

ABB BALDOR RELIANCE III

Customer information packet

EM4400TS

100HP, 1785RPM, 3PH, 60HZ, 405TS, A40064M, TEF

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	405TS
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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CURUSEEV CCSAUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	No Grease
Current @ Voltage	112.000 A @ 460.0 V 224.000 A @ 230.0 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	112.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 2 AWG

Part Detail

Revision	K
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0692
Layout	617429-002
Eff. date	09-04-2024
CD Diagram	416820-002
Poles	04
Leads	3#2,6#4
Proprietary	False
Created date	07-17-2013

Motor Standards	NEMA
Motor Type	A40064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	35.04 IN
Power Factor	87
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1785 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP2349L																	
SPEC NO.	P40G3928			CAT.NO.		EM4400TS				FRAME		405TS					
HP	100	VOLTS		230/460		PHASE		3	DESIGN		B	TYPE		P			
RPM	1785	AMPS		224/112		HZ		60	AMB		40	SF		1.15			
DRIVE END BEARING	80BC03J30X			DUTY		CONT		INSUL.CLASS			F						
OPP D.E. BEARING	80BC03J30X			ENCL		TEFC		CODE		G							
SER.NO.				POWER FACTOR				87		NEMA-NOM-EFFICIENCY				95.4			
							MAX CORR KVAR		18		GUARANTEED EFFICIENCY		94.5				
							NEMA NOM/CSA QUOTED EFF										
							MOTOR WEIGHT										

Parts List

Part number	Description	Quantity
SA267717	SA P40G3928	1.000 ea
RA254387	RA P40G3928	1.000 ea
421948032	LABEL, MYLAR	1.000 ea
000692000FF	N/P	1.000 ea
000613006PU	N/P (RELEASE QTY 10,000) UL CSA LABEL	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
NP2349L	SUPER-E ,SS, CURUS EEV, CC, LASER	1.000 ea
412118006A	DRAIN	2.000 ea
089412501A	BRKT FTMT G400 FIN MACH 6316 89412500WCA	1.000 ea
415072001B	CLAMP	1.000 ea
083198127A	G400 MOLDED FAN COVER	1.000 ea
034692005AA	P PLUG 3/4"BLK.	1.000 ea
034180012DA	KEY 1X4X1/4X1-1/2 L	1.000 ea
078548001R	FAN KB 234/150 (84) 400	1.000 ea
004824015A	GREASE POLYREX EM	0.880 lb
032018020EK	HHCS 5/8-11X2-1/2 PLTD.	4.000 ea
032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
410700000DA	WAVY SPRING WASHER	1.000 ea
034000014AB	WSH ID.406 OD.812 TH.065	4.000 ea
034530052AB	P/NIP 1/8X6-1/2 Zinc	1.000 ea
034530056BB	P/NIP 1/4X7 SCHED 40	1.000 ea
034690001AB	1/8" NPT SQHDPLG	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
034690002AB	PPLG 1/4" PLTD.	1.000 ea
089412501A	BRKT FTMT G400 FIN MACH 6316 89412500WCA	1.000 ea
032018020EK	HHCS 5/8-11X2-1/2 PLTD.	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
077176000L	C/BOX, PAINTED 440	1.000 ea

077176001A	CBOX Cover 360-400	1.000 ea
043292000AJ	GASK 320-400	1.000 ea
402731001A	GASK 360-440	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
MG1025Y17	WILKOFAS, 789.701, SUPER E PEARL GOLD	0.375 ga
032018005AK	HHCS 1/4-20X5/8 PLATED	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
415000115H	T/LUG #2AWG-4/0AWG	1.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	2.000 ea
032018005DL	1/2-13 X 5/8 SILICON BRONZE HHCS	1.000 ea
034180022GA	KEY 1/2X1/2X2-3/4 L	1.000 ea
PK5004A02	WOOD BASE 40X32 WITH STACKED 2X4 RUNNER	1.000 ea

Accessories

Part number	Description	Multiplier
K40G71	C-FACE KIT G400 4/6/8 POLES	A8
089412054B	D-FLANGE BRKT 400 089416055WCB	P1

