

ABB BALDOR RELIANCE III

Customer information packet

ECP4418T-4

60HP, 890RPM, 3PH, 60HZ, 405T, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	405T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	60.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	900 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSAUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Constant Torque Speed Range	6-60
Current @ Voltage	76.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3A
Heater Indicator	No Heater
High Voltage Full Load Amps	76.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 4 AWG
Motor Standards	NEMA

Part Detail

Revision	M
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0789
Layout	617429-501
Eff. date	10-24-2024
CD Diagram	416820-036
Poles	08
Leads	3#4
Proprietary	False
Created date	12-04-2013

Motor Type	A40060M
Mounting Arrangement	F1
Number of Poles	8
Overall Length	38.20 IN
Power Factor	79
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	890 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP2496L	
MOBIL POLYREX EM	

NP3238

CAT NO	ECP4418T-4			SPEC NO.		A40-4849-0789							
HP	60	AMPS	76	VOLTS		460		DESIGN	B				
FRAME	405T	RPM	890	HZ	60	AMB	40	SF	1.15				
D.E. BRG.DATA	6316		O.D.E. BRG.DATA			6316		PH	3	DUTY	CONT	INSUL.CLASS	F
D.E. BRG.	80BC03J30X			TYPE	P	ENCL	TEFC	CODE	F				
O.D.E. BRG.	80BC03J30X			POWER FACTOR			79	NEMA NOM EFFICIENCY			93		
3/4 LOAD EFF.	93.7		MAX CORR KVAR			20.0		GUARANTEED EFFICIENCY			91.7		
TEMP CODE	T3A		TEMP =		180								
CHP HZ	60-90		CT HZ	6-60		VT HZ	0-60						
INVERTER-TEMP-CODE	T3A												
SER.NO.				MOTOR WEIGHT									

Parts List

Part number	Description	Quantity
SA273152	SA A40-4849-0789	1.000 ea
RA259755	RA A40-4849-0789	1.000 ea
421948051	LABEL, MYLAR	1.000 ea
000692000FF	N/P	1.000 ea
NP2496L	MOTOR LUBE NAMEPLATE	1.000 ea
000613006PU	N/P (RELEASE QTY 10,000) UL CSA LABEL	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
NP3238	SS CP XEX SEVERE DUTY MAIN NP,CURUS EEV	1.000 ea
089412501A	BRKT FTMT G400 FIN MACH 6316 89412500WCA	1.000 ea
083198101A	G400 STD FAN COVER MACHINING	1.000 ea
034180012DA	KEY 1X4X1/4X1-1/2 L	1.000 ea
412118006A	DRAIN	2.000 ea
702618011RN	FAN 440 702618004T - 2.00 BORE 17.5 DIA	1.000 ea
004824015A	GREASE POLYREX EM	0.880 lb
032018020EK	HHCS 5/8-11X2-1/2 PLTD.	4.000 ea
032018010CK	HHCS 3/8-16X1-1/4 PLTD. 032018010CR	4.000 ea
032018026CK	HHCS 3/8-16X3-1/4 PLTD.	3.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
415045002B	SLGR	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
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
034530056BB	P/NIP 1/4X7 SCHED 40	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
032018026CK	HHCS 3/8-16X3-1/4 PLTD.	3.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
034692005AA	P PLUG 3/4"BLK.	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea

415045002B	SLGR	1.000 ea
034530040BB	P/NIP 1/4X5	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
034530040AB	P/NIP 1/8X5 GALV.	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
076708000BB	CONDUIT BOX-360	1.000 ea
415039016A	TERBD, 360-400	1.000 ea
076709000A	C/B Cover - 360	1.000 ea
067053000B	GASK 320-400	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
032018010CK	HHCS 3/8-16X1-1/4 PLTD. 032018010CR	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
415000115H	T/LUG #2AWG-4/0AWG	1.000 ea
033512008LB	HHTTS 1/4-20X1 PLATED	4.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
034000014AB	WSH ID.406 OD.812 TH.065	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
MG1025N19	WILKO 778.50 BLUE GREEN - 55 GAL DRUMS	0.380 ga
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
034180044JA	KEY 3/4X3/4X5-1/2 L	1.000 ea
PK5004A02	WOOD BASE 40X32 WITH STACKED 2X4 RUNNER	1.000 ea
032510024D	CARRIAGE BOLT - 444	2.000 ea
034001014AB	FLAT WASHER 3/8"PLATED	2.000 ea
034001016AB	WSHR .562ID 1.375OD .109	2.000 ea
033300014AC	HEX NUT, SHIPPING - 400	2.000 ea
604799003C	PLASTIC BAG 42X32X46	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
032018005DL	1/2-13 X 5/8 SILICON BRONZE HHCS	1.000 ea

