



Customer information packet

VZDNM3704T

3HP, 1170RPM, 3PH, 60HZ, 213TC, 3748M, TENV, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
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	3.000 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	CSA EEV 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
Current @ Voltage	4.600 A @ 460.0 V 9.200 A @ 230.0 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	ENCODER
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	4.6 a

Part detail

Revision	-
Type	AC
Mech. spec.	37T707
Base	
Status	PRD/A
Elec. spec.	37WGZ682
Layout	37LYT707
Eff. date	05-30-2025
CD Diagram	CD0005
Poles	06
Leads	9#14
Proprietary	False
Created date	05-13-2025

Insulation Class	H
Inverter Code	Inverter Duty
KVA Code	L
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1800 rpm
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3748M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	21.72 IN
Power Factor	68
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.375 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1170 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3943L				
CAT.NO.	VZDNM3704T			
SPEC.	37T707Z682Z1			
FRAME	213TC	H.P.	3 TE	
VOLTS	230/460 ENCL TENV			
MAG. CUR.	5.2/2.6		F.L. AMPS	9.2/4.6
R.P.M.	1170	R.P.M. MAX		1800
HZ.	60	PH.	3	CLASS H
SER.F.	1.00	SL HZ		1.5
NEMA NOM. EFF.	89.5	WK2	1.19	
RATING	40C AMB-CONT			
DE	6307	ODE	6206	
CC	010A	SN		
	1000:1 CT 1.5:1 CHP			
	1.15 SF ON SINEWAVE			

AC Induction Motor Performance Data

Record # 108360

Typical performance - not guaranteed values

Winding: 37WGZ682-R001			Type: 3748M		Enclosure: TENV		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		3	Full Load Torque		13.44 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		9.2/4.6	Breakdown Torque		51.8 LB-FT		
R.P.M.		1170	Pull-up Torque		34.2 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		41.3 LB-FT	
NEMA Design Code		A	KVA Code	L	Starting Current		36.2 A
Service Factor (S.F.)		1.15		No-load Current		2.61 A	
NEMA Nom. Eff.		89.5	Power Factor	68	Line-line Res. @ 25°C		2.17 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		33°C	
S.F. Amps		10.2/5.1		Temp. Rise @ S.F. Load		39°C	
				Locked-rotor Power Factor		21.8	
				Rotor inertia		1.19 LB-FT2	

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	31	49	61	68	72	75	70
Efficiency	81.5	88.5	90.5	90.4	90	88.3	90.2
Speed	1191	1185	1179	1172	1163	1154	1167
Line amperes	2.82	3.25	3.86	4.57	5.4	6.34	5.07

ABB Motors and Mechanical Inc.

WINDING # 37WGZ682

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 1170 RPM 460 V 3748M

TORQUES (LB-FT): PO=51.8 PU=34.2 LR=41.3 LRA=36.2





