

ABB BALDOR RELIANCE III

Customer information packet

VECP3581T-4

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

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
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
Auxiliary Box	NO AUXILLARY BOX
Auxiliary 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	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	B
Type	AC
Mech. spec.	05F006
Base	
Status	PRD/A
Elec. spec.	05WGX611
Layout	05LYF006
Eff. date	10-01-2025
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	14.57 IN
Power Factor	72
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
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

NP3258									
CAT.NO.	VECP3581T-4								
SPEC.	05F006X611G1								
HP	1 TE								
VOLTS	460								
AMP	1.5								
RPM	1775								
FRAME	143TC	HZ	60		PH		3		
SER.F.	1.15	CODE	N	DES	B	CL		F	
RATING	40C AMB-CONT								
SN									
DE	6205	ODE		6205					
NEMA-NOM-EFF	87.5	PF	72						
G.MIN.EFF	85.5	CC	010A						
T. CODE	T4	T=	135						

NP3261			
SPEC.	05F006X611G1		
D.E. BRG.	25BC02XP30X		
O.D.E. BRG.	25BC02XP30X		
GREASE	POLYREX EM		
RPM MAX	2700	MAX. KVAR	0.4
BLANK	SFA 1.6		
INV.TYPE	PWM		
T=	135		
C HP FR	60	C HP TO	90
CT HZ FROM	1.2	CT HZ TO	60
VT HZ FROM	0-	VT HZ 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-ft²	

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

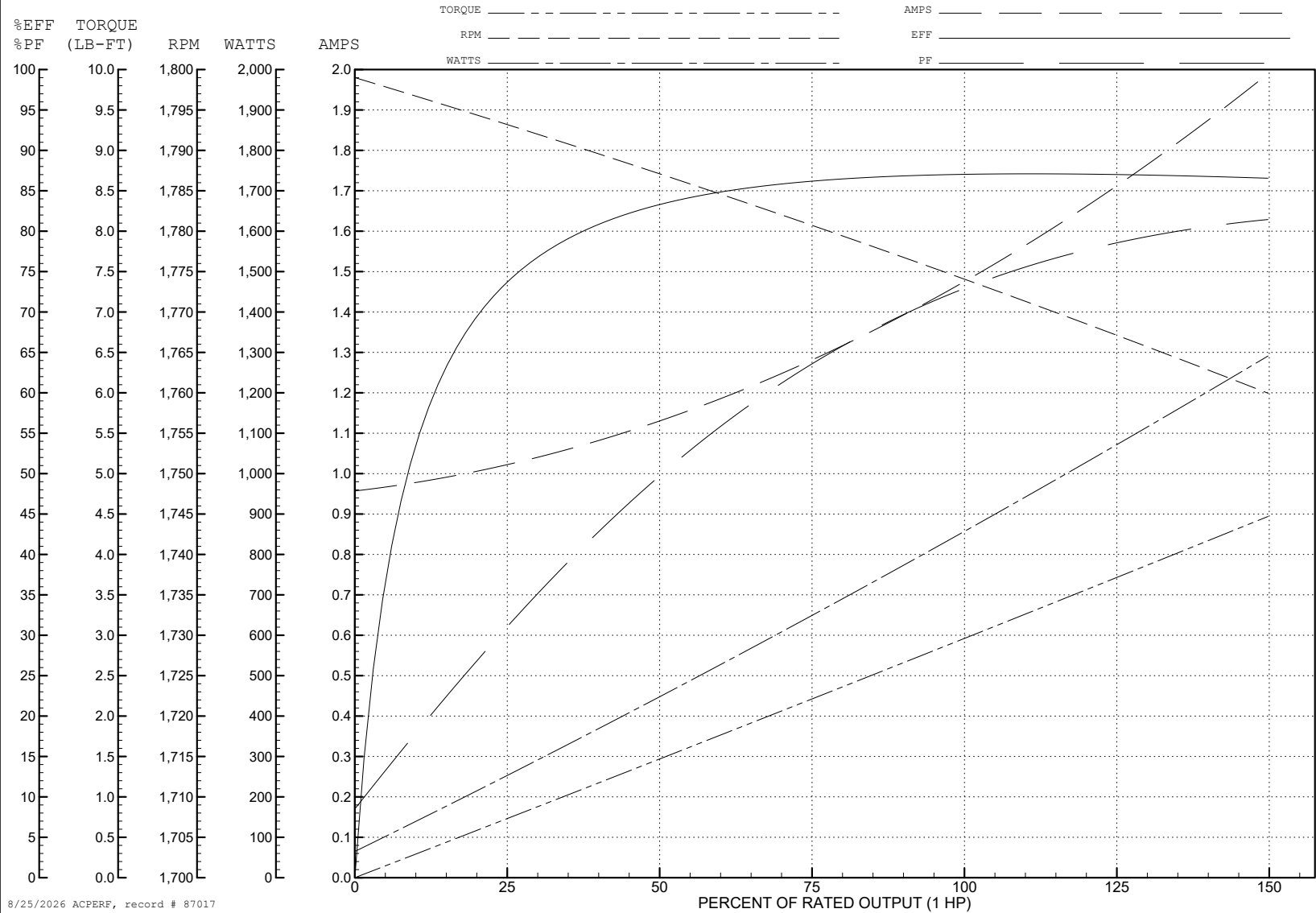
ABB Motors and Mechanical Inc.

