

**BALDOR® • RELIANCE** 

**Product Information Packet**

**ZDVSM4408T-4**

**250HP, 1790-2685RPM, 3PH, 60-90HZ, 449T, A441**

Part Detail							
Revision:	G	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	A44WG0225	CD Diagram:	416820-036	Mfg Plant:	
Mech. Spec:		Layout:	617427-070	Poles:	04	Created Date:	08-27-2012
Base:		Eff. Date:	09-07-2017	Leads:	3#2/0 (02 per group)		

Specs			
Catalog Number:	ZDVSM4408T-4	Duty Rating:	CONT
Enclosure:	TEFC	Feedback Device:	ENCODER
Frame:	449T	Heater Indicator:	No Heater
Frame Material:	Iron	Insulation Class:	F
Output @ Frequency:	250.000 HP @ 90 HZ	Inverter Code:	Inverter Duty
	250.000 HP @ 60 HZ	KVA Code:	L
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Lifting Lugs:	Standard Lifting Lugs
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	6 @ 2/0 AWG
	460.0 V @ 90 HZ	Motor Type:	A44128M
XP Class and Group:	None	Mounting Arrangement:	F1
XP Division:	Not Applicable	Power Factor:	87
Agency Approvals:	CCSA US	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Base Indicator:	Rigid	Shaft Ground Indicator:	No Shaft Grounding
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Rotation:	Reversible
Constant Torque Speed Range:	1000:1	Shaft Slinger Indicator:	No Slinger
Current @ Voltage:	272.000 A @ 460.0 V	Speed Code:	Single Speed
	277.000 A @ 460.0 V	Motor Standards:	NEMA

<b>Design Code:</b>	A	<b>Starting Method:</b>	Direct on line
<b>Drip Cover:</b>	No Drip Cover	<b>Thermal Device - Bearing:</b>	None
		<b>Thermal Device - Winding:</b>	Normally Closed Thermostat

<b>Nameplate 000613007HV</b>										
CAT NO	ZDVSM4408T-4			SPEC NO.	P44G4016					
SER.NO.				FRAME	449T					
	<b>HP</b>		<b>RPM</b>		<b>VOLTS</b>		<b>AMPS</b>	<b>HZ</b>	<b>TYPE</b> 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					
MAX SPEED/RPM	3600			OVERTEMP PROT	2	WK2	84.1		POLES	4
									WEIGHT	

Parts List		
Part Number	Description	Quantity
SA254363	SA P44G4016	1.000 EA
RA241171	RA P44G4016	1.000 EA
000692000FF	N/P	1.000 EA
000692000VD	LABEL WARNING	1.000 EA
000613007HV	N/P BALDOR VSMMASTER	1.000 EA
421948051	LABEL, MYLAR	1.000 EA
004824015A	GREASE POLYREX EM	1.160 LB
032018008CK	HHCS 3/8-16X1L PLATED	4.000 EA
032018020FK	HHCS 3/4-10X2-1/2 PLTD.	4.000 EA
032018030DK	HHCS 1/2-13X3-3/4 PLTD.	3.000 EA
032018030DK	HHCS 1/2-13X3-3/4 PLTD.	3.000 EA
032620016LA	SOCKET SET SCREW-449	3.000 EA
034017014AB	LCKW 3/8 STD. PLATED	4.000 EA
034180014DA	KEY 1/4X1/4X1-3/4 L	1.000 EA
034530072AB	P/NIP 1/8X9"L Threaded both ends	1.000 EA
035000001A	ALFTG 1/8" 1610-BL	1.000 EA
035000001A	ALFTG 1/8" 1610-BL	1.000 EA
034690002AB	PPLG 1/4" PLTD.	1.000 EA
034690005AB	PPLG 3/4 PLATED	2.000 EA
034690001AB	1/8" NPT SQHDPLG	1.000 EA
089490099A	G28 BRKT 089490098WCA KB	1.000 EA
702618004T	FAN KB 182/70 (112) 440	1.000 EA
083199082RA	G28 SHORT FAN COVER W/BAFFLE ASSEMBLY	1.000 EA
089490099A	G28 BRKT 089490098WCA KB	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
410700004A	WSHR	1.000 EA
415072001B	CLAMP	1.000 EA
415096002A	CPLG 1/8 HEX TYPE	1.000 EA
032018004BK	HHCS 5/16-18X1/2 PLATED	3.000 EA
032018006BK	HHCS 5/16-18X3/4 PLATED	3.000 EA
702623022A	G28 AIR DEFLECTOR DRIVE END -- PLASTIC	1.000 EA
032018020FK	HHCS 3/4-10X2-1/2 PLTD.	4.000 EA
034017013AB	LCKW 5/16 STD. PLATED	3.000 EA
034530072AB	P/NIP 1/8X9"L Threaded both ends	1.000 EA
034690002AB	PPLG 1/4" PLTD.	1.000 EA
034690001AB	1/8" NPT SQHDPLG	1.000 EA
415096002A	CPLG 1/8 HEX TYPE	1.000 EA
418151014G	RETAIN RING	1.000 EA
702623013A	THERMAL BARRIER -- G28 -- BRACKET MTD	1.000 EA
032018008DK	HHCS 1/2-13X1 PLATED	4.000 EA
415915007G	GASK, LAC	1.000 FT
033512004LB	HHTTS 1/4-20X1/2 PLTD.	1.000 EA
033512006LB	HHTTS 1/4-20X3/4 PLTD.	8.000 EA
406056008A	GASKET, TERBD 440	1.000 EA
406099000A	PLUG - FAN COVER 320-440	1.000 EA
415000103D	T/LUG #4AWG-1/0AWG W/HOLE FOR .250 BOLT	1.000 EA
418153001A	GASK 440	1.000 EA
702658001B	+C/BOX, PAINTED 440	1.000 EA
702658002A	+C/BOX CVR, PAINTED 440	1.000 EA

