

ABB BALDOR RELIANCE III

Customer information packet

ECP84400T-5

100HP, 1780RPM, 3PH, 60HZ, 405T, A40072M, TEFC

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	100.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	C UR US CCSA US CCSAUSEEV CURUS
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Constant Torque Speed Range	15-60
Current @ Voltage	90.700 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	T3
Heater Indicator	No Heater
High Voltage Full Load Amps	90.7 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G

Part Detail

Revision	-
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG3405
Layout	617429-818
Eff. date	06-19-2025
CD Diagram	416820-036
Poles	04
Leads	3#2
Proprietary	False
Created date	05-14-2025

Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 2 AWG
Motor Standards	None
Motor Type	A40072M
Mounting Arrangement	F1
No Load Current	26.2 a
Number of Poles	4
Overall Length	38.19 IN
Power Factor	87
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	No Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP4566													
CAT NO	ECP84400T-5			SPEC NO.		A40-0003-3405							
HP	100	AMPS		90.7		VOLTS		575		DESIGN		B	
FRAME SIZE	405T	RPM		1780		HZ		60	AMB		40	SF 1.15	
D.E. BRG.DATA	6316			O.D.E. BRG.DATA			6316			PH	3	DUTY CONT INSUL.CLASS	
D.E. BRG.	80BC03J30X			TYPE ENCL		TEFC		CODE		G			
O.D.E. BRG.	80BC03J30X			POWER FACTOR				87		NEMA-NOM-EFFICIENCY 95.4			
3/4 LOAD EFF.	95.8	IP	56	MAX CORR KVAR				18		GUARANTEED EFFICIENCY 94.5			
TEMP CODE	T3	TEMP =		200									
CHP HZ	60-90	CT HZ		15-60		VT HZ		0-60					
INVERTER-TEMP-CODE	T3												
SER.NO.				MOTOR WEIGHT									

000613007EX				
CAT NO	ECP84400T-5	SPEC NO.	A40-0003-3405	
NO. ROTOR BARS	47	GREASE TYPE	POLYREX EM	
NO. SLOTS	60	NL AMPS AT RATED VOLTAGE	26.2	
5 YEAR WARRANTY		WINDING RES @25 C	.0789	OHMS
MFG. DATE		SER.NO		
	SFA 104			

ABB BALDOR RELIANCE III							CUSTOMER INFORMATION PACKET							ECP84400T-5 - 100HP, 1780RPM, 3PH, 60HZ, 405T, A40072M, TEFC						
S/O			FRAME			HP			TYPE			PHASE/ HERTZ			RPM			VOLTS		
			405TSC			100			P			3/60			1780			575		
AMPS			DUTY			AMB °C/ INSUL			S.F.			NEMA DESIGN			CODE LETTER			ENCLOSURE		
90.7			CONT			40/F			1.15			B			G			TEFC		
E/S			ROTOR			TEST S.O.			TEST DATE			STATOR RES. @25 °C OHMS (BETWEEN LINES)								
---			418142037CE			---			---			.0789								
PERFORMANCE																				
LOAD			HP			AMPERES			RPM			% POWER FACTOR			% EFFICIENCY					
NO LOAD			0			26.2			1800			4.28			0					
1/4			25.0			34.0			1796			58.8			93.6					
2/4			50.0			49.6			1791			78.9			95.6					
3/4			75.0			69.2			1786			84.8			95.8					
4/4			100			90.7			1781			86.6			95.4					
5/4			125			113			1776			87.3			94.8					
SPEED TORQUE																				
						RPM			TORQUE % FULL LOAD			TORQUE LB.-FT.			AMPERES					
LOCKED ROTOR						0			160			471			563					
PULL UP						360			139			409			535					
BREAKDOWN						1715			236			696			295					
FULL LOAD						1781			100			295			90.7					
AMPERES SHOWN FOR 575 VOLT CONNECTION. IF OTHER CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.																				
TYPICAL DATA																				
						DRAWN BY: <u>W. L. SMITH</u> CHECKED BY: <u>C.E.JAMISON</u> APPROVED BY: <u>E.J.CHRISTIAN</u> DATE: <u>06/07/18</u>						AC MOTOR PERFORMANCE DATA			A40WG3405-R001 DATE ISSUED 08/24/23					

