ABB BALDOR RELIANCE

Customer information packet

ECP4400TS-4

100HP, 1785RPM, 3PH, 60HZ, 405TS, A40064M, TEF
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	405TS
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	100.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 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	10-60
Current @ Voltage	112.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.4 %
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T2D
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
Motor Standards	NEMA

Part Detail

Revision	L
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0066
Layout	617429-502
Eff. date	10-24-2024
CD Diagram	416820-036
Poles	04
Leads	3#2
Proprietary	False
Created date	07-15-2013

Motor Type	A40064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	35.04 IN
Power Factor	87
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	Shaft Slinger
Speed	1785 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP3238												
CAT NO	ECP4400TS-4	**SPEC NO.**	P40G3904									
HP	100	**AMPS**	112	**VOLTS**	460	**DESIGN**	B					
FRAME	405TS	**RPM**	1785	**HZ**	60	**AMB**	40	**SF**	1.15			
D.E. BRG.DATA	6313	**O.D.E. BRG.DATA**	6313	**PH**	3	**DUTY**	CONT	**INSUL.CLASS**	F			
D.E. BRG.	65BC03J30X	**TYPE**	P	**ENCL**	TEFC	**CODE**	G					
O.D.E. BRG.	65BC03J30X	**POWER FACTOR**	87	**NEMA NOM EFFICIENCY**	95.4							
3/4 LOAD EFF.	95.7	**MAX CORR KVAR**	18.0	**GUARANTEED EFFICIENCY**	94.5							
TEMP CODE	T2D	**TEMP =**	215									
CHP HZ	60-90	**CT HZ**	10-60	**VT HZ**	0-60							
INVERTER-TEMP-CODE	T2D											
SER.NO.		**MOTOR WEIGHT**										

Parts List

Part number	Description	Quantity
SA267695	SA P40G3904	1.000 ea
RA254365	RA P40G3904	1.000 ea
NP3238	SS CP XEX SEVERE DUTY MAIN NP,CURUS EEV	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
000692000FF	N/P	1.000 ea
004824015A	GREASE POLYREX EM	0.884 lb
032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
032018020EK	HHCS 5/8-11X2-1/2 PLTD.	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
034000014AB	WSH ID.406 OD.812 TH.065	4.000 ea
034180008DA	KEY 1/4X1/4X1 L (shipping)	1.000 ea
034530052AB	P/NIP 1/8X6-1/2 Zinc	1.000 ea
034530056BB	P/NIP 1/4X7 SCHED 40	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
078548001R	FAN KB 234/150 (84) 400	1.000 ea
034692005AA	P PLUG 3/4"BLK.	1.000 ea
083198101A	G400 STD FAN COVER MACHINING	1.000 ea
089413501A	G400 FIN/MACH FT MTD BRKT 089413500WCA	1.000 ea
410700004F	WSHR	1.000 ea
415045002B	SLGR	1.000 ea
415072001B	CLAMP	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
032018020EK	HHCS 5/8-11X2-1/2 PLTD.	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
034530040AB	P/NIP 1/8X5 GALV.	1.000 ea
034530040BB	P/NIP 1/4X5	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
089413501A	G400 FIN/MACH FT MTD BRKT 089413500WCA	1.000 ea
415045002B	SLGR	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
032018010CK	HHCS 3/8-16X1-1/4 PLTD. 032018010CR	4.000 ea

033512008LB	HHTTS 1/4-20X1 PLATED	4.000 ea
034000014AB	WSH ID.406 OD.812 TH.065	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
065776000C	GASKET,MAIN CBOX, 320-400	1.000 ea
067053000B	GASK 320-400	1.000 ea
076708000BB	CONDUIT BOX-360	1.000 ea
076709000A	C/B Cover - 360	1.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
415000115H	T/LUG #2AWG-4/0AWG	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
034180022GA	KEY 1/2X1/2X2-3/4 L	1.000 ea
MG1025N19	WILKO 778.50 BLUE GREEN - 55 GAL DRUMS	0.375 ga
004824003CBY	WILKO PAINT 060.02 - ACTIVATOR	0.063 ga
421948051	LABEL, MYLAR	1.000 ea
PK5004A02	WOOD BASE 40X32 WITH STACKED 2X4 RUNNER	1.000 ea
000613006PU	N/P (RELEASE QTY 10,000) UL CSA LABEL	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	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
412118006A	DRAIN	2.000 ea

