ABB BALDOR RELIANCE

Customer information packet

FDEM4400T-5

100HP, 1785RPM, 3PH, 60HZ, 405T, A40064M, TEFC
Class - None
Division - Not Applicable

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F

Specifications

Enclosure	TEFC
Frame	405T
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	100.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	CCSAUSEEV
	NEMA PREMIUM
	NEMA PREMIUM (OLD LOGO)
	UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	89.600 A @ 575.0 V
Design Code	B
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	89.6 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0080
Layout	617429-012
Eff. date	11-01-2021
CD Diagram	416820-036
Poles	04
Leads	3#2
Proprietary	False
Created date	06-07-2018

Motor Lead Quantity/Wire Size	3 @ 2 AWG
Motor Standards	NEMA
Motor Type	A40064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	38.19 IN
Power Factor	87
Product Family	FARM DUTY
Pulley End Bearing Type	Ball
Service Factor	1.15
Shaft Diameter	2.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1785 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Winding	None

Nameplate

NP2496L
MOBIL POLYREX EM

NP3159L												
SPEC NO.	A40-6174-0080	**CAT.NO.**	FDEM4400T-5							**FRAME**	405T	
HP	100	**VOLTS**	575	**PHASE**	3	**DESIGN**	B	**TYPE**	P			
RPM	1785	**AMPS**	89.6	**HZ**	60	**AMB**	40	**SF**	1.15			
DRIVE END BEARING	80BC03JGG30A	**DUTY**	CONT	**INSUL.CLASS**	F							
OPP D.E. BEARING	80BC03JGG30A	**ENCL**	TEFC	**CODE**	G							
SER.NO.		**POWER FACTOR**	87					**NEMA-NOM-EFFICIENCY**		95.4		
						MAX CORR KVAR	18	**GUARANTEED EFFICIENCY**		94.5		
	FDEM4400T-5					**NEMA NOM/CSA QUOTED EFF**						
										MOTOR WEIGHT		

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405T	100	P	3/60	1785	575

AMPS	DUTY	AMB°C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
89.6	CONT	40/F	1.15	B	G	TEFC

E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES.@25°C OHMS (BETWEEN LINES)
496079	418142-33-RE	---	---	.0770

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	22.9	1800	5.48	0
1/4	25.0	31.3	1796	64.3	93.0
2/4	50.0	47.5	1792	82.6	95.4
3/4	75.0	67.5	1788	86.9	95.7
4/4	100	89.6	1783	87.6	95.4
5/4	125	113	1778	87.4	94.9

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	151	445	580
PULL UP	360	136	400	565
BREAKDOWN	1721	250	735	306
FULL LOAD	1783	100	295	89.6

