

ABB BALDOR RELIANCE III

Customer information packet

VENM3581T

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	CURUSEEV NEMA PREMIUM
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
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	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a
Insulation Class	F

Part Detail

Revision	D
Type	AC
Mech. spec.	05E124
Base	
Status	PRD/A
Elec. spec.	05WGX545
Layout	05LYE124
Eff. date	01-05-2026
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	03-11-2022

Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
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	11.36 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	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No 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

NP3441LUA									
CAT.NO.	VENM3581T								
SPEC	05E124X545G1								
HP	1								
VOLTS	230/460								
AMPS	3.2/1.6								
RPM	1770								
FRAME	143TC		HZ	60			PH	3	
SF	1.15		CODE	N	DES	B	CLASS	F	
NEMA NOM. EFF	85.5		PF	68					
RATING	40C AMB-CONT								
CC	010A								
ENCL	TENV		SER						
DE	6205		ODE	6203					
VPWM INVERTER READY		SFA 3.5/1.75							
CT6-60H(10:1)VT3-60H(20:1									
50HZ 1HP 190/380V 3.6/1.8A									SF1.0

AC Induction Motor Performance Data

Record # 87235

Preliminary Data Sheet

Winding: 05WGX545-R004			Type: 0522M		Enclosure: TENV	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		1	Full Load Torque		3 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		3.2/1.6	Breakdown Torque		15.27 LB-FT	
R.P.M.		1770	Pull-up Torque		6.77 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		9.41 LB-FT
NEMA Design Code		B	KVA Code		N	
Service Factor (S.F.)		1.15	Starting Current		15.07 A	
NEMA Nom. Eff.		85.5	Power Factor		68	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		65°C
S.F. Amps				Temp. Rise @ S.F. Load		75°C
				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	S.F.
Power Factor	29	45	58	68	75	79	72
Efficiency	70.9	81.1	84.4	85.7	85.4	84.6	85.5
Speed	1793	1786	1780	1772	1765	1756	1768
Line amperes	1.18	1.28	1.43	1.62	1.83	2.09	1.75

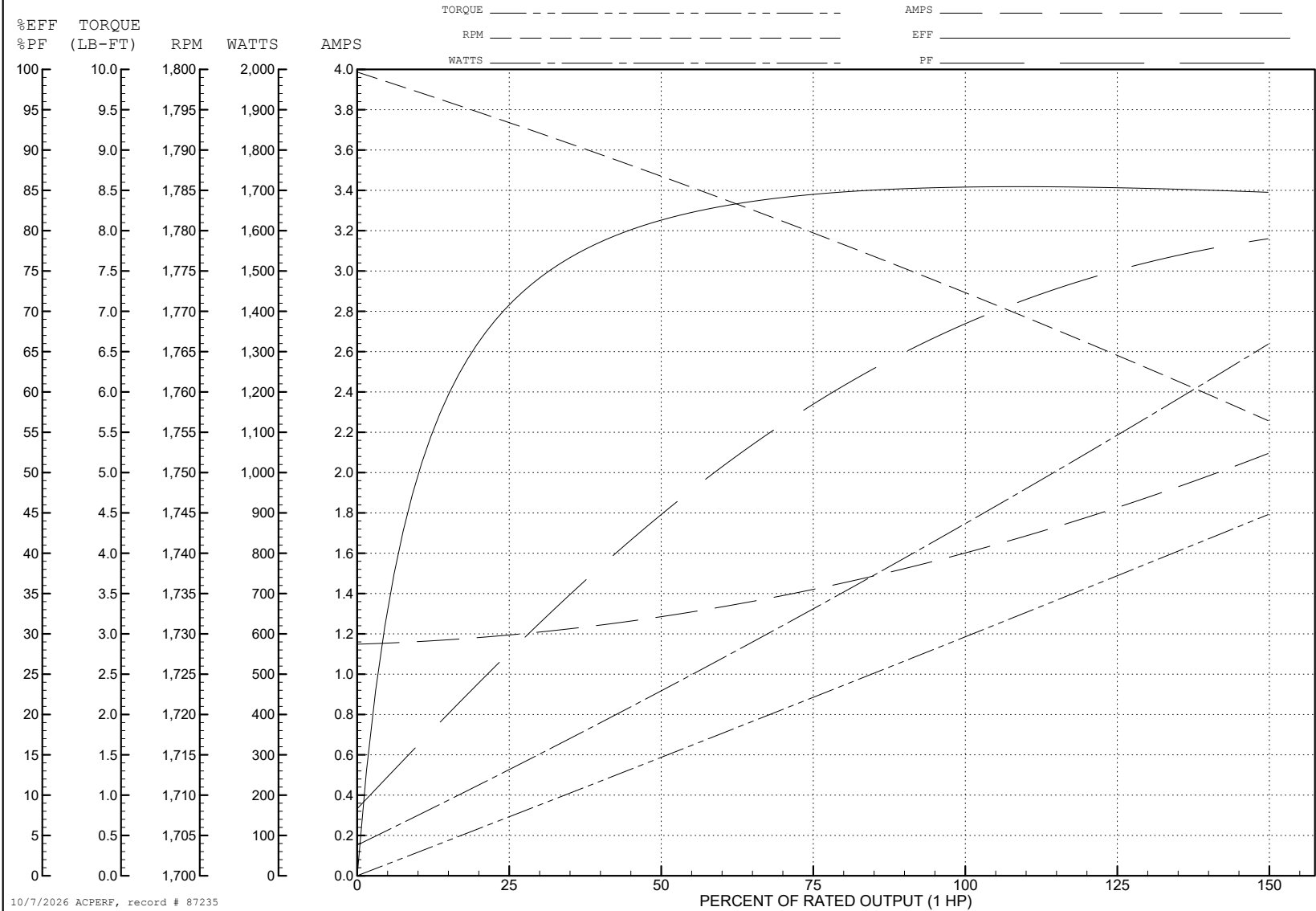
ABB Motors and Mechanical Inc.

WINDING # 05WGX545

Typical performance - not guaranteed values.

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

TORQUES (LB-FT): PO=15.27 PU=6.77 LR=9.41 LRA=15.07



10/7/2026 ACPERF, record # 87235

