

ABB BALDOR RELIANCE III

Customer information packet

VEDM3710T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 3738M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
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	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
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
Constant Torque Speed Range	6
Current @ Voltage	9.500 A @ 460.0 V 20.000 A @ 208.0 V 19.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated

Part Detail

Revision	J
Type	AC
Mech. spec.	37N865
Base	
Status	PRD/A
Elec. spec.	37WGR872
Layout	37LYN865
Eff. date	07-09-2021
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	04-22-2016

Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.76 IN
Power Factor	80
Product Family	Dirty Duty Plus
Pulley End Bearing Type	Sealed Bearing
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 Extension Location	Pulley End
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

NP3504											
CAT NO	VEDM3710T										
SPEC.	37N865R872G1						ENCL	TEFC			
FRAME	213TC	HP		7.5							
VOLTS	230/460										
FLA	19/9.5			I.P.		56					
RPM	1770	RPM MAX				2700					
HZ	60	PH	3	CLASS		F					
SER.F.	1.15	DES	A	CC		010A					
NEMA-NOM-EFF	91.7										
RATING	40C AMB-CONT										
DE BRG	6307	ODE BRG				6206					
GREASE	POLYREX EM										
C HP FR	60	C HP TO		90							
CT HZ FROM	6	CT HZ TO		60		VT HZ FROM		6	VT HZ TO		60
SER.NO	50C AT 1.0 SF										

AC Induction Motor Performance Data

Record # 55756

Typical performance - not guaranteed values

Winding: 37WGR872-R013			Type: 3738M		Enclosure: TEFC	
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		19/9.5	Breakdown Torque		70.9 LB-FT	
R.P.M.		1770	Pull-up Torque		32.6 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque		43 LB-FT	
NEMA Design Code		A KVA Code	Starting Current		70.9 A	
Service Factor (S.F.)		1.15	No-load Current		4.31 A	
NEMA Nom. Eff.		91.7 Power Factor	Line-line Res. @ 25°C		1.41 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		63°C	
S.F. Amps			Temp. Rise @ S.F. Load		78°C	
			Locked-rotor Power Factor		37.2	
			Rotor inertia		0.934 LB-FT2	

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	42	64	75	80	83	84	82
Efficiency	87.1	91.6	92	92	91.1	89.8	91.5
Speed	1793	1786	1778	1770	1760	1750	1764
Line amperes	4.83	6.02	7.6	9.5	11.6	13.9	10.8

ABB Motors and Mechanical Inc.

WINDING # 37WGR872

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1770 RPM 460 V 3738M

TORQUES (LB-FT): PO=70.9 PU=32.6 LR=43 LRA=70.9