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS		
	405T	100	P	3/60	1785	230/460		
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.		
224/112	CONT	40/F	1.15	B	G	TEFC		
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)				
596956	418142-33-RE	---	---	.0123/.0492				
PERFORMANCE								
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY			
NO LOAD	0	28.6	1800	5.49	0			
1/4	25.0	39.2	1796	64.3	93.0			
2/4	50.0	59.5	1792	82.5	95.4			
3/4	75.0	84.6	1788	86.7	95.7			
4/4	100	112	1783	87.4	95.4			
5/4	125	141	1778	87.3	94.9			
SPEED TORQUE								
		RPM	TORQUE % FULL LOAD	TORQUE LB. - FT.	AMPERES			
LOCKED ROTOR		0	151	445	725			
PULL UP		360	136	400	706			
BREAKDOWN		1721	250	735	382			
FULL LOAD		1783	100	295	112			
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE REMARKS: TYPICAL DATA NEMA NOM. EFF. 95.4 PCT GUARANTEED MIN EFF. 94.5 PCT								
		DR. BY	R.K. BRIDGES	A-C MOTOR PERFORMANCE DATA				
		CK. BY	W. L. SMITH					
		APP. BY	W. L. SMITH					
		DATE	05/14/14					
				A40WG0692-R001 ISSUE DATE 01/04/18				

REL S.O.

