ABB BALDOR RELIANCE

Customer information packet

VECP3581T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 0522M, TEFC, F1
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	143TC
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	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
	230.0 V @ 60 HZ
	208.0 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	3.400 A @ 230.0 V
	3.300 A @ 208.0 V
	3.200 A @ 208.0 V
	1.700 A @ 460.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT

Part Detail

Revision	C
Type	AC
Mech. spec.	05F006
Base	
Status	PRD/A
Elec. spec.	05WGX903
Layout	05LYF006
Eff. date	10-01-2025
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	07-21-2022

Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Haz Area Temp Code	T4
Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 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	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0522M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	14.56 IN
Power Factor	69
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	1770 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								
SPEC.	05F006X903G1								
HP	1 TE								
VOLTS	208-230/460								
AMP	3.3-3.4/1.7								
RPM	1770								
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	85.5	**PF**	69						
G.MIN.EFF	82.5	**CC**	010A						
T. CODE	T4	**T=**	135						

NP3261			
SPEC.	05F006X903G1		
D.E. BRG.	25BC02XP30X		
O.D.E. BRG.	25BC02XP30X		
GREASE	POLYREX EM		
RPM MAX	2700	**MAX. KVAR**	0.49
BLANK	SFA 3.6/1.8		
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 # 87075
Preliminary Data Sheet

Winding: 05WGX903-R001	**Type:** 0522M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	2.97 LB-FT
Volts			208-230/460	**Start Configuration**	direct on line
Full Load Amps			3.3-3.4/1.7	**Breakdown Torque**	15.85 LB-FT
R.P.M.			1770	**Pull-up Torque**	9.1 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	10.45 LB-FT
NEMA Design Code	B	**KVA Code**	N	**Starting Current**	15.67 A
Service Factor (S.F.)			1.15	**No-load Current**	1.21 A
NEMA Nom. Eff.	85.5	**Power Factor**	69	**Line-line Res. @ 25ºC**	14.1 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	24°C
S.F. Amps			3.6/1.8	**Temp. Rise @ S.F. Load**	27°C
				Locked-rotor Power Factor	60.1
				Rotor inertia	0.159 lb-ft²

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	27	43	56	65	72	76	69
Efficiency	70.7	81	84.4	85.8	85.9	85.5	85.9
Speed	1792	1785	1778	1771	1763	1755	1766
Line amperes	1.23	1.34	1.49	1.68	1.89	2.15	1.81

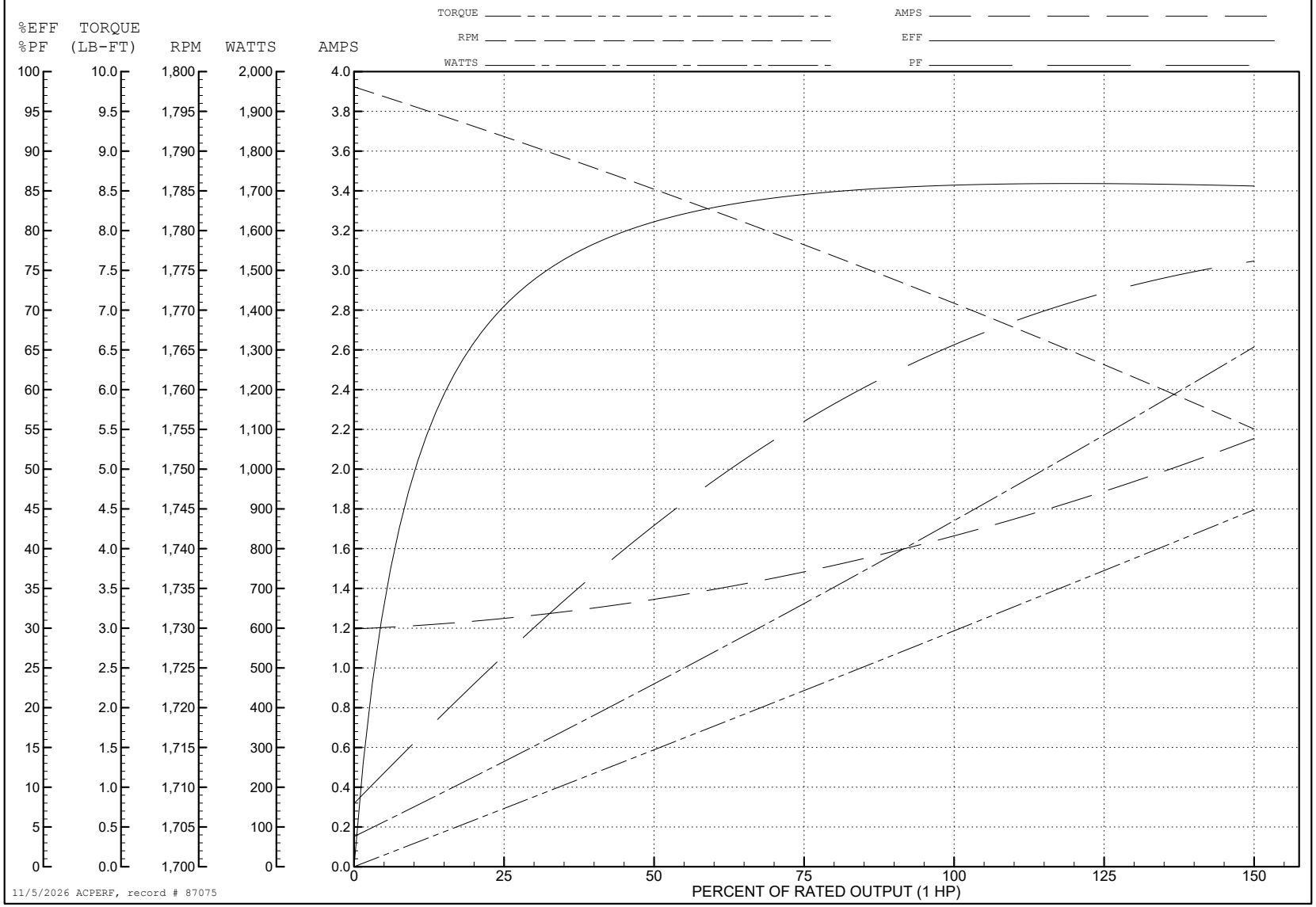
ABB Motors and Mechanical Inc.