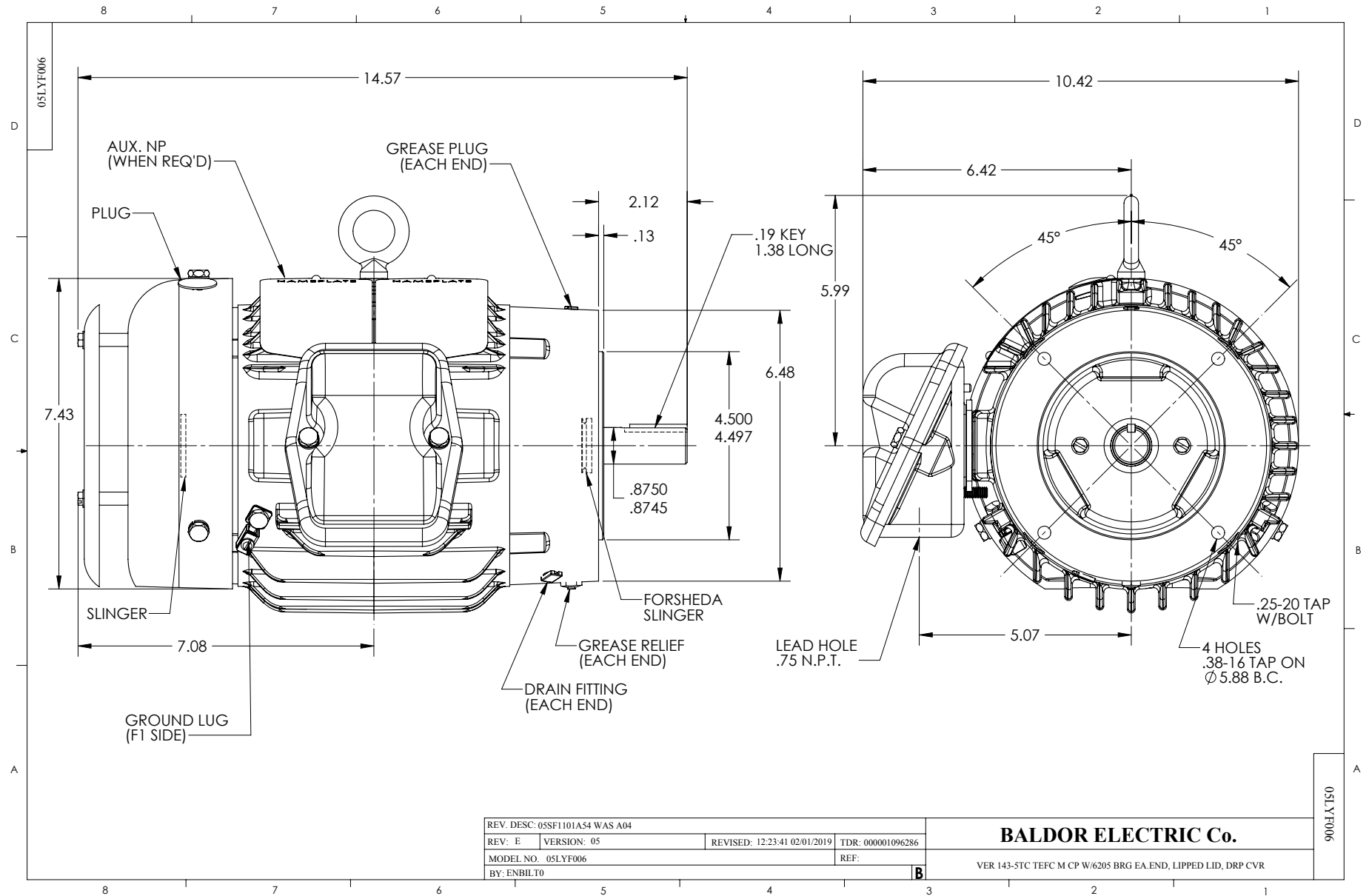
WINDING # 05WGX611

Typical performance - not guaranteed values.

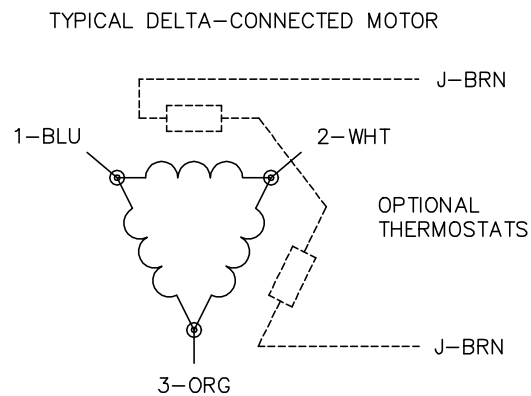
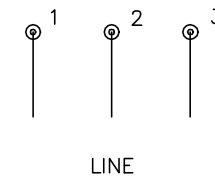
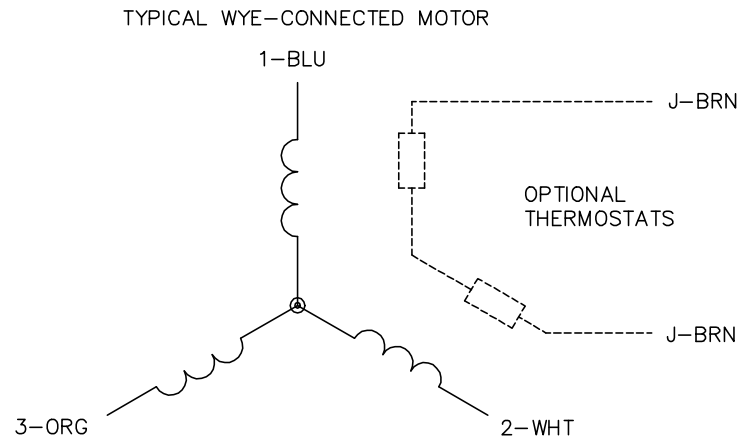
1 HP 3 PH 60 HZ 1775 RPM 460 V 0524M

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





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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