

ABB BALDOR RELIANCE III

Customer information packet

VEM3311T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 3734M, ODP, F

Class - None

Division - Not Applicable

Specifications

Enclosure	ODP
Frame	213TC
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	7.500 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	19.600 A @ 230.0 V 20.600 A @ 208.0 V 9.800 A @ 460.0 V
Design Code	A
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.8 a

Part Detail

Revision	D
Type	AC
Mech. spec.	37K446
Base	
Status	PRD/A
Elec. spec.	37WGL863
Layout	37LYK446
Eff. date	06-11-2024
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	01-29-2021

Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
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	3734M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	18.91 IN
Power Factor	79
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	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 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.		VEM3311T														
SPEC.		37K446L863G1														
HP		7.5														
VOLTS		230/460														
AMPS		19.6/9.8														
RPM		1770														
FRAME		213TC		HZ		60		PH		3						
SF		1.15	CODE		J	DES	A	CLASS		F						
NEMA NOM. EFF		91	PF		79											
RATING		40C AMB-CONT														
CC		010A														
ENCL		ODP	SN													
DE		6307		ODE		6206										
VPWM INVERTER READY																
CT30-60(2:1) VT3-60(20:1)																
USABLE AT		50HZ 7.5HP 190/380V 23.2/11.6A										SF1.0				

AC Induction Motor Performance Data

Record # 85452

Preliminary Data Sheet

Winding: 37WGL863-R001			Type: 3734M		Enclosure: OPSB			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		7.5	Full Load Torque		22.2 LB-FT			
Volts		230/460	Start Configuration		direct on line			
Full Load Amps		19.6/9.8	Breakdown Torque		74.8 LB-FT			
R.P.M.		1770	Pull-up Torque		37.1 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque		45.4 LB-FT		
NEMA Design Code		A	KVA Code	J	Starting Current		72 A	
Service Factor (S.F.)		1.15		No-load Current		4.87 A		
NEMA Nom. Eff.		91	Power Factor		79	Line-line Res. @ 25°C		1.67 Ω
Rating - Duty		40C		AMB-CONT		Temp. Rise @ Rated Load		35°C
S.F. Amps		22.0/11.0				Temp. Rise @ S.F. Load		47°C
						Locked-rotor Power Factor		45.8
						Rotor inertia		0.836 lb-ft²

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	39	60	73	79	82	83	81
Efficiency	85	90.1	91.1	90.9	90.1	89	90.3
Speed	1793	1786	1779	1772	1764	1755	1766
Line amperes	5.34	6.47	7.99	9.87	11.9	14.2	11.1

ABB Motors and Mechanical Inc.

WINDING # 37WGL863

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1770 RPM 460 V 3734M

TORQUES (LB-FT): PO=74.8 PU=37.1 LR=45.4 LRA=72