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405T	60	P	3/60	890	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
76	CONT	40/F	1.15	B	F	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
496241	418142071BE	---	---	.114		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	37.2	900	3.70	0	
1/4	15.0	40.7	897	38.4	90.2	
2/4	30.0	49.5	894	60.9	93.3	
3/4	45.0	61.6	891	73.0	93.7	
4/4	60.0	76.0	888	79.3	93.3	
5/4	75.0	92.3	884	82.3	92.4	
SPEED TORQUE						
		RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES	
LOCKED ROTOR		0	148	525	405	
PULL UP		280	127	451	380	
BREAKDOWN		844	225	800	235	
FULL LOAD		888	100	355	76.0	
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE REMARKS: TYPICAL DATA XE MOTOR-NEMA. NOM. EFF. 93.0%, GUAR. EFF. 92.4%						
		DR. BY D. M. BYRD CK. BY J. P. TSAO APP. BY J. P. TSAO DATE 04/25/89		A-C MOTOR PERFORMANCE DATA A40WG0789-R001 ISSUE DATE 09/17/15		

REL S.O.

 RPM **890**

 S.F. **1.15**

 ROTOR **418142071BE**

 FRAME **405T**

 VOLTS **460**

 NEMA DESIGN **B**

 TEST S.O. **TYPICAL DATA**

 HP **60**

 AMPS **76**

 CODE LETTER **F**

 TEST DATE **---**

 TYPE **P**

 DUTY **CONT**

 ENCLOSURE **TEFC**

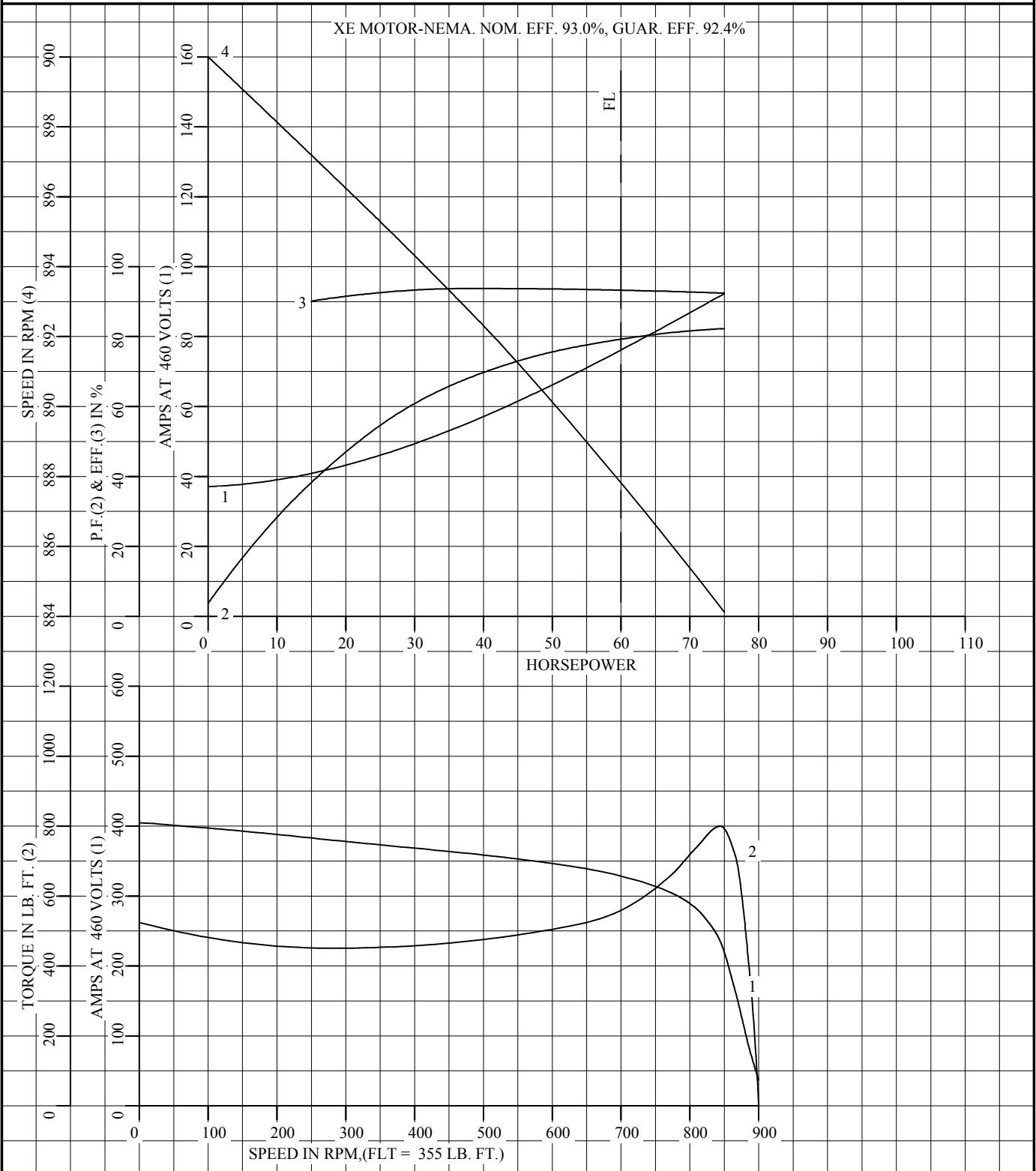
 STATOR RES. @ 25 °C **.114**

 PHASE/HERTZ **3/60**

 AMB °C/INSUL **40/F**

 E/S **496241**

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 D. M. BYRD
CK. BY J. P. TSAO
APP. BY J. P. TSAO
DATE 04/25/89

**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0789-R001

ISSUE DATE 09/17/15 Page 9 of 13

REL. S.O.

