

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	F
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			

Parts List

Part number	Description	Quantity
SA438657	SA A40-0003-3405	1.000 ea
RA431028	RA A40-0003-3405	1.000 ea
NP4566	SS INV IEEE841-2021,CLI DIV2,CURUS-E,CSA	1.000 ea
000613007EX	SS IEEE 841 EMBOSSED AUXILIARY NAMEPLATE	1.000 ea
000692000FF	N/P	1.000 ea
000692000JP	N/P	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
000692000VH	N/P (RELEASE 1000 PCS)	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
034530052BB	PP NIPP DE GRS F	1.000 ea
034530052AB	P/NIP 1/8X6-1/2 Zinc	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
078548001R	FAN KB 234/150 (84) 400	1.000 ea
083198101A	G400 STD FAN COVER MACHINING	1.000 ea
089412501C	G400 MACH 6316 FT MT BRKT 089412500WCA	1.000 ea
410700000DA	WAVY SPRING WASHER	1.000 ea
415028079G	SEAL,,625 WIDE,316 BRG	1.000 ea
415072001B	CLAMP	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
423709011C	WASHER	3.000 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

035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
089412501C	G400 MACH 6316 FT MT BRKT 089412500WCA	1.000 ea
415028079G	SEAL,,625 WIDE,316 BRG	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
423709011C	WASHER	3.000 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
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
415039016A	TERBD, 360-400	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
034180044JA	KEY 3/4X3/4X5-1/2 L	1.000 ea
004824003CBY	WILKO PAINT 060.02 - ACTIVATOR	0.063 ga
482403003BEF	RUST VETO 342	0.013 ga
MG1500G03-5	LACQUER PRIMER, GRAY	0.063 ga
421948051	LABEL, MYLAR	1.000 ea
604797045	STD. 400 FRAME SKID	1.000 ea
000613006PU	N/P (RELEASE QTY 10,000) UL CSA LABEL	1.000 ea
MG1025N19	WILKO 778.50 BLUE GREEN - 55 GAL DRUMS	0.375 ga
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
032018005DL	1/2-13 X 5/8 SILICON BRONZE HHCS	1.000 ea
412118006A	DRAIN	2.000 ea

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>						AC MOTOR PERFORMANCE DATA			A40WG3405-R001					
						CHECKED BY: <u>C.E.JAMISON</u>														
						APPROVED BY: <u>E.J.CHRISTIAN</u>														
						DATE: <u>06/07/18</u>									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