AMPERES SHOWN FOR 575. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

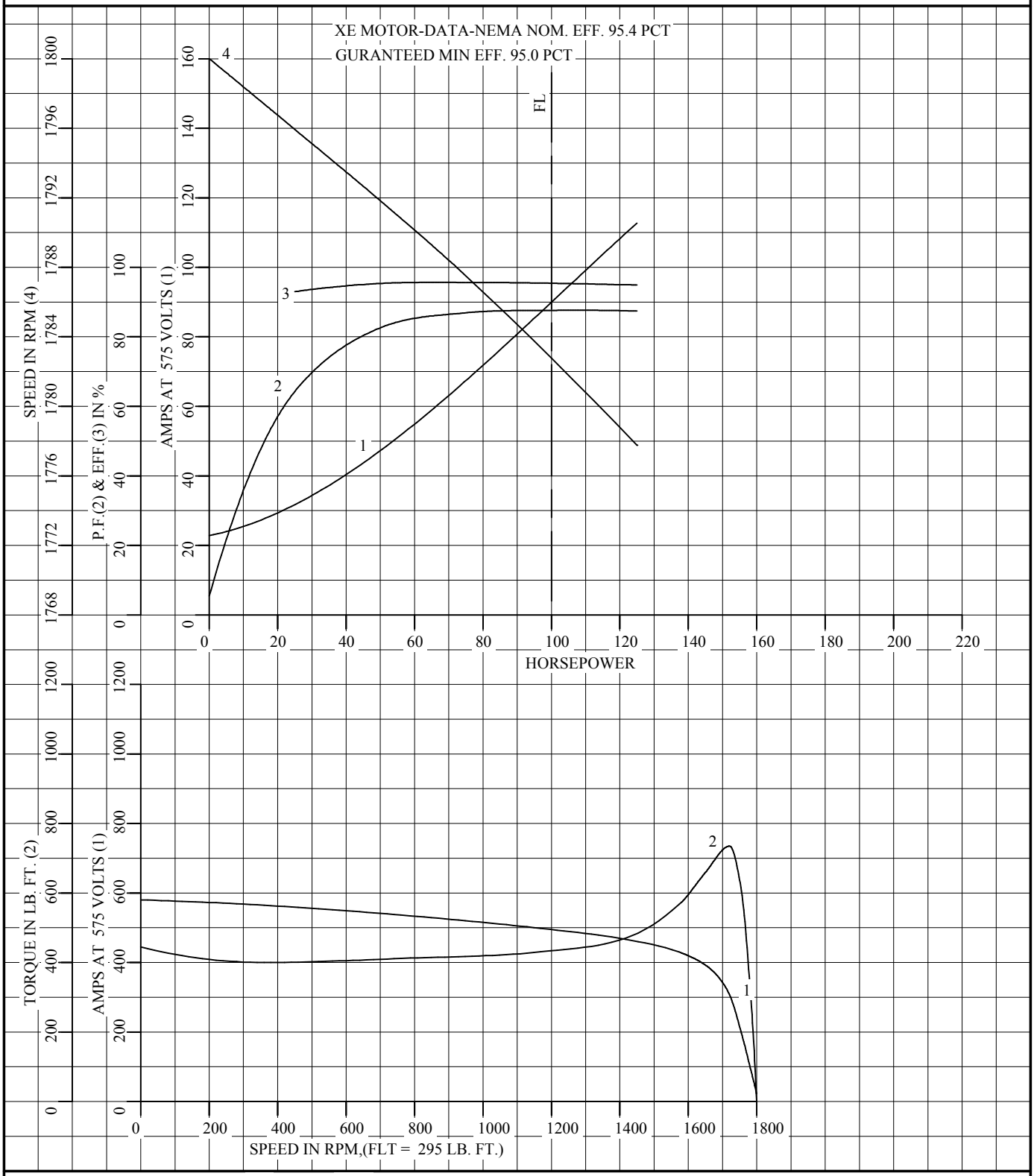
REMARKS: TYPICAL DATA
XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT
GURANTEED MIN EFF. 95.0 PCT

BALDOR
A MEMBER OF THE ABB GROUP

DR. BY P.B. GREENE
CK. BY K.W. KANOUFF
APP. BY K.W. KANOUFF
DATE 12/02/94

A-C MOTOR PERFORMANCE DATA A40WG0080-R003
ISSUE DATE 06/07/18

REL S.O.		RPM	1785	S.F.	1.15	ROTOR	418142-33-RE
FRAME	405T	VOLTS	575	NEMA DESIGN	B	TEST S.O.	TYPICAL DATA
HP	100	AMPS	89.6	CODE LETTER	G	TEST DATE	---
TYPE	P	DUTY	CONT	ENCLOSURE	TEFC	STATOR RES.@ 25 °C	.0770
PHASE/HERTZ	3/60	AMB °C/INSUL	40/F	E/S	496079		OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 575 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