RPM 890

S.F. 1.15

ROTOR 418142071BE

FRAME 405T

VOLTS 460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 60

AMPS 76

CODE LETTER F

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

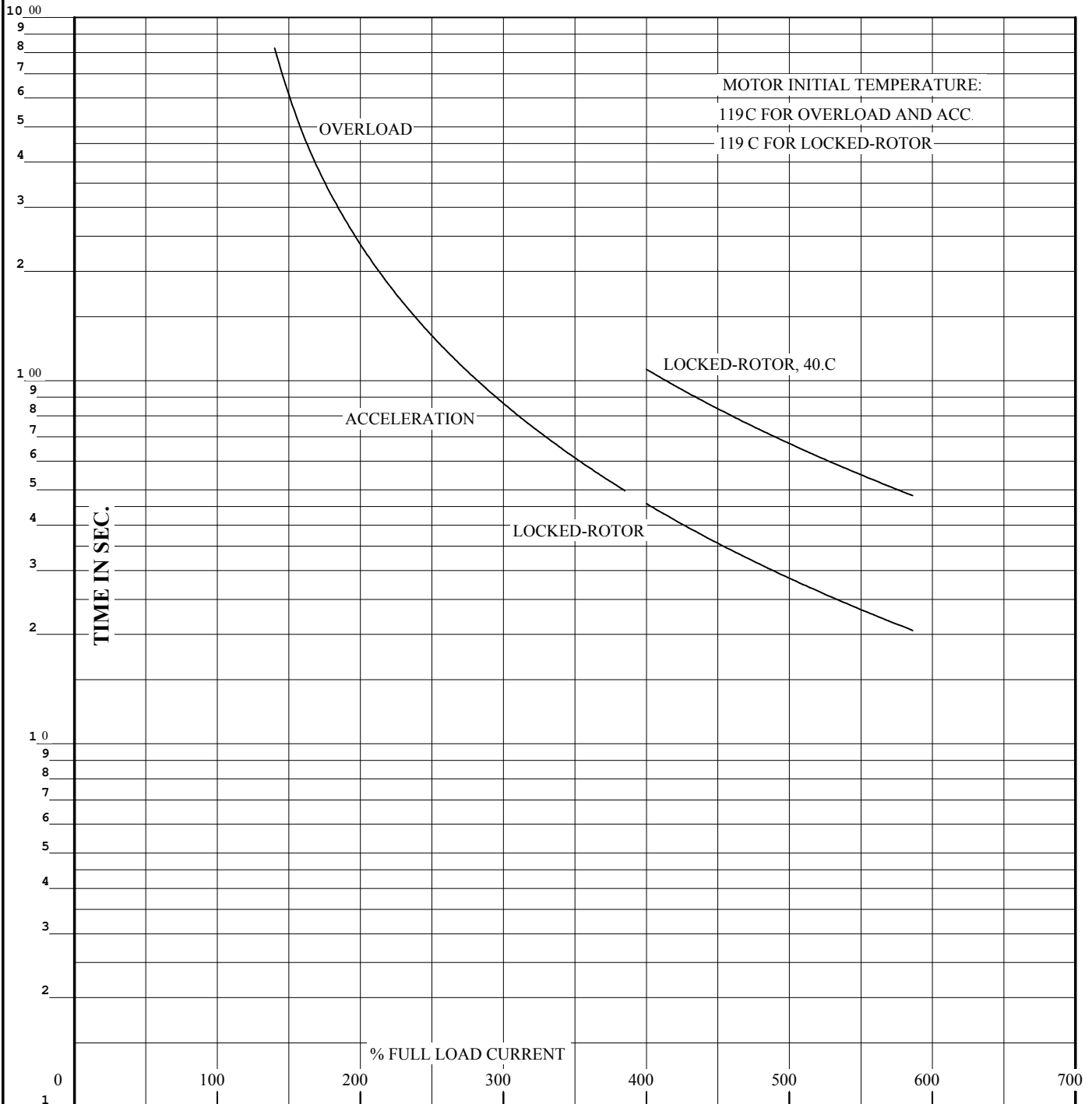
STATOR RES. @ 25 °C .114

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 496241

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:

XE MOTOR-NEMA. NOM. EFF. 93.0%, GUAR. EFF. 92.4%

