

ABB BALDOR RELIANCE III

Customer information packet

SPM31116

1HP, 1760RPM, 3PH, 60HZ, 56H, 3520M, 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	1.000 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	NEMA PREMIUM 4 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	1.630 A @ 460.0 V 3.200 A @ 208.0 V 3.260 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	1.6 a

Part Detail

Revision	D
Type	AC
Mech. spec.	35E6250
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYE6250
Eff. date	06-07-2024
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	09-08-2023

Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	N
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Max Speed	2700 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	4
Overall Length	11.75 IN
Power Factor	67
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	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1760 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 #	SPM31116					WGT	37	LBS				
SPEC	35E6250G004					ENCL	ODP					
SER #						CC	010A	IP	23			
HP	1	MAG CUR				2.4/1.2						
VOLTS	230/460					NEMA NOM. EFF					85.5	
AMPS	3.26/1.63					PF	67					
RATING	40C AMB-CONT											
RPM	1760					MAX RPM		2700				
FRAME	56H	HZ	60	CODE		N	CLASS		F			
SER.F.	1.15	SF AMP	3.52/1.76				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	0.144	CT	6	TO	60	10:1					
ID LOGO	SL HZ	1.3	VT	3	TO	60	20:1					
							QR					
YR												

AC Induction Motor Performance Data

Record # 86927

Typical performance - not guaranteed values

Winding: 35WGG004-R007			Type: 3520M		Enclosure: OPEN		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1	Full Load Torque		2.97 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		3.26/1.63	Breakdown Torque		13.68 LB-FT		
R.P.M.		1760	Pull-up Torque		7.85 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		9.01 LB-FT	
NEMA Design Code		B	KVA Code	N	Starting Current		14.13 A
Service Factor (S.F.)		1.15	No-load Current		1.08 A		
NEMA Nom. Eff.		85.5	Power Factor	67	Line-line Res. @ 25°C		16.9 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		24°C
S.F. Amps		3.52/1.76	Temp. Rise @ S.F. Load		27°C		
			Locked-rotor Power Factor		61.5		
			Rotor inertia		0.144 lb-ft²		

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	30	47	60	69	76	79	73
Efficiency	72.1	81.7	84.7	85.7	85.5	84.7	85.6
Speed	1791	1784	1776	1768	1759	1750	1763
Line amperes	1.11	1.22	1.38	1.59	1.82	2.09	1.73

ABB Motors and Mechanical Inc.

WINDING # 35WGG004

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1760 RPM 460 V 3520M

TORQUES (LB-FT): PO=13.68 PU=7.85 LR=9.01 LRA=14.13





