ABB BALDOR RELIANCE

Customer information packet

ZDNM3581T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 0522M, TENV, F1
Class - None
Division - Not Applicable

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11/19/2026 10:19:00 PM

Specifications

Enclosure	TENV
Frame	143TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA
	UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	3.200 A @ 230.0 V
	1.600 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	ENCODER
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a
Insulation Class	H

Part Detail

Revision	E
Type	AC
Mech. spec.	05E532
Base	
Status	PRD/A
Elec. spec.	05WGX545
Layout	05LYE532
Eff. date	03-05-2026
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	03-11-2022

Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	6000 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	14.65 IN
Power Factor	68
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
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	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP4028L									
CAT.NO.	ZDNM3581T								
SPEC.	05E532X545G1								
FRAME	143TC			**H.P.**	1 TE				
VOLTS	230/460								
MAG. CUR.	2.14/1.07					**F.L. AMPS**	3.2/1.6		
R.P.M.	1770			**R.P.M. MAX**	6000				
HZ.	60		**PH.**	3	**CLASS**	H			
SER.F.	1.00		**DES.**	B	**SL HZ**	0.77			
NEMA NOM. EFF.	85.5		**WK2**	0.159					
BLWR V		**PH**		**HZ**		**AMPS**			
RATING	40C AMB-CONT								
DE	6205	**ODE**	6203						
CC	010A	**SN**							
	1000:1 CT/VT								

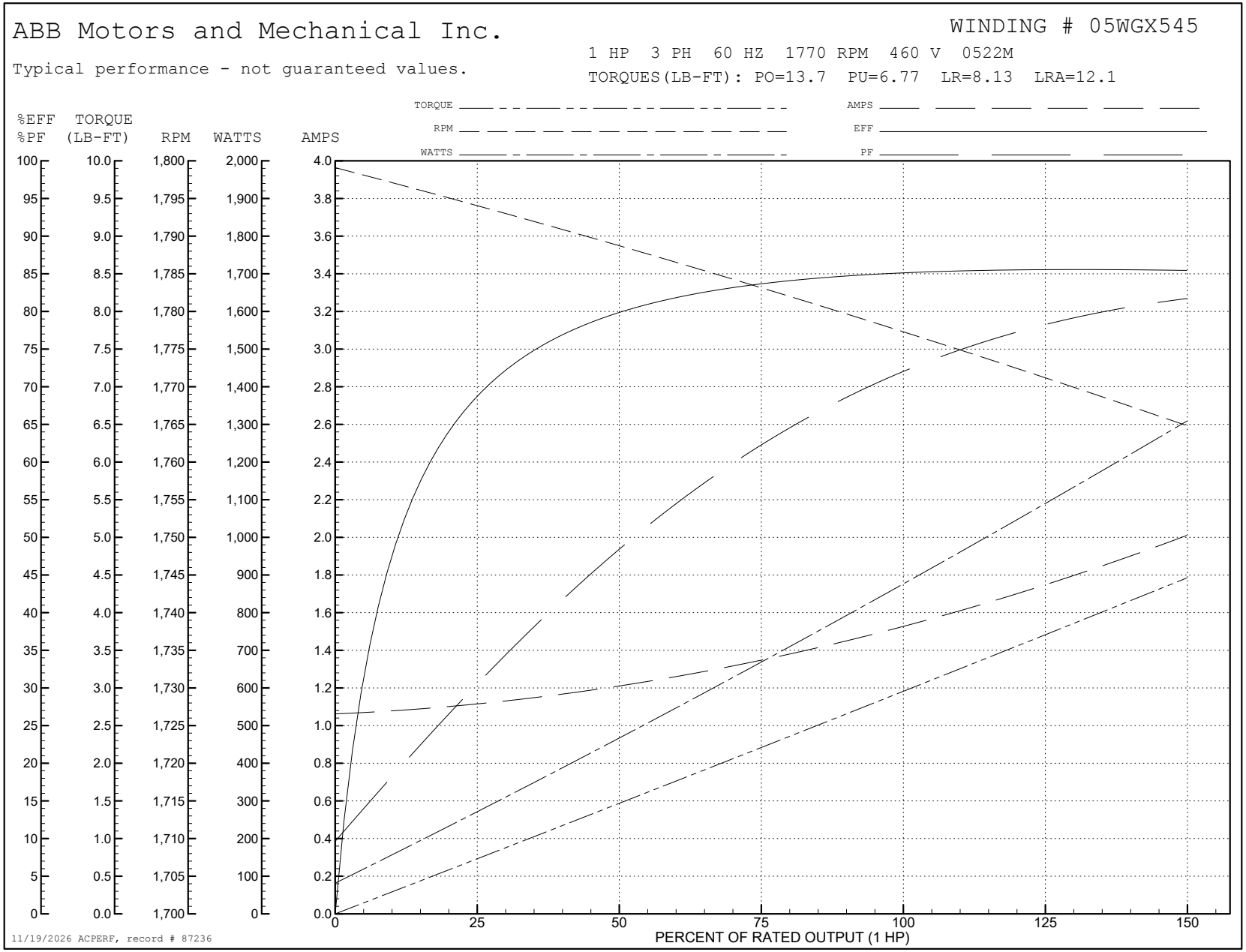
AC Induction Motor Performance Data
Record # 87236
Preliminary Data Sheet