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 D. M. BYRD
CK. BY J. P. TSAO
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DATE 04/25/89

**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0789-R001

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DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

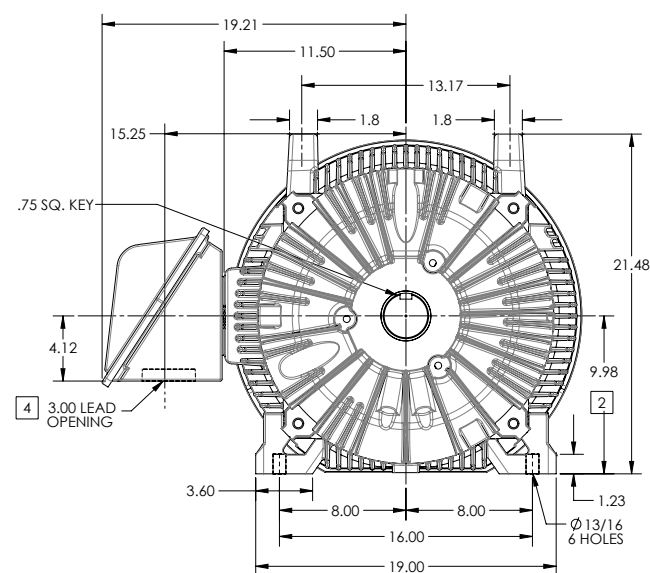
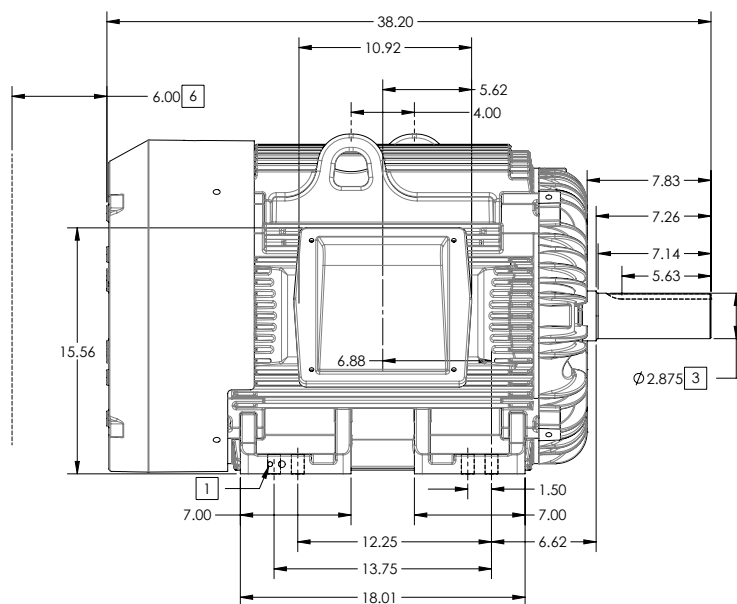
FRAME G405T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T FRAME MOUNTING HOLES

