ABB BALDOR RELIANCE

Customer information packet

EM7090T

100//75HP, 1780//1485RPM, 3PH, 60//50HZ, 405
Class - CLI GP C,D; CLII GP F,G
Division - Division I

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11/10/2026 5:05:29 PM

Specifications

Enclosure	TEFC
Frame	405T
Frame Material	Iron
Frequency	50.00 Hz
	60.00 Hz
Haz Area Class and Group	CLI GP C,D; CLII GP F,G
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	75.000 HP @ 50 HZ
	100.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	190.0 V @ 50 HZ
	230.0 V @ 60 HZ
	380.0 V @ 50 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA EEV
	CCSA US
	CSA
	UL
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	224.000 A @ 230.0 V
	206.000 A @ 190.0 V
	112.000 A @ 460.0 V
	103.000 A @ 380.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.4 %

Part Detail

Revision	J
Type	AC
Mech. spec.	
Base	
Status	INA/A
Elec. spec.	A40WG0494
Layout	617433-518
Eff. date	03-10-2021
CD Diagram	416820-002
Poles	04
Leads	3#2,6#4
Proprietary	False
Created date	05-18-2015

Feedback Device	NO FEEDBACK
Haz Area Temp Code	T4
Heater Indicator	No Heater
High Voltage Full Load Amps	103.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 2 AWG
Motor Standards	NEMA
Motor Type	A40072M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	38.21 IN
Power Factor	88
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1485 rpm
	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

NP2496L
MOBIL POLYREX EM

000613006PC			
CLASS I GROUP	C D X	**NO.**	
CLASS II GROUP	F G X		
OPERATING TEMP CODE	T4		

NP2293L									
CAT.NO.		**SPEC NO.**	A40-6624-0494					**FRAME**	405T
HP	100//75	**PHASE**	3	**DESIGN**	B	**TYPE**	P		
RPM	1780//1485	**HZ**	60//50	**AMB**	40	**SF**	1.00		
VOLTS	230/460//190/380	**DUTY**	CONT			**INSUL.CLASS**	F		
AMPS	224/112//206/103			**ENCL**	TEFC	**CODE**	G		
DRIVE END BEARING	80BC03J30X			**NEMA-NOM-EFFICIENCY**	95.4				
OPP D.E. BEARING	80BC03J30X								
SER.NO.									
								MOTOR WEIGHT	

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405T	100	P	3/60	1780	230/460

AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
224/112	CONT	40/F	1.00	B	G	TEFC

E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES.@25 °C OHMS (BETWEEN LINES)
596181	418142037AE	---	---	.0141/.0564

PERFORMANCE

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	34.2	1800	4.25	0
1/4	25.0	43.3	1796	57.9	93.5
2/4	50.0	62.9	1792	77.9	95.5
3/4	74.9	86.4	1787	84.9	95.7
4/4	100	112	1782	87.5	95.4
5/4	125	140	1777	88.1	94.8

SPEED TORQUE

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	169	498	708
PULL UP	270	148	437	665
BREAKDOWN	1712	242	714	409
FULL LOAD	1782	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 PREMIUM - 95.4 PCT NOMINAL EFFICIENCY

