

ABB BALDOR RELIANCE III

Customer information packet

ZDNM3581T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 0522M, TENV, F1

Class - None

Division - Not Applicable

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								

Parts List

Part number	Description	Quantity
SA408903	SA 05E532X545G1	1.000 ea
RA400450	RA 05E532X545G1	1.000 ea
35FN3002A05SP	EXFN, PLASTIC, 6.376 OD, .638 ID	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
10XN2520A06	1/4 20X3/8 HX HD CAP	2.000 ea
06CB3000	BALDOR CONDUIT BOX CAST	1.000 ea
06GS1000	GASKET, CONDUIT BOX	1.000 ea
51XW2520A12	SCREW, HEX SER SLT HD, ZN, 1/4-20 X .75	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
35EP1100B45	FRONT TENV 203 BRG W/GRSR & THRU-SHAFT E	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP1329A01	PU EP ENCL 143-5TC 205 BRG W/GRSR & STD	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
HA3100A28	THRUBOLT 10-32 X 8.187	4.000 ea
10XN2520A08	1/4-20X1/2 HEX HEAD CAP	1.000 ea
35FH4801G	THRU-SHAFT ENCODER COVER INV/VECTOR F1 &	1.000 ea
10XN2520A08	1/4-20X1/2 HEX HEAD CAP	4.000 ea
06CB3500	BALDOR CONDUIT BOX LID	1.000 ea
06GS1001	BALDOR CONDUIT BOX GASKET	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA1005A05SP	SLINGER, OD 1.50, ID .659, 203 BRG	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
MJ5004A05	#242-21 LOCTITE GENERAL PURPOSE MED. STR	0.005 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb

OE5011A05SP	HS25 ENCODER ASSY - TENV	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.022 ga
LC0145B01	CONNECTION LABEL	1.000 ea
NP4028L	ALUM VEC UL CSA-EEV CC NEMA PREM	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

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	
Service Factor (S.F.)		1	No-load Current		1.07 A	
NEMA Nom. Eff.		85.5	Power Factor		68	
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

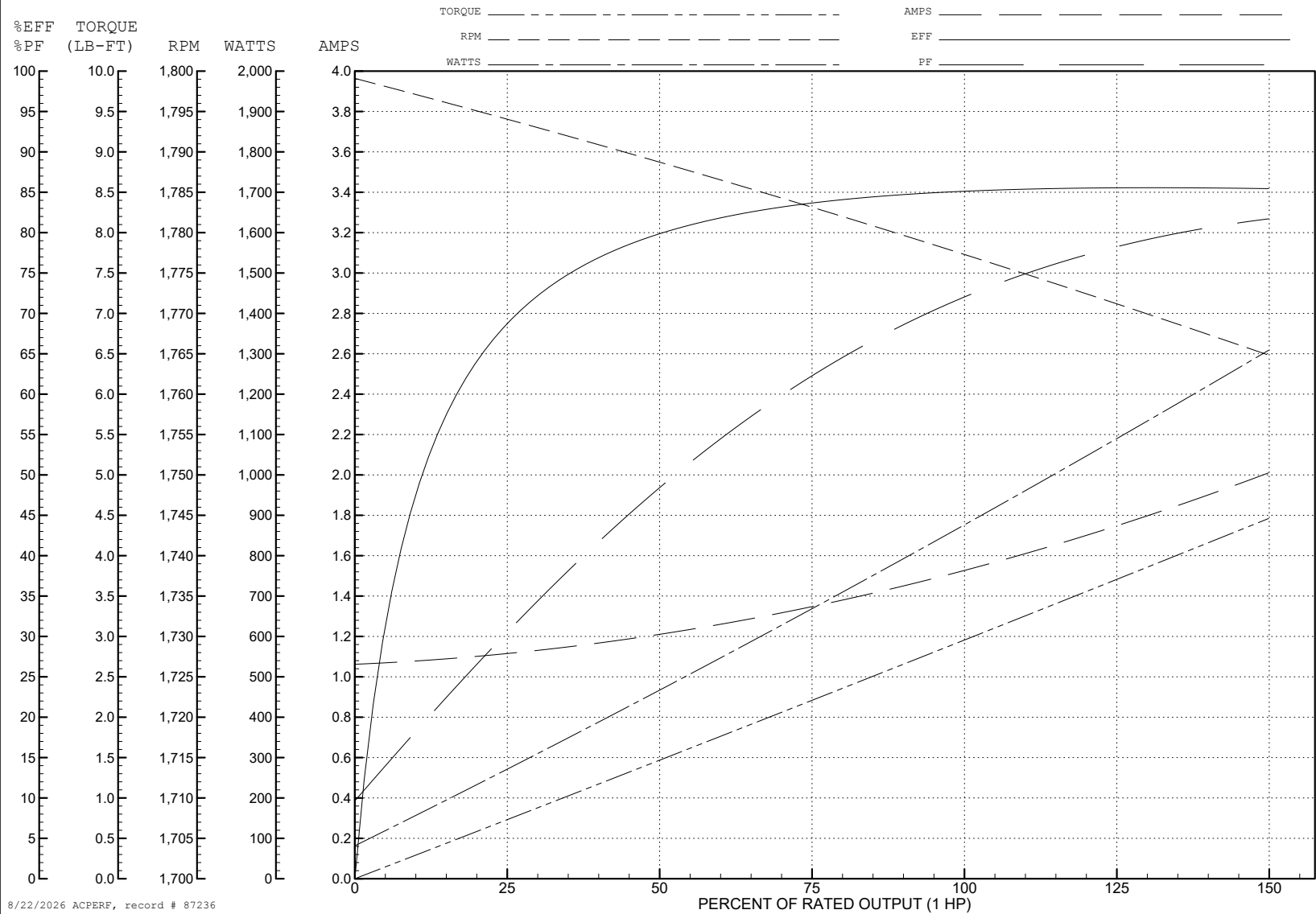
ABB Motors and Mechanical Inc.

WINDING # 05WGX545

Typical performance - not guaranteed values.

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

TORQUES (LB-FT): PO=13.7 PU=6.77 LR=8.13 LRA=12.1



8/22/2026 ACPERF, record # 87236