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405TS	100	P	3/60	1785	460

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

E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES.@25 °C OHMS (BETWEEN LINES)
596909	418142-33-RE	---	---	.0492

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	28.7	1800	5.48	0
1/4	25.0	39.2	1796	64.3	93.0
2/4	50.0	59.4	1792	82.6	95.4
3/4	75.0	84.4	1788	86.9	95.7
4/4	100	112	1783	87.6	95.4
5/4	125	141	1778	87.4	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
XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT
GURANTEED MIN EFF. 95.0 PCT

BALDOR

DR. BY J.J.HARRISON
CK. BY W.L.SMITH
APP. BY W.L.SMITH
DATE 02/05/09

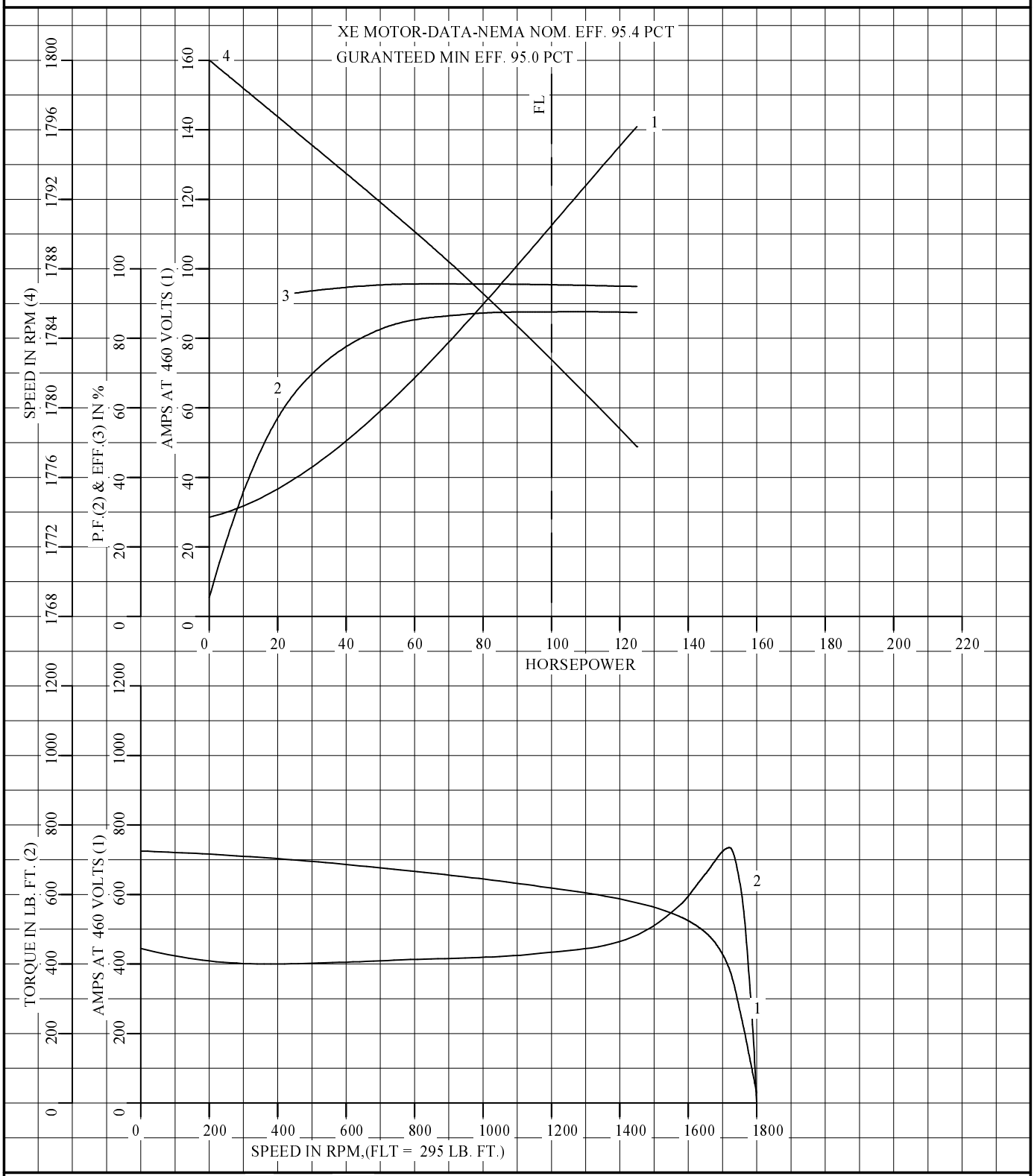
A-C MOTOR PERFORMANCE DATA

A40WG0066-R002
ISSUE DATE 12/15/10

ABB BALDOR RELIANCE

CUSTOMER INFORMATION PACKET ECP4400TS-4 - 100HP, 1785RPM, 3PH, 60HZ, 405TS, A40064M, TEF

FRAME 405TS	RPM 1785	S.F. 1.15	ROTOR 418142-33-RE
HP 100	VOLTS 460	NEMA DESIGN B	TEST S.O. TYPICAL DATA
TYPE P	AMPS 112	CODE LETTER G	TEST DATE ---
PHASE/HERTZ 3/60	DUTY CONT	ENCLOSURE TEFC	STATOR RES.@ 25 ℃ .0492
	AMB ℃/INSUL 40/F	E/S 596909	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

