

ABB BALDOR RELIANCE III

Customer information packet

VFSFWDM3538-E

.5HP, 1770RPM, 3PH, 60HZ, 56C, 3512M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
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	1800 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	1.900 A @ 208.0 V 1.800 A @ 230.0 V .900 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	80.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	G
Type	AC
Mech. spec.	35E4649
Base	
Status	PRD/A
Elec. spec.	35WGZ944
Layout	35LYE4649
Eff. date	08-10-2026
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-10-2022

High Voltage Full Load Amps	0.9 a
Insulation Class	H
Inverter Code	Not Inverter
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Finish	UNPAINTED
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3512M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	12.96 IN
Power Factor	65
Product Family	WD All SD Non-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	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

NP4427ALA01												
CAT #	VFSFWDM3538-E					WT	33	LBS				
SPEC	35E4649Z944G1					ENCL	TEFC					
SER #						CC		IP	69			
HP	.5					MAG CUR	1.34-1.58/.79					
VOLTS	208-230/460					NEMA NOM. EFF					80	
AMPS	1.9-1.8/.9					PF	65					
RATING	40C AMB-CONT											
RPM	1770					MAX RPM	2700					
FRAME	56C	HZ	60		CODE	M	CLASS	H				
SER.F.	1.15	SF AMP	2.1-1.9/0.95				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	0.087	CT	15	TO	60	4:1					
ID LOGO	SL HZ	0.97	VT	3	TO	60	20:1					
								QR				
YR												

AC Induction Motor Performance Data

Record # 91507

Typical performance - not guaranteed values

Winding: 35WGZ944-R001			Type: 3512M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		.5	Full Load Torque		1.49 LB-FT		
Volts		208-230/460	Start Configuration		direct on line		
Full Load Amps		1.9-1.8/.9	Breakdown Torque		6.28 LB-FT		
R.P.M.		1770	Pull-up Torque		3.26 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		4.04 LB-FT	
NEMA Design Code		B	KVA Code	M	Starting Current		6.71 A
Service Factor (S.F.)		1.15		No-load Current		0.792 A	
NEMA Nom. Eff.		80	Power Factor	65	Line-line Res. @ 25°C		43.2 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		22°C	
S.F. Amps		2.1-1.9/0.95		Temp. Rise @ S.F. Load		25°C	
				Locked-rotor Power Factor		70.7767	
				Rotor inertia		0.0866 lb-ft²	

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	27	41	52	62	69	75	66
Efficiency	56.5	70.7	76.5	78.9	80	80	79.6
Speed	1792	1786	1779	1771	1763	1755	1766
Line amperes	0.795	0.827	0.889	0.966	1.06	1.18	1.02

ABB Motors and Mechanical Inc.

WINDING # 35WGZ944

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1770 RPM 460 V 3512M

TORQUES (LB-FT): PO=6.28 PU=3.26 LR=4.04 LRA=6.71





