

ABB BALDOR RELIANCE III

Customer information packet

VFSWDM3537-E

.5HP, 3500RPM, 3PH, 60HZ, 56C, 3516M, TENV, F1

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	.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ 208.0 V @ 60 HZ
Agency Approvals	CSA 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	1.500 A @ 208.0 V 1.400 A @ 230.0 V .700 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	84.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	M
Type	AC
Mech. spec.	35E4656
Base	
Status	PRD/A
Elec. spec.	35WGP069
Layout	35LYE4656
Eff. date	08-14-2023
CD Diagram	CD0005
Poles	02
Leads	9#18 15" lead length,0#0 dbl dip & bake,0#0 phase insulaY
Proprietary	False
Created date	06-21-2017

Heater Indicator	No Heater
High Voltage Full Load Amps	0.7 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Finish	UNPAINTED
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	@ 0 AWG 9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3516M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	11.78 IN
Power Factor	84
Product Family	WD All SS Encapsulated
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3500 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

NP4427AAA01												
CAT #	VFSWDM3537-E					WT	35		LBS			
SPEC	35E4656P069G1					ENCL	TENV					
SER #						CC	010A		IP	69		
HP	.5		MAG CUR			.8/.4						
VOLTS	208-230/460					NEMA NOM. EFF				84		
AMPS	1.5-1.4/.7					PF	84					
RATING	40C AMB-CONT											
RPM	3500					MAX RPM	5400					
FRAME	56C	HZ	60		CODE	N	CLASS	H				
SER.F.	1.15	SF AMP					PH	3	DES	B		
DE	6205		ODE	6205								
LUBRICATION	POLYREX EM											
ID LOGO	INVERTER TYPE		VPWM		CHP	60	TO	90	1.5:1			
ID LOGO	WK2	0.036	CT	15	TO	60	4:1					
ID LOGO	SL HZ	1.7	VT	3	TO	60	20:1					

Parts List

Part number	Description	Quantity
SA343170	SA 35E4656P069G1	1.000 ea
RA331615	RA 35E4656P069G1	1.000 ea
35CB1017A01	35/36 MID SECT - 3 PC. CONDUIT BOX 1/2 N	1.000 ea
HA3424S48	STUD - M6X1.0 THDS X 3.00"	1.000 ea
RM1070A81	O-RING, -043 VITON/FKM .070CS X 3.489ID	1.000 ea
35CB1513A01	35-36-37 MACH. LID - 3 PC. CONDUIT BOX	1.000 ea
11XW1032G08	10-32 X .50, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B02	BRASS CUP WASHER W/GROUND SYMBOL TAB,	1.000 ea
35EP1940A03	FRONT TENV 205 BRG (STAINLESS)	1.000 ea
RM1070A25	O-RING, VITON/FKM .070CS X 6.190ID	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	4.000 ea
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 ea
35EP1935A02	PULLEY 56C/143-5TC ENCL 205 BRG	1.000 ea
RM1070A25	O-RING, VITON/FKM .070CS X 6.190ID	1.000 ea
HW4600G01	.984X1.499X.25 VITON SLICK SERIES LIP	1.000 ea
HW4600E99	25 X 42 X 6 AFX SEAL, GRAPHITE INFUSED V	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	4.000 ea
RM1070A26	O-RING,4.5MM I.D.X1.5MM C.S. (VITON)	4.000 ea
RM1070A81	O-RING, -043 VITON/FKM .070CS X 3.489ID	1.000 ea
HW2502D13	SS KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.005 qt
MJ5004A93	FOOD GRADE (H1 RATED) ANTISEIZE THRD COM	0.005 ea
HA1025A21	WSHR,FELT .125" THK	1.000 ea
HA5027A09	DRAIN KIT,(2)HA4002A03 BAGGED W/LABEL	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
WD5603A01	KIT, CLOSED-END LEAD SPLICE (18-14GA)	1.000 ea
HA3100FS11	THRUBOLT, 10-32 X 8.500 SS FOOD SAFE	4.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

FE-0000007	ZRTG FE ASSEMBLY	1.000 ea
PE-0000010	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 63631

Typical performance - not guaranteed values

Winding: 35WGP069-R009			Type: 3516M		Enclosure: TENV		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		.5	Full Load Torque		0.753 LB-FT		
Volts		208-230/460	Start Configuration		direct on line		
Full Load Amps		1.5-1.4/.7	Breakdown Torque		4.09 LB-FT		
R.P.M.		3500	Pull-up Torque		2.2 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		2.47 LB-FT	
NEMA Design Code		B	KVA Code	N	Starting Current		6.97 A
Service Factor (S.F.)		1.15	No-load Current		0.394 A		
NEMA Nom. Eff.		84	Power Factor	84	Line-line Res. @ 25°C		25.2 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		63°C
S.F. Amps					Temp. Rise @ S.F. Load		72°C
					Locked-rotor Power Factor		54.7
					Rotor inertia		0.0443 LB-FT2

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	50	65	74	81	84	87	83
Efficiency	49.5	65	71.2	75	76.3	76.7	75.8
Speed	3568	3541	3517	3492	3464	3436	3475
Line amperes	0.453	0.545	0.65	0.774	0.904	1.05	0.852

ABB Motors and Mechanical Inc.

WINDING # 35WGP069

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 3500 RPM 460 V 3516M

TORQUES (LB-FT) : PO=4.09 PU=2.2 LR=2.47 LRA=6.97





