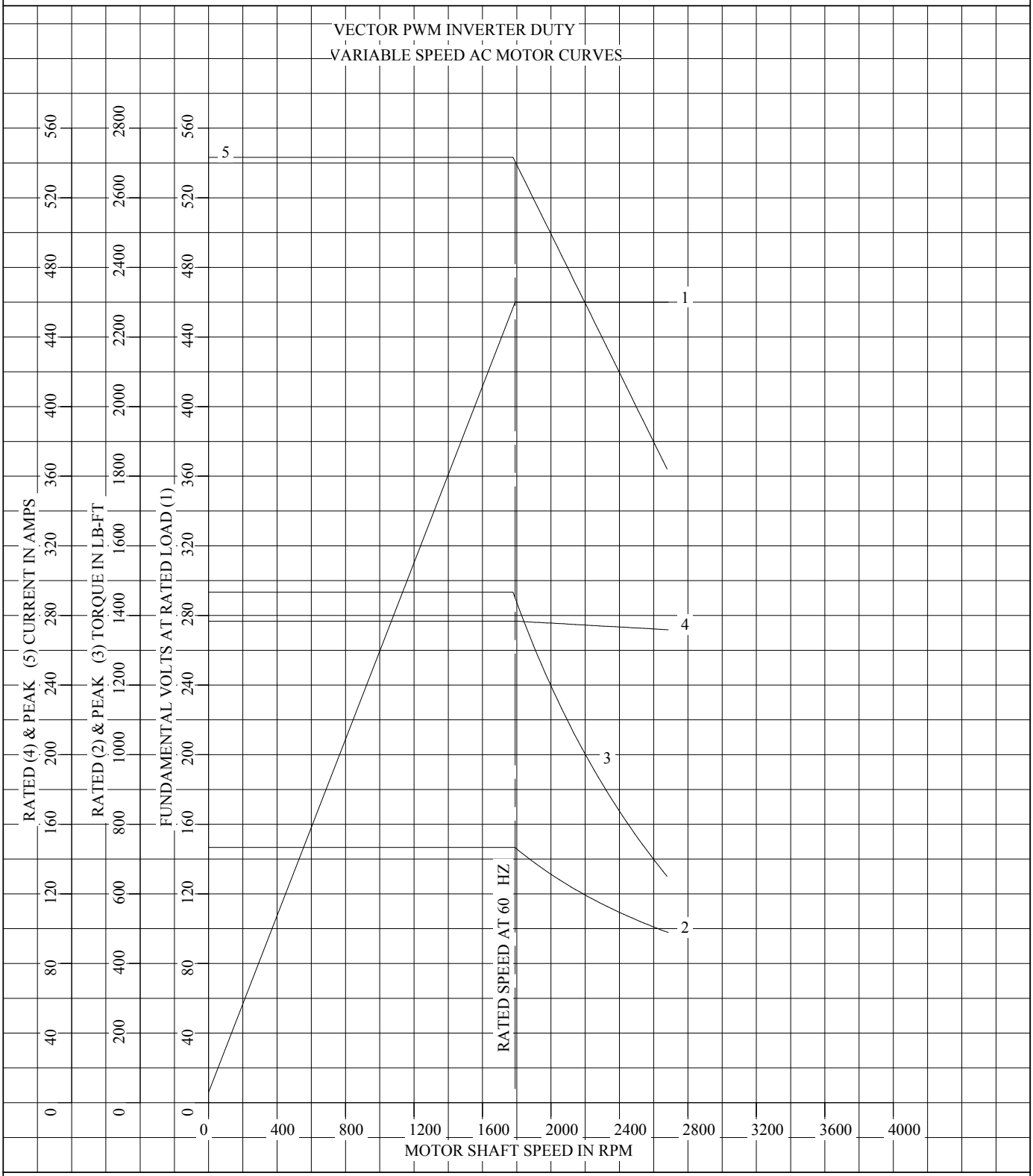
A-C MOTOR PERFORMANCE DATA

A44WG0225-R001

ISSUE DATE 12/16/10

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REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25 °C)	
FRAME	449T	AMPS	277	MAX SAFE RPM	3600		
HP	250	DUTY	CONT	IM (AMPS)	83.3	R1 .00598	X1 .0788
BASE SPEED	1790	S.F.	1.00	P.F.@NL/FL	.061/.881	R2 .00435	X2 .0795
PHASE/HERTZ	3/60	AMB °C/INSUL	40/F	WK² (Lb-Ft²)	84.1		XM 2.72



