ABB BALDOR RELIANCE

Customer information packet

ZDVSM4400T-4

100HP, 1785-2680RPM, 3PH, 60-90HZ, 405T, A400
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	405T
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	100.000 HP @ 90 HZ
	100.000 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	112.000 A @ 460.0 V
	115.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Feedback Device	ENCODER
Heater Indicator	No Heater
High Voltage Full Load Amps	112.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	L

Part Detail

Revision	K
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0296
Layout	617429-200
Eff. date	07-09-2026
CD Diagram	416820-036
Poles	04
Leads	3#1
Proprietary	False
Created date	07-19-2013

Lifting Lugs	Standard Lifting Lugs
Max Speed	3600 rpm
Motor Lead Quantity/Wire Size	3 @ 1 AWG
Motor Standards	NEMA
Motor Type	A40064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	42.40 IN
Power Factor	86
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	1785 rpm
	2680 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

000613007HV												
CAT NO	ZDVSM4400T-4		**SPEC NO.**	P40G3941								
SER.NO.			**FRAME**	405T								
	HP	**RPM**	**VOLTS**	**AMPS**	**HZ**	**TYPE**	P					
BASE	100	1785	460	115	60	**SF**	1.00					
MAX	100	2680	460	112.	90	**INSUL.CLASS**	F					
DRIVE END BEARING	80BC03J30X		**CONSTANT TORQUE**		**DUTY**	CONT	**AMB**	40				
OPP D.E. BEARING	80BC03J30X		1000:1	**ENCL**	TEFC	**PHASE**	3					
DESIGN NO.	A40WG0296-R002		**FLUX AMPS**	37.8		**VPWM INVERTER READY**						
MAX SPEED/RPM	3600		**OVERTEMP PROT**	2	**WK2**	26.07	**POLES**	4	**WEIGHT**			

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	405T	AMPS	115	MAX SAFE RPM	3600	(AT BASE RATING, 25 °C)			
HP	100	DUTY	CONT	IM (AMPS)	37.8	R1	.0193	X1	.194
BASE SPEED	1785	S.F.	1.0	P.F.@NL/FL	9.5/86.4	R2	.0142	X2	.185
PHASE/HERTZ	3/60	AMB °C/INSUL	40/F	WK^2 ($Lb-Ft^2$)	26.07			XM	5.85

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1786	100	294	460	60	115
MAX SPEED	2678	100	196	460	90	112
MIN SPEED	0	0	294	9.60	.460	115

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	37.8
1/4	1796	25.0	73	460	60	52.9
1/2	1793	50.1	147	460	60	70.5
3/4	1790	75.0	220	460	60	91.5
FULL LOAD	1786	100	294	460	60	115
O/L	1779	149	441	460	60	167

REMARKS: CALCULATED DATA
VECTOR PWM INVERTER DUTY

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DR. BY M. ORDERS
CK. BY J. TSAO
APP. BY J. TSAO
DATE 06/04/14

