

ABB BALDOR RELIANCE III

Customer information packet

FDEM4400T-5

100HP, 1785RPM, 3PH, 60HZ, 405T, A40064M, TEFC

Class - None

Division - Not Applicable

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						
		DR. BY P.B. GREENE		A-C MOTOR PERFORMANCE DATA A40WG0080-R003 ISSUE DATE 06/07/18		
		CK. BY K.W. KANOUFF				
		APP. BY K.W. KANOUFF				
		DATE 12/02/94				

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**

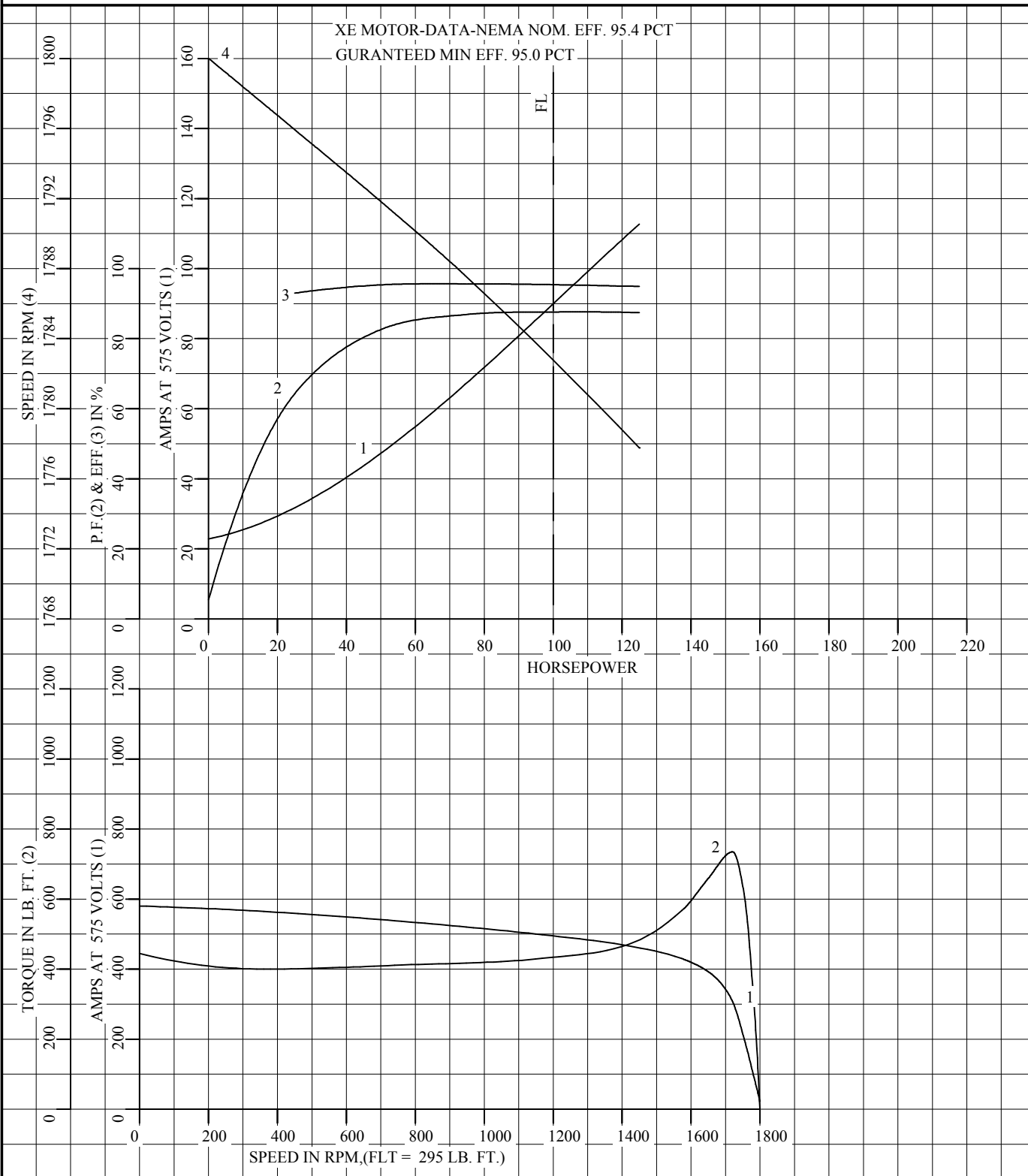
 STATOR RES. @ 25 °C **.0770**

 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

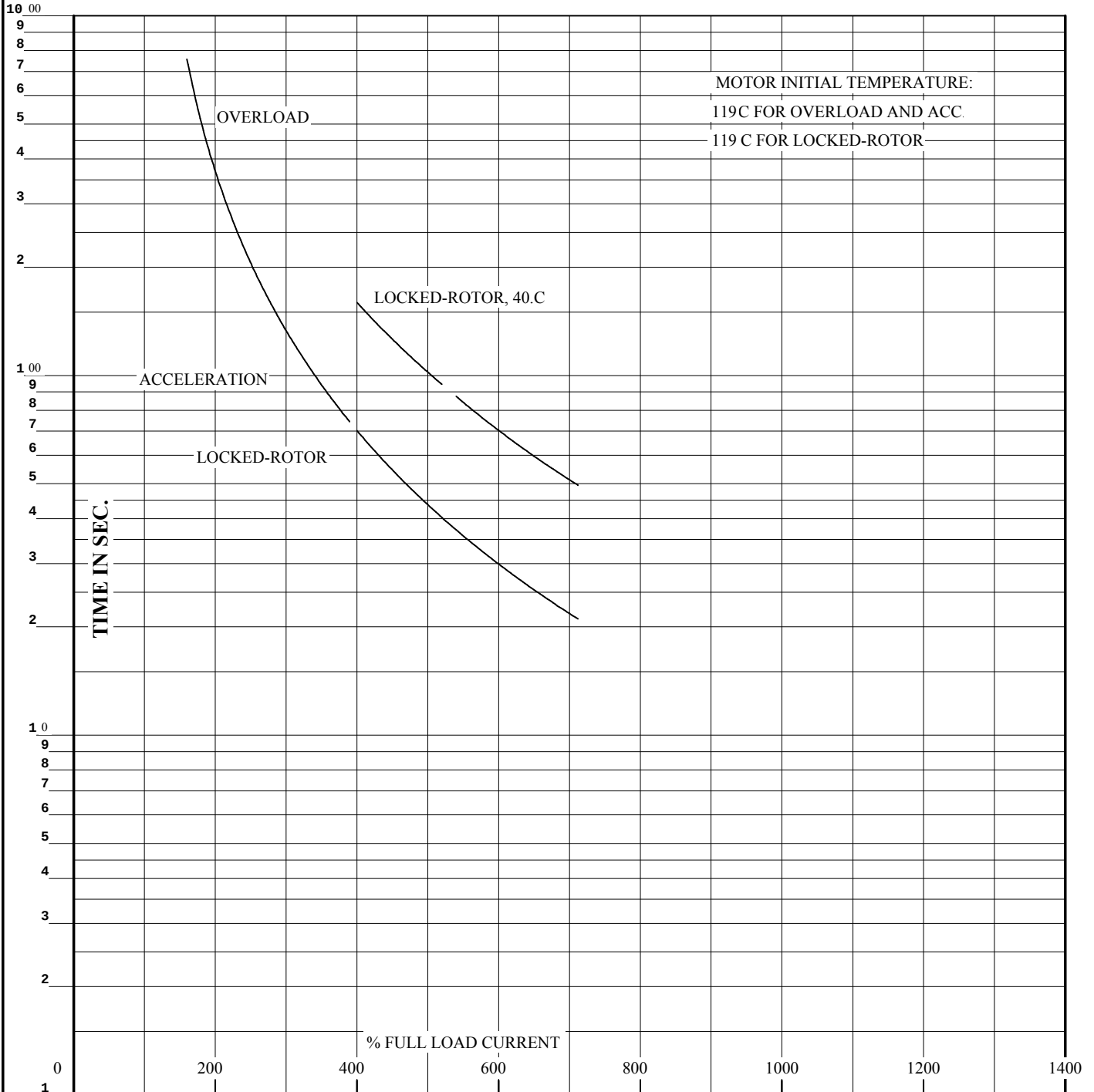
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REL. S.O.
FRAME **405T**
HP **100**
TYPE **P**
PHASE/HERTZ **3/60**