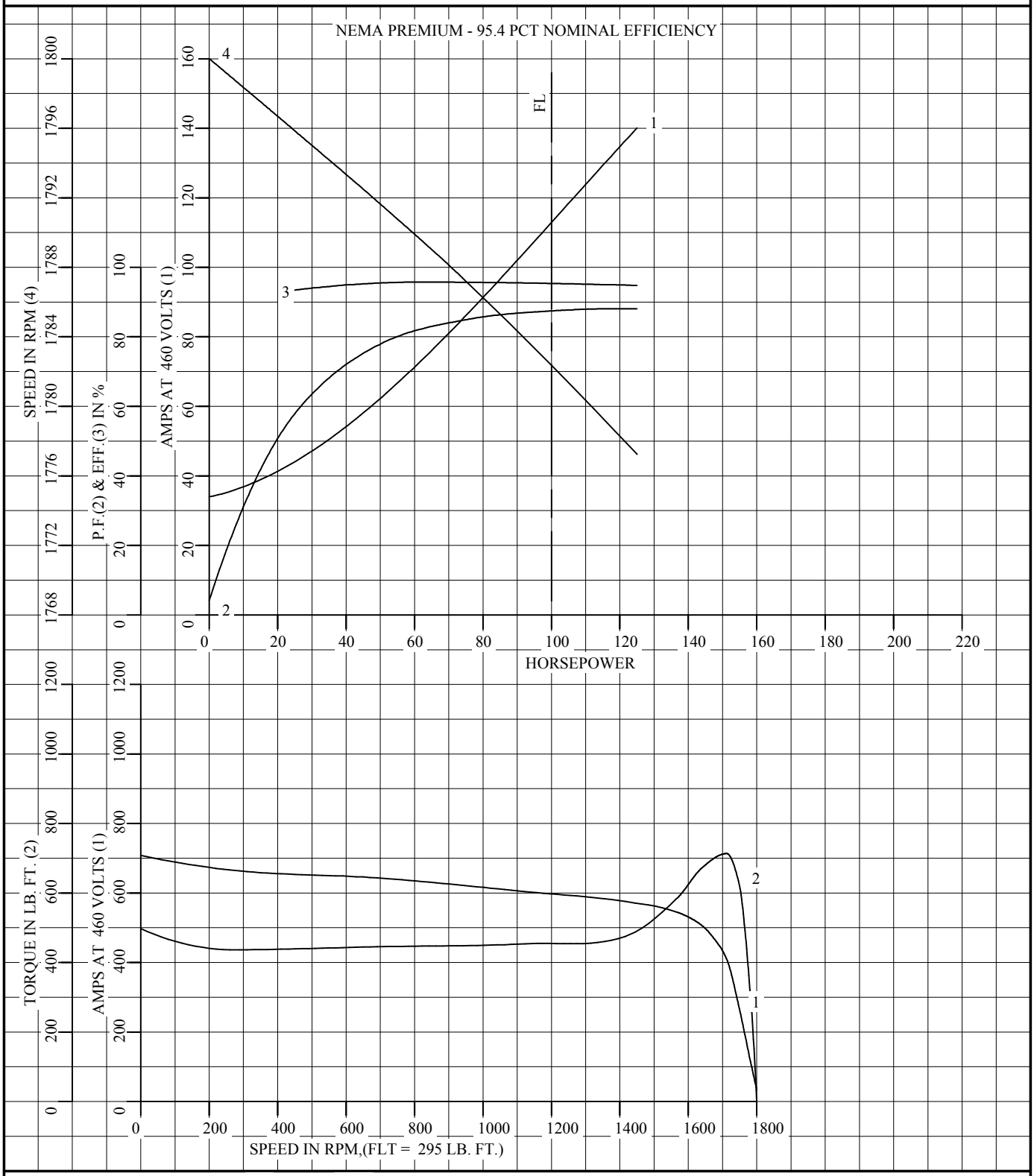
BALDOR
A MEMBER OF THE ABB GROUP

DR. BY W. L. SMITH
CK. BY J.J.HARRISON
APP. BY W. L. SMITH
DATE 09/01/10

A-C MOTOR PERFORMANCE DATA

A40WG0494-R002
ISSUE DATE 11/01/17

REL S.O.	RPM 1780	S.F. 1.00	ROTOR 418142037AE
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 .0141/.0564
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 596181	OHMS (BETWEEN LINES)