BALDOR
A MEMBER OF THE ABB GROUP

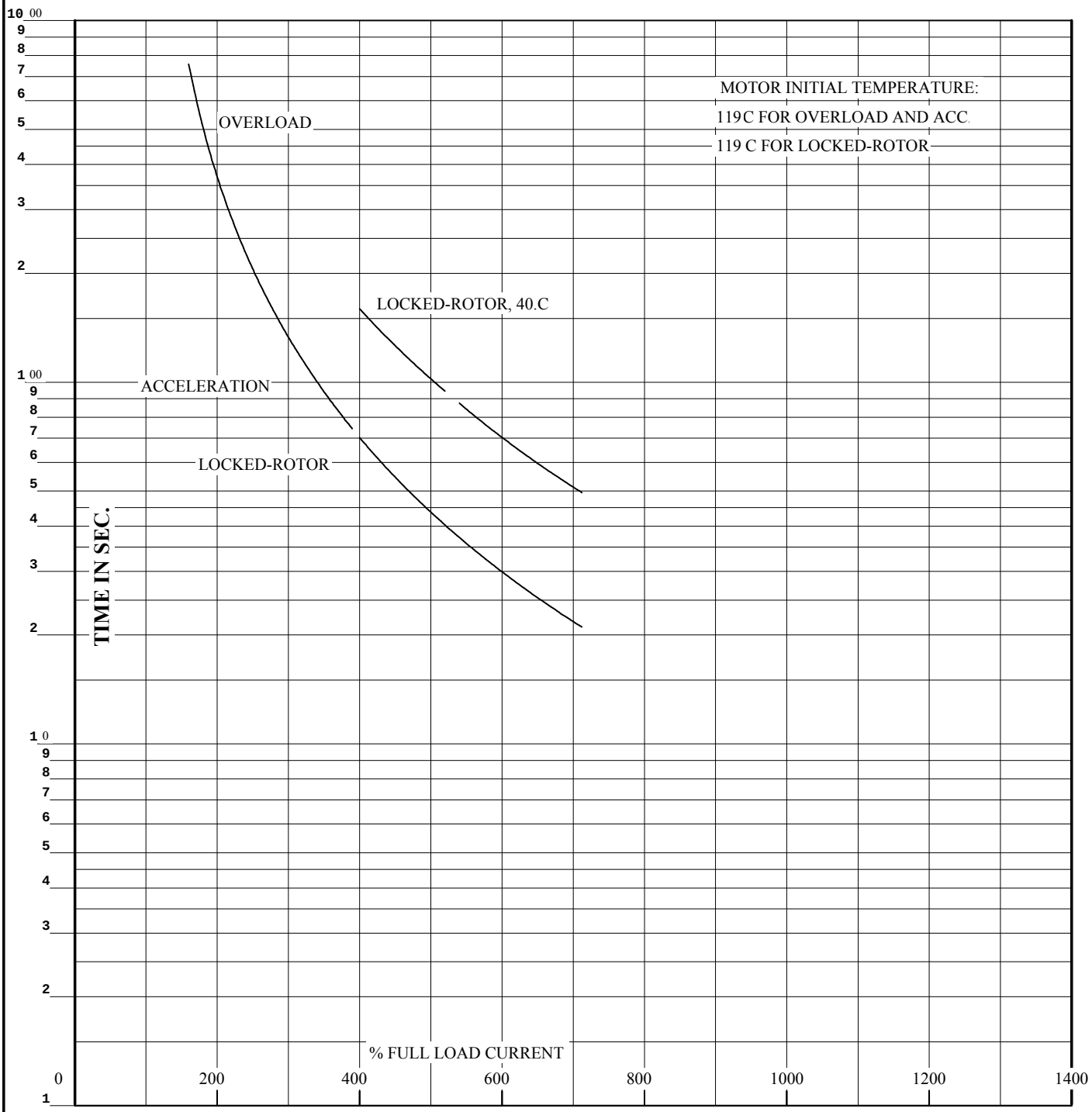
DR. BY	P.B. GREENE
CK. BY	K.W. KANOUFF
APP. BY	K.W. KANOUFF
DATE	12/02/94

A-C MOTOR PERFORMANCE CURVES

A40WG0080-R003

ISSUE DATE 06/07/18

REL. S.O.	RPM 1785	S.F. 1.15	ROTOR 418142-33-RE
FRAME 405T	VOLTS 575	NEMA DESIGN B	TEST S.O. TYPICAL DATA
HP 100	AMPS 89.6	CODE LETTER G	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES.@ 25 ℃.0770
PHASE/HERTZ 3/60	AMB ℃/INSUL 40/F	E/S 496079	OHMS (BETWEEN LINES)