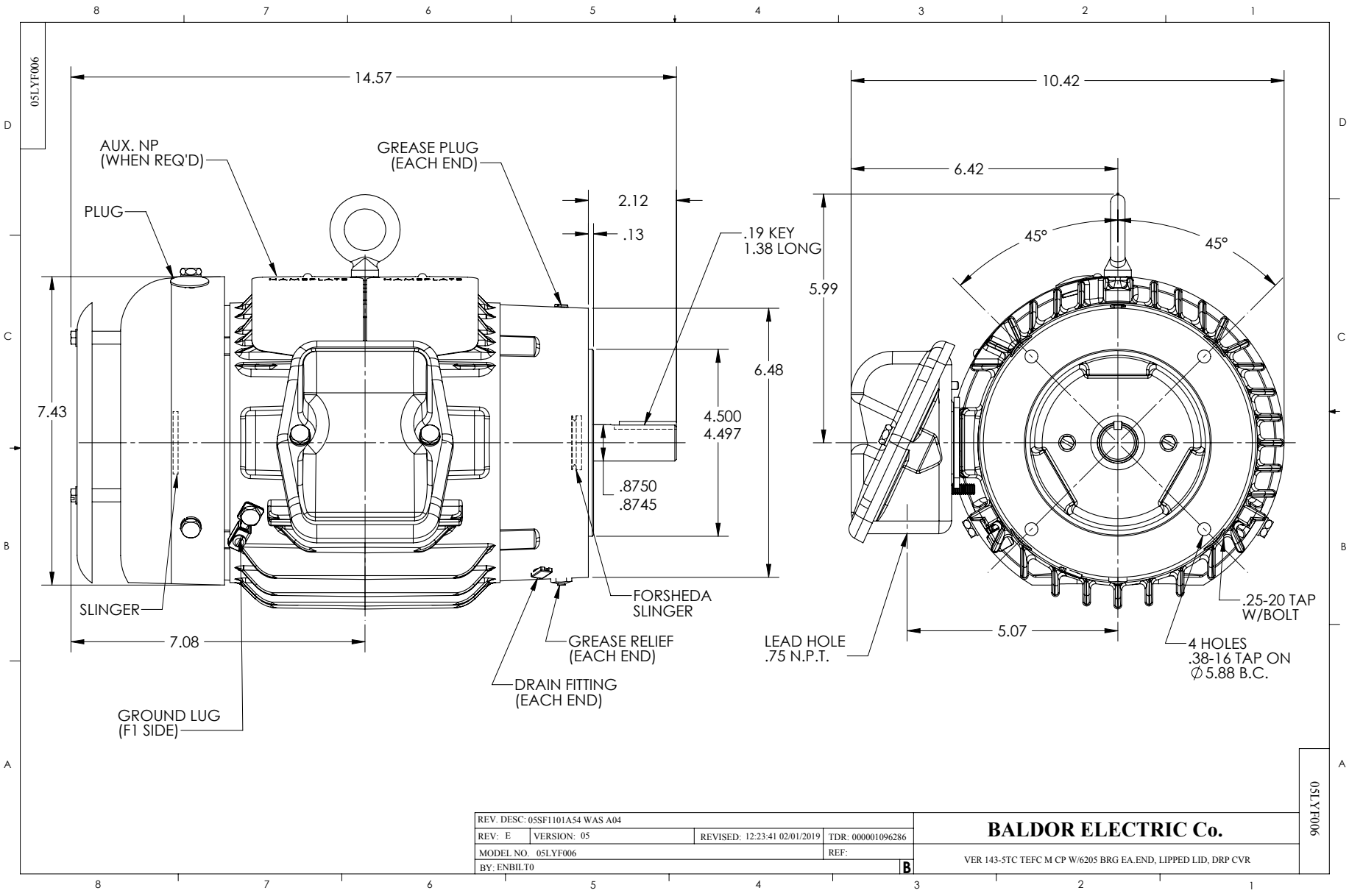
WINDING # 05WGX903

1 HP 3 PH 60 HZ 1770 RPM 460 V 0522M

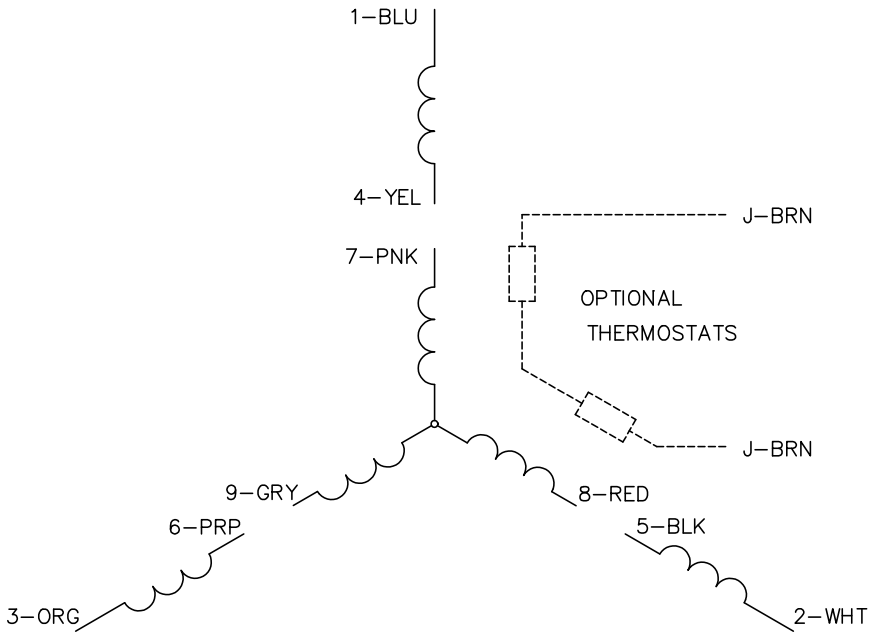
Typical performance - not guaranteed values.

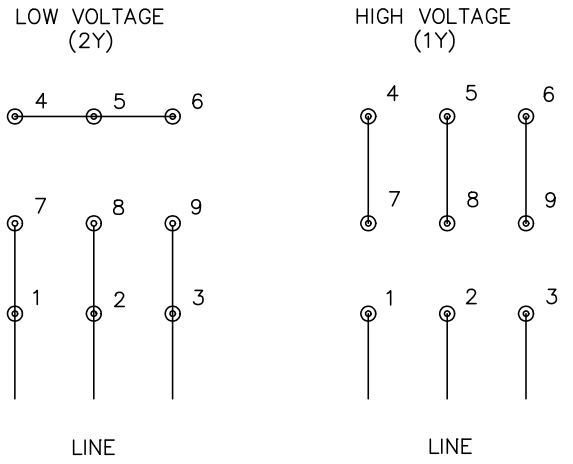
TORQUES(LB-FT): PO=15.85 PU=9.1 LR=10.45 LRA=15.67




05LYF006
14.57
AUX. NP
(WHEN REQ'D)
GREASE PLUG
(EACH END)
PLUG
2.12
.13
.19 KEY
1.38 LONG
6.48
4.500
4.497
7.43
.8750
.8745
SLINGER
FORSHEDA
SLINGER
7.08
GREASE RELIEF
(EACH END)
DRAIN FITTING
(EACH END)
GROUND LUG
(F1 SIDE)
10.42
6.42
45°
45°
5.99
.25-20 TAP
W/BOLT
LEAD HOLE
.75 N.P.T.
5.07
4 HOLES
.38-16 TAP ON
∅5.88 B.C.
REV. DESC: 05SF1101A54 WAS A04
REV: E
VERSION: 05
REVISED: 12:23:41 02/01/2019
TDR: 000001096286
MODEL NO. 05LYF006
REF:
BY: ENBILT0
B
BALDOR ELECTRIC Co.
VER 143-5TC TEFC M CP W/6205 BRG EA.END, LIPPED LID, DRP CVR
05LYF006

CD0005





NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS