

ABB BALDOR RELIANCE III

Customer information packet

VFSWDM3709T-E

7.5HP, 3500RPM, 3PH, 60HZ, 213TC, 3734M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	213TC
Frame Material	Stainless 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	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA 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	8.300 A @ 460.0 V 19.900 A @ 208.0 V 16.800 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

Part Detail

Revision	M
Type	AC
Mech. spec.	37Q227
Base	
Status	PRD/A
Elec. spec.	37WGS136
Layout	37LYQ227
Eff. date	09-22-2023
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	07-10-2017

Heater Indicator	No Heater
High Voltage Full Load Amps	8.3 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	K
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	2
Overall Length	19.49 IN
Power Factor	93
Product Family	WD All SS Encapsulated
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 Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3500 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

NP4427AAA01												
CAT #	VFSWDM3709T-E					WT	131		LBS			
SPEC	37Q227S136G1					ENCL	TEFC					
SER #						CC	010A		IP	69		
HP	7.5		MAG CUR			6.4/3.2						
VOLTS	230/460					NEMA NOM. EFF					91	
AMPS	16.8/8.3					PF		93				
RATING	40C AMB-CONT											
RPM	3500					MAX RPM		5400				
FRAME	213TC		HZ	60		CODE	K		CLASS	H		
SER.F.	1.15		SF AMP			PH		3		DES	A	
DE	6307		ODE		6307							
LUBRICATION	POLYREX EM											
ID LOGO	INVERTER TYPE			VPWM		CHP	60		TO	90		1.5:1
ID LOGO	WK2	0.311		CT	15		TO	60		4:1		
ID LOGO	SL HZ	1.7		VT	6		TO	60		10:1		
							QR					
YR												

AC Induction Motor Performance Data

Record # 57387

Typical performance - not guaranteed values

Winding: 37WGS136-R005			Type: 3734M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		7.5	Full Load Torque		11.5 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		16.8/8.3	Breakdown Torque		66.3 LB-FT	
R.P.M.		3500	Pull-up Torque		25.8 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque		36.7 LB-FT	
NEMA Design Code		A	KVA Code		K	
Service Factor (S.F.)		1.15	Starting Current		86.2 A	
NEMA Nom. Eff.		91	Power Factor		93	
Rating - Duty		40C AMB-CONT	Line-line Res. @ 25°C		0.913 Ω	
S.F. Amps			Temp. Rise @ Rated Load		47°C	
			Temp. Rise @ S.F. Load		56°C	
			Locked-rotor Power Factor		32.4	
			Rotor inertia		0.311 LB-FT2	

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	85	89	94	95	100	95
Efficiency	84.7	90.9	92.1	92	91.4	90.7	91.6
Speed	3584	3564	3541	3520	3498	3481	3508
Line amperes	3.54	4.72	6.63	8.32	10.3	11.8	9.5

ABB Motors and Mechanical Inc.

WINDING # 37WGS136

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3500 RPM 460 V 3734M

TORQUES (LB-FT): PO=66.3 PU=25.8 LR=36.7 LRA=86.2