REMARKS: TYPICAL DATA

DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

BALDOR

DR. BY	W. L. SMITH
CK. BY	J.J.HARRISON
APP. BY	D. M. BYRD
DATE	04/23/04

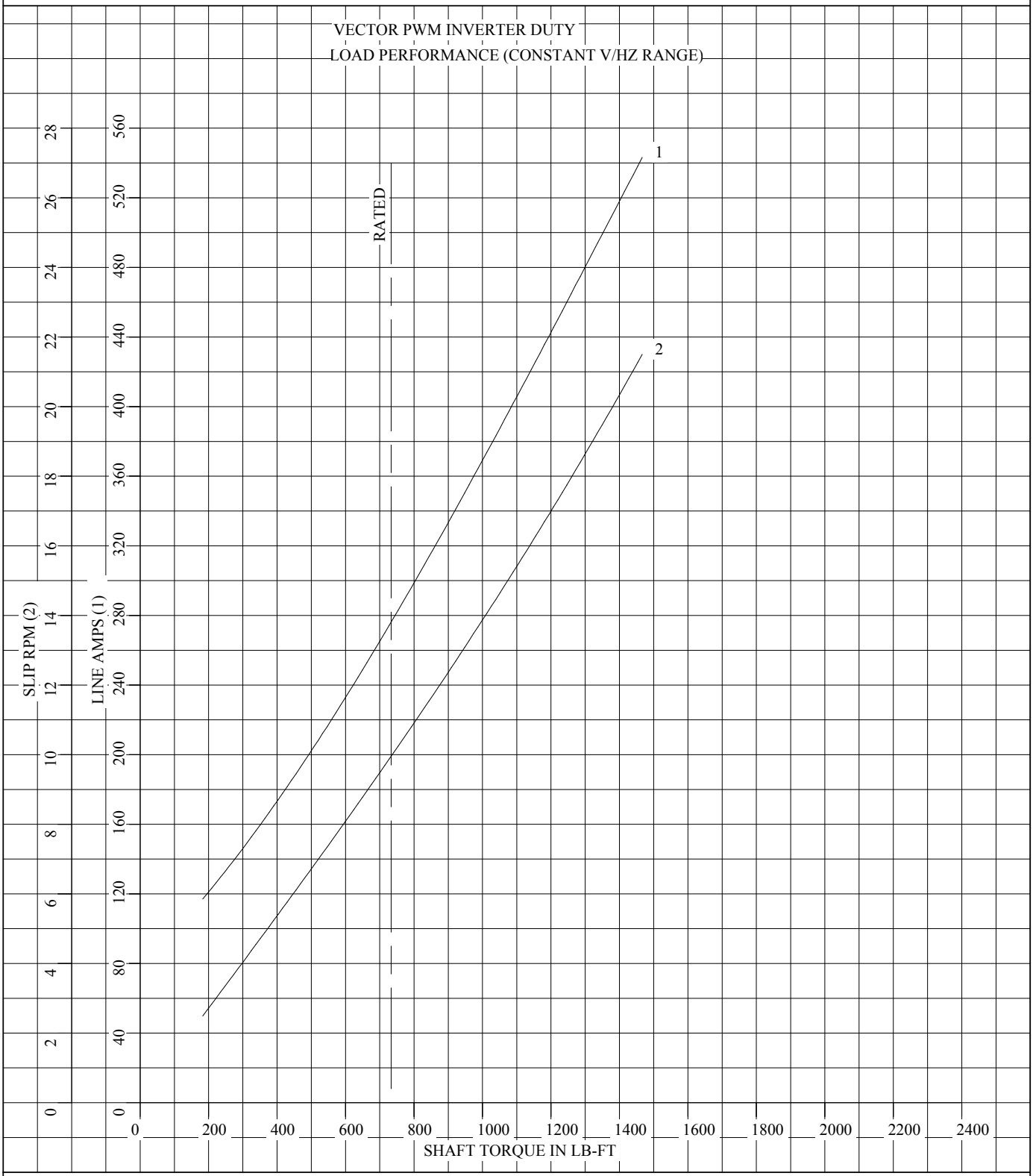
A–C MOTOR PERFORMANCE CURVES

A44WG0225-R001

SH 1 OF 2

ISSUE DATE 12/16/10

REL S.O.	–	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	449T	AMPS	277	MAX SAFE RPM	3600	(AT BASE RATING, 25 °C)	
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BASE SPEED	1790	S.F.	1.00	P.F.@NL/FL	.061/.881	R2 .00435	X2 .0795
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REMARKS: TYPICAL DATA