FRAME 405TSC

RPM 1780

S.F. 1.15

ROTOR 418142037CE

HP 100

VOLTS 575

NEMA DESIGN B

TEST S.O. TYPICAL DATA

TYPE P

AMPS 90.7

CODE LETTER G

TEST DATE ---

PHASE / HERTZ 3/60

DUTY CONT

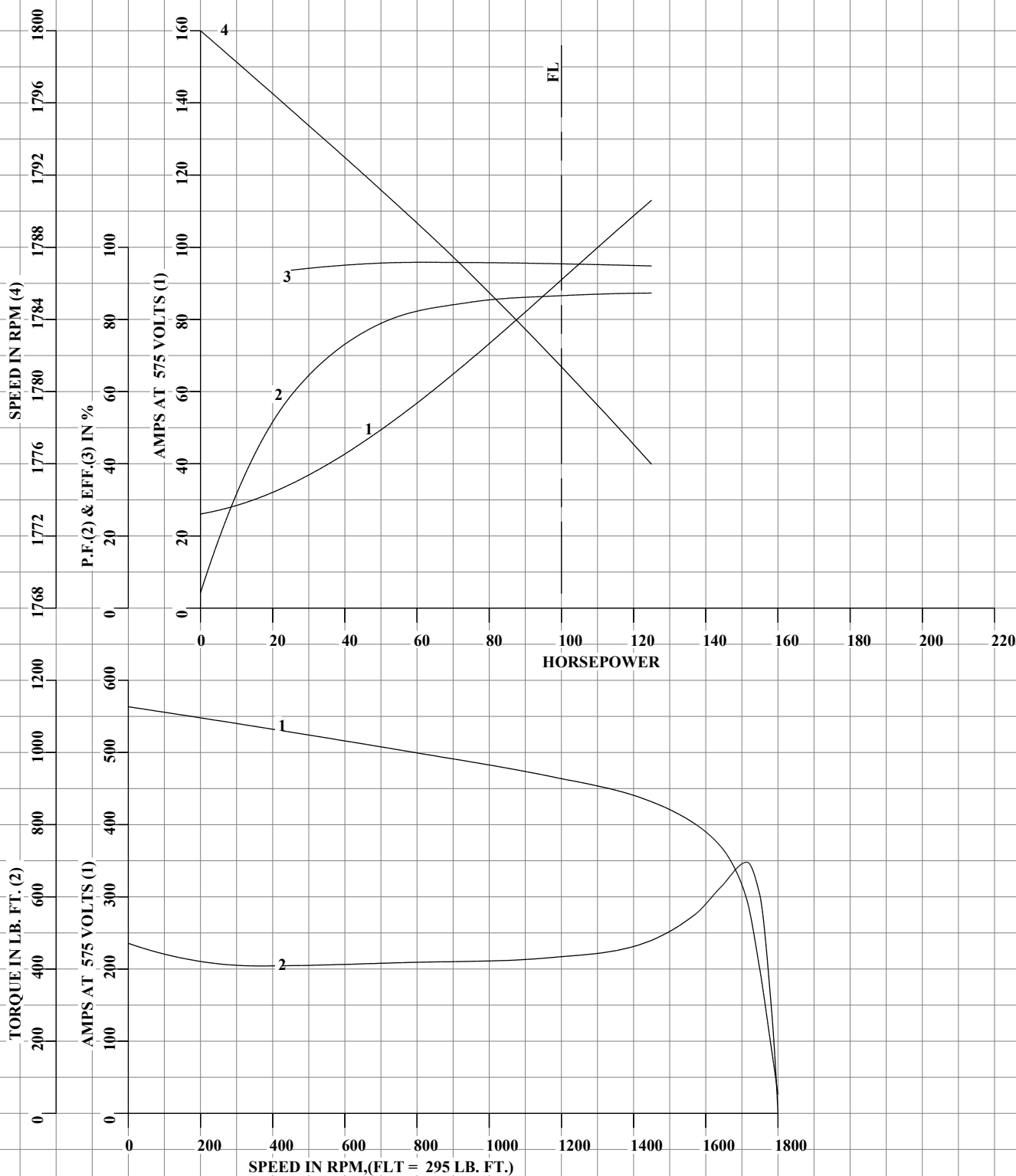
ENCLOSURE TEFC

STATOR RES. @ 25°C .0789

AMB °C / INSUL 40/F

E/S ---

OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 575 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



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AC MOTOR
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A40WG3405-R001