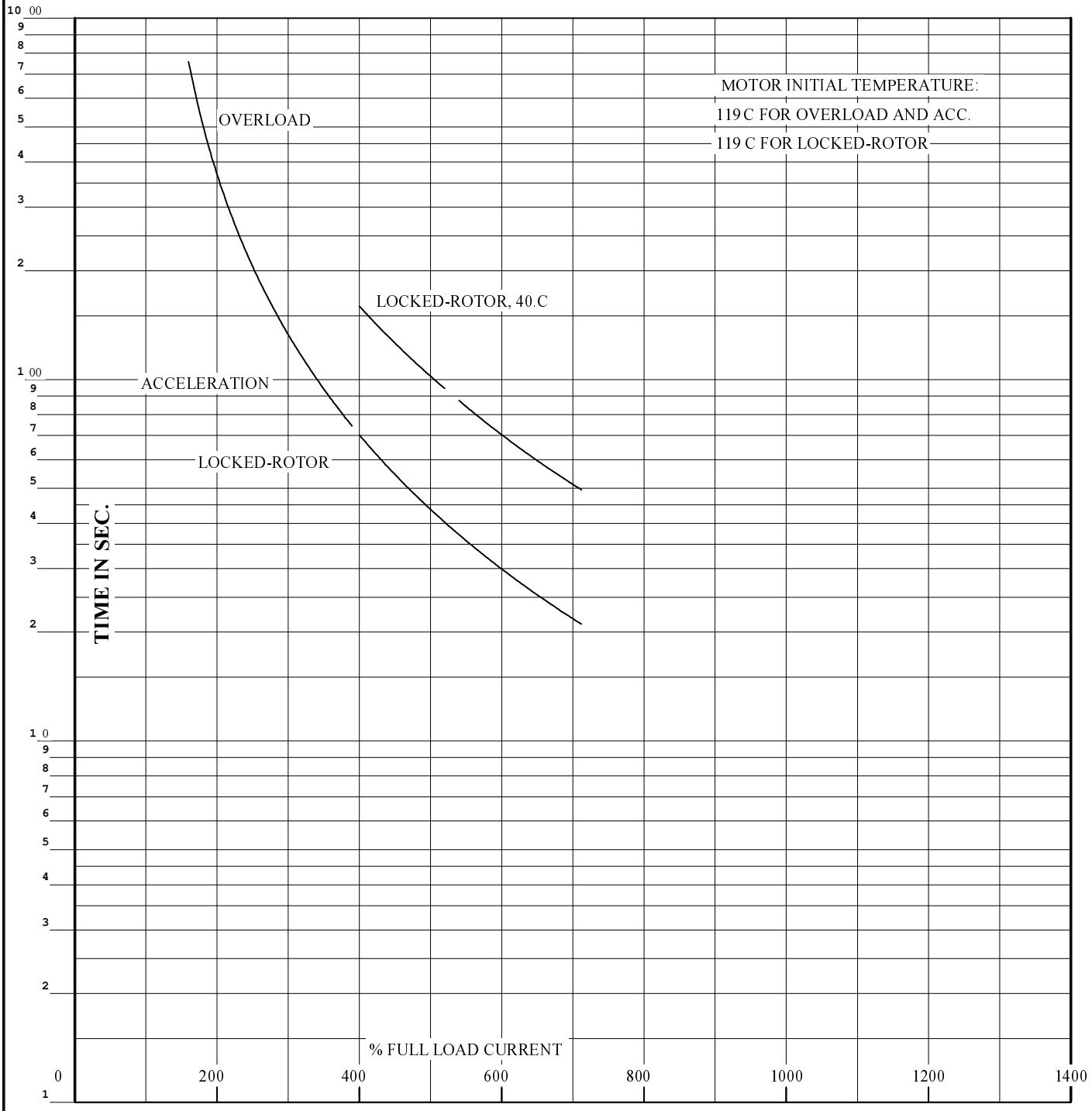
DR. BY J.J.HARRISON
CK. BY W.L.SMITH
APP. BY W.L.SMITH
DATE 02/05/09

A-C MOTOR PERFORMANCE CURVES

A40WG0066-R002

ISSUE DATE 12/15/10

REL. S.O.	RPM 1785	S.F. 1.15	ROTOR 418142-33-RE
FRAME 405TS	VOLTS 460	NEMA DESIGN B	TEST S.O. TYPICAL DATA
HP 100	AMPS 112	CODE LETTER G	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES.@ 25 ℃.0492