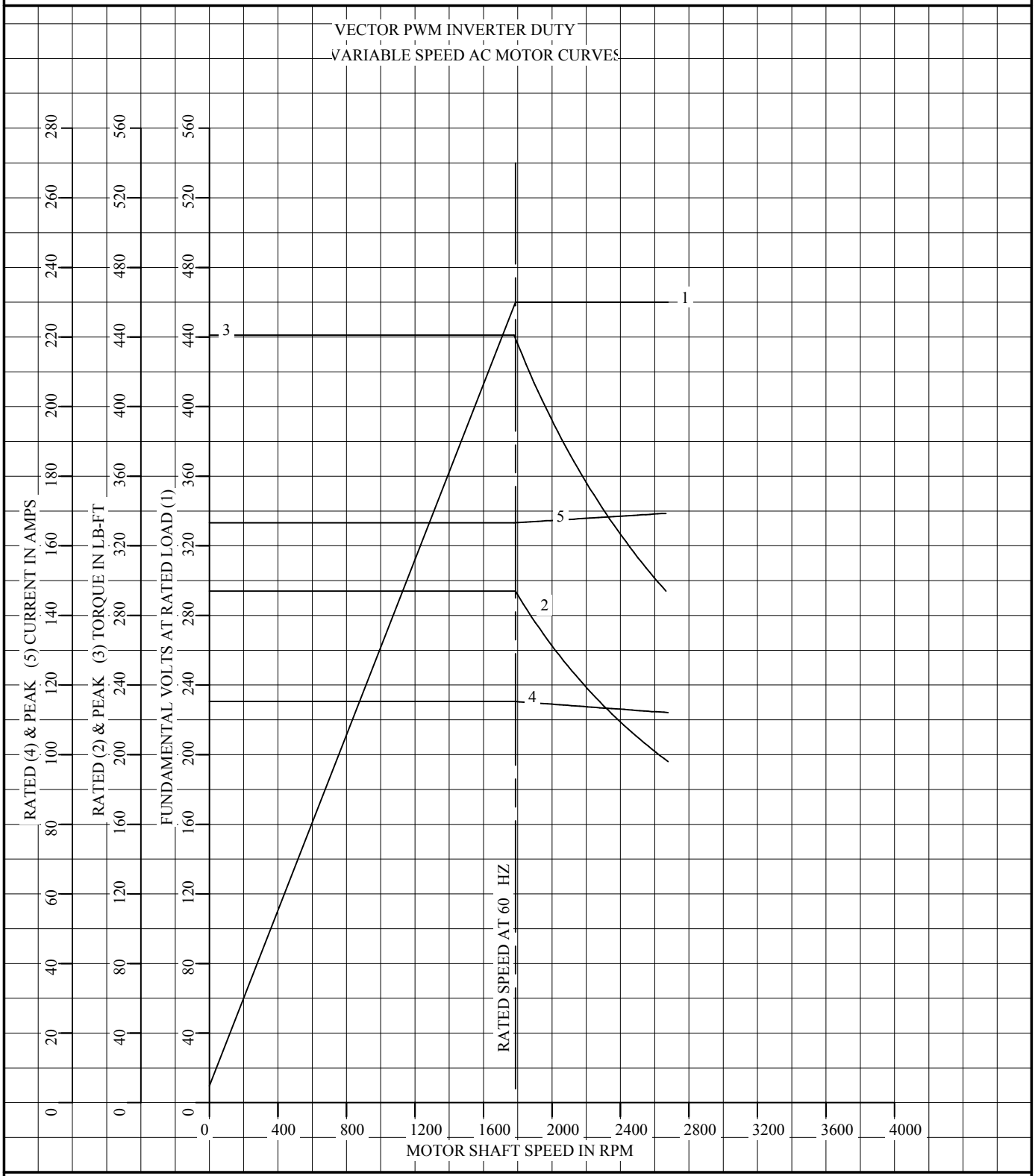
A-C MOTOR PERFORMANCE DATA

A40WG0296-R002
ISSUE DATE 06/04/14

C/R 322319

Printed on 6/4/14 15:39 @ ragsun

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	405T	AMPS	115	MAX SAFE RPM	3600	(AT BASE RATING, 25 ℃)	
HP	100	DUTY	CONT	IM (AMPS)	37.8	R1 .0193	X1 .194
BASE SPEED	1785	S.F.	1.0	P.F.@NL/FL	9.5/86.4	R2 .0142	X2 .185
PHASE/HERTZ	3/60	AMB ℃/INSUL	40/F	WK^2 (Lb-Ft^2)	26.07		XM 5.85