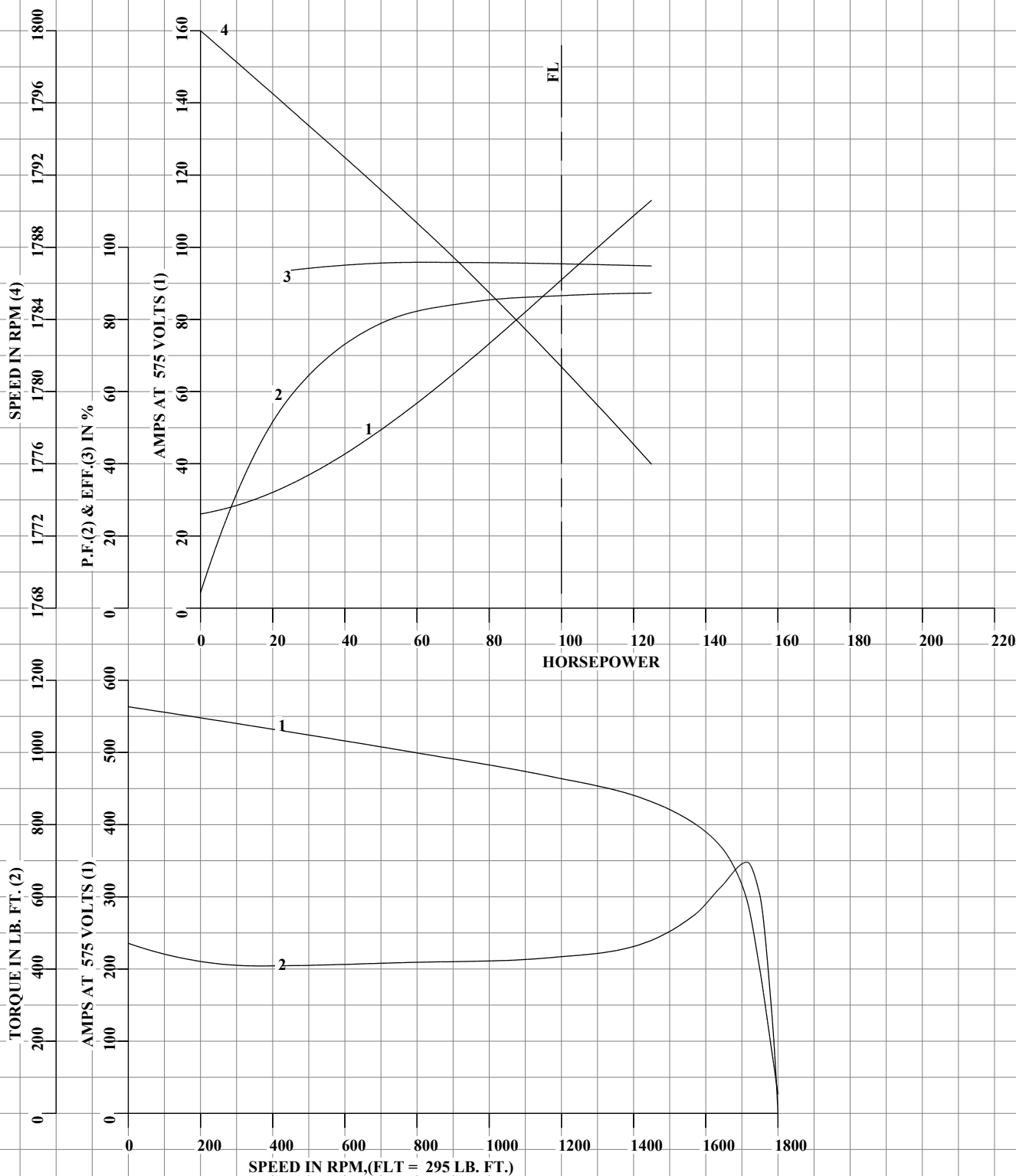
ENCLOSURE TEFC

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
PERFORMANCE
DATA

A40WG3405-R001

ISSUE DATE 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

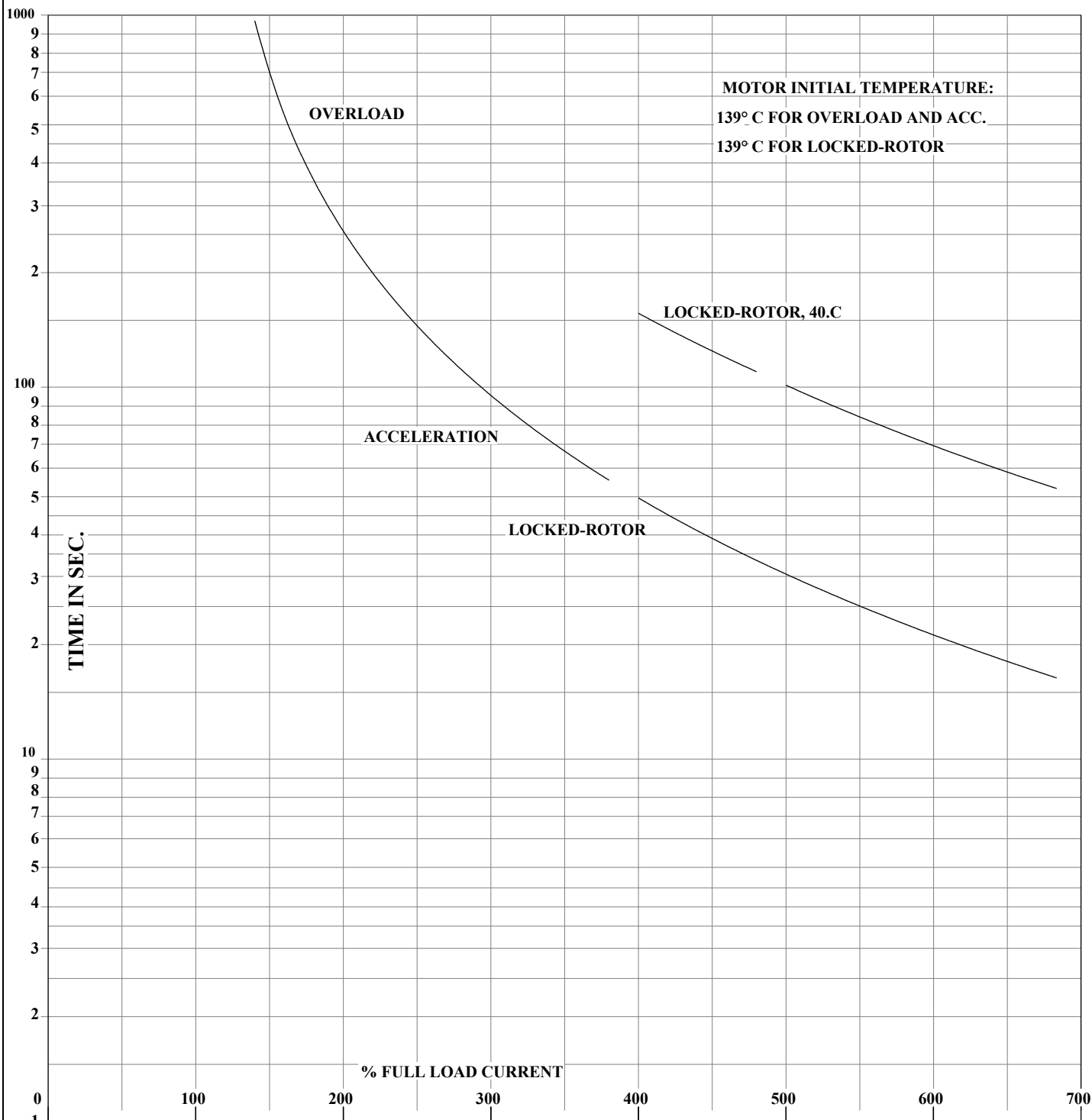
ENCLOSURE TEFC

STATOR RES. @ 25°C .0789

AMB °C / INSUL 40/F

E/S ---

OHMS (BETWEEN LINES)



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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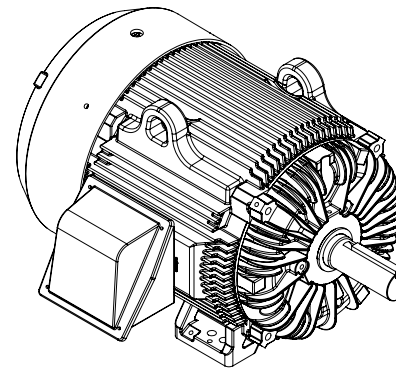
AC MOTOR
PERFORMANCE
DATA