RPM **1785**
VOLTS **575**
AMPS **89.6**
DUTY **CONT**
AMB °C/INSUL **40/F**

S.F. **1.15**
NEMA DESIGN **B**
CODE LETTER **G**
ENCLOSURE **TEFC**
E/S **496079**

ROTOR **418142-33-RE**
TEST S.O. **TYPICAL DATA**
TEST DATE **---**
STATOR RES. @ 25 °C **.0770**
OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:
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
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**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0080-R003
ISSUE DATE 06/07/18 Page 8 of 11

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

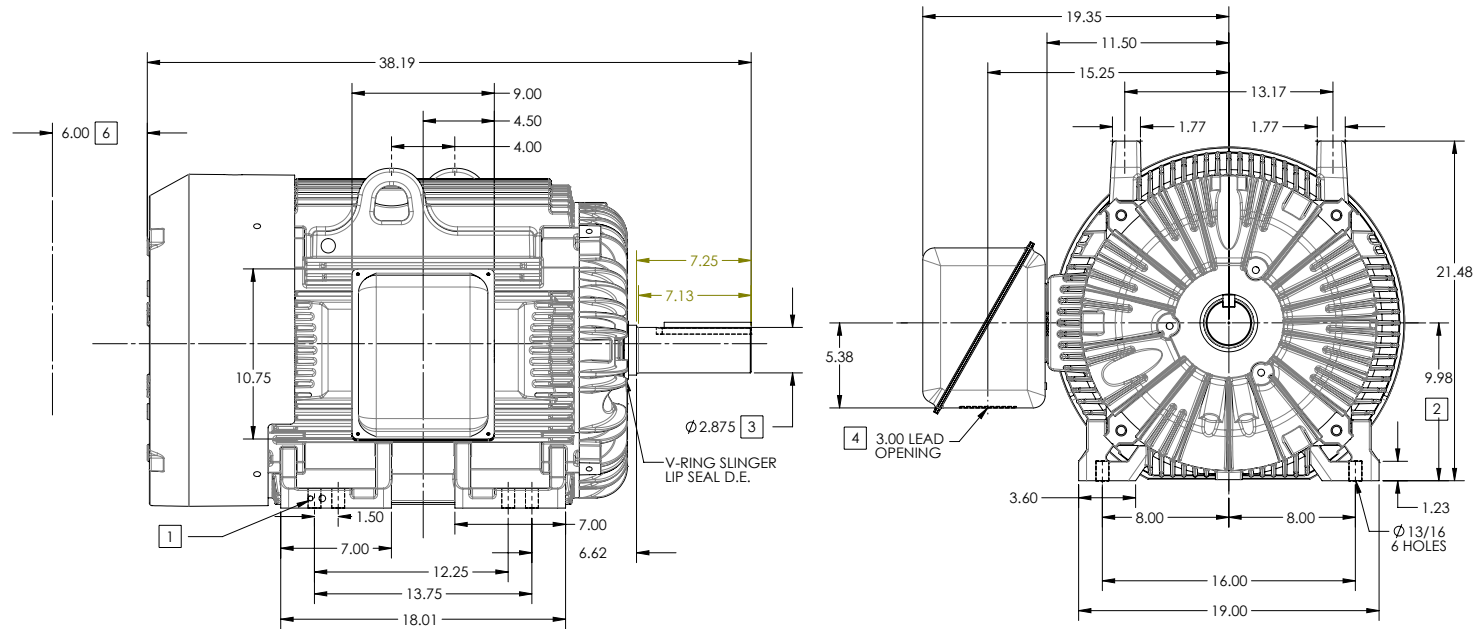
FRAME G405T ABOVE NEMA RATINGS