REMARKS:

THERMAL LIMIT CURVE

XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT

GURANTEED MIN EFF. 95.0 PCT

AMPERES SHOWN FOR 575 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

BALDOR
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DR. BY	P.B. GREENE
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DATE	12/02/94

A-C MOTOR PERFORMANCE CURVES

A40WG0080-R003

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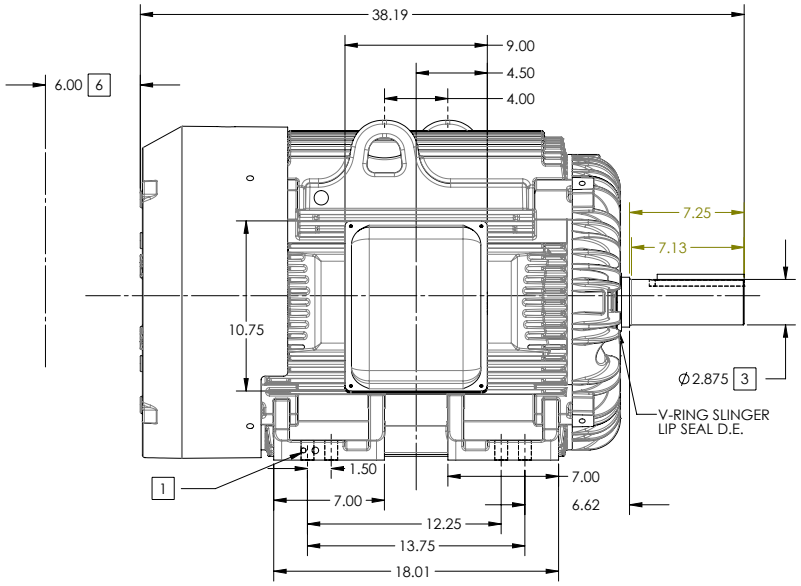
617429-012

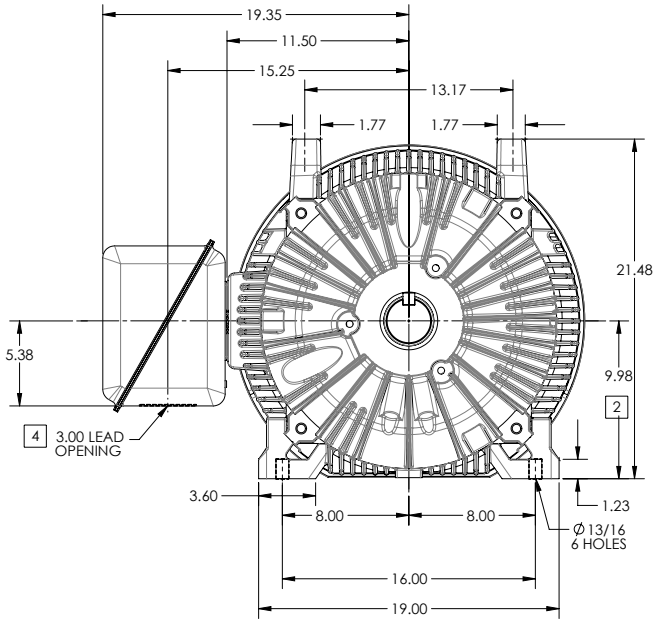
DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED | FRAME G405T ABOVE NEMA RATINGS | COOLING: FAN COOLED

MOUNTING: FOOT | INCLUDES 404T FRAME MOUNTING HOLES | STANDARD INDUSTRIAL ENCLOSURE





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 NOT ENCROACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-1.
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): 1350

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

617429-012

REV. DESC: NEW ISSUE			
REV: -	VERSION: 00	REVISED: 04:05:02 03/14/2014	TDR: 000000841378
MODEL NO. 617429-012			REF:
BY: RAGGDM	Material:	C	

BALDOR

G405T/404T STD – FOOTED – STD ENCL F1 LIPSEAL/V-SLG D.E.