PHASE/HERTZ 3/60	AMB ℃/INSUL 40/F	E/S 596909	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 460 **VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.**

BALDOR

DR. BY	J.J.HARRISON
CK. BY	W.L.SMITH
APP. BY	W.L.SMITH
DATE	02/05/09

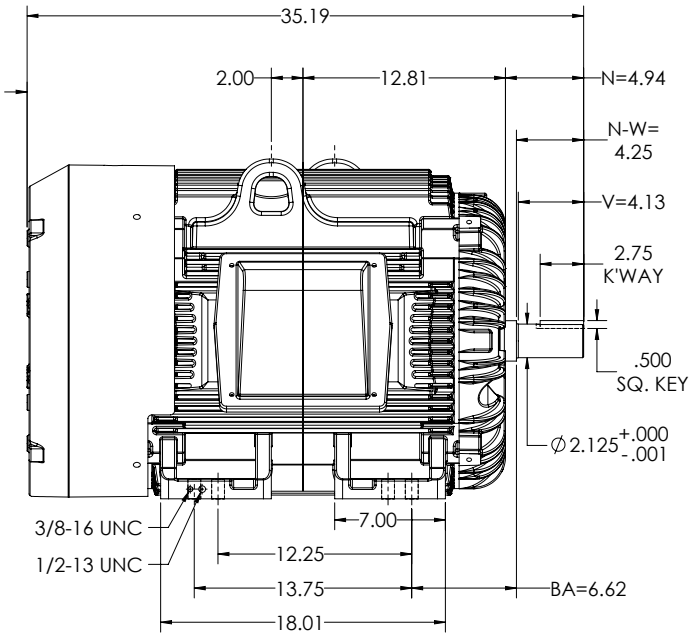
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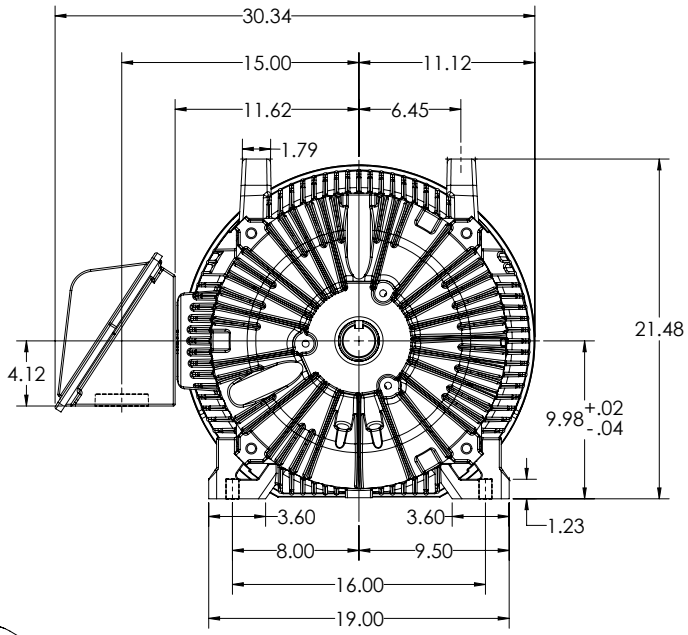
DUTY MASTER ALTERNATING CURRENT MOTORS

