



Customer information packet

VENC83581T-4

1HP, 1775RPM, 3PH, 60HZ, 143TC, 0524M, TENV, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TENV
Frame	143TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CL I GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	1.2
Current @ Voltage	1.500 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	87.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Haz Area Temp Code	T4

Part detail

Revision	A
Type	AC
Mech. spec.	05F158
Base	
Status	PRD/A
Elec. spec.	05WGX611
Layout	05LYF158
Eff. date	02-20-2023
CD Diagram	CD0006
Poles	04
Leads	3#18
Proprietary	False
Created date	03-11-2022

Heater Indicator	No Heater
High Voltage Full Load Amps	1.5 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0524M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.00 IN
Power Factor	72
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1775 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP4328

CAT.NO.	VENC83581T-4					
SPEC.	05F158X611G1					
HP	1 TE	IP	56			
VOLTS	460					
AMPS	1.5					
R.P.M.	1775					
FRAME	143TC	HZ	60	PH	3	
SER.F.	1.15	CODE	N	DES.	B	CLASS F
RATING	40C AMB-CONT					
SN						
DE	6205	ODE	6205			
NEMA NOM. EFF.	87.5	P.F.	72			
GUAR. MIN. EFF.	85.5	CC	010A			
T. CODE	T4	TEMP=	135			

NP3186					
SPEC.	05F158X611G1				
ABMA DE BRG	25BC02X30X				
ABMA ODE BRG	25BC02XP30X				
GREASE	POLYREX EM				
MOTOR WEIGHT	63	ROTOR BARS	27	STATOR BARS	36
MAX. R.P.M.	2700	MAX. KVAR	0.4		
	SFA 1.6				
INV.TYPE	PWM				
T=	135				
CHP	60	TO	90		
CT	1.2	TO	60		
VT	-0	TO	60		
HTR-VOLTS		HTR-AMPS			
HTR-WATTS		MAX. SPACE HEATER TEMP.			

AC Induction Motor Performance Data

Record # 87017

Preliminary Data Sheet

Winding: 05WGX611-R001		Type: 0524M		Enclosure: TENV	
Nameplate Data			460 V, 60 Hz: Single Voltage Motor		
Rated Output (HP)	1	Full Load Torque	2.96 LB-FT		
Volts	460	Start Configuration	direct on line		
Full Load Amps	1.5	Breakdown Torque	14.24 LB-FT		
R.P.M.	1775	Pull-up Torque	8.16 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	9.46 LB-FT	
NEMA Design Code	B	KVA Code	N	Starting Current	14.67 A
Service Factor (S.F.)	1.15	No-load Current	0.97 A		
NEMA Nom. Eff.	87.5	Power Factor	72	Line-line Res. @ 25°C	15 Ω
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	50°C	
S.F. Amps	1.6	Temp. Rise @ S.F. Load	54°C		
		Locked-rotor Power Factor	57.3		
		Rotor inertia	0.173 lb-ft ²		

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	33	50	63	72	78	82	76
Efficiency	73.6	83.3	86.3	87	87.1	86.5	87.1
Speed	1793	1787	1781	1774	1767	1760	1770
Line amperes	1.01	1.12	1.28	1.49	1.72	1.98	1.63