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

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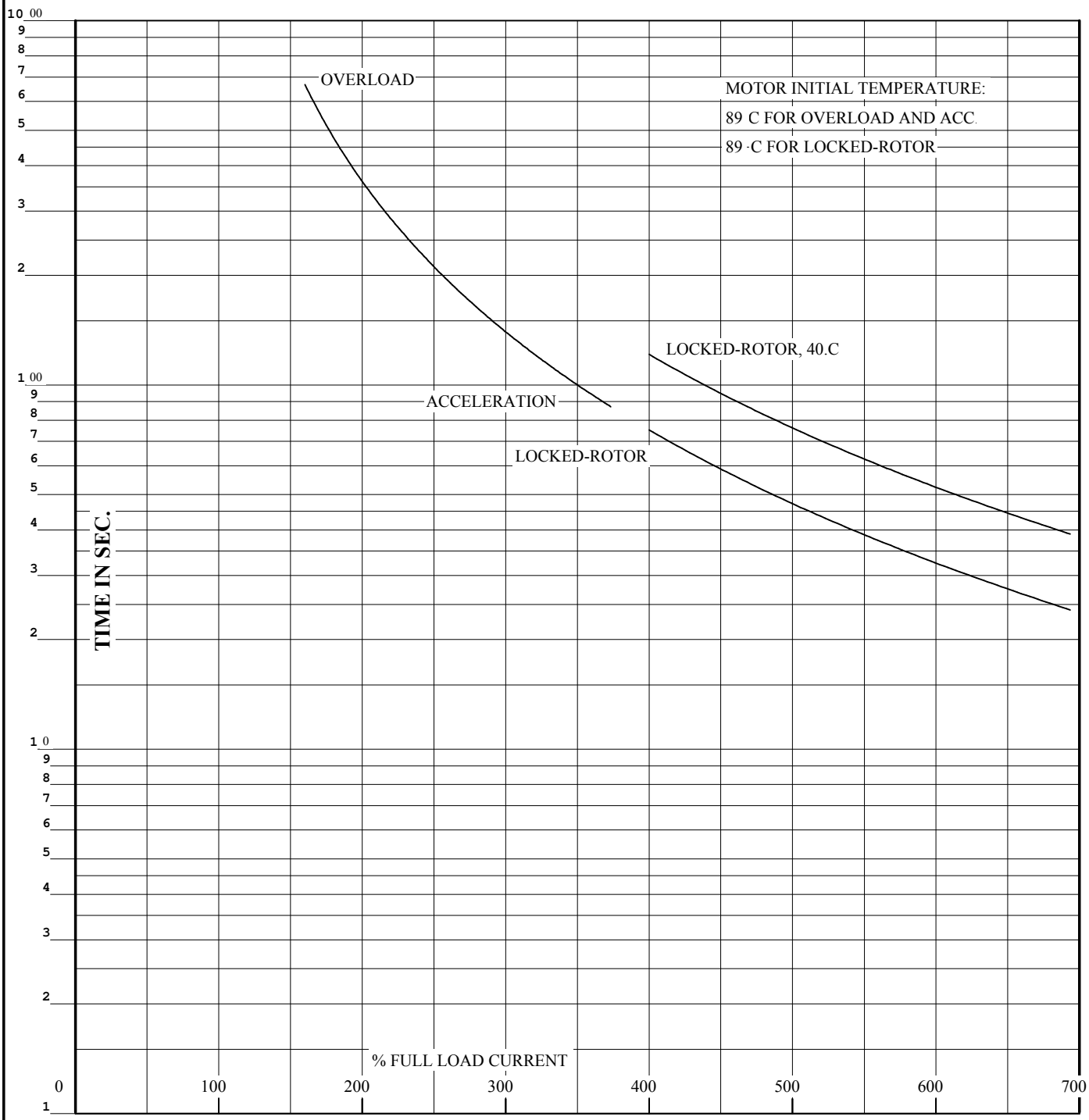
DR. BY	W. L. SMITH
CK. BY	J.J.HARRISON
APP. BY	W. L. SMITH
DATE	09/01/10

A-C MOTOR PERFORMANCE CURVES

A40WG0494-R002

ISSUE DATE 11/01/17

REL. S.O.	RPM 1780	S.F. 1.00	ROTOR 418142037AE
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.0141/.0564
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 596181	OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS: NEMA PREMIUM - 95.4 PCT NOMINAL EFFICIENCY