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A–C MOTOR PERFORMANCE CURVES

A44WG0225-R001

SH 2 OF 2

ISSUE DATE 12/16/10

617427-070

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

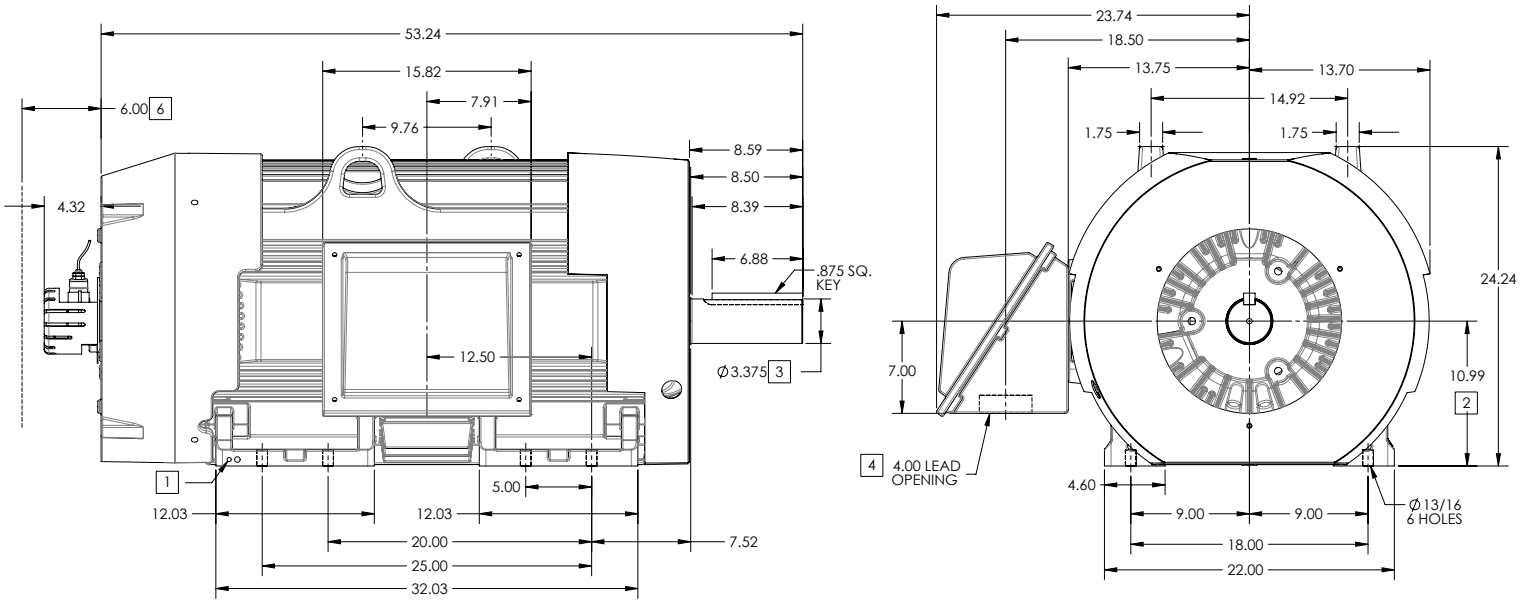
ENCLOSURE: TOTALLY ENCLOSED

FRAME 449T ABOVE NEMA RATINGS (1800 RPM MAX)

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 447T FRAME MOUNTING HOLES
WITH BEI HS-35 ENCODER



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00,-.06
3. VARIES +.000,-.001
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. OBSTRUCTION MUST NO ENCROACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003" T.I.R. TO 5 INCH DIA.

