

ABB BALDOR RELIANCE III

Customer information packet

VEM31120

1.5HP, 3490RPM, 3PH, 60HZ, 56C, 3518M, 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	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 208.0 V @ 60 HZ 230.0 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	2.000 A @ 460.0 V 4.000 A @ 230.0 V 4.200 A @ 208.0 V
Design Code	B
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	84.0 %
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	S
Type	AC
Mech. spec.	35E4017
Base	
Status	PRD/A
Elec. spec.	35WGM761
Layout	35LYE4017
Eff. date	01-05-2026
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	09-30-2014

High Voltage Full Load Amps	2.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	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	3518M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.22 IN
Power Factor	83
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3490 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.	VEM31120										
SPEC.	35E4017M761G1										
HP	1.5										
VOLTS	208-230/460										
AMPS	4.2-4/2										
RPM	3490										
FRAME	56C		HZ	60			PH	3			
SF	1.15		CODE	L	DES	B	CLASS	F			
F.L. AVG. EFF.	84		PF	83							
RATING	40C AMB-CONT										
CC											
DE	6205		ODE	6203							
ENCL	OPEN		SN								
USABLE AT	N/A										

Parts List

Part number	Description	Quantity
SA287808	SA 35E4017M761G1	1.000 ea
RA274013	RA 35E4017M761G1	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
HA3100A12	THRUBOLT 10-32 X 7.375	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
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A07	1.000 ea
PK3083	STYROFOAM PACKING CRADLE	1.000 ea
PK3088	MICROFOAM, 8"X"8 PERF. SHEETS	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 # 61779

Typical performance - not guaranteed values

Winding: 35WGM761-R013			Type: 3518M		Enclosure: OPEN		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		1.5	Full Load Torque		2.26 LB-FT		
Volts		208-230/460	Start Configuration		direct on line		
Full Load Amps		4.2-4/2	Breakdown Torque		9.32 LB-FT		
R.P.M.		3490	Pull-up Torque		4.18 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		6.79 LB-FT	
NEMA Design Code		B	KVA Code		L		
Service Factor (S.F.)		1.15	No-load Current		1.05 A		
NEMA Nom. Eff.		84	Power Factor		83		
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		24°C
S.F. Amps					Temp. Rise @ S.F. Load		29°C
					Locked-rotor Power Factor		64
					Rotor inertia		0.0493 LB-FT2

Load Characteristics 460 V, 60 Hz, 1.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	43	64	76	83	87	90	85
Efficiency	73.6	82.2	84.7	85	84.3	83	84.6
Speed	3574.4	3550.4	3524.4	3496.4	3465.2	3430	3478
Line amperes	1.14	1.35	1.63	1.99	2.41	2.84	2.24

ABB Motors and Mechanical Inc.

WINDING # 35WGM761

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 3490 RPM 460 V 3518M

TORQUES (LB-FT): PO=9.32 PU=4.18 LR=6.79 LRA=17.2





