

ABB BALDOR RELIANCE III

Customer information packet

DRX40144T-5

100HP, 1785RPM, 3PH, 60HZ, 405T, TEFC, F1

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	TEFC
Frame	405T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Division I
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 CSA UL
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	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
Haz Area Temp Code	T3C
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

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0665
Layout	617433-608
Eff. date	10-22-2021
CD Diagram	416820-036
Poles	04
Leads	3#2
Proprietary	False
Created date	07-12-2019

Lifting Lugs	Standard Lifting Lugs
Max Speed	3600 rpm
Motor Lead Quantity/Wire Size	3 @ 2 AWG
Motor Standards	NEMA
Motor Type	A40064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	38.22 IN
Power Factor	88
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
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 - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

NP2496L	
MOBIL POLYREX EM	

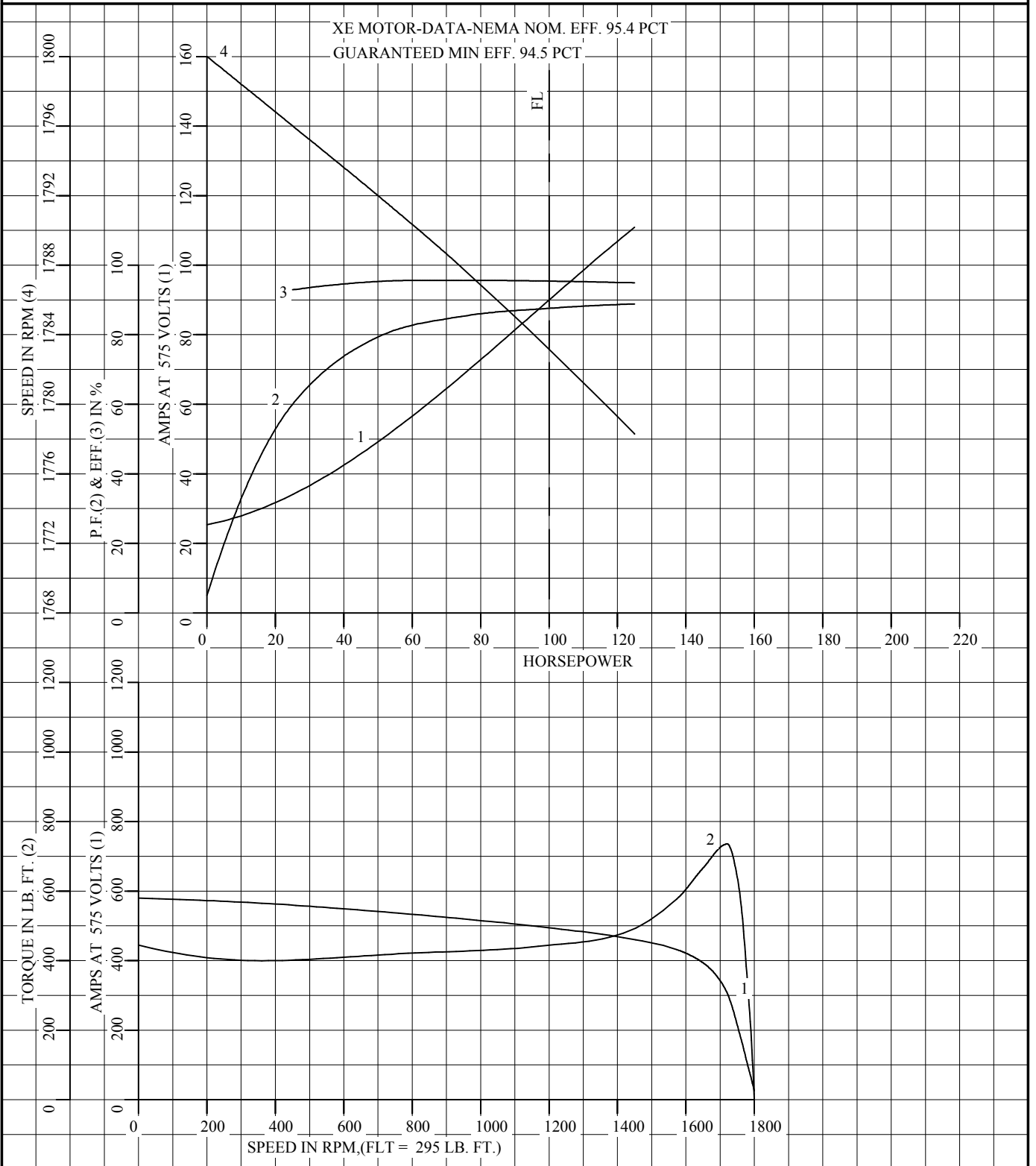
000613006PC		
CLASS I GROUP	C D X	NO.
CLASS II GROUP	X X X	
OPERATING TEMP CODE	T3C	

NP3140L

SPEC NO.	A40-7256-0665			CAT.NO.		DRX40144T-5					FRAME	405T
HP	100	VOLTS	575		PHASE	3	DESIGN	B	TYPE	P		
RPM	1785	AMPS	89.6		HZ	60	AMB	40	SF	1.00		
DRIVE END BEARING	80BC03J30X		DUTY	CONT	INSUL.CLASS			F				
OPP D.E. BEARING	80BC03J30X		ENCL	TEFC	CODE	G						
SF	1.15	WK2	26.346	MAG CUR	25.5		RPM MAX		3600			
CT HZ	6-60	VT HZ	0-60	CHP HZ	60-90		NEMA-NOM-EFF			95.4		
	SUIT FOR 55C AMB AT 1.00 SF							IP55				
SER.NO.				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	1.00	B	G	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
496079	418142-33RE	---	---	.0761		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	25.5	1800	5.02	0	
1/4	25.0	33.6	1796	60.0	92.9	
2/4	50.0	49.5	1792	79.3	95.3	
3/4	75.0	68.8	1788	85.3	95.6	
4/4	100	89.6	1783	87.6	95.4	
5/4	125	111	1778	88.8	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 GUARANTEED MIN EFF. 94.5 PCT						
		DR. BY	G. R. WEBB	A-C MOTOR PERFORMANCE DATA		
		CK. BY	W. L. SMITH			
		APP. BY	W. L. SMITH			
		DATE	06/23/15			
			A40WG0665-R010 ISSUE DATE 09/17/20			

REL S.O.	RPM 1785	S.F. 1.00	ROTOR 418142-33RE
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 .0761
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 G. R. WEBB
CK. BY W. L. SMITH
APP. BY W. L. SMITH
DATE 06/23/15

**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0665-R010
ISSUE DATE 09/17/20

REL. S.O.