5 WEIGHT (LBS): 3080

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER 1 OF 2

617427-070

REV. DESC: INITIAL RELEASE			
REV: -	VERSION: 00	REVISED: 03:39:24 08/24/2012	TDR: 000000761412
MODEL NO. 617427-070			
BY: MGHJMZ2			

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BALDOR

G449T/447T STD – FOOTED – SIDE/CENTER C/B BEI HS-35 ENCODER

617427-070

617427-070

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

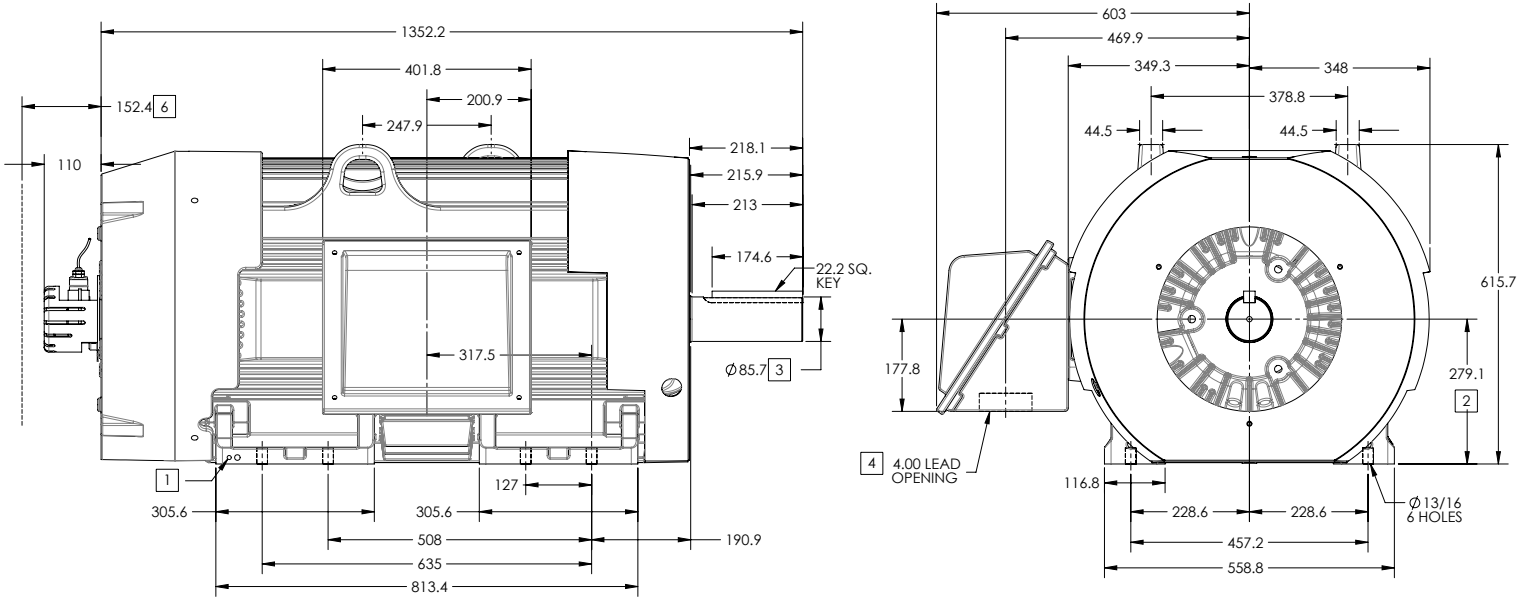
ENCLOSURE: TOTALLY ENCLOSED

FRAME 449T ABOVE NEMA RATINGS (1800 RPM MAX)

COOLING: FAN COOLED

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2. VARIES +.00,-.06
3. VARIES +.000,-.001
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. OBSTRUCTION MUST NO ENCROACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .08 MM T.I.R. TO 127 MM DIA.

5 WEIGHT (KGS): 1400

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN MILLIMETERS; SEE SHEET 1 FOR DIMENSIONS IN INCHES

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER 2 OF 2

617427-070

REV. DESC: INITIAL RELEASE			
REV: -	VERSION: 00	REVISED: 03:39:24 08/24/2012	TDR: 000000761412
MODEL NO. 617427-070			
BY: MGHJMZ2			

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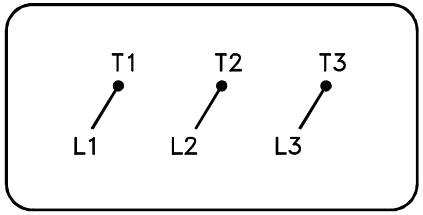
BALDOR

G449T/447T STD – FOOTED – SIDE/CENTER C/B BEI HS-35 ENCODER

617427-070

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