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611712053RY	TACH & HARDWARE KIT	1.000 EA
033775004EA	DRSCR #6-1/4 304 S.S.	2.000 EA
034180054KA	KEY 7/8X7/8X6-3/4 L	1.000 EA
N424001803DBF	LEAD SET 1-1 AWG 6-DB 447/9 FR 102 IN	2.000 EA
PK5005A01	WOOD BASE 449 60 X 41-1/2 BLT 25 X 18	1.000 EA
MG1025N19	WILKO 778.50 BLUE GREEN - 55 GAL DRUMS	0.500 GA

REL. S. O. - 449T VOLTS 460 ENCLOSURE TEFCC 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<sup>2</sup> (LB-FT<sup>2</sup>) 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

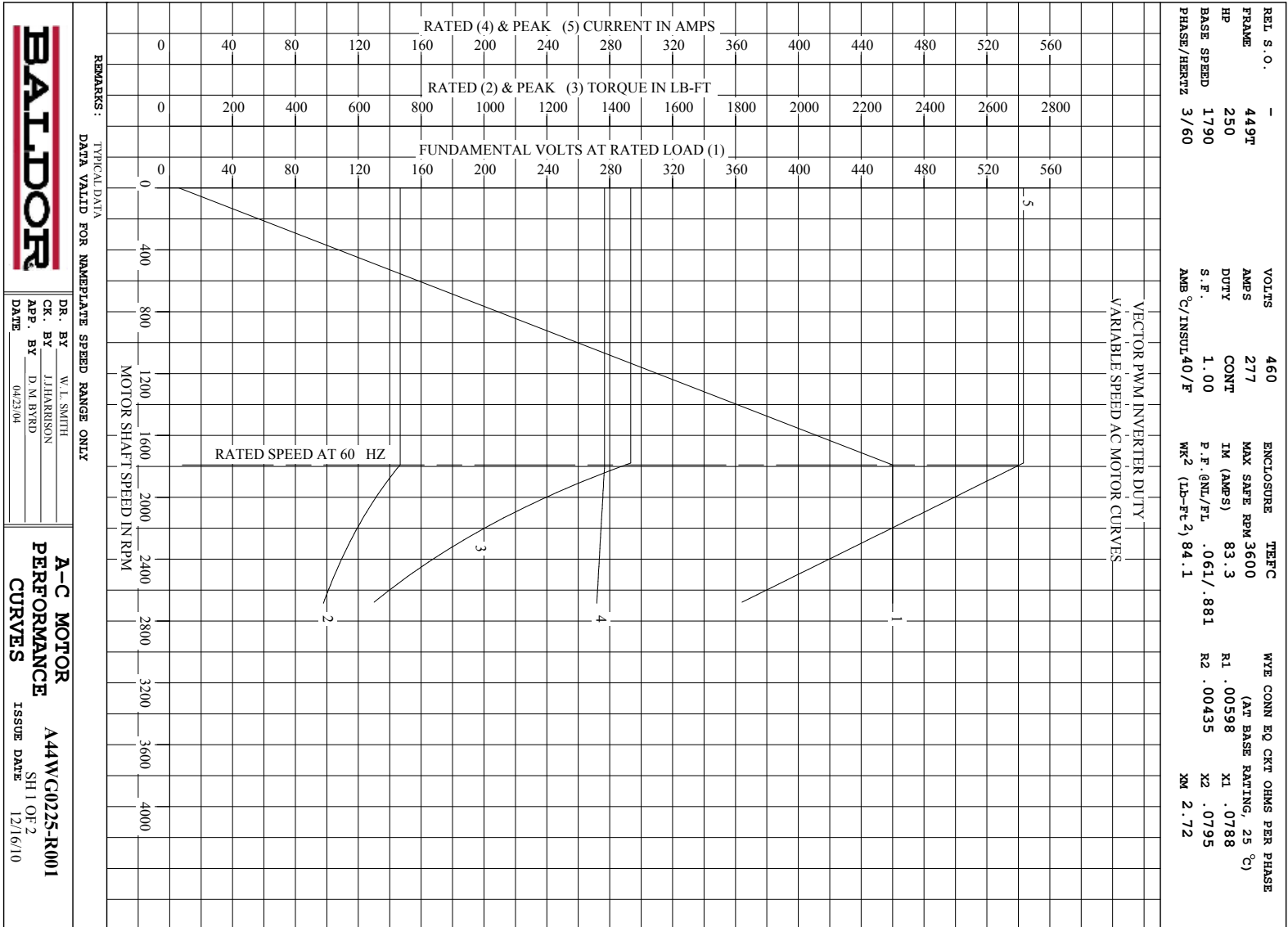
**BLOWER  
DATA**

VOLTS	PH/HZ	FL AMPS	LR AMPS	FRAME	CFM

REMARKS: TYPICAL DATA  
 VECTOR PWM INVERTER DUTY

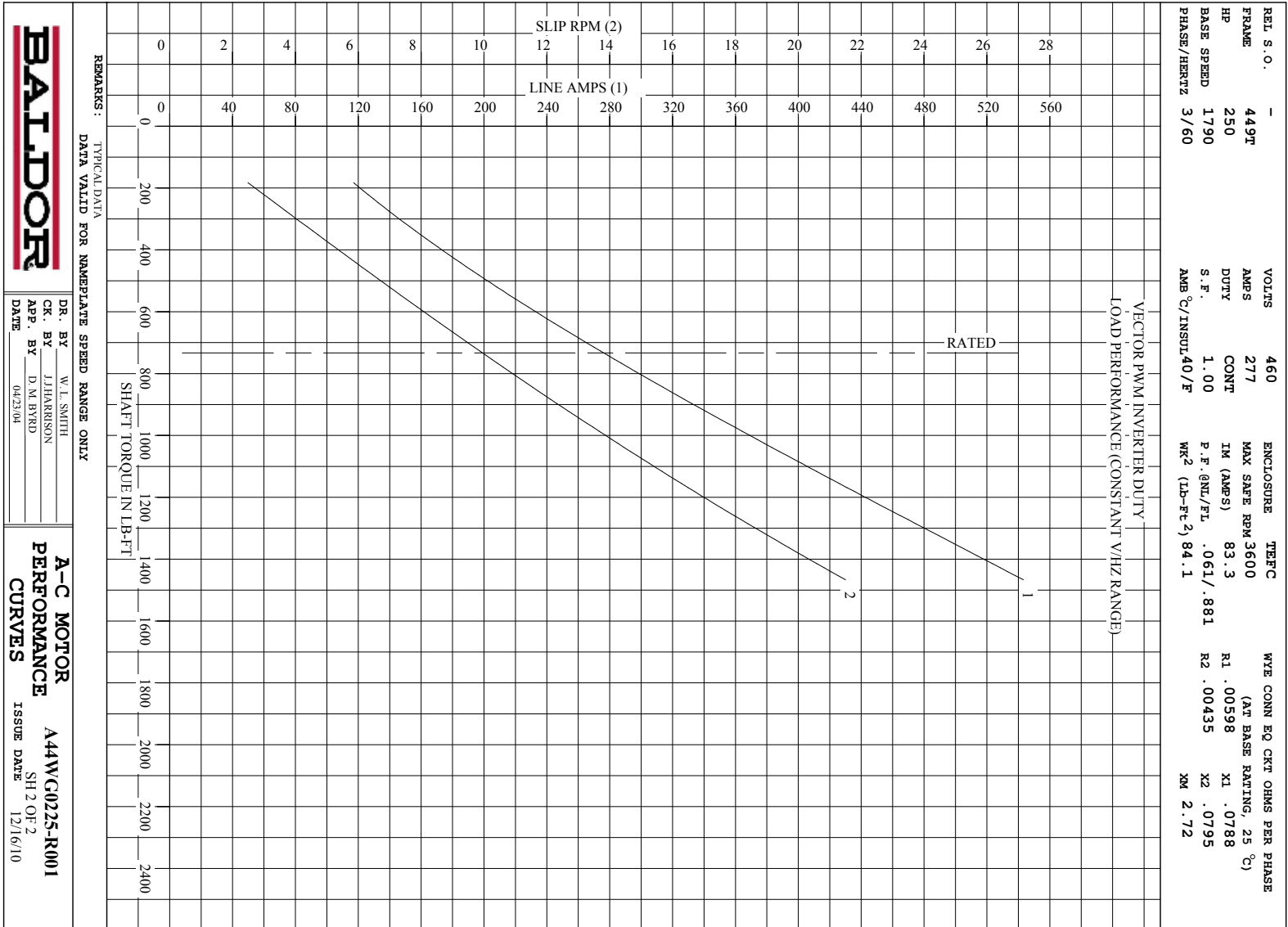
<b>BALDOR</b>	DR. BY M. L. SMITH	<b>A-C MOTOR PERFORMANCE DATA</b>
	CK. BY J. J. HARRISON	
	APP. BY D. M. BYRD	ISSUE DATE 12/16/10
	DATE 04/23/04	





