

ABB BALDOR RELIANCE III

Customer information packet

VEM3161T

3HP, 1760RPM, 3PH, 60HZ, 145TC, 3628M, ODP, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	ODP
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	4.300 A @ 460.0 V 8.500 A @ 208.0 V 8.600 A @ 230.0 V
Design Code	B
Drip Cover	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	4.3 a

Part Detail

Revision	-
Type	AC
Mech. spec.	36M655
Base	
Status	PRD/A
Elec. spec.	36WGZ649
Layout	36LYM655
Eff. date	11-14-2025
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	3628M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	15.92 IN
Power Factor	78
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	1760 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.	VEM3161T								
SPEC.	36M655Z649								
HP	3								
VOLTS	230/460								
AMPS	8.6/4.3								
RPM	1760								
FRAME	145TC		HZ	60			PH	3	
SF	1.15		CODE	K	DES	B	CLASS	F	
NEMA NOM. EFF	89.5		PF	78					
RATING	40C AMB-CONT								
CC	010A								
ENCL	ODP		SN						
DE	6306		ODE	6205					
VPWM INVERTER READY		SFA 9.6/4.8							
CT30-60(2:1) VT3-60(20:1)									
USABLE AT	50HZ 3HP 190/380V 8.6/4.3A								SF1.0

AC Induction Motor Performance Data

Record # 115739

Typical performance - not guaranteed values

Winding: 36WGZ649-R001			Type: 3628M		Enclosure: OPSB		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		3	Full Load Torque		8.953 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		8.6/4.3	Breakdown Torque		35.1 LB-FT		
R.P.M.		1760	Pull-up Torque		19.1 LB-FT		
Hz		60	Phase		3	Locked-rotor Torque	21.2 LB-FT
NEMA Design Code		B	KVA Code		K	Starting Current	30.9 A
Service Factor (S.F.)		1.15	No-load Current		2.49 A		
NEMA Nom. Eff.		89.5	Power Factor		78	Line-line Res. @ 25°C	4.2111 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		25°C
S.F. Amps		9.6/4.8	Temp. Rise @ S.F. Load		30°C		
			Locked-rotor Power Factor		44.1		

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	32	52	66	73	78	81	76
Efficiency	82.9	88.8	90.2	90.1	89.4	88.2	89.7
Speed	1791.6	1783	1773.2	1763.4	1753.4	1742	1757
Line amperes	2.65	3.04	3.59	4.26	5.03	5.89	4.72

ABB Motors and Mechanical Inc.

WINDING # 36WGZ649

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 1760 RPM 460 V 3628M

TORQUES (LB-FT): PO=35.1 PU=19.1 LR=21.2 LRA=30.9