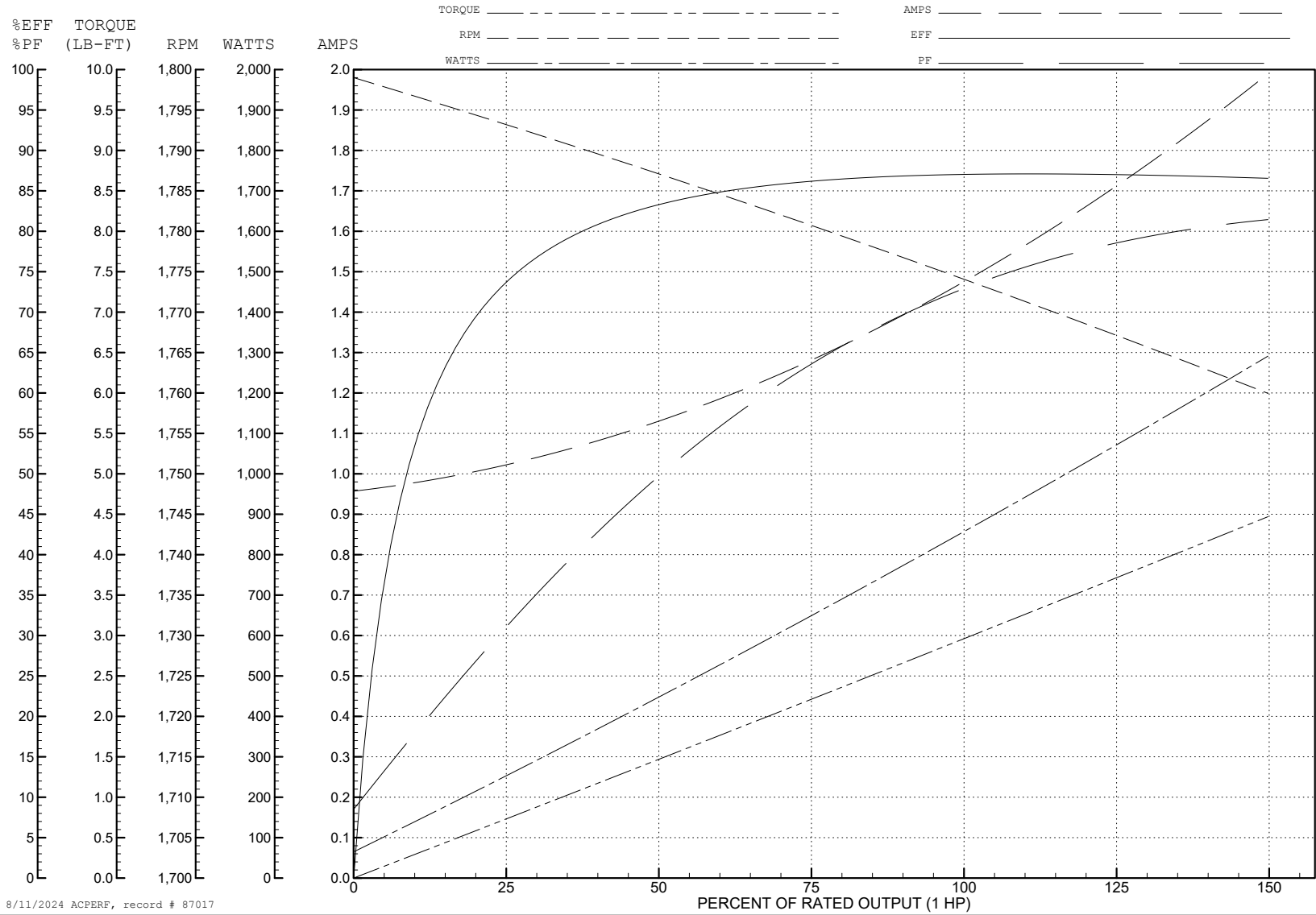
ABB Motors and Mechanical Inc.

