

ABB BALDOR RELIANCE III

Customer information packet

SPM31107

.5HP, 3450RPM, 3PH, 60HZ, 56H, 3420M, ODP, F1, N

Class - None

Division - Not Applicable

Specifications

Enclosure	ODP
Frame	56H
Frame Material	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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	C UR US WEEE
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	.800 A @ 460.0 V 1.600 A @ 230.0 V 1.800 A @ 208.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	77.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	0.8 a

Part Detail

Revision	C
Type	AC
Mech. spec.	34T123
Base	
Status	PRD/A
Elec. spec.	34WG3229
Layout	34LYT123
Eff. date	10-29-2024
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	09-13-2023

Insulation Class	F
Inverter Code	Not Inverter
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3420M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	11.75 IN
Power Factor	74
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.25
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3450 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

NP4558A02LL											
CAT #	SPM31107			WGT	27		LBS				
SER #				ENCL	ODP						
SPEC	34T123-3229			CC			IP	23			
HP	.5			NEMA NOM. EFF							77
VOLTS	230/460			PF	74						
AMPS	1.6/.8										
RATING	40C AMB-CONT										
RPM	3450			PH	3		DES	B			
FRAME	56H	HZ	60	CODE	N		CLASS	F			
SER.F.	1.25	SF AMP	1.8/.9								
DE	6203		ODE	6203							
GREASE	POLYREX EM										

AC Induction Motor Performance Data

Record # 100841

Typical performance - not guaranteed values

Winding: 34WG3229-R020			Type: 3420M		Enclosure: ODP		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		.5	Full Load Torque		0.75 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		1.6/.8	Breakdown Torque		4.7 LB-FT		
R.P.M.		3450	Pull-up Torque		4 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque		4.4 LB-FT		
NEMA Design Code		B	KVA Code		N	Starting Current	7.4 A
Service Factor (S.F.)		1.25	No-load Current		0.49 A		
NEMA Nom. Eff.		77	Power Factor		74	Line-line Res. @ 25°C	20.7 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		30°C		
S.F. Amps		1.8/.9	Temp. Rise @ S.F. Load		57°C		
			Locked-rotor Power Factor		65.6		
			Rotor inertia		0.0186 lb-ft²		

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	58	69	76	81	84	81
Efficiency	56.5	70.7	76.6	79.5	80.8	81.2	80.8
Speed	3568	3544	3519	3493	3466	3437	3466
Line amperes	0.52	0.58	0.67	0.77	0.88	1.01	0.88

ABB Motors and Mechanical Inc.

WINDING # 34WG3229

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 3450 RPM 460 V 3420M

TORQUES (LB-FT) : PO=4.7 PU=4 LR=4.4 LRA=7.4