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FRAME 405TSC

RPM 1780

S.F. 1.15

ROTOR 418142037CE

HP 100

VOLTS 575

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TEST S.O. TYPICAL DATA

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AMPS 90.7

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PHASE / HERTZ 3/60

DUTY CONT

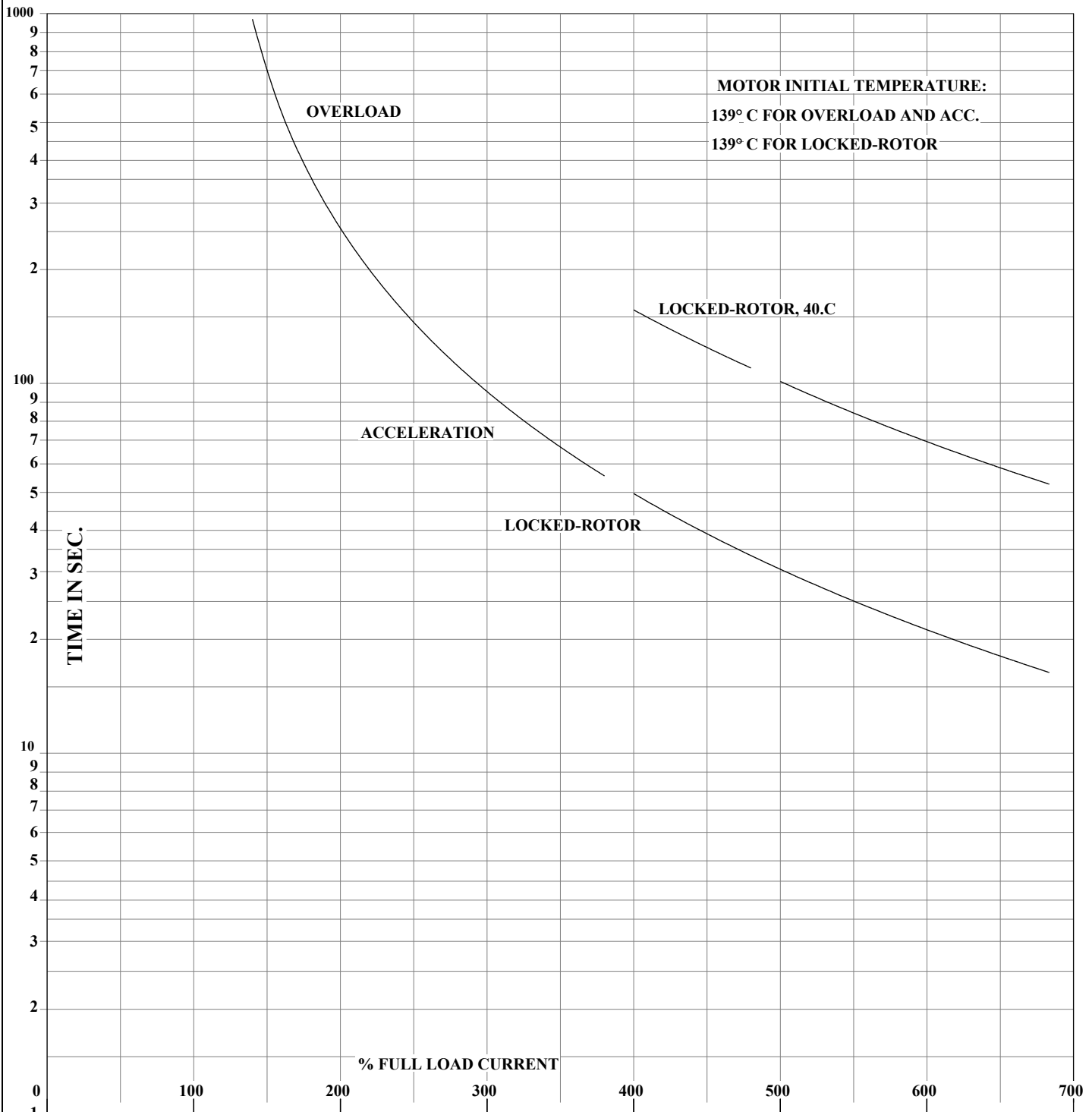
ENCLOSURE TEFC