WINDING # 05WGX611

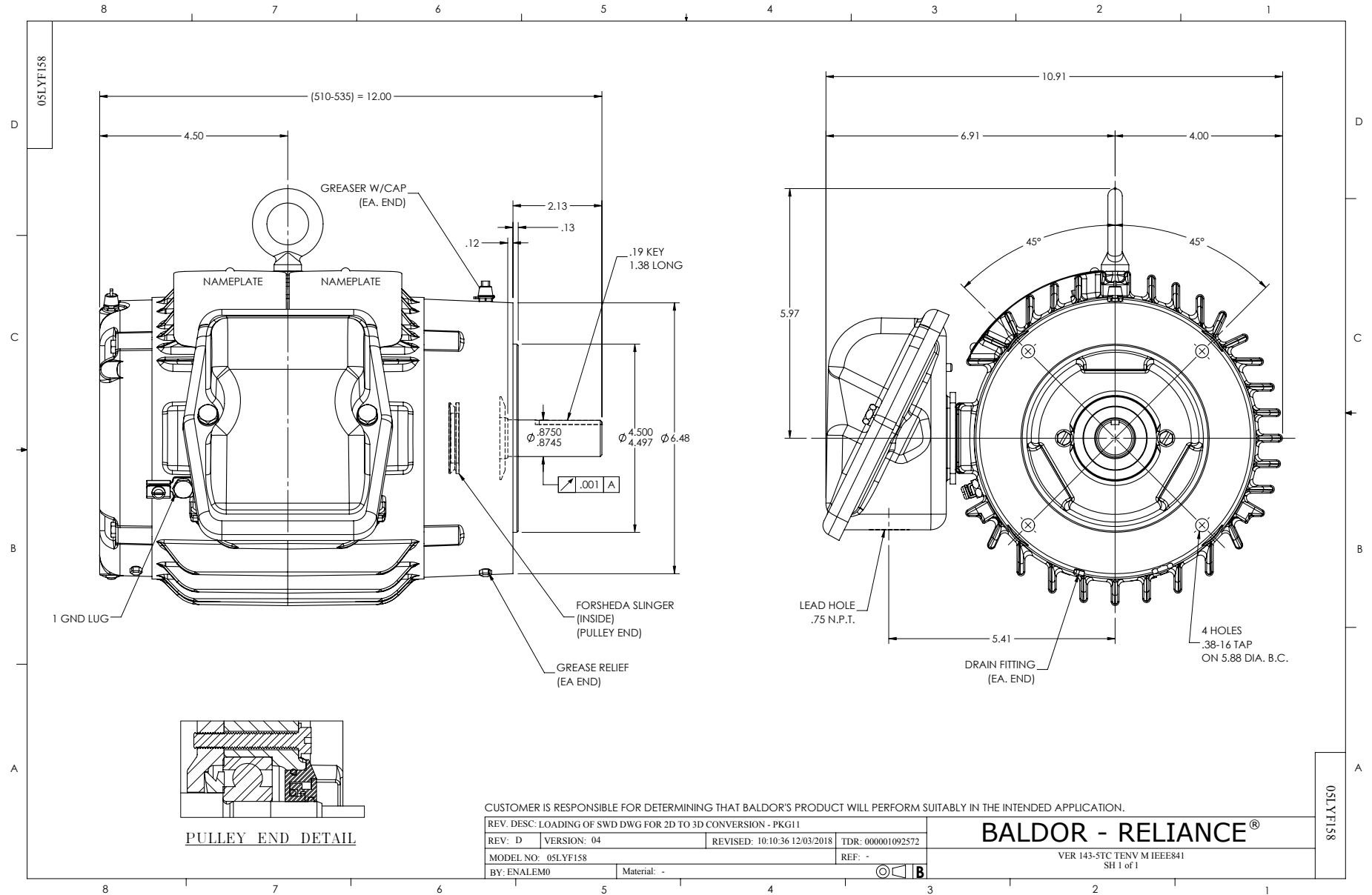
Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1775 RPM 460 V 0524M

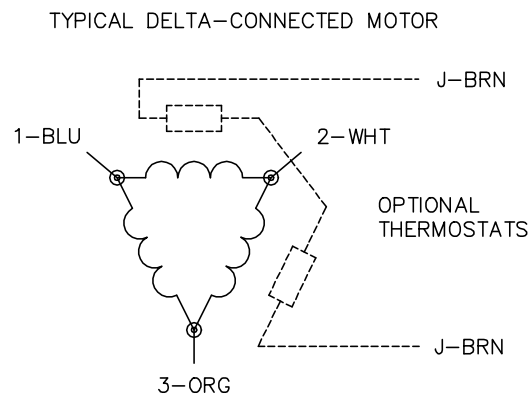
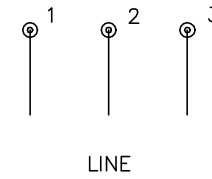
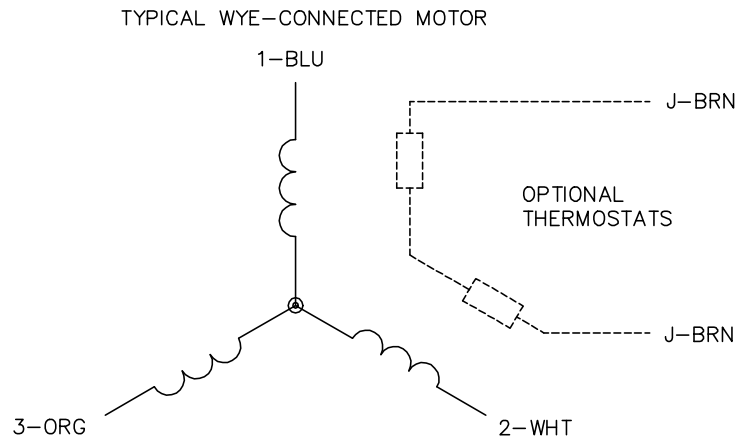
TORQUES (LB-FT): PO=14.24 PU=8.16 LR=9.46 LRA=14.67



8/11/2024 ACPERF, record # 87017



CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIRO
MTL: -	© □	

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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