XT/ECP SEVERE DUTY 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-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): 1370

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

105-627219

REV. DESC: CHANGE BA FROM 6.76 TO 6.62		TDR: 000000848770
REV: B	VERSION: 02	REVISED: 01-11-16 04/14/2014
MODEL NO. 617429-501	REF:	
BY: MGHUMZ2	Material:	

BALDOR

G405T/404T STD - FOOTED - XT/ECP SEVERE DUTY ENCLOSURE

617429-501

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

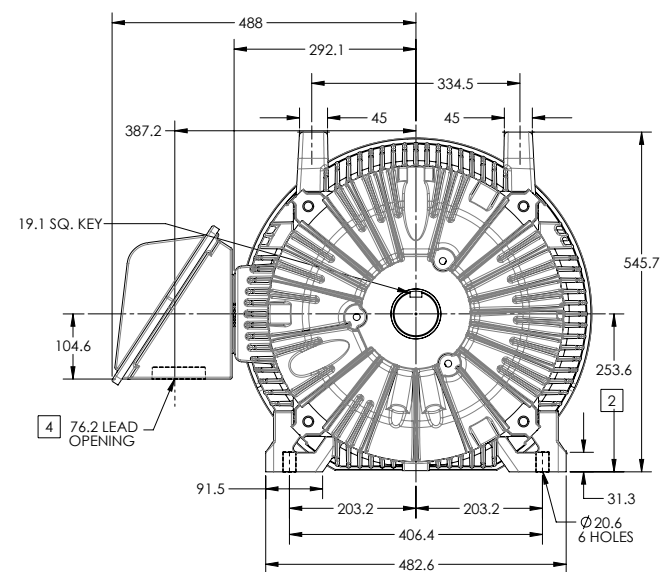
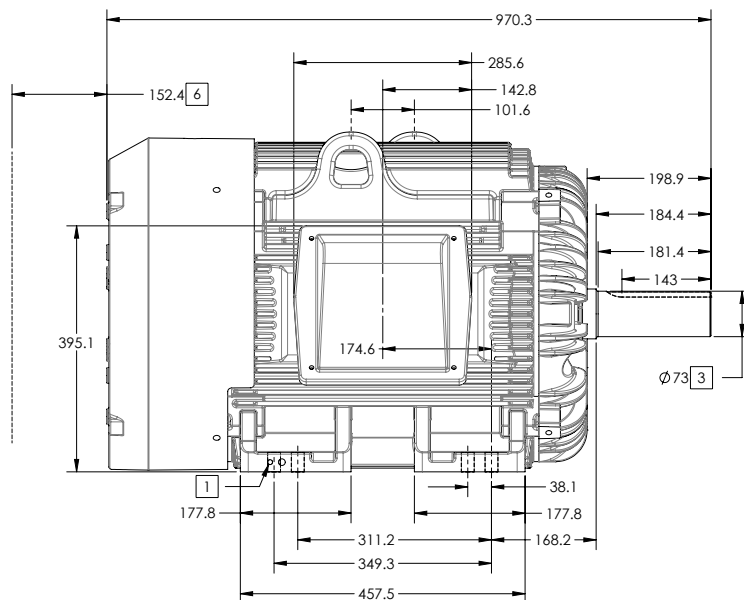
FRAME G405T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T FRAME MOUNTING HOLES

XT/ECP SEVERE DUTY 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-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): 630

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

105-627219

REV. DESC: CHANGE BA FROM 6.76 TO 6.62	TDR: 000000848770
REV: B VERSION: 02	REVISED: 01-11-16 04/14/2014
MODEL NO. 617429-501	REF:
BY: MGHUMZ2	Material:

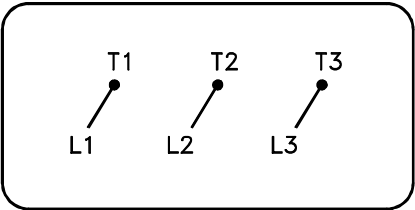
BALDOR

G405T/404T STD - FOOTED - XT/ECP SEVERE DUTY ENCLOSURE

617429-501

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