

ABB BALDOR RELIANCE III

Customer information packet

VEM3561T

3HP, 1764RPM, 3PH, 60HZ, 145TC, 3630M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	145TC
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	3.000 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 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	4.160 A @ 460.0 V 8.320 A @ 230.0 V 8.800 A @ 208.0 V
Design Code	B
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	4.2 a

Part Detail

Revision	C
Type	AC
Mech. spec.	36J231
Base	
Status	PRD/A
Elec. spec.	36WGZ650
Layout	36LYJ231
Eff. date	04-16-2026
CD Diagram	CD0005
Poles	04
Leads	9#16
Proprietary	False
Created date	11-05-2025

Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	K
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 16 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3630M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	15.68 IN
Power Factor	74
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	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1764 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.	VEM3561T								
SPEC	36J231Z650								
HP	3								
VOLTS	230/460								
AMPS	8.4/4.2								
RPM	1765								
FRAME	145TC		HZ	60			PH	3	
SF	1.15		CODE	K	DES	B	CLASS	F	
NEMA NOM. EFF	89.5		PF	74					
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC		SER						
DE	6206		ODE	6205					
VPWM INVERTER READY			SFA 9.28/4.64						
CT6-60H(10:1)VT3-60H(20:1									
	50HZ 3HP 190/380V 9.6/4.8A							SF1.0	

AC Induction Motor Performance Data

Record # 115759

Typical performance - not guaranteed values

Winding: 36WGZ650-R001			Type: 3630M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		3	Full Load Torque		8.942 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		8.4/4.2	Breakdown Torque		38.2 LB-FT	
R.P.M.		1765	Pull-up Torque		19.1 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque		22.4 LB-FT	
NEMA Design Code		B KVA Code	Starting Current		32.2 A	
Service Factor (S.F.)		1.15	No-load Current		2.38 A	
NEMA Nom. Eff.		89.5 Power Factor	Line-line Res. @ 25°C		3.8717 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		46°C	
S.F. Amps		9.4/4.7	Temp. Rise @ S.F. Load		56°C	
			Locked-rotor Power Factor		42.6	
			Rotor inertia		0.279 lb-ft²	

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	33	54	67	74	79	81	77
Efficiency	82.2	88.4	89.8	89.8	89	87.9	89.3
Speed	1790.7	1781.4	1771.4	1761.2	1749.9	1738.7	1754
Line amperes	2.54	2.94	3.51	4.2	4.99	5.87	4.67

ABB Motors and Mechanical Inc.

WINDING # 36WGZ650

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 1765 RPM 460 V 3630M

TORQUES (LB-FT): PO=38.2 PU=19.1 LR=22.4 LRA=32.2