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

617433-518

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: X/P, UNDERWRITERS LISTED

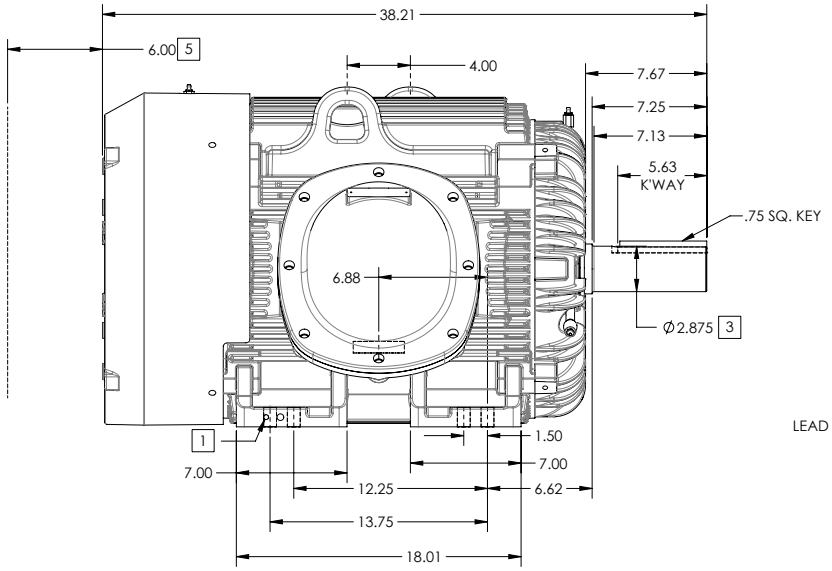
FRAME G405T

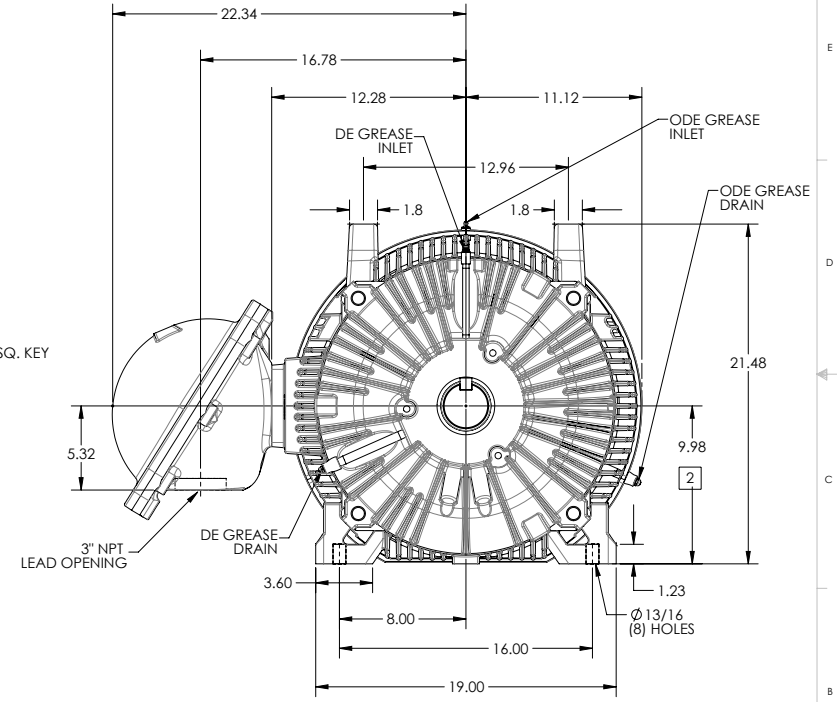
COOLING: FAN COOLED

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. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
5. OBSTRUCTION MUST NOT ENCROACH ON AIR INLET

4 WEIGHT (LBS): 1400

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.

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

617433-518

REV. DESC: NEW			
REV: -	VERSION: 00	REVISED: 04:48:12 05/18/2015	TDR: 000000868389
MODEL NO. 617433-518			REF:
BY: RAGTBM	Material:	C	