STATOR RES. @ 25°C .0789

AMB °C / INSUL 40/F

E/S ---

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

AMPERES SHOWN FOR 575 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



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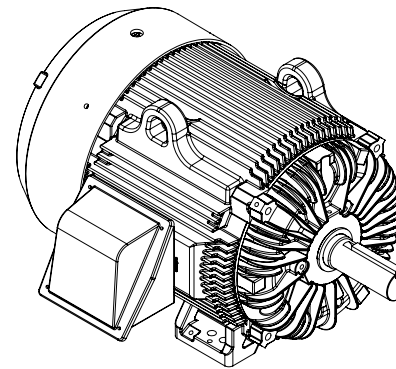
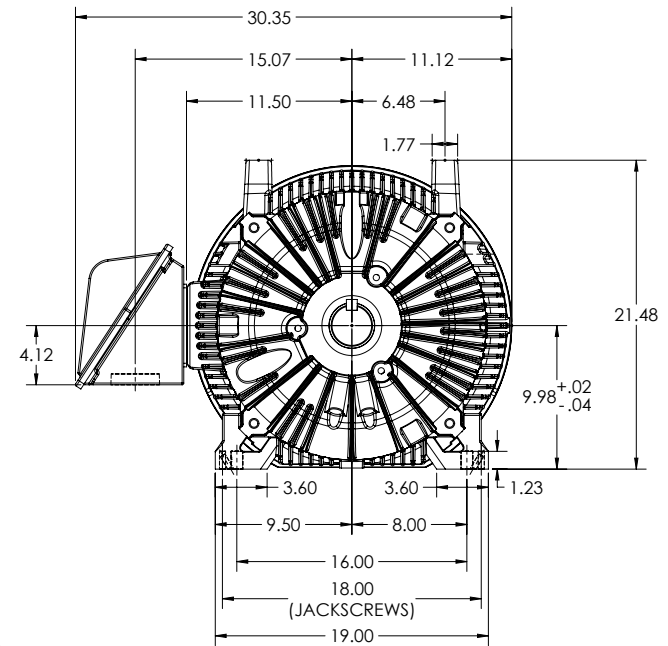
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ISSUE DATE 08/24/23