DR. BY W. L. SMITH  
 CK. BY 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



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

**A-C MOTOR**  
**PERFORMANCE**  
**CURVES**  
 A44WG0225-R001  
 SH 2 OF 2  
 ISSUE DATE 12/16/10

## DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

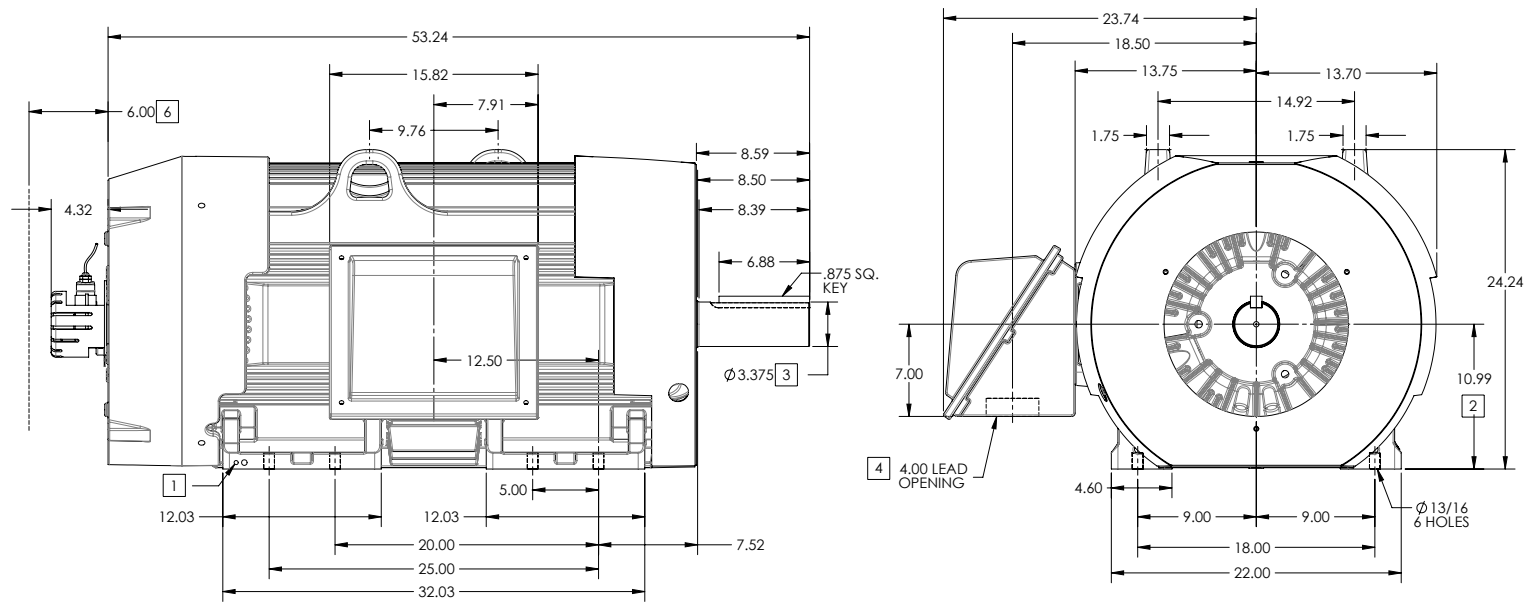
ENCLOSURE: TOTALLY ENCLOSED

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 +.00,-.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**