 RPM **1785**

 S.F. **1.15**

 ROTOR **418142-33-RE**

 FRAME **405T**

 VOLTS **230/460**

 NEMA DESIGN **B**

 TEST S.O. **TYPICAL DATA**

 HP **100**

 AMPS **224/112**

 CODE LETTER **G**

 TEST DATE **---**

 TYPE **P**

 DUTY **CONT**

 ENCLOSURE **TEFC**

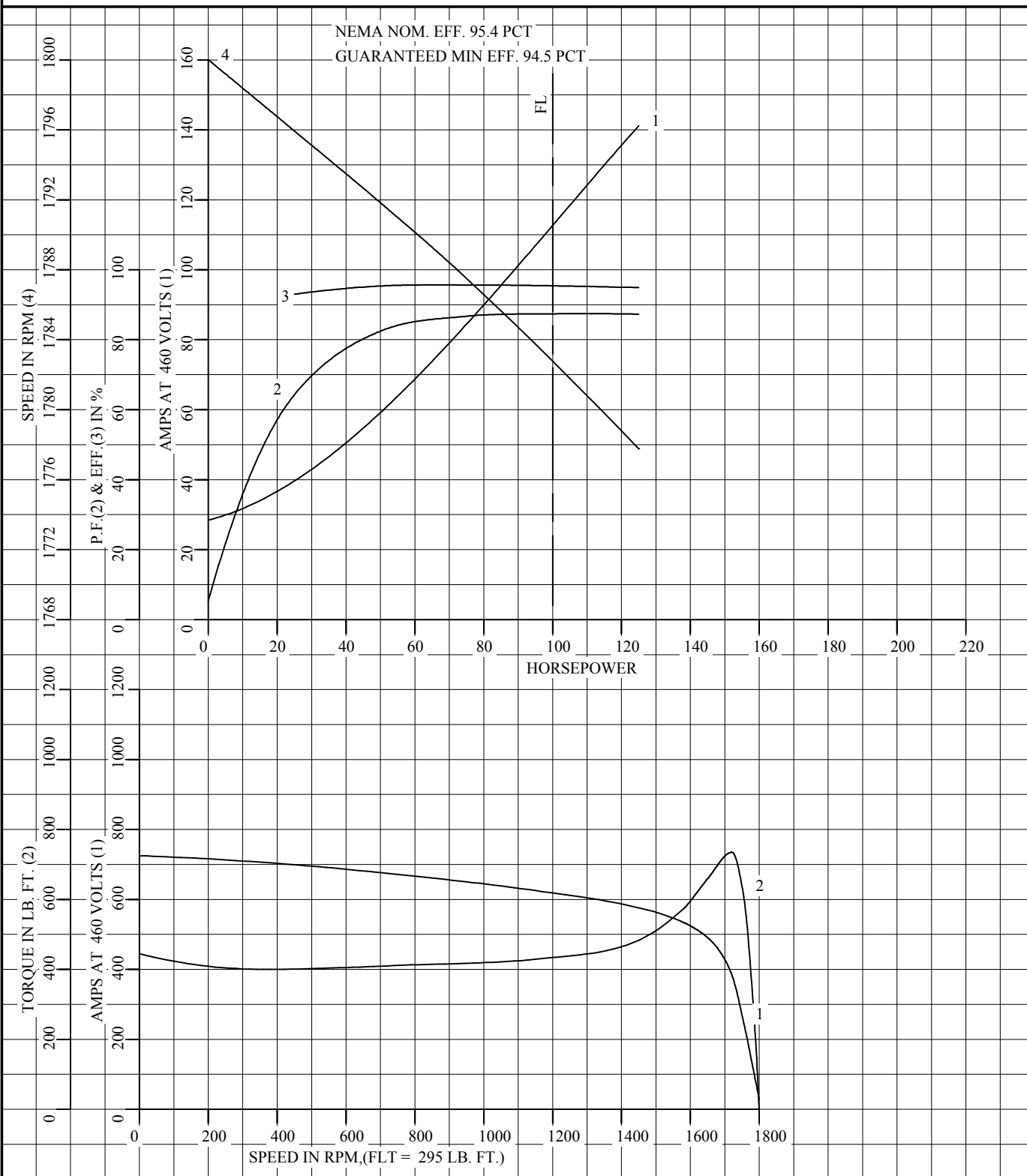
 STATOR RES. @ 25 °C **.0123/.0492**

 PHASE/HERTZ **3/60**

 AMB °C/INSUL **40/F**

 E/S **596956**

OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 460 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 R.K. BRIDGES
CK. BY W.L. SMITH
APP. BY W.L. SMITH
DATE 05/14/14

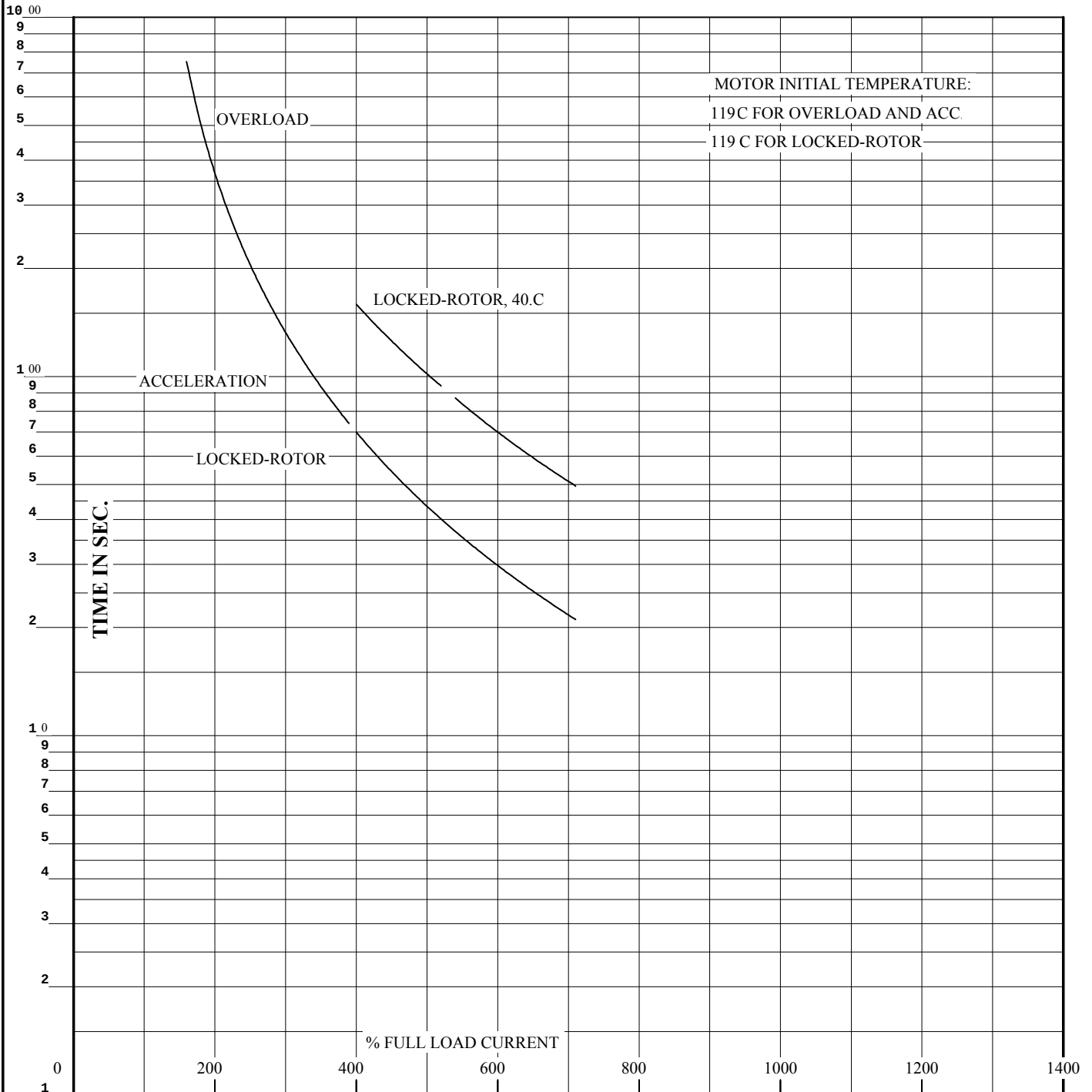
**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0692-R001
ISSUE DATE 01/04/18