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

210*62*119

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

BALDOR

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

617429-012

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

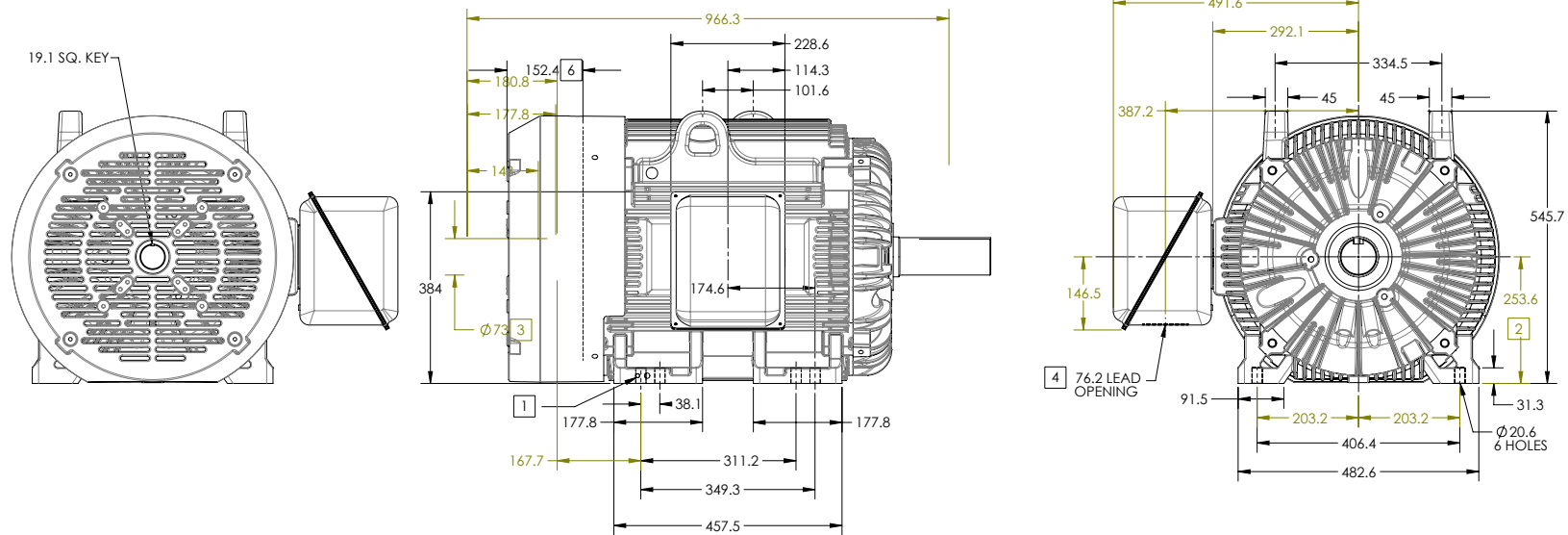
FRAME G405T ABOVE NEMA RATINGS

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 +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

710*62*119

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

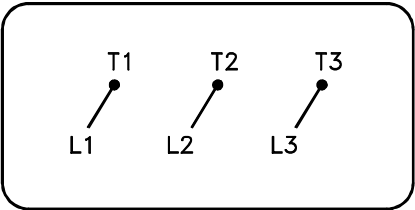
BALDOR

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		
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