REMARKS: CALCULATED DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

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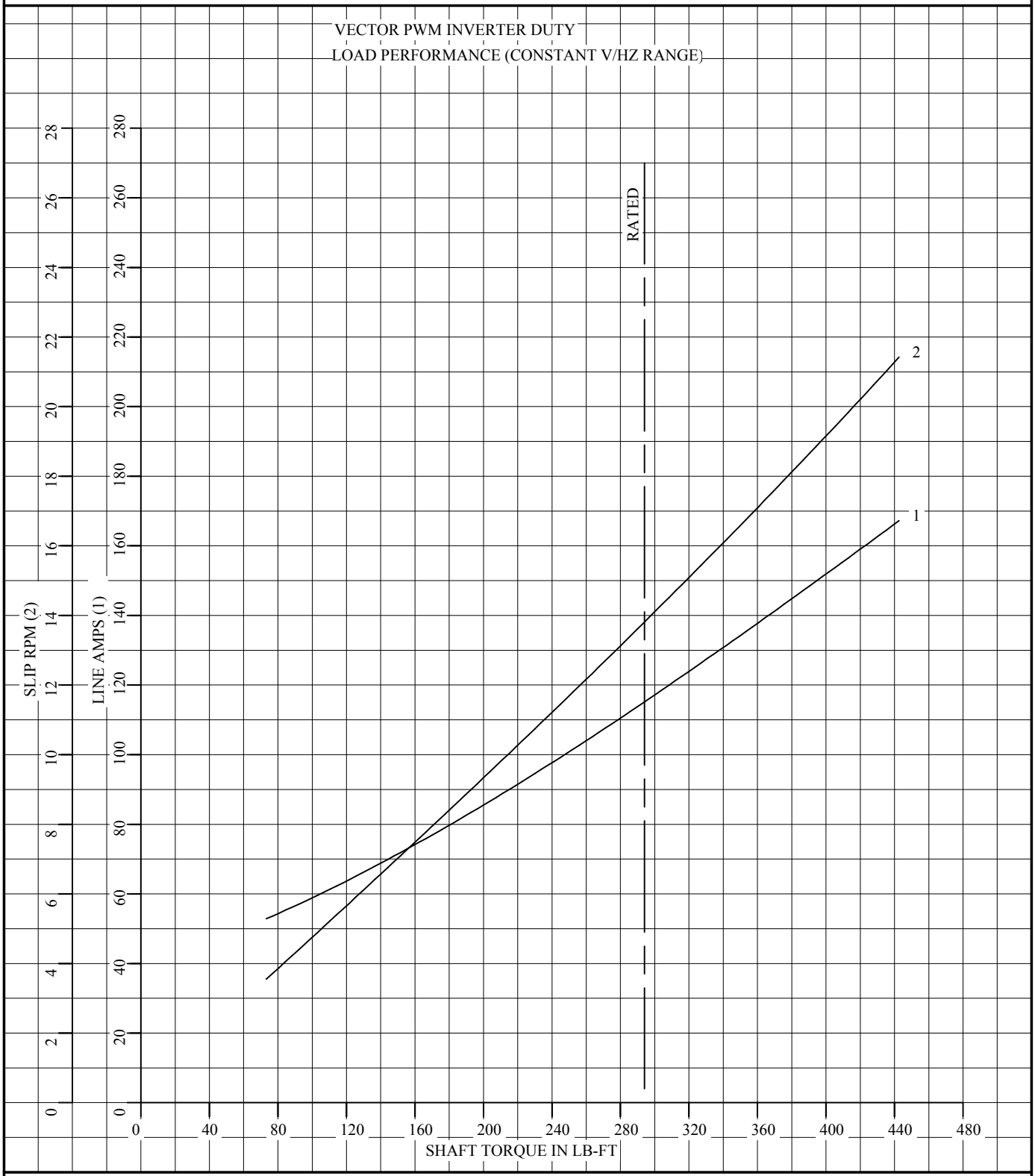
DR. BY	M. ORDERS
CK. BY	J. TSAO
APP. BY	J. TSAO
DATE	06/04/14

A-C MOTOR PERFORMANCE CURVES

A40WG0296-R002
SH 1 OF 2
ISSUE DATE 06/04/14

C/R 322319

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	405T	AMPS	115	MAX SAFE RPM	3600	(AT BASE RATING, 25 °C)	
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REMARKS: CALCULATED DATA
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DATE	06/04/14

