

ABB BALDOR RELIANCE III

Customer information packet

VESWDM3546

1HP, 1770RPM, 3PH, 60HZ, 56C, 3522M, TENV, F1, N

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	56C
Frame Material	Stainless 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
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	3.340 A @ 230.0 V 3.300 A @ 208.0 V 1.670 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	D
Type	AC
Mech. spec.	35S617
Base	
Status	PRD/A
Elec. spec.	35WGZ818
Layout	35LYS617
Eff. date	06-05-2025
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	10-01-2021

Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	M
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	3522M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.06 IN
Power Factor	66
Product Family	Wash Down Paint Free
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.625 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

NP1669L									
CAT.NO.	VESWDM3546								
SPEC.	35S617Z818G1								
HP	1								
VOLTS	230/460								
AMP	3.34/1.67								
RPM	1770								
FRAME	56C		HZ	60			PH	3	
SER.F.	1.15	CODE	M	DES	B		CLASS	F	
NEMA-NOM-EFF	85.5	PF	66						
RATING	40C AMB-CONT								
CC	010A								
DE	6205		ODE	6203					
ENCL	TENV	SN							
BLANK	SFA 3.5/1.75								

Parts List

Part number	Description	Quantity
SA398795	SA 35S617Z818G1	1.000 ea
RA389816	RA 35S617Z818G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB5001A03	CONDUIT BOX KIT, FOR SUPER II WASHDOWN	1.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3122D00U	MASTER ODE,203 BRG,.125NPT DRNS(BALL BUR	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3307E00U	MASTER DE,205 BRG,1.623SH,.125NPT DRNS,C	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 ea
HW4606A02	JM CLIPPER/SEAL (LWE-0938-1624-AL23)	1.000 ea
12XN1032S20	10-32 X 1-1/4 HEX M.S. , STAINLESS STEEL	2.000 ea
HA1049A01	DUBO LOK WASHER SIZE 10 (NYLON LOCK SEAL	4.000 ea
HA1049A01	DUBO LOK WASHER SIZE 10 (NYLON LOCK SEAL	2.000 ea
HW2502D13	SS KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
MJ5001A02	732 CL SEALANT 3 OZ DIXIE BEARING 289100	0.001 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1164	LABEL,WARNING AND DRAIN	1.000 ea
HA5027A02	HA4054 T-DRAIN X2 BAGGED WITH LABEL	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3100S24	THRUBOLT 8.625 LENGTH 1.250 TH LENGTH SS	4.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP1669L	SS WD SUPER-E UL PREM REV MTG	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A07	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 89784

Typical performance - not guaranteed values

Winding: 35WGZ818-R002			Type: 3522M		Enclosure: TENV		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1	Full Load Torque		2.99 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		3.34/1.67	Breakdown Torque		16.6 LB-FT		
R.P.M.		1770	Pull-up Torque		7.42 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		10.32 LB-FT	
NEMA Design Code		B	KVA Code	M	Starting Current		16.1 A
Service Factor (S.F.)		1.15	No-load Current		1.23 A		
NEMA Nom. Eff.		85.5	Power Factor	66	Line-line Res. @ 25°C		14.4 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		63°C
S.F. Amps		3.5/1.75	Temp. Rise @ S.F. Load		71°C		
			Locked-rotor Power Factor		60.4724		
			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	27	43	56	66	73	78	72
Efficiency	70.8	81.2	84.5	85.9	85.8	85.2	85.5
Speed	1793	1786	1781	1773	1766	1758	1768
Line amperes	1.25	1.34	1.49	1.67	1.87	2.12	1.75

ABB Motors and Mechanical Inc.

WINDING # 35WGZ818

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

TORQUES (LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1





