

ABB BALDOR RELIANCE III

Customer information packet

VDM3538

.5HP, 1725RPM, 3PH, 60HZ, 56C, 3420M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	56C
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	.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 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	1.600 A @ 208.0 V 1.800 A @ 230.0 V .900 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	75.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	M
Type	AC
Mech. spec.	34M808
Base	
Status	PRD/A
Elec. spec.	34WG0097
Layout	34LYM808
Eff. date	12-01-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	04-18-2016

Heater Indicator	No Heater
High Voltage Full Load Amps	0.9 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	M
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3420M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	11.35 IN
Power Factor	69
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	1.25
Shaft Diameter	0.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1725 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

NP3659																					
CAT.NO.	VDM3538																				
SPEC.	34M808-0097G1			ENCL	TEFC																
FRAME	56C	H.P.	.5																		
VOLTS	230/460																				
AMPS	1.8/.9			IP	56																
R.P.M.	1725																				
HZ.	60	PH.	3	CLASS	F																
SER.F.	1.25	DES.	B	CC																	
NEMA NOM. EFF.	75.5																				
RATING	40C AMB-CONT																				
DE	6203	ODE	6203																		
GREASE	POLYREX EM																				
SN																					
	50C AT 1.0SF																				
	SFA 2/1																				

AC Induction Motor Performance Data

Record # 55809

Typical performance - not guaranteed values

Winding: 34WG0097-R039			Type: 3420M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		.5	Full Load Torque		1.5 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		1.8/.9	Breakdown Torque		6.8 LB-FT	
R.P.M.		1725	Pull-up Torque		4.6 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque	5.8 LB-FT	
NEMA Design Code	B	KVA Code	M	Starting Current	7 A	
Service Factor (S.F.)		1.25	No-load Current		0.54 A	
NEMA Nom. Eff.	75.5	Power Factor	69	Line-line Res. @ 25°C	27.5 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		45°C	
S.F. Amps		2/1	Temp. Rise @ S.F. Load		54°C	
			Locked-rotor Power Factor		56.3	
			Rotor inertia		0.0476 LB-FT ²	

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	36	53	64	71	77	84	77
Efficiency	55	69	74.4	78	75.7	74.4	75.7
Speed	1787	1774	1760	1749	1728	1717	1728
Line amperes	0.6	0.65	0.74	0.84	1	1.1	1

ABB Motors and Mechanical Inc.

WINDING # 34WG0097

Typical performance - not guaranteed values.

0.5 HP 3 PH 60 HZ 1725 RPM 460 V 3420M

TORQUES (LB-FT): PO=6.8 PU=4.6 LR=5.8 LRA=7