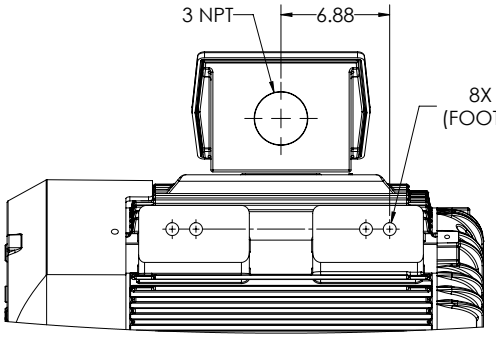
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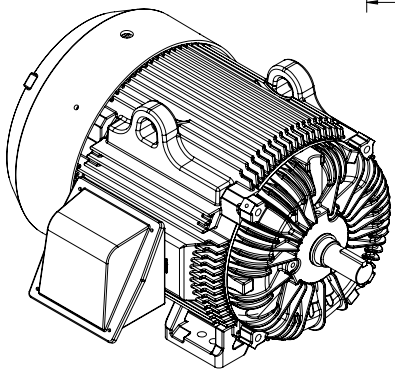
ENCLOSURE: TOTALLY ENCLOSED | SQUIRREL-CAGE INDUCTION | COOLING: FAN COOLED

MOUNTING: FOOT, F-1 | G405TS/G404TS FRAME MOUNTING | ENCLOSURE ENHANCEMENT: SEVERE DUTY









1 OBSTRUCTION MUST NOT ENCROACH ON AIR INLET.

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

MAX PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003" T.I.R.

DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS.
WEIGHT (LBS): 1160, MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

REV. DESC: UPDATE DS QUALITY			
REV: C	VERSION: 03	REVISED: 09:15:12 06/28/2017	TDR: 000001033374
MODEL NO. 617429-502			REF:
BY: USJEDIL	Material:	C	G405TS/404TS TEFC F1 FOOT CAST IRON CONDUIT BOX/SEVERE DUTY

