

ABB BALDOR RELIANCE III

Customer information packet

EM31115-G

1HP, 3500RPM, 3PH, 60HZ, 56, 3512M, OPEN, F1, N

Class - None

Division - Not Applicable

Specifications

Enclosure	OPEN
Frame	56
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	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	UR CSA
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	1.450 A @ 460.0 V 2.900 A @ 230.0 V 3.000 A @ 208.0 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 Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	N
Type	AC
Mech. spec.	35E2520
Base	
Status	PRD/A
Elec. spec.	35WGP987
Layout	35LYE2520
Eff. date	01-12-2026
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	08-16-2016

High Voltage Full Load Amps	1.5 a
Insulation Class	H
Inverter Code	Not Inverter
KVA Code	K
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
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	2
Overall Length	11.07 IN
Power Factor	80
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 Extension Location	Pulley End
Shaft Ground Indicator	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

NP3553LUA									
CAT.NO.	EM31115-G								
SPEC.	35E2520P987G1								
HP	1								
VOLTS	230/460								
AMPS	2.9/1.45								
RPM	3500								
FRAME	56		HZ	60		PH	3		
SF	1.25	CODE	K	DES	B	CLASS	H		
NEMA NOM. EFF	80	PF	80						
RATING	40C AMB-CONT								
CC									
ENCL	OPEN	SN							
DE	6205		ODE	6203					
VPWM INVERTER READY	SFA 3.4/1.7								
CT30-60(2:1) VT3-60(20:1)									
USABLE AT	50HZ 1HP 190/380V 3.4/1.9A							SF1.0	

AC Induction Motor Performance Data

Record # 58816

Typical performance - not guaranteed values

Winding: 35WGP987-R007			Type: 3512M		Enclosure: OPEN		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1	Full Load Torque		1.47 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		2.9/1.45	Breakdown Torque		5.93 LB-FT		
R.P.M.		3500	Pull-up Torque		2.27 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		3.82 LB-FT	
NEMA Design Code		B	KVA Code	K	Starting Current		10.5 A
Service Factor (S.F.)		1.25	No-load Current		0.924 A		
NEMA Nom. Eff.		80	Power Factor	80	Line-line Res. @ 25°C		19.3 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		32°C
S.F. Amps		3.4/1.7	Temp. Rise @ S.F. Load		39°C		
			Locked-rotor Power Factor		66		
			Rotor inertia		0.0332 LB-FT2		

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	38	57	71	79	84	88	86
Efficiency	61.6	73.9	77.9	78.6	78.8	77.6	79.6
Speed	3573	3548	3522	3492	3456	3418	3464
Line amperes	0.969	1.07	1.25	1.47	1.75	2.06	1.72

ABB Motors and Mechanical Inc.

WINDING # 35WGP987

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 3500 RPM 460 V 3512M

TORQUES (LB-FT): PO=5.93 PU=2.27 LR=3.82 LRA=10.5





