

ABB BALDOR RELIANCE III

Customer information packet

VEM3708T

5HP, 1165RPM, 3PH, 60HZ, 215TC, 3746M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	215TC
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	5.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 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	15.600 A @ 208.0 V 15.600 A @ 230.0 V 7.800 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	7.8 a

Part Detail

Revision	B
Type	AC
Mech. spec.	37A003
Base	
Status	PRD/A
Elec. spec.	37WGZ714
Layout	37LYA003
Eff. date	05-01-2026
CD Diagram	CD0005
Poles	06
Leads	9#14
Proprietary	False
Created date	11-07-2025

Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3746M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	20.50 IN
Power Factor	67
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	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1165 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.	VEM3708T								
SPEC	37A003Z714								
HP	5								
VOLTS	230/460								
AMPS	15.6/7.8								
RPM	1165								
FRAME	215TC		HZ	60			PH	3	
SF	1.15		CODE	K	DES	A	CLASS	H	
NEMA NOM. EFF	89.5		PF	67					
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC		SER						
DE	6307			ODE	6206				
VPWM INVERTER READY		SFA 17.3/8.64							
CT6-60H(10:1)VT3-60H(20:1									
50HZ 5HP 190/380V 17.4/8.7A									SF1.0

AC Induction Motor Performance Data

Record # 114241

Preliminary Data Sheet

Winding: 37WGZ714-R002			Type: 3746M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		5	Full Load Torque		22.45 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		15.6/7.8	Breakdown Torque		86.4 LB-FT	
R.P.M.		1165	Pull-up Torque		57.4 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque	62.6 LB-FT	
NEMA Design Code	A	KVA Code	K	Starting Current	59.4 A	
Service Factor (S.F.)		1.15	No-load Current		4.66 A	
NEMA Nom. Eff.	89.5	Power Factor	67	Line-line Res. @ 25°C	1.59 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		61°C	
S.F. Amps		17.3/8.64	Temp. Rise @ S.F. Load		74°C	
			Locked-rotor Power Factor		22.7	
			Rotor inertia		1.14 lb-ft²	

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	29	47	59	67	71	74	69
Efficiency	83	88.7	89.8	89.5	88.5	87.1	88.9
Speed	1192	1184	1176	1166	1156	1144	1160
Line amperes	4.92	5.65	6.58	7.8	9.21	10.83	8.65

ABB Motors and Mechanical Inc.

WINDING # 37WGZ714

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1165 RPM 460 V 3746M

TORQUES (LB-FT): PO=86.4 PU=57.4 LR=62.6 LRA=59.4