BALDOR

G405T/404T XP TEFC, FOOT, GP DUTY, 16CB1001A01 BOX

617433-518

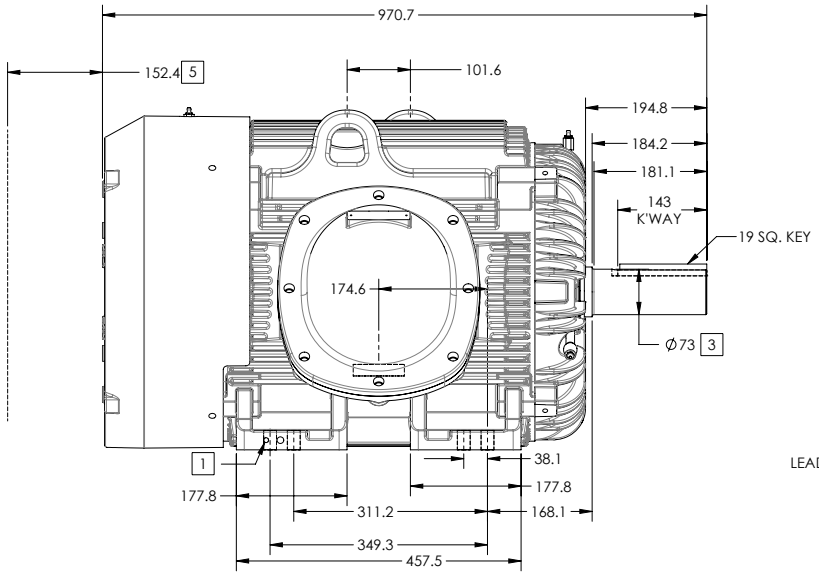
617433-518

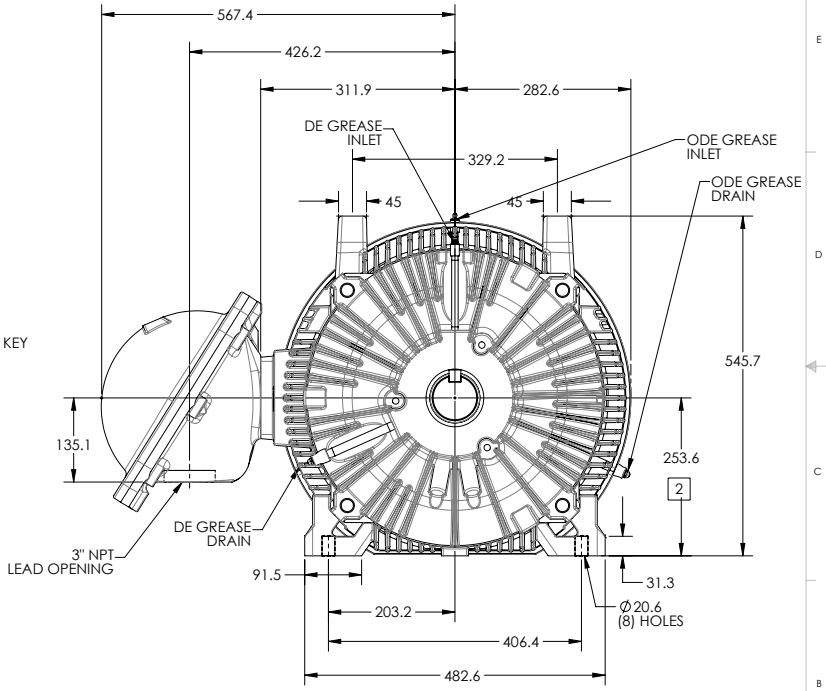
DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: X/P, UNDERWRITERS LISTED | FRAME G405T | 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,-1.5MM
3. VARIES +.000,-.025MM
4. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
5. OBSTRUCTION MUST NOT ENCROACH ON AIR INLET

6 MASS (KGS): 635

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 .076MM T.I.R. TO 130MM DIA.