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

 RPM **1785**
 VOLTS **230/460**
 AMPS **224/112**
 DUTY **CONT**
 AMB °C/INSUL **40/F**

 S.F. **1.15**
 NEMA DESIGN **B**
 CODE LETTER **G**
 ENCLOSURE **TEFC**
 E/S **596956**

 ROTOR **418142-33-RE**
 TEST S.O. **TYPICAL DATA**
 TEST DATE **---**
 STATOR RES. @ 25 °C **.0123/.0492**
 OHMS (BETWEEN LINES)


THERMAL LIMIT CURVE

REMARKS:

NEMA NOM. EFF. 95.4 PCT

GUARANTEED MIN EFF. 94.5 PCT

 AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE
 AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

 DR. BY R.K. BRIDGES
 CK. BY W. L. SMITH
 APP. BY W. L. SMITH
 DATE 05/14/14
**A-C MOTOR
PERFORMANCE
CURVES**
A40WG0692-R001

 ISSUE DATE 01/04/18 Page 10 of 13

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

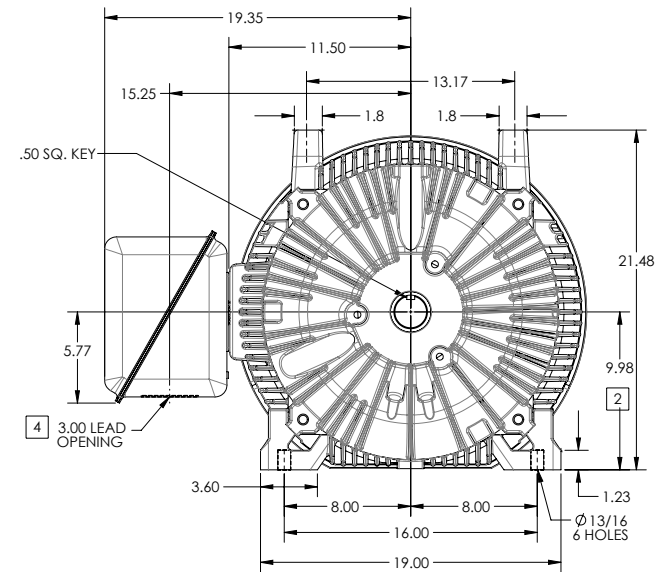
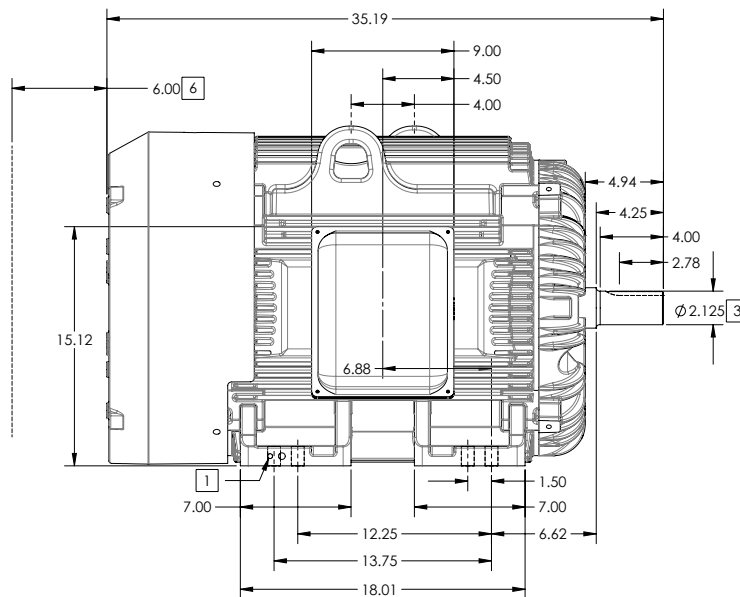
FRAME G405TS ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404TS 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 ENCR OACH 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): 1160

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

000-6242119

REV. DESC: CHANGE BA FROM 6.76 TO 6.62			
REV: B	VERSION: 02	REVISED: 04/37/41 04/14/2014	TDR: 000000848770
MODEL NO. 617429-002		REF:	
BY: MGHUMZ2		Material:	

