

ABB BALDOR RELIANCE III

Customer information packet

SPM3120T

1.5HP, 3500RPM, 3PH, 60HZ, 143T, 3520M, OPSB, F

Class - None

Division - Not Applicable

Specifications

Enclosure	OPSB
Frame	143T
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	1.500 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	WEEE NEMA PREMIUM 4
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	2.050 A @ 460.0 V 4.100 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	2.1 a
Insulation Class	F

Part Detail

Revision	C
Type	AC
Mech. spec.	35E6247
Base	
Status	PRD/A
Elec. spec.	35WGM747
Layout	35LYE6247
Eff. date	06-07-2024
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	09-08-2023

Inverter Code	Inverter Duty
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Max Speed	5400 rpm
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	11.12 IN
Power Factor	81
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	1.15
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3500 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

NP4423A01A01L														
CAT #	SPM3120T					WGT	38	LBS						
SPEC	35E6247M747					ENCL	OPSB							
SER #						CC	010A	IP	22					
HP	1.5	MAG CUR				2.22/1.11								
VOLTS	230/460					NEMA NOM. EFF				85.5				
AMPS	4.1/2.05					PF	81							
RATING	40C AMB-CONT													
RPM	3500					MAX RPM		5400						
FRAME	143T	HZ	60	CODE		N	CLASS		F					
SER.F.	1.15	SF AMP	5.5/2.25				PH	3	DES	B				
DE	6205		ODE		6203									
LUBRICATION	POLYREX EM													
ID LOGO	INVERTER TYPE				VPWM		CHP	60	TO	90	1.5:1			
ID LOGO	WK2	0.06	CT	6	TO	60	10:01							
ID LOGO	SL HZ	1.7	VT	3	TO	60	20:01							
							QR							
YR														

AC Induction Motor Performance Data

Record # 100786

Preliminary Data Sheet

Winding: 35WGM747-R002			Type: 3520M		Enclosure: ODP		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1.5	Full Load Torque		2.26 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		2.3/1.15	Breakdown Torque		12.5 LB-FT		
R.P.M.		3515	Pull-up Torque		7.8 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		11.1 LB-FT	
NEMA Design Code		B	KVA Code	M	Starting Current		22.6 A
Service Factor (S.F.)		1.15		No-load Current		1.11 A	
NEMA Nom. Eff.		85.5	Power Factor	81	Line-line Res. @ 25°C		7.34 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		21°C	
S.F. Amps		5.52/2.26		Temp. Rise @ S.F. Load		43°C	
				Locked-rotor Power Factor		51.9	
				Rotor inertia		0.0553 LB-FT2	

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	61	73	81	85	88	89
Efficiency	71.7	81.3	84.6	85.7	85.7	84.9	85.4
Speed	3573	3549	3527	3500	3473	3445	3462
Line amperes	1.2	1.42	1.69	2.04	2.42	2.84	2.12

ABB Motors and Mechanical Inc.

WINDING # 35WGM747

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 3515 RPM 460 V 3520M

TORQUES (LB-FT): PO=12.5 PU=7.8 LR=11.1 LRA=22.6





