

ABB BALDOR RELIANCE III

Customer information packet

ERM3116

1HP, 1770RPM, 3PH, 60HZ, 56H, 3520M, OPEN, F1, N

Class - None

Division - Not Applicable

Specifications

Enclosure	OPEN
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	CURUSEEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Resilient
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	3.200 A @ 230.0 V 3.200 A @ 208.0 V 1.600 A @ 460.0 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
Insulation Class	F

Part Detail

Revision	G
Type	AC
Mech. spec.	35E411
Base	
Status	PRD/A
Elec. spec.	35WGG004
Layout	35LYE411
Eff. date	01-05-2026
CD Diagram	CD0005
Poles	04
Leads	9#18 Y
Proprietary	False
Created date	01-10-2022

Inverter Code	Inverter Ready
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	3520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	11.42 IN
Power Factor	69
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Resilient Mount
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	0.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 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

NP3155L											
CAT.NO.	ERM3116										
SPEC.	35E411G004G1										
HP	1										
VOLTS	230/460										
AMP	3.2/1.6										
RPM	1770										
FRAME	56H		HZ	60				PH	3		
SER.F.	1.15	CODE	N	DES	B	CL	F				
F.L. AVG. EFF.	85.5	PF	69								
RATING	40C AMB-CONT										
CC											
DE	6203		ODE	6203							
ENCL	OPEN	SN									
	SFA 3.4/1.7										

Parts List

Part number	Description	Quantity
SA402537	SA 35E411G004G1	1.000 ea
RA393814	RA 35E411G004G1	1.000 ea
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
11XW0832G06	#8-32 X 3/8, TAPTITE II, HEX WSHR SLTD	1.000 ea
LD5000A01	LEAD ASSY, ML1400DF14 7" RING TRM EA END	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	2.000 ea
HW1003A10	WASHER, #10 EX TH LK, ZN X	2.000 ea
35EP3202A01	STD OPEN FR EP - RESILIENT MTD	1.000 ea
RM1000A02	CUSHION RING, MODEL 35 SAME AS A07	1.000 ea
HA6005A01	CLAMP, BASE	2.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	1.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	1.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	3.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3203A01	STD PU EP, OPEN RESIL MTG	1.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
RM1000A02	CUSHION RING, MODEL 35 SAME AS A07	1.000 ea
HA6005A01	CLAMP, BASE	2.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	1.000 ea
35CB4500	TERMINAL BOX LID STAMPED	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	2.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
SP1003A01	TERM. BOARD, MODE 35 SW X H-23655	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
35BA4002A01	RESILIENT BASE, STAMPED	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.017 ga
HA3100A28	THRUBOLT 10-32 X 8.187	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
NP3155L	ALUM SUPER-E UL CC "SEMS"	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A07	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 91625

Typical performance - not guaranteed values

Winding: 35WGG004-R001			Type: 3520M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1	Full Load Torque		2.982 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		3.2/1.6	Breakdown Torque		14.6 LB-FT		
R.P.M.		1770	Pull-up Torque		7.57 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		9.17 LB-FT	
NEMA Design Code		B	KVA Code		N		
Service Factor (S.F.)		1.15	Starting Current		14.6 A		
NEMA Nom. Eff.		85.5	Power Factor		69		
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		36°C
S.F. Amps		3.4/1.7	Temp. Rise @ S.F. Load		41°C		
			Locked-rotor Power Factor		61.549		
			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	29	45	58	67	73	78	71
Efficiency	71.1	81.2	84.7	85.8	86	85.6	85.9
Speed	1794	1787.3	1781.1	1774.3	1767.4	1759.4	1770
Line amperes	1.22	1.31	1.46	1.64	1.86	2.11	1.77

ABB Motors and Mechanical Inc.

WINDING # 35WGG004

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 1770 RPM 460 V 3520M

TORQUES (LB-FT): PO=14.6 PU=7.57 LR=9.17 LRA=14.6