A-C MOTOR PERFORMANCE CURVES

A40WG0296-R002
SH 2 OF 2
ISSUE DATE 06/04/14

C/R 322319

617429-200

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

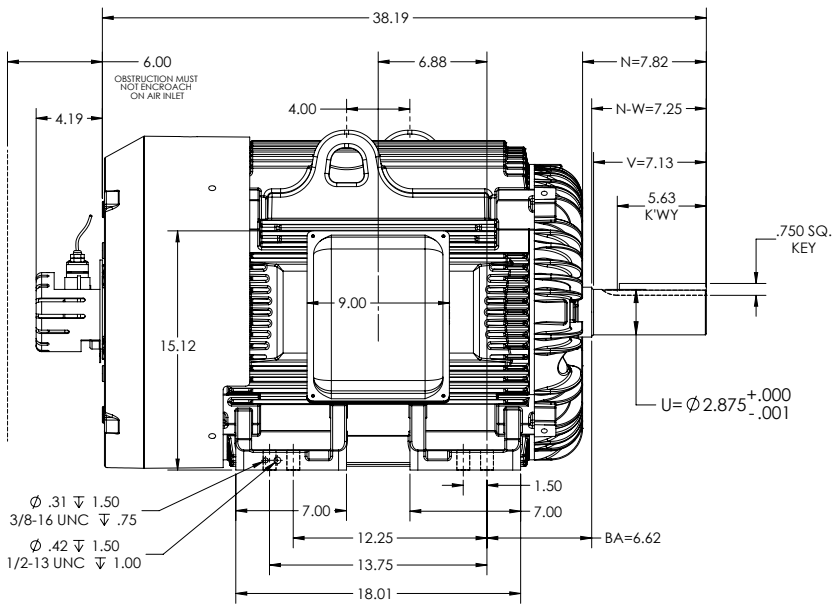
FRAME G405T ABOVE NEMA RATINGS

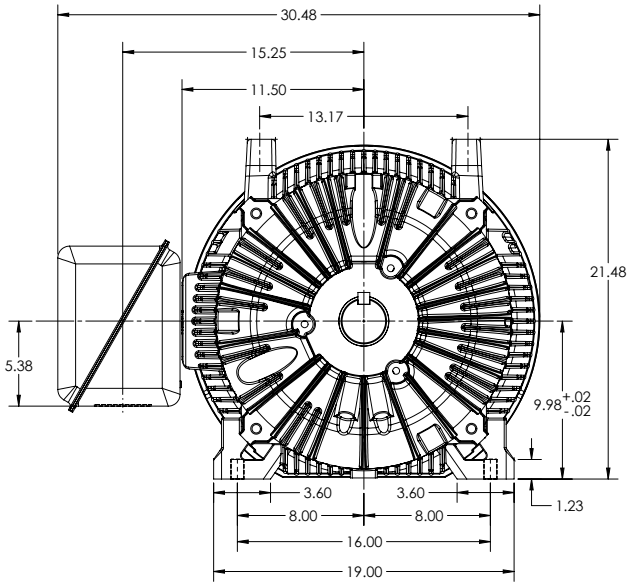
COOLING: FAN COOLED

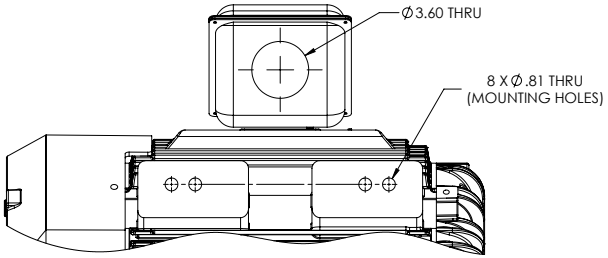
MOUNTING: FOOT F-1

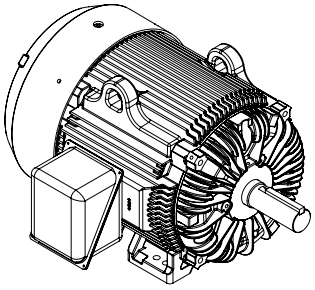
INCLUDES 404T FRAME MOUNTING HOLES AND HS-35 ENCODER

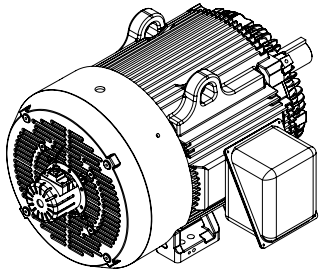
STANDARD INDUSTRIAL/ ZDVSM ENCLOSURE











WEIGHT (LBS) : 1350 / WEIGHT MAY VARY 15% DEPENDING ON RATING

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

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

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.

SHEET NUMBER 1 OF 2

617429-200

REV. DESC: UPDATING FOOT HOLES FROM 6 TO 8			
REV: C	VERSION: 03	REVISED: 10:52:36 12/08/2017	TDR: 000001053673
MODEL NO. 617429-200			REF: -
BY: RAGRA	Material: -		C

