

ABB BALDOR RELIANCE III

Customer information packet

SPM3538

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

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	56H
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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	C UR US WEEE
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	1.500 A @ 230.0 V .750 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	81.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	0.8 a
Insulation Class	F

Part Detail

Revision	C
Type	AC
Mech. spec.	34T120
Base	
Status	PRD/A
Elec. spec.	34WGR771
Layout	34LYT120
Eff. date	02-27-2025
CD Diagram	CD0005
Poles	04
Leads	9#18
Proprietary	False
Created date	09-12-2023

Inverter Code	Not Inverter
KVA Code	K
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
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	12.84 IN
Power Factor	76
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.25
Shaft Diameter	0.625 IN
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

NP4558A02LL												
CAT #	SPM3538			WGT	27		LBS					
SER #				ENCL			TEFC					
SPEC	34T120R771			CC				IP		54		
HP	.5						NEMA NOM. EFF				81.5	
VOLTS	230/460			PF		76						
AMPS	1.5/.75											
RATING	40C AMB-CONT											
RPM	1725			PH		3		DES		B		
FRAME	56H	HZ	60	CODE		K		CLASS		F		
SER.F.	1.25	SF AMP	1.76/.88									
DE	6203		ODE	6203								
GREASE	POLYREX EM											
						QR						
YR												

AC Induction Motor Performance Data

Record # 100716

Preliminary Data Sheet

Winding: 34WGR771-R001			Type: 3420M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		.5	Full Load Torque		1.51 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		1.5/.75	Breakdown Torque		5.3 LB-FT		
R.P.M.		1725	Pull-up Torque		3.5 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		4.1 LB-FT	
NEMA Design Code		B	KVA Code	K	Starting Current		5.4 A
Service Factor (S.F.)		1.25	No-load Current		0.46 A		
NEMA Nom. Eff.		81.5	Power Factor	76	Line-line Res. @ 25°C		30.4 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		41°C
S.F. Amps		1.76/.88	Temp. Rise @ S.F. Load		54°C		
			Locked-rotor Power Factor		54.5		
			Rotor inertia		0.0476 lb-ft²		

Load Characteristics 460 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	37	56	69	76	80	82	80
Efficiency	66.3	77.5	81.1	81.9	81.7	80.6	81.7
Speed	1779	1762	1744	1725	1704	1681	1704
Line amperes	0.48	0.55	0.63	0.75	0.88	1.03	0.88

ABB Motors and Mechanical Inc.

WINDING # 34WGR771

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

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=5.3 PU=3.5 LR=4.1 LRA=5.4





