



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	D
Type	AC
Mech. spec.	05E532
Base	
Status	PRD/A
Elec. spec.	05WGX545
Layout	05LYE532
Eff. date	09-30-2025
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. @ 25°C		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

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