0107-1747-19

REV. DESC: INITIAL RELEASE	REVISED: 03-24-08/24-2012	TDR: 00000761412
REV: -	VERSION: 00	
MODEL NO. 617427-070		
BY: MGHM22		

**BALDOR**

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

## DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

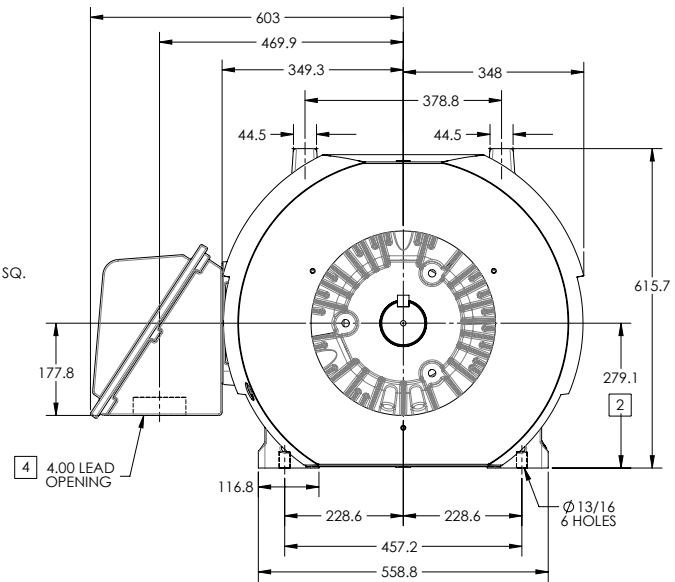
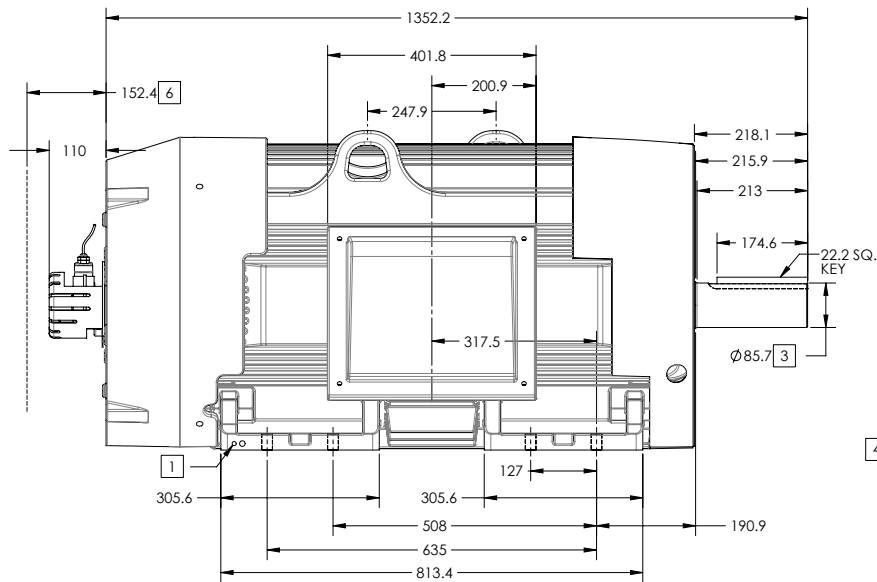
ENCLOSURE: TOTALLY ENCLOSED

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

**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.

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.

SHEET NUMBER  
**2 OF 2**

0107-1747-119

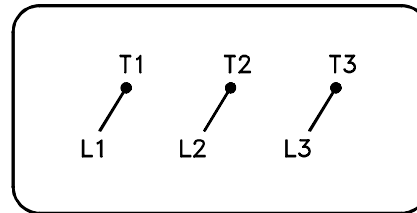
REV. DESC: INITIAL RELEASE	VERSION: 00	REVISED: 03-24-08/24-2012	TDR: 00000761412
MODEL NO. 617427-070	BY: MGHMZZ		

**BALDOR**

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

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		
REV. LTR: -	VERSION: 00	TDR: 000000538207
FILE: \MGA\00000\682	REVISED: 11:54:06 04/30/2010	
MTL: -	BY: RAGRA	

**BALDOR**

CONN DIAG - STANDARD 3 LEAD

SH 1 of 1