



Customer information packet

VEM3546T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 3520M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	143TC
Frame Material	Steel
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 EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary 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 3.200 A @ 208.0 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

Part detail

Revision	G
Type	AC
Mech. spec.	35A003
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYA003
Eff. date	01-22-2025
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	07-16-2021

Heater Indicator	No Heater
High Voltage Full Load Amps	1.6 a
Insulation Class	F
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	3520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.29 IN
Power Factor	69
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
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.	VEM3546T									
SPEC	35A003G004G1									
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	69						
RATING	40C AMB-CONT									
CC	010A									
ENCL	TEFC	SER								
DE	6205		ODE		6203					
VPWM INVERTER READY			SFA 3.4/1.7							
CT6-60H(10:1)VT3-60H(20:1										
50HZ 1HP 190/380V 3.6/1.8A										SF1.0

AC Induction Motor Performance Data

Record # 91625

Typical performance - not guaranteed values

Winding: 35WGG004-R001			Type: 3520M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		1	Full Load Torque		2.982 LB-FT			
Volts		230/460	Start Configuration		direct on line			
Full Load Amps		3.2/1.6	Breakdown Torque		14.6 LB-FT			
R.P.M.		1770	Pull-up Torque		7.57 LB-FT			
Hz		60	Phase		3	Locked-rotor Torque	9.17 LB-FT	
NEMA Design Code		B	KVA Code		N	Starting Current	14.6 A	
Service Factor (S.F.)		1.15	No-load Current		1.2 A			
NEMA Nom. Eff.		85.5	Power Factor		69	Line-line Res. @ 25°C	16.049 Ω	
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load			36°C
S.F. Amps		3.4/1.7	Temp. Rise @ S.F. Load		41°C			
			Locked-rotor Power Factor		61.549			
			Rotor inertia		0.144 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	67	73	78	71
Efficiency	71.1	81.2	84.7	85.8	86	85.6	85.9
Speed	1794	1787.3	1781.1	1774.3	1767.4	1759.4	1770
Line amperes	1.22	1.31	1.46	1.64	1.86	2.11	1.77

ABB Motors and Mechanical Inc.

WINDING # 35WGG004

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 3520M

TORQUES (LB-FT): PO=14.6 PU=7.57 LR=9.17 LRA=14.6