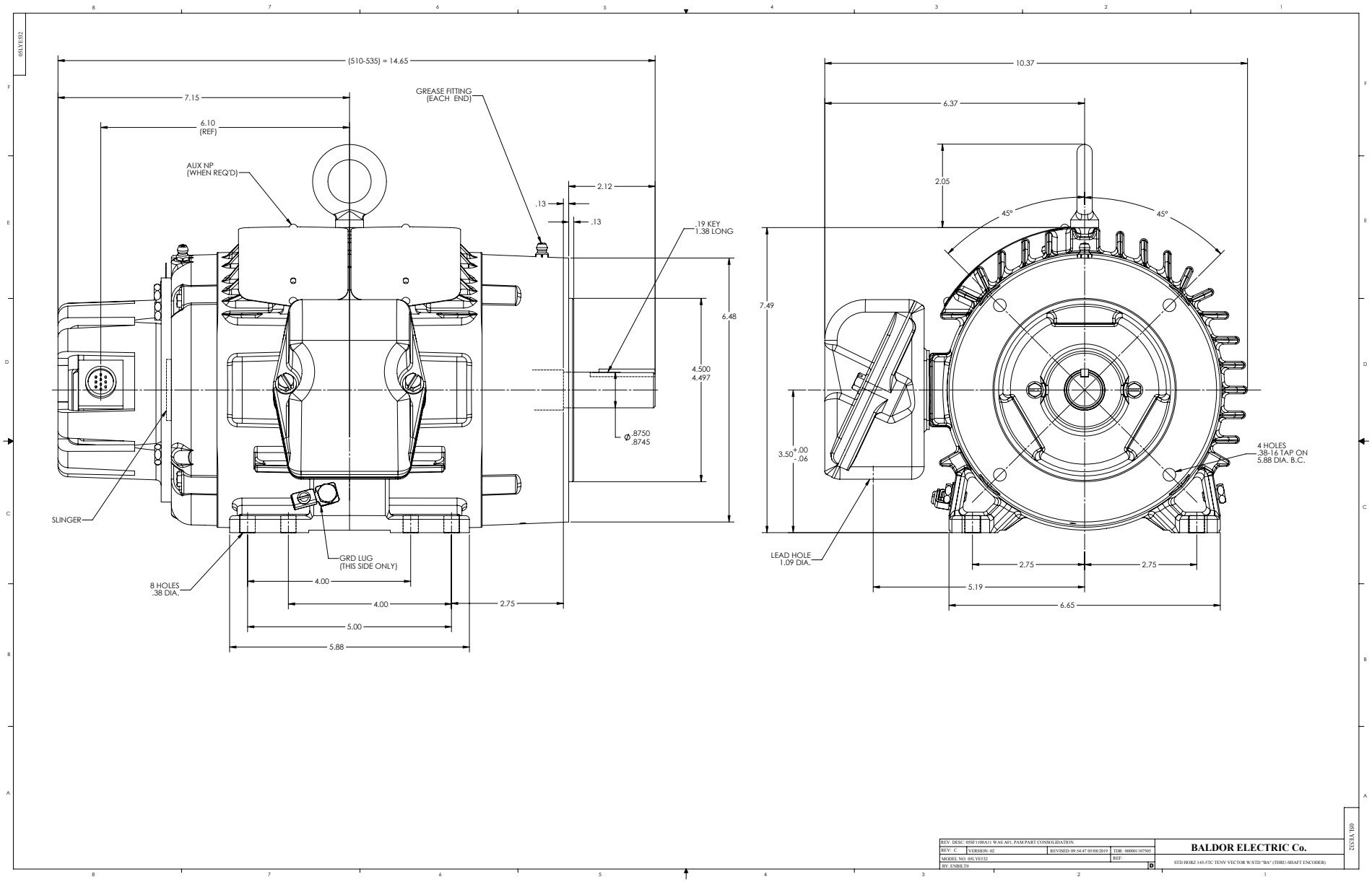
Winding: 05WGX545-R005	**Type:** 0522M	**Enclosure:** TENV