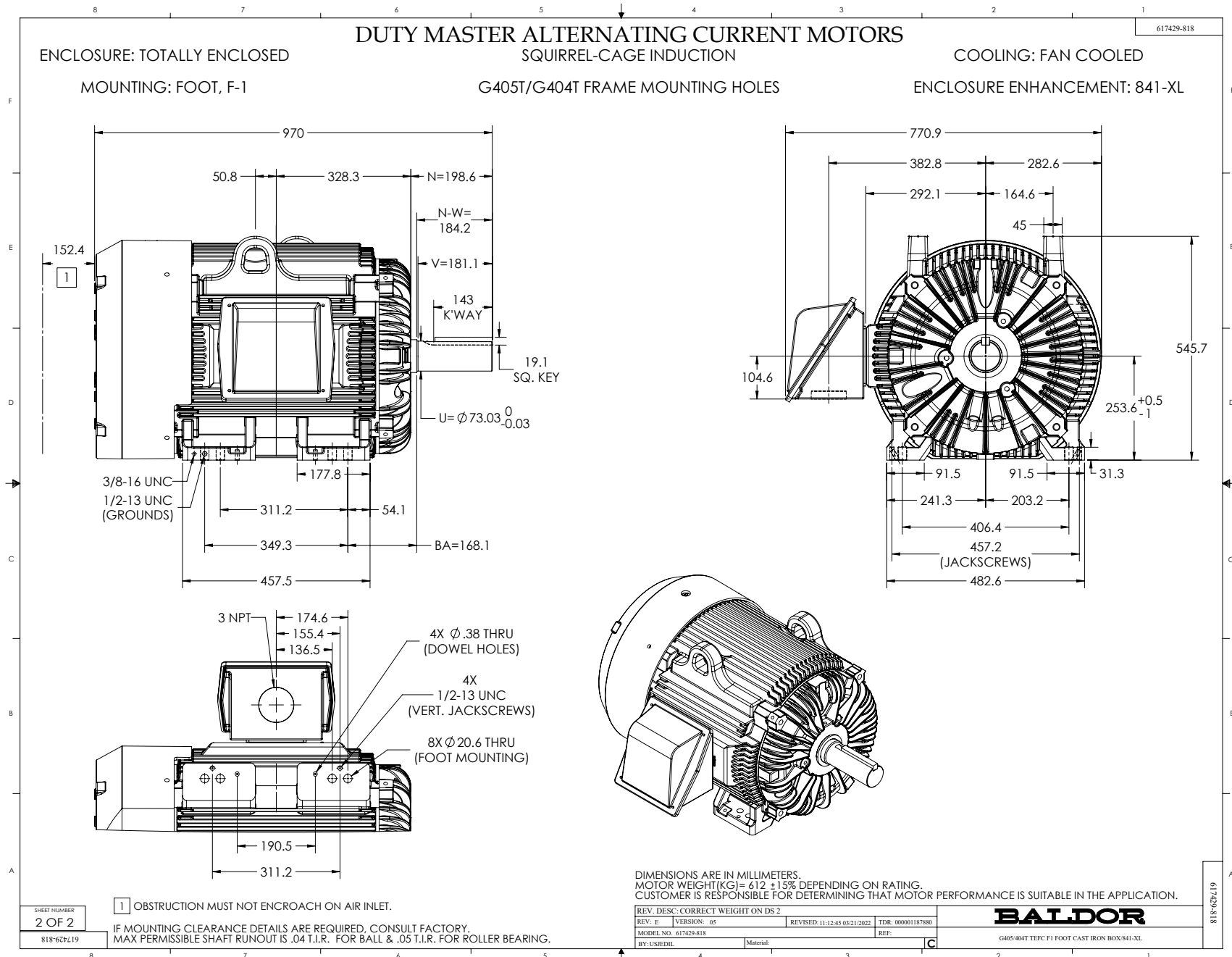
617429-818

ENCLOSURE ENHANCEMENT: 841-XL



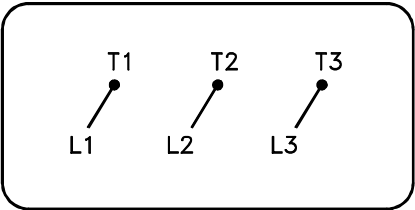
617429-818

G405/404T TEFC F1 FOOT CAST IRON BOX/841-XL



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