

ABB BALDOR RELIANCE III

Customer information packet

VZDNM3546T

1HP, 1745RPM, 3PH, 60HZ, 145TC, 3528M, TENV, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	145TC
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 UR
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	1.400 A @ 460.0 V 2.800 A @ 230.0 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	1.4 a

Part Detail

Revision	-
Type	AC
Mech. spec.	35E6717
Base	
Status	PRD/A
Elec. spec.	35WGK590
Layout	35LYE6717
Eff. date	05-30-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	05-13-2025

Insulation Class	H
Inverter Code	Inverter Duty
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3528M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	14.90 IN
Power Factor	79
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	0.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1745 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

NP3943L									
CAT.NO.	VZDNM3546T								
SPEC.	35E6717K590Z1								
FRAME	145TC			H.P.		1 TE			
VOLTS	230/460 ENCL TENV								
MAG. CUR.	1.46/.73				F.L. AMPS			2.8/1.4	
R.P.M.	1745		R.P.M. MAX				2700		
HZ.	60		PH.		3		CLASS		H
SER.F.	1.00			SL HZ			1.83		
NEMA NOM. EFF.	85.5		WK2		0.174				
RATING	40C AMB-CONT								
DE	6205		ODE		6203				
CC	010A		SN						
	1000:1 CT 1.5:1 CHP								
	1.15 SF ON SINEWAVE								

AC Induction Motor Performance Data

Record # 108350

Typical performance - not guaranteed values

Winding: 35WGK590-R001			Type: 3528M		Enclosure: TENV		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1	Full Load Torque		3.03 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		2.8/1.4	Breakdown Torque		13.5 LB-FT		
R.P.M.		1745	Pull-up Torque		6.6 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		9.2 LB-FT	
NEMA Design Code		B	KVA Code	M	Starting Current		12.9 A
Service Factor (S.F.)		1.15	No-load Current		0.74 A		
NEMA Nom. Eff.		85.5	Power Factor	79	Line-line Res. @ 25°C		19.5 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		59°C
S.F. Amps		3/1.5	Temp. Rise @ S.F. Load		72°C		
			Locked-rotor Power Factor		65.2		
			Rotor inertia		0.202 LB-FT2		

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	39	59	71	79	84	87	82
Efficiency	78.5	85.3	86.7	86.6	85.2	83.5	85.8
Speed	1787	1774	1762	1747	1733	1716	1739
Line amperes	0.79	0.93	1.13	1.37	1.63	1.93	1.53

ABB Motors and Mechanical Inc.

WINDING # 35WGK590

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1745 RPM 460 V 3528M

TORQUES (LB-FT): PO=13.5 PU=6.6 LR=9.2 LRA=12.9