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			1	**Full Load Torque**	2.97 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			3.2/1.6	**Breakdown Torque**	13.7 LB-FT
R.P.M.			1770	**Pull-up Torque**	6.77 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	8.13 LB-FT
NEMA Design Code	B	**KVA Code**	N	**Starting Current**	12.1 A
Service Factor (S.F.)			1	**No-load Current**	1.07 A
NEMA Nom. Eff.	85.5	**Power Factor**	68	**Line-line Res. @ 25ºC**	16.4 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	
				Locked-rotor Power Factor	61.4
				Rotor inertia	0.159 lb-ft²

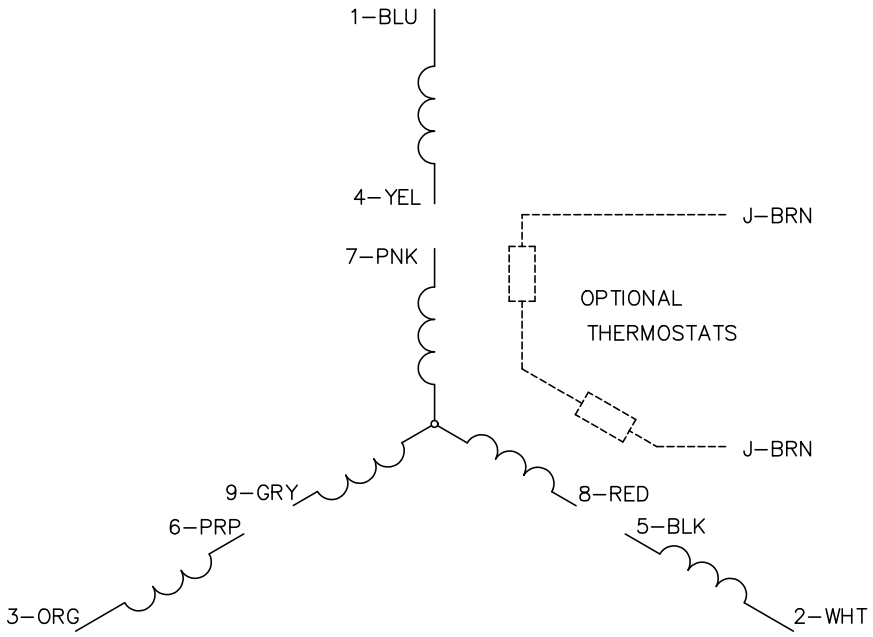
Load Characteristics 460 V, 60 Hz, 1 HP

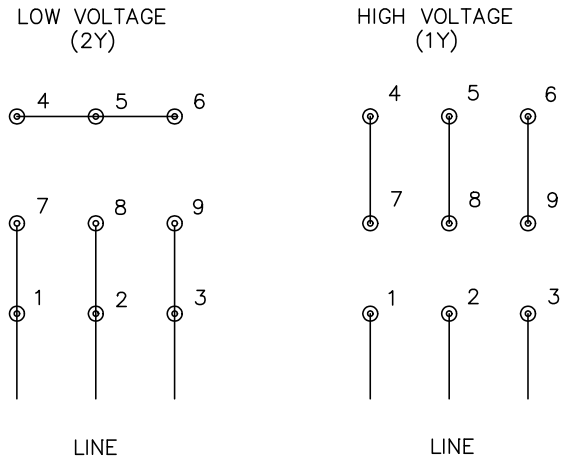
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	31	49	62	72	78	82
Efficiency	68.5	79.7	83.6	85.1	85.6	85.5
Speed	1794	1789	1783	1777	1771	1765
Line amperes	1.11	1.2	1.35	1.54	1.76	2


ABB Motors and Mechanical Inc.
WINDING # 05WGX545
1 HP 3 PH 60 HZ 1770 RPM 460 V 0522M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=13.7 PU=6.77 LR=8.13 LRA=12.1
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1 HP)
11/19/2026 ACPERF, record # 87236


(510-535) = 14.65
7.15
6.10
(REF)
AUX NP
(WHEN REQ'D)
GREASE FITTING
(EACH END)
2.12
.13
.13
.19 KEY
1.38 LONG
6.48
4.500
4.497
Ø.8750
.8745
SLINGER
GRD LUG
(THIS SIDE ONLY)
8 HOLES
.38 DIA.
4.00
4.00
2.75
5.00
5.88
10.37
6.37
2.05
45°
45°
7.49
3.50 +.00 -.06
4 HOLES
.38-16 TAP ON
5.88 DIA. B.C.
LEAD HOLE
1.09 DIA.
2.75
2.75
5.19
6.65
05LYE532
REV DESC 05SF1100A13 WAS A01, PAM PART CONSOLIDATION
REV: C VERSION: 02 REVISED: 09:54:47 05/08/2019 TDR: 0000001107505
MODEL NO: 05LYE532 REF:
BY: ENBLTH
BALDOR ELECTRIC Co.
STD HORZ 143-5TC TENV VECTOR W/STD "BA" (THRU-SHAFT ENCODER)
05LYE532

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