

ABB BALDOR RELIANCE III

Customer information packet

VEM3120T

1.5HP, 3490RPM, 3PH, 60HZ, 143TC, 3518M, OPEN

Class - None

Division - Not Applicable

Specifications

Enclosure	OPEN
Frame	143TC
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 230.0 V @ 60 HZ 208.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM
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	4.200 A @ 208.0 V 4.000 A @ 230.0 V 2.000 A @ 460.0 V
Design Code	B
Drip Cover	No 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

Part Detail

Revision	X
Type	AC
Mech. spec.	35Z413
Base	
Status	PRD/A
Elec. spec.	35WGM761
Layout	35LYZ413
Eff. date	01-08-2026
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	04-27-2015

Heater Indicator	No Heater
High Voltage Full Load Amps	2.0 a
Insulation Class	F
Inverter Code	Inverter Ready
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	12.25 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	0.875 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

NP3553LUA									
CAT.NO.	VEM3120T								
SPEC.	35Z413M761G1								
HP	1.5								
VOLTS	208-230/460								
AMPS	4.2-4/2								
RPM	3490								
FRAME	143TC		HZ	60			PH	3	
SF	1.15	CODE	L	DES	B	CLASS	F		
NEMA NOM. EFF	84	PF	83						
RATING	40C AMB-CONT								
CC	010A								
ENCL	OPEN	SN							
DE	6205		ODE	6203					
VPWM INVERTER READY									
CT30-60(2:1) VT3-60(20:1)									
USABLE AT	50HZ 1.5HP 190/380V 4.6/2.3A							SF1.0	

AC Induction Motor Performance Data

Record # 62662

Typical performance - not guaranteed values

Winding: 35WGM761-R011			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	Starting Current		17.2 A
Service Factor (S.F.)		1.15	No-load Current		1.05 A		
NEMA Nom. Eff.		84	Power Factor	83	Line-line Res. @ 25°C		12.897 Ω
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





