

ABB BALDOR RELIANCE III

Customer information packet

VFSWDNM3554-E

1.5HP, 1765RPM, 3PH, 60HZ, 56C, 3540M, 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	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.	35E4656
Base	
Status	PRD/A
Elec. spec.	35WGZ820
Layout	35LYE4656
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	15.04 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	0.625 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 #	VFSWDNM3554-E					WT	59	LBS					
SPEC	35E4656Z820G1					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	56C	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													

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	M	Starting Current		18.17 A
Service Factor (S.F.)		1.15	No-load Current		1.03 A		
NEMA Nom. Eff.		86.5	Power Factor	72	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





