

ABB BALDOR RELIANCE III

Customer information packet

VFSWDNM3554T-E

1.5HP, 1765RPM, 3PH, 60HZ, 145TC, 3540M, TENV

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	145TC
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	1.500 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 CURUSEEV NEMA PREMIUM NEMA_PREMIUM WEEE
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	3.900 A @ 230.0 V 1.950 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

Part Detail

Revision	C
Type	AC
Mech. spec.	35E4717
Base	
Status	PRD/A
Elec. spec.	35WGZ820
Layout	35LYE4717
Eff. date	08-14-2023
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	03-11-2022

Heater Indicator	No Heater
High Voltage Full Load Amps	2.0 a
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 Finish	UNPAINTED
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3540M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	15.09 IN
Power Factor	72
Product Family	WD All SS Encapsulated
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1765 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 #	VFSWDNM3554T-E					WT	59		LBS				
SPEC	35E4717Z820G1					ENCL	TENV						
SER #						CC	010A		IP	69			
HP	1.5		MAG CUR			2/1							
VOLTS	230/460					NEMA NOM. EFF				86.5			
AMPS	3.9/1.95					PF	72						
RATING	40C AMB-CONT												
RPM	1765					MAX RPM		2700					
FRAME	145TC	HZ	60		CODE	M	CLASS	H					
SER.F.	1.15	SF AMP	4.4/2.2				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	0.289	CT	15	TO	60		4:1					
ID LOGO	SL HZ	1.2	VT	3	TO	60		20:1					
						QR							
YR													

Parts List

Part number	Description	Quantity
SA411394	SA 35E4717Z820G1	1.000 ea
RA403036	RA 35E4717Z820G1	1.000 ea
35CB1017A02	5/36 MID SECT - 3 PC. CONDUIT BOX 3/4 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
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
35CB1513A01	35-36-37 MACH. LID - 3 PC. CONDUIT BOX	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
HA3100FS61	THRUBOLT, 10-32 X 11.750 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 # 87357

Preliminary Data Sheet

Winding: 35WGZ820-R001			Type: 3540M		Enclosure: TENV	
Nameplate Data				460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)		1.5		Full Load Torque		4.49 LB-FT
Volts		230/460		Start Configuration		direct on line
Full Load Amps		3.9/1.95		Breakdown Torque		18.2 LB-FT
R.P.M.		1765		Pull-up Torque		10.49 LB-FT
Hz	60	Phase	3	Locked-rotor Torque		12.72 LB-FT
NEMA Design Code		B	KVA Code	Starting Current		18.17 A
Service Factor (S.F.)		1.15		No-load Current		1.03 A
NEMA Nom. Eff.		86.5	Power Factor	Line-line Res. @ 25°C		10.9 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		51°C
S.F. Amps		4.4/2.2		Temp. Rise @ S.F. Load		62°C
				Locked-rotor Power Factor		53.1
				Rotor inertia		0.289 lb-ft²

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	39	61	74	81	85	87	83
Efficiency	83	88.6	89.4	88.9	88	86.6	88.4
Speed	1789	1782	1774	1765	1756	1746	1760
Line amperes	1.11	1.31	1.6	1.96	2.35	2.8	2.19

ABB Motors and Mechanical Inc.

WINDING # 35WGZ820

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1765 RPM 460 V 3540M

TORQUES (LB-FT): PO=18.2 PU=10.49 LR=12.72 LRA=18.17





