

ABB BALDOR RELIANCE III

Customer information packet

VFSWDM3559T-E

3HP, 3470RPM, 3PH, 60HZ, 145TC, 3546M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
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	3.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 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	7.700 A @ 208.0 V 7.400 A @ 230.0 V 3.700 A @ 460.0 V
Design Code	A
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
Heater Indicator	No Heater
High Voltage Full Load Amps	3.7 a

Part Detail

Revision	N
Type	AC
Mech. spec.	35E4709
Base	
Status	PRD/A
Elec. spec.	35WGR930
Layout	35LYE4709
Eff. date	09-08-2026
CD Diagram	CD0005
Poles	02
Leads	9#18,0#,0#,0# Y
Proprietary	False
Created date	07-11-2017

Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	P
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Finish	UNPAINTED
Motor Lead Quantity/Wire Size	@ 0 AWG 9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3546M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	16.28 IN
Power Factor	91
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	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3470 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 #	VFSWDM3559T-E					WT	63		LBS				
SPEC	35E4709R930G1					ENCL	TEFC						
SER #						CC	010A		IP	69			
HP	3		MAG CUR			2.6/1.3							
VOLTS	230/460					NEMA NOM. EFF					86.5		
AMPS	7.4/3.7					PF		91					
RATING	40C AMB-CONT												
RPM	3470					MAX RPM			5400				
FRAME	145TC		HZ	60		CODE		P	CLASS		H		
SER.F.	1.15		SF AMP						PH	3	DES	A	
DE	6205		ODE		6205								
LUBRICATION	POLYREX EM												
ID LOGO	INVERTER TYPE			VPWM		CHP		60	TO		90	1.5:1	
ID LOGO	WK2	0.127	CT	15	TO	60	4:1						
ID LOGO	SL HZ	2.2	VT	3	TO	60	20:1						
						QR							
YR													

AC Induction Motor Performance Data

Record # 57380

Typical performance - not guaranteed values

Winding: 35WGR930-R012			Type: 3546M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		3	Full Load Torque		4.5 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		7.4/3.7	Breakdown Torque		17.2 LB-FT	
R.P.M.		3470	Pull-up Torque		10.5 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		17 LB-FT
NEMA Design Code		A	KVA Code		P	Starting Current
Service Factor (S.F.)		1.15	No-load Current		1.25 A	
NEMA Nom. Eff.		86.5	Power Factor		91	Line-line Res. @ 25°C
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load	
S.F. Amps					Temp. Rise @ S.F. Load	
					Locked-rotor Power Factor	
					Rotor inertia	
					0.127 LB-FT2	

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	59	79	87	90	91	90	91
Efficiency	80.1	86.4	87.3	86.9	85.7	83.9	86.2
Speed	3567	3541	3510	3479	3443	3403	3457
Line amperes	1.53	2.07	2.78	3.55	4.42	5.4	4.07

ABB Motors and Mechanical Inc.

WINDING # 35WGR930

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 3470 RPM 460 V 3546M

TORQUES (LB-FT): PO=17.2 PU=10.5 LR=17 LRA=48.3