A40WG3405-R001

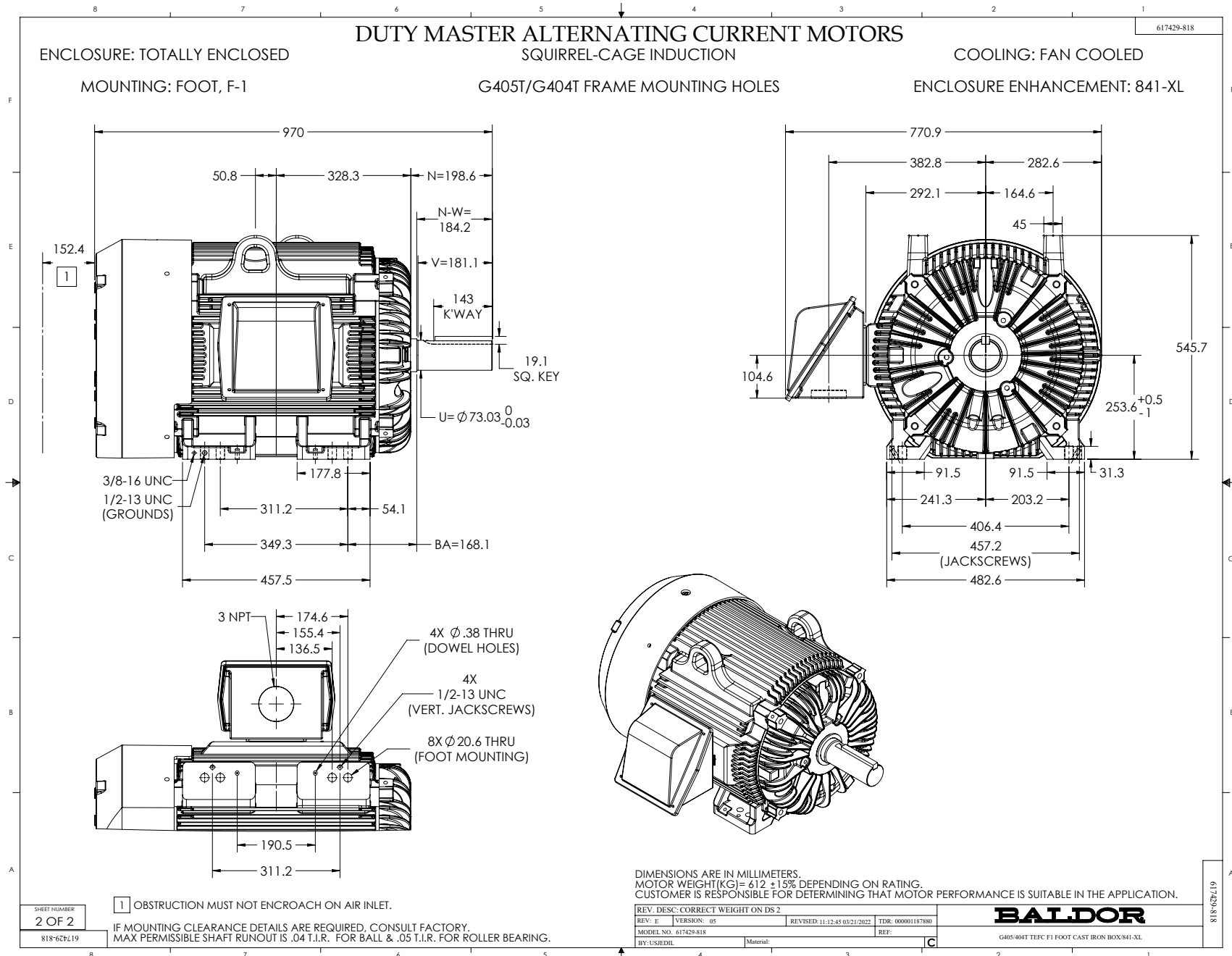
ISSUE DATE 08/24/23

617429-818

ENCLOSURE ENHANCEMENT: 841-XL

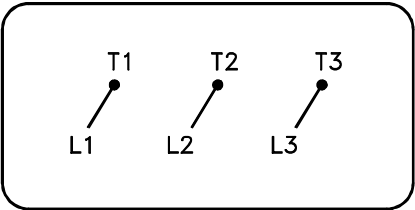


G405/404T TEFC F1 FOOT CAST IRON BOX/841-XL



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