617429-012

617429-012

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

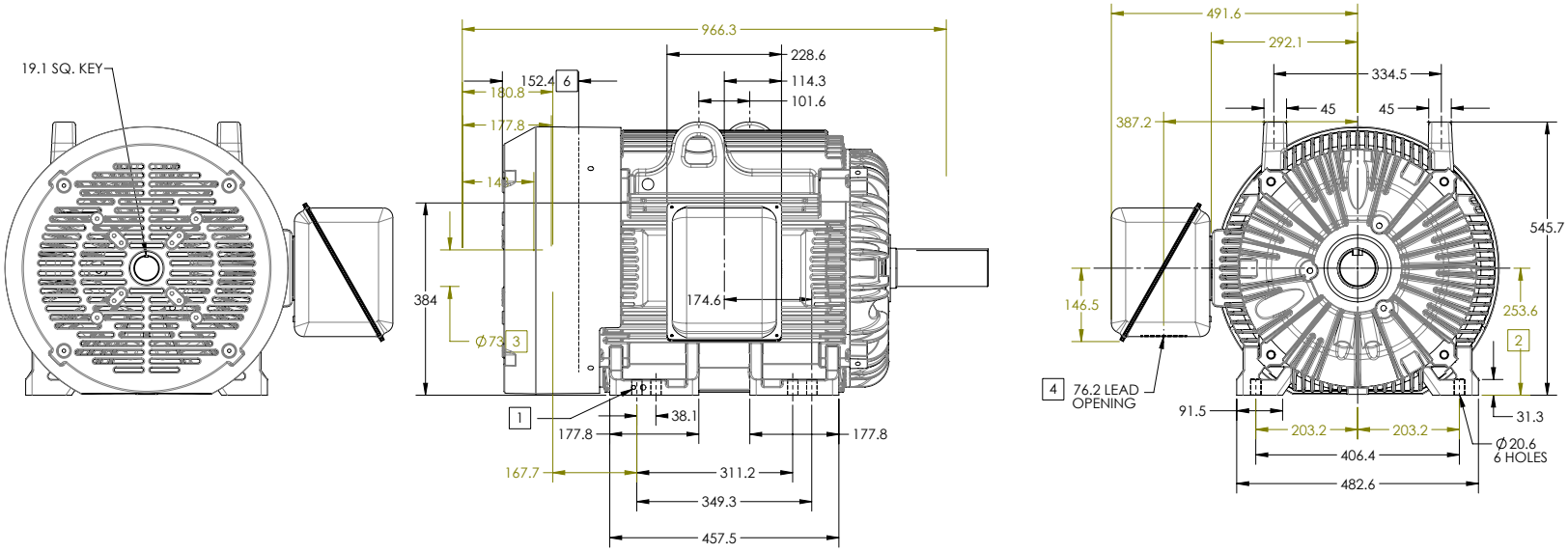
MOUNTING: FOOT

FRAME G405T ABOVE NEMA RATINGS

INCLUDES 404T FRAME MOUNTING HOLES

COOLING: FAN COOLED

STANDARD INDUSTRIAL ENCLOSURE



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.0,-1.5
3. VARIES +.00,-.03
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 NOT ENCROACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-1.
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): 620

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

617429-012

REV. DESC: NEW ISSUE			
REV: -	VERSION: 00	REVISED: 04:05:02 03/14/2014	TDR: 000000841378
MODEL NO. 617429-012			REF:
BY: RAGGDM	Material:		C

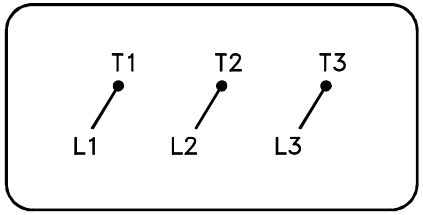
BALDOR

G405T/404T STD – FOOTED – STD ENCL F1 LIPSEAL/V-SLG D.E.

617429-012

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