

ABB BALDOR RELIANCE III

Customer information packet

VEM31154

1.5HP, 1770RPM, 3PH, 60HZ, 56C, 3524M, OPEN, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	OPEN
Frame	56C
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	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	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	2.300 A @ 460.0 V 4.600 A @ 230.0 V 4.640 A @ 208.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	2.3 a
Insulation Class	F

Part Detail

Revision	H
Type	AC
Mech. spec.	35E4017
Base	
Status	PRD/A
Elec. spec.	35WGL955
Layout	35LYE4017
Eff. date	01-05-2026
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	01-10-2022

Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3524M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	13.23 IN
Power Factor	72
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
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

NP3155LUA											
CAT.NO.	VEM31154										
SPEC.	35E4017L955G1										
HP	1.5										
VOLTS	230/460										
AMPS	4.6/2.3										
RPM	1770										
FRAME	56C		HZ	60				PH	3		
SF	1.15		CODE	M	DES	B		CLASS	F		
F.L. AVG. EFF.	86.5		PF	72							
RATING	40C AMB-CONT										
CC											
DE	6205		ODE	6203							
ENCL	OPEN		SN								
USABLE AT	1.5HP 190/380V 50HZ 5.2/2.6A									SF1.0	

Parts List

Part number	Description	Quantity
SA402467	SA 35E4017L955G1	1.000 ea
RA393744	RA 35E4017L955G1	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 ea
51XB1016A06	10-16X3/8 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3209F00	MASTER ODE,203 BRG,DRIP CVR	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
35EP3402C00	MASTER DE,205 BRG,OPEN	1.000 ea
35AD2000	AIR BAFFLE - GALVANNEAL	1.000 ea
60XW0632A06	6-32 X 3/8 TORX HEAD SCREW TAPTITE II	4.000 ea
35FH4006A01SP	DRIP COVER,STAMPED,W/ PRIMER	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 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
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.017 ga
HA3100A15	THRUBOLT 10-32 X 8.375	4.000 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
NP3155LUA	ALUM SUPER-E UL CC "SEMS" "USABLE AT" VE	1.000 ea
PK3082	STYROFOAM CRADLE	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A07	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000011	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 95387

Typical performance - not guaranteed values

Winding: 35WGL955-R001			Type: 3524M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1.5	Full Load Torque		4.48 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		4.6/2.3	Breakdown Torque		18.8 LB-FT		
R.P.M.		1770	Pull-up Torque		9.6 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		12.6 LB-FT	
NEMA Design Code		B	KVA Code	M	Starting Current		19.7 A
Service Factor (S.F.)		1.15	No-load Current		1.51 A		
NEMA Nom. Eff.		86.5	Power Factor	72	Line-line Res. @ 25°C		11.8 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		48°C
S.F. Amps		5/2.5	Temp. Rise @ S.F. Load		57°C		
			Locked-rotor Power Factor		58.4		
			Rotor inertia		0.173 lb-ft²		

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	31	49	63	72	78	81	76
Efficiency	75.1	83.5	86	86.5	85.8	84.8	86.1
Speed	1792	1785	1777	1769	1760	1750	1764
Line amperes	1.56	1.72	1.97	2.28	2.65	3.06	2.5

ABB Motors and Mechanical Inc.

WINDING # 35WGL955

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 3524M

TORQUES (LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7





