

ABB BALDOR RELIANCE III

Customer information packet

VEM4106T

20HP, 3520RPM, 3PH, 60HZ, 256TC, 0936M, TEFC, F

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	256TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	208.0 V @ 60 HZ 230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM CURUSEEV NEMA PREMIUM (OLD LOGO)
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	23.000 A @ 460.0 V 46.000 A @ 230.0 V 50.000 A @ 208.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard

Part Detail

Revision	AF
Type	AC
Mech. spec.	09C103
Base	
Status	PRD/A
Elec. spec.	09WGZ601
Layout	09LYC103
Eff. date	04-07-2026
CD Diagram	CD0005
Poles	02
Leads	9#10
Proprietary	False
Created date	04-22-2015

Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	23.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0936M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	23.86 IN
Power Factor	89
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	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3520 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

NP3441LUA									
CAT.NO.	VEM4106T								
SPEC	09C103Z601G2								
HP	20								
VOLTS	208-230/460								
AMPS	50-46/23								
RPM	3520								
FRAME	256TC		HZ	60			PH	3	
SF	1.15		CODE	H	DES	A	CLASS	F	
NEMA NOM. EFF	91		PF	89					
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC	SER							
DE	6309		ODE	6208					
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									
50Hz 20HP 190/380V 56/28A									SF1.0

AC Induction Motor Performance Data

Record # 57538

Typical performance - not guaranteed values

Winding: 09WGZ601-R004			Type: 0936M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		20	Full Load Torque		29.6 LB-FT			
Volts		208-230/460	Start Configuration		direct on line			
Full Load Amps		50-46/23	Breakdown Torque		111 LB-FT			
R.P.M.		3520	Pull-up Torque		39.1 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque		49.6 LB-FT		
NEMA Design Code		A	KVA Code	H		Starting Current	161 A	
Service Factor (S.F.)		1.15		No-load Current		7.17 A		
NEMA Nom. Eff.		91	Power Factor	89		Line-line Res. @ 25°C		0.47592 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		76°C		
S.F. Amps				Temp. Rise @ S.F. Load		95°C		
				Locked-rotor Power Factor		29		
				Rotor inertia		0.92 lb-ft²		

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	58	78	86	89	90	90	90
Efficiency	88.9	92.2	92.4	91.7	90.7	89.2	91.1
Speed	3579.6	3561.5	3541.3	3519.5	3495.4	3467.8	3505
Line amperes	9	13	17.7	22.9	28.6	35	26.3

ABB Motors and Mechanical Inc.

WINDING # 09WGZ601

Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 3520 RPM 460 V 0936M

TORQUES (LB-FT): PO=111 PU=39.1 LR=49.6 LRA=161