BALDOR

G405TS/404TS STD - FOOTED - STANDARD ENCLOSURE

617429-002

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

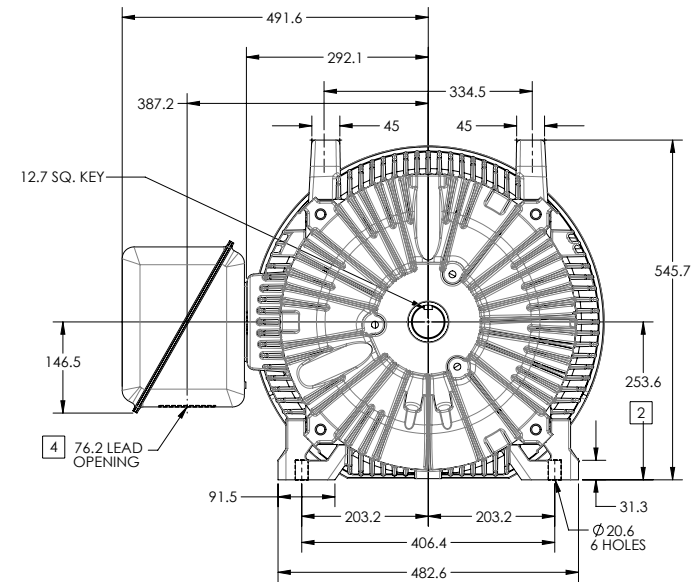
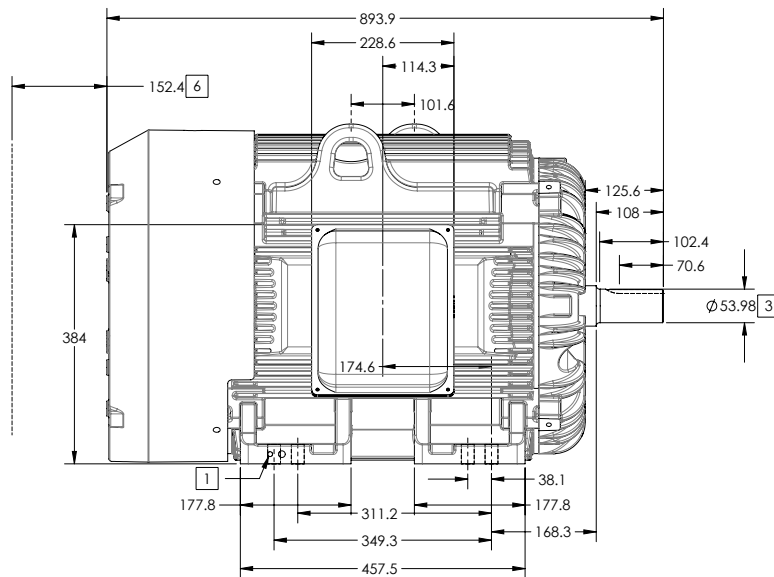
FRAME G405TS ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404TS 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 ENCR OACH 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): 530

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

000-672119

REV. DESC: CHANGE BA FROM 6.76 TO 6.62	TDR: 000000848770
REV: B VERSION: 02	REVISED: 04/37/41 04/14/2014
MODEL NO. 617429-002	REF:
BY: MGHUMZ2	Material:

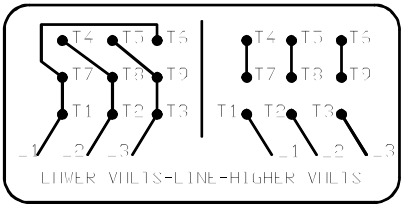
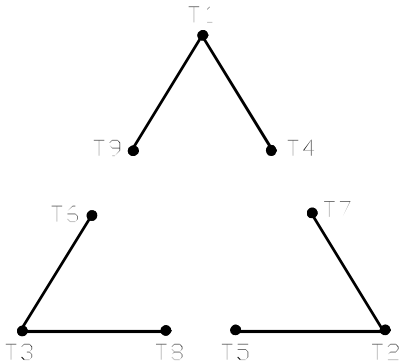
BALDOR

G405TS/404TS STD - FOOTED - STANDARD ENCLOSURE

617429-002

416820-002

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 9 LEAD DELTA-CONNECTED



(N.P. 1575-B)

REV. DESC: FONT CHANGE FOR PDF SEARCHABLE		
REV. LTR: A	VERSION: 01	TDR: 000001009382
FILE: \MGA\00000\661	REVISED: 02:46:19 02/13/2020	BY: MGHMTT
MTL: —		

BALDOR - RELIANCE®

CONN DIAG — STANDARD 9 LEAD, DELTA-CONNECTED
SH 1 of 1

416820-002