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

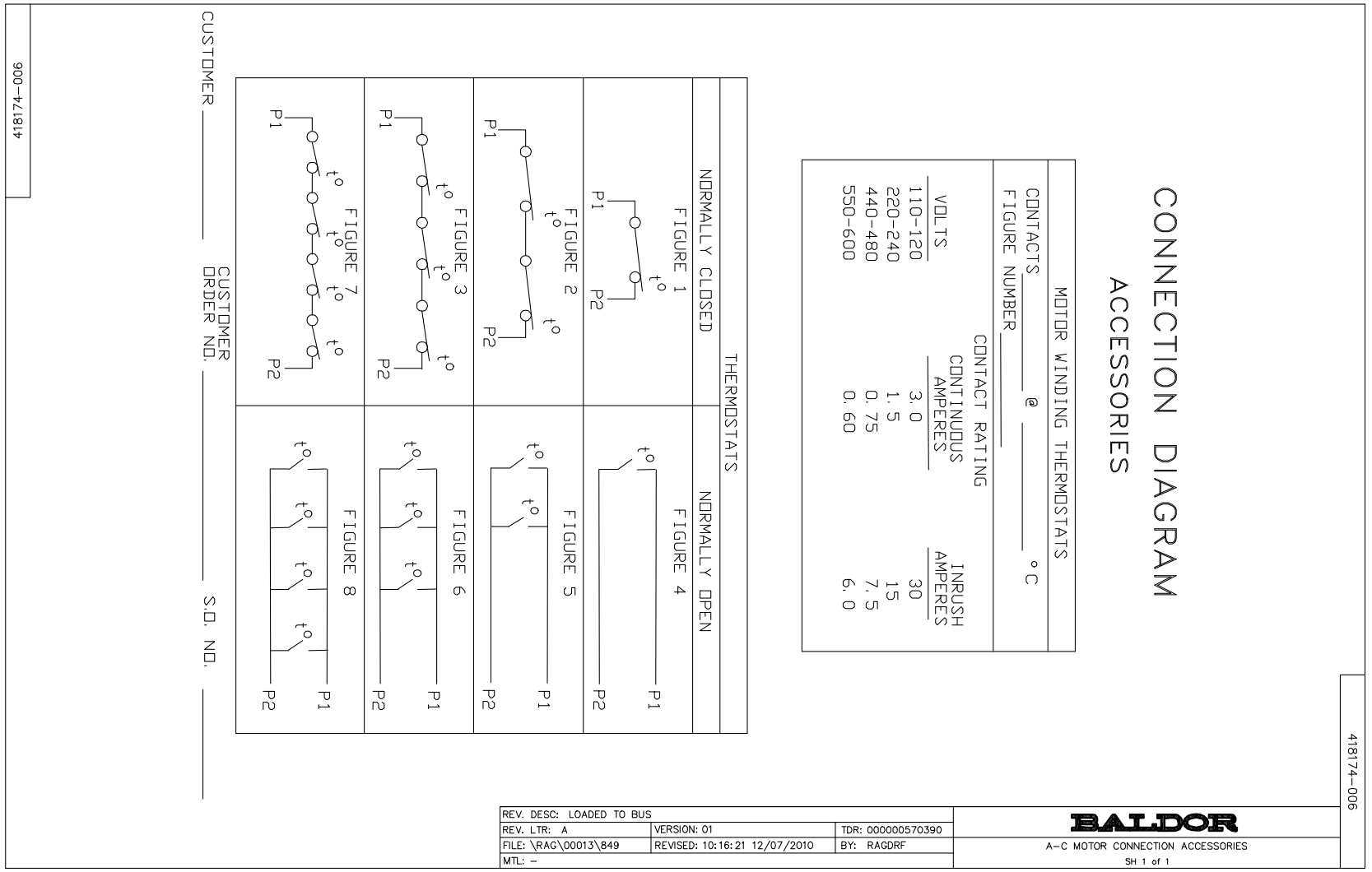
617433-518

REV. DESC: NEW			
REV: -	VERSION: 00	REVISED: 04:48:12 05/18/2015	TDR: 000000868389
MODEL NO. 617433-518			REF:
BY: RAGTBM	Material:		C

BALDOR

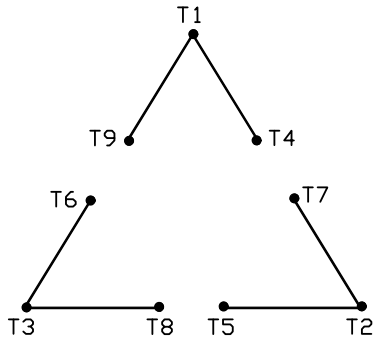
G405T/404T XP TEFC, FOOT, GP DUTY, 16CB1001A01 BOX

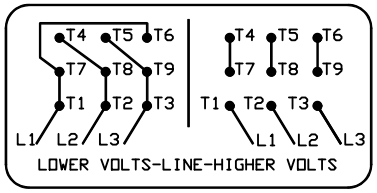
617433-518


CONNECTION DIAGRAM
ACCESSORIES
MOTOR WINDING THERMOSTATS
CONTACTS _____ @ _____ °C
FIGURE NUMBER _____
CONTACT RATING
VOLTS
CONTINUOUS AMPERES
INRUSH AMPERES
110-120 3.0 30
220-240 1.5 15
440-480 0.75 7.5
550-600 0.60 6.0
THERMOSTATS
NORMALLY CLOSED
NORMALLY OPEN
FIGURE 1
FIGURE 2
FIGURE 3
FIGURE 4
FIGURE 5
FIGURE 6
FIGURE 7
FIGURE 8
P1
P2
CUSTOMER _____
CUSTOMER ORDER NO. _____
S.O. NO. _____
418174-006
418174-006
BALDOR
A-C MOTOR CONNECTION ACCESSORIES
SH 1 of 1
REV. DESC: LOADED TO BUS
REV. LTR: A
VERSION: 01
TDR: 000000570390
FILE: \RAG\00013\849
REVISED: 10:16:21 12/07/2010
BY: RAGDRF
MTL: -

416820-002

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





(N. P. 1575-B)

REV. DESC: ADJUST TEXT DARKNESS		
REV. LTR: B	VERSION: 02	TDR: 000001285318
FILE: \RAG\00022\453	REVISED: 09:36:26 09/24/2026	BY: USJOSUL
MTL: –		

ABB

CONN DIAG – STANDARD 9 LEAD, DELTA-CONNECTED

SH1 of 1

416820-002