BALDOR

G405T/404T STD – FOOTED - STANDARD INDUSTRIAL/ZDVS - ENCODER

617429-200

617429-200

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

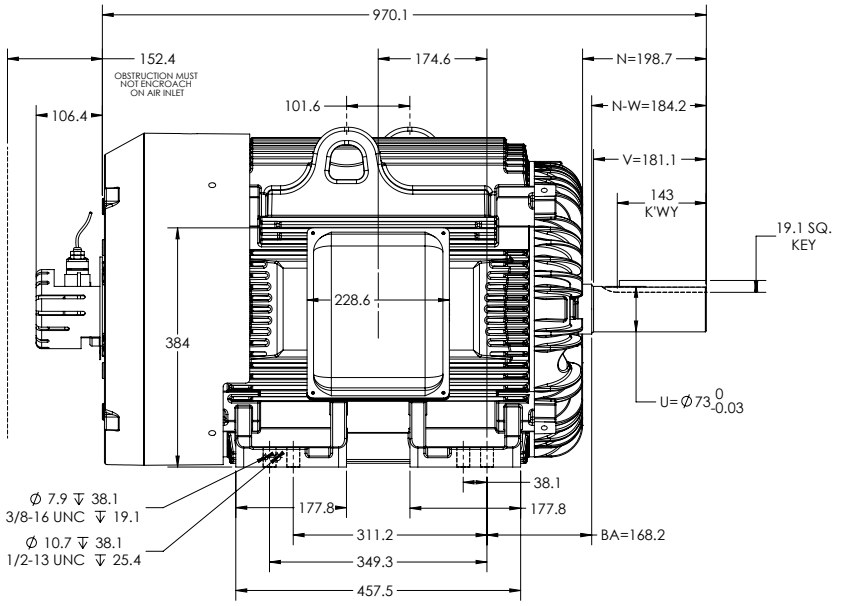
FRAME G405T ABOVE NEMA RATINGS

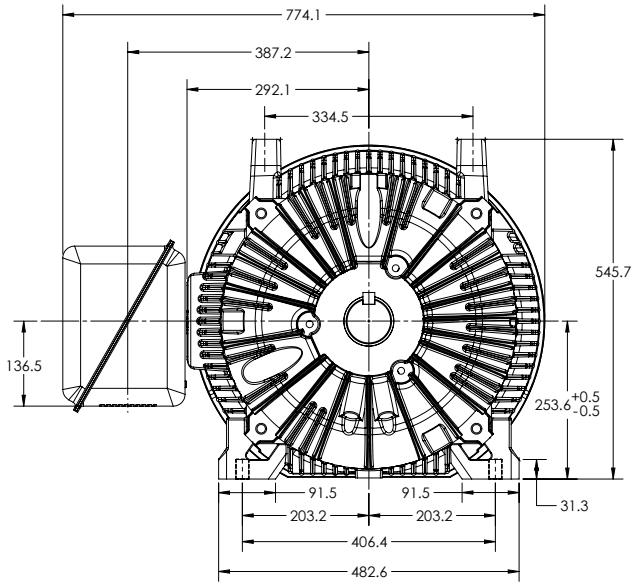
COOLING: FAN COOLED

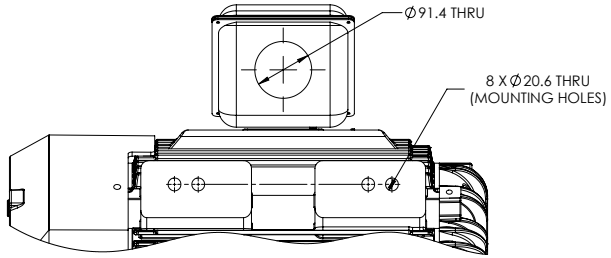
MOUNTING: FOOT F-1

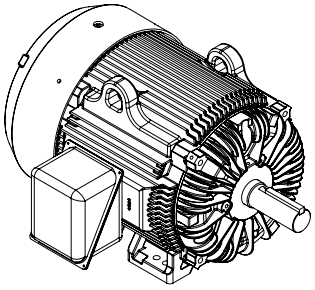
INCLUDES 404T FRAME MOUNTING HOLES AND HS-35 ENCODER

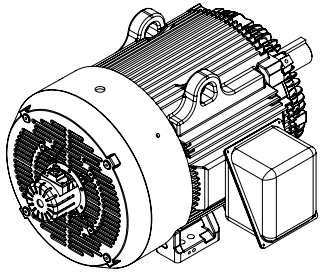
STANDARD INDUSTRIAL/ ZDVSM ENCLOSURE











WEIGHT (KGS) : 620 / WEIGHT MAY VARY 15% DEPENDING ON RATING

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

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

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

617429-200

REV. DESC: UPDATING FOOT HOLES FROM 6 TO 8			
REV: C	VERSION: 03	REVISED: 10:52:36 12/08/2017	TDR: 000001053673
MODEL NO. 617429-200			REF: -
BY: RAGRA	Material: –		C

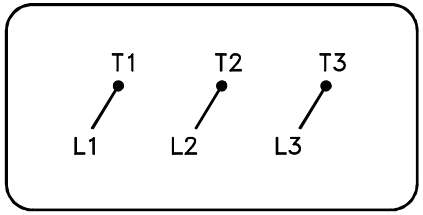
BALDOR

G405T/404T STD – FOOTED - STANDARD INDUSTRIAL/ZDVS - ENCODER

617429-200

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