 RPM **1785**

 S.F. **1.00**

 ROTOR **418142-33RE**

 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**

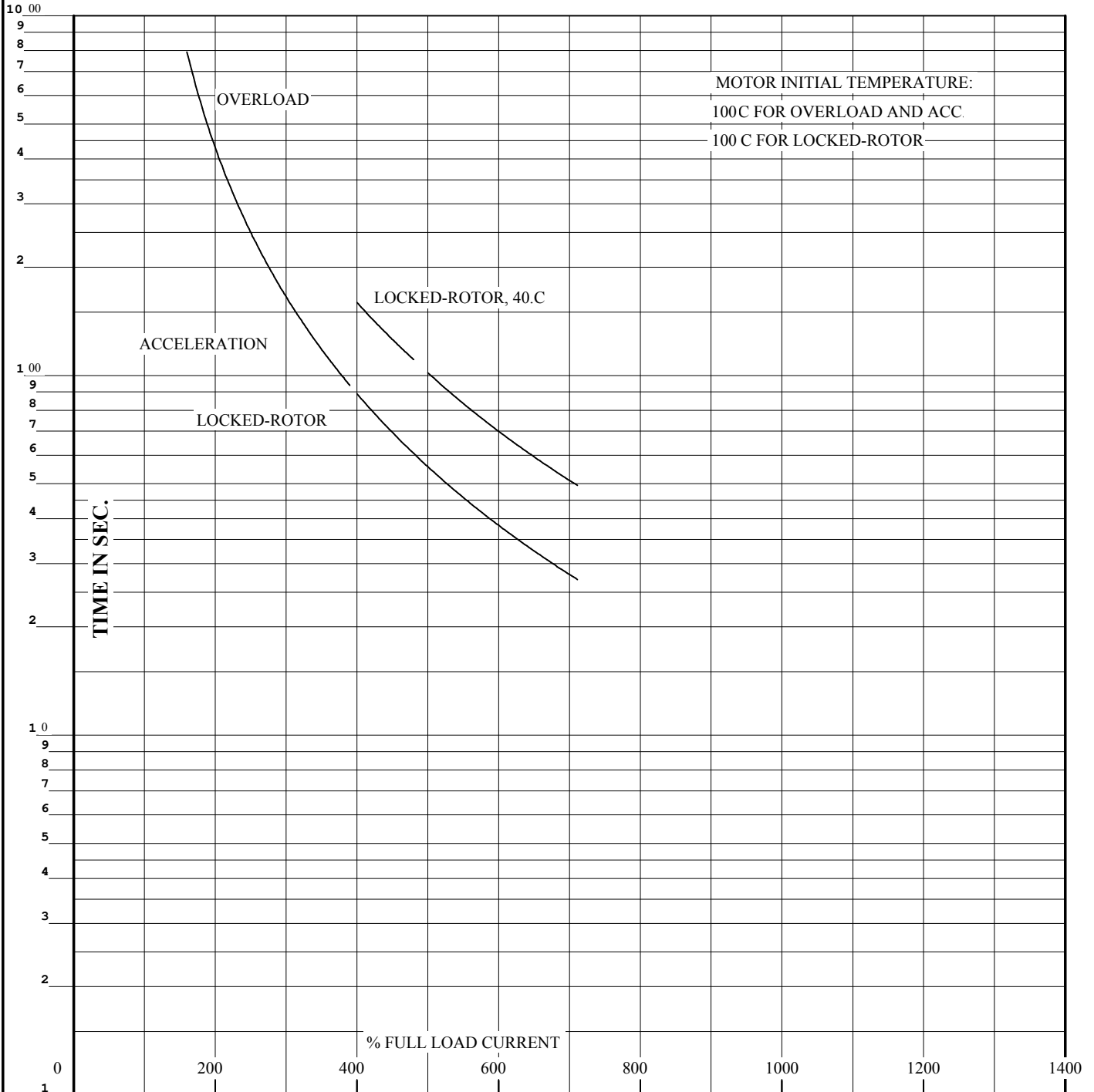
 STATOR RES. @ 25 °C **.0761**

 PHASE/HERTZ **3/60**

 AMB °C/INSUL **40/F**

 E/S **496079**

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:

XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT

GUARANTEED MIN EFF. 94.5 PCT

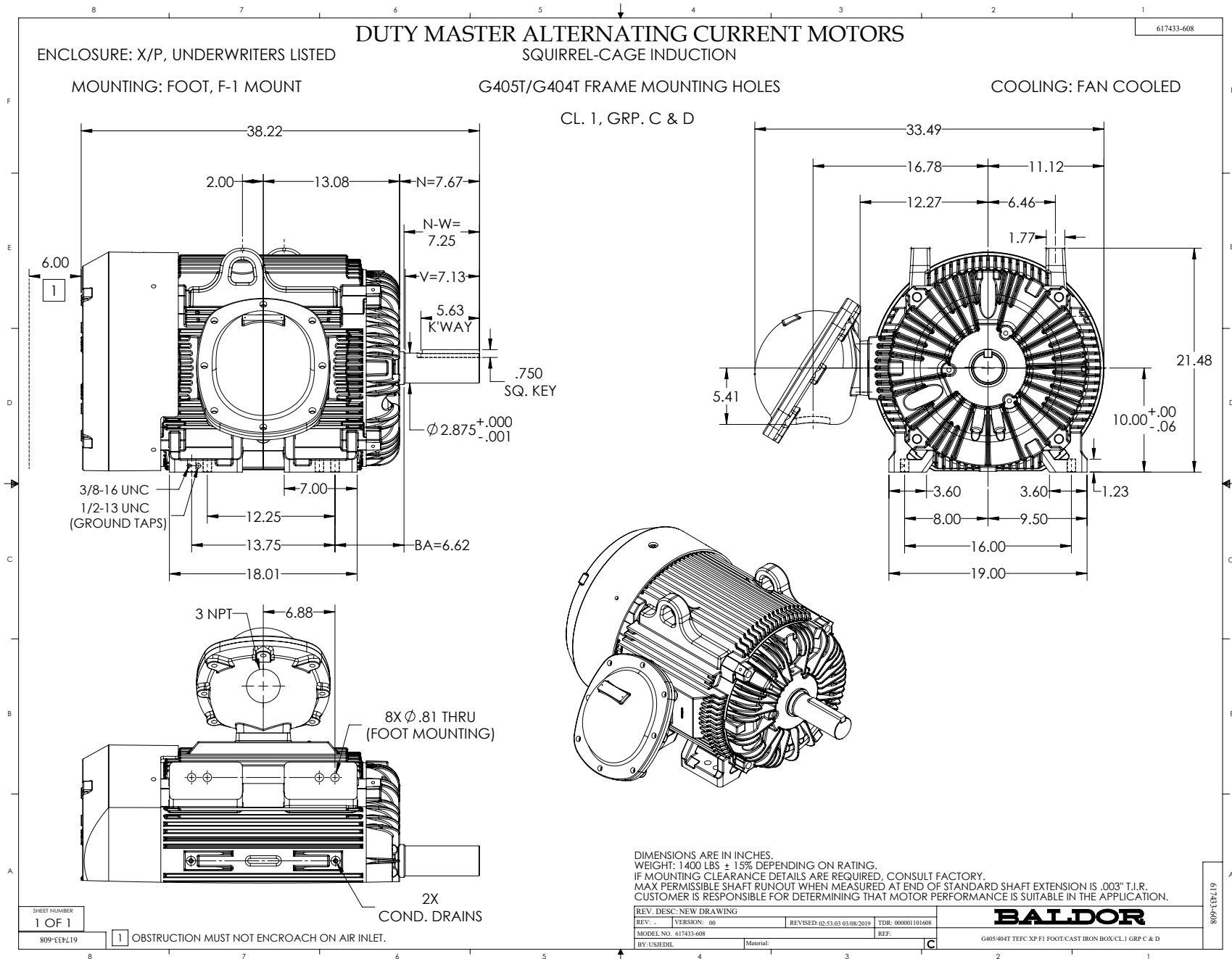
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DATE	06/23/15

**A-C MOTOR
PERFORMANCE
CURVES**

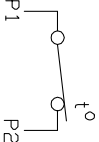
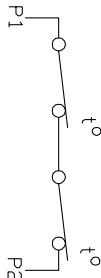
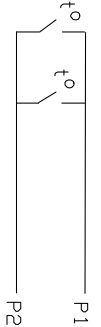
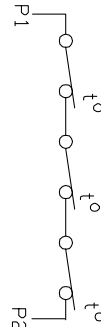
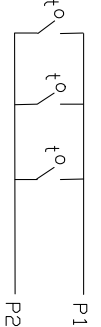
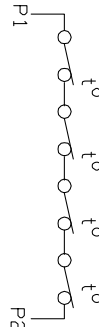
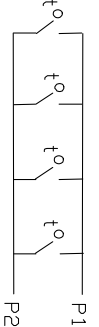
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CONNECTION DIAGRAM
ACCESSORIES

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 4 
FIGURE 2 	FIGURE 5 
FIGURE 3 	FIGURE 6 
FIGURE 7 	FIGURE 8 

CUSTOMER _____ CUSTOMER ORDER NO. _____ S.O. NO. _____

418174-006

418174-006

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: -		

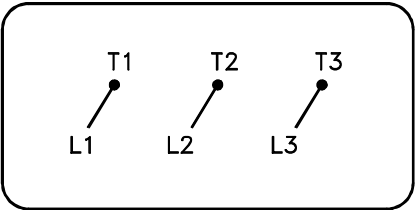
BALDOR

A-C MOTOR CONNECTION ACCESSORIES

SH 1 of 1

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