BALDOR

SHEET NUMBER 1 OF 2

617429-502

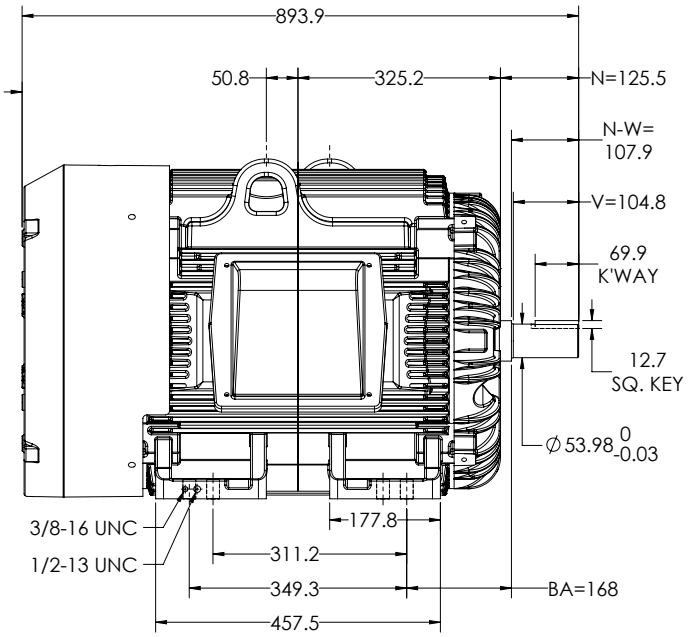
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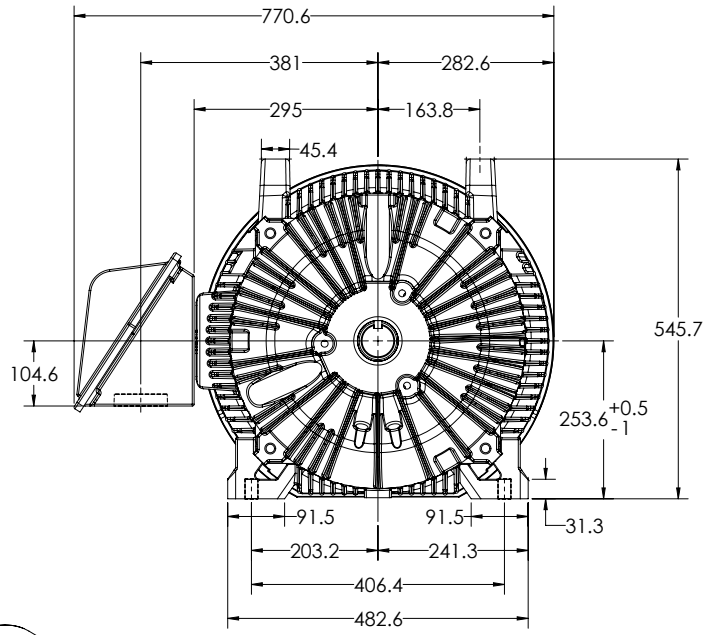
DUTY MASTER ALTERNATING CURRENT MOTORS

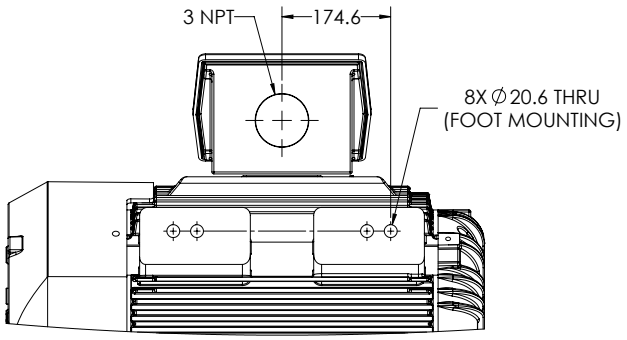
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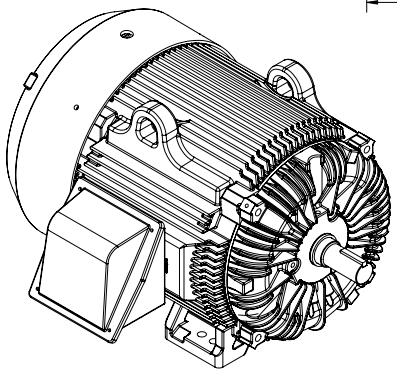
ENCLOSURE: TOTALLY ENCLOSED | SQUIRREL-CAGE INDUCTION | COOLING: FAN COOLED

MOUNTING: FOOT, F-1 | G405TS/G404TS FRAME MOUNTING | ENCLOSURE ENHANCEMENT: SEVERE DUTY









1 OBSTRUCTION MUST NOT ENCROACH ON AIR INLET.

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAX PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .08 T.I.R.

DIMENSIONS ARE IN MILLIMETERS.
WEIGHT (KGS): 530, MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER 2 OF 2

617429-502

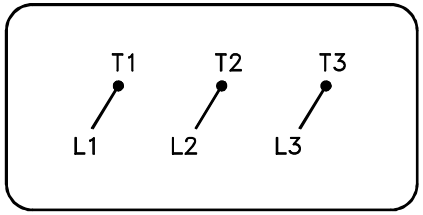
REV. DESC: UPDATE DS QUALITY			
REV: C	VERSION: 03	REVISED: 09:15:12 06/28/2017	TDR: 000001033374
MODEL NO. 617429-502			REF:
BY: USJEDIL	Material:	C	G405TS/404TS TEFC F1 FOOT CAST IRON CONDUIT BOX/SEVERE DUTY

BALDOR

617429-502

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