

ABB BALDOR RELIANCE III

Customer information packet

IR3504M

.5HP, 1725RPM, 1PH, 60HZ, 56, 3421L, TEFC, F1, N

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	56
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Cap Start, Induction Run
Output @ Frequency	.500 HP @ 60 HZ
Phase	1
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 208.0 V @ 60 HZ 115.0 V @ 60 HZ
Agency Approvals	CSA UR
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	7.400 A @ 115.0 V 3.700 A @ 230.0 V 3.600 A @ 208.0 V
Design Code	N
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	68.0 %
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.	34S040
Base	
Status	PRD/A
Elec. spec.	34WGS193
Layout	34LYS040
Eff. date	08-15-2025
CD Diagram	CD0637A02
Poles	04
Leads	6#18,1#16 #4TH
Proprietary	False
Created date	03-31-2017

Heater Indicator	No Heater
High Voltage Full Load Amps	3.6 a
Insulation Class	B
Inverter Code	Not Inverter
KVA Code	J
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3421L
Mounting Arrangement	F1
Number of Poles	4
Overall Length	11.97 IN
Power Factor	66
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
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	Manual Thermal Overload



Winding Thermal 1 Location	KO
Winding Thermal 2	None

Nameplate

NP1257L									
CAT.NO.	IR3504M								
SPEC.	34S040S193G1								
HP	.5								
VOLTS	115/208-230								
AMP	7.4/3.6-3.7								
RPM	1725								
FRAME	56			HZ	60			PH	1
SER.F.	1.00		CODE	J		DES	N	CL	B
NEMA-NOM-EFF	68		PF	66					
RATING	40C AMB-CONT								
CC									
DE	6203		ODE	6203					
ENCL	TEFC		SN						

Parts List

Part number	Description	Quantity
SA336742	SA 34S040S193G1	1.000 ea
RA324996	RA 34S040S193G1	1.000 ea
EC1270A02SP	ELEC CAP, 270-324 MFD, 125V, 1.48D X 3.	1.000 ea
ES5200	115/40A,L ,IR ,165CO,1.8D*3.4*4-7-5104	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
34CB3002A	CB CAST W/.88 DIA HOLE	1.000 ea
34GS1029A01	GASKET, CONDUIT BOX	1.000 ea
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
34EP3102A01SP	FR ENDPLATE, MACH	1.000 ea
34CB3801	CAPACITOR BOX, DIE CAST	1.000 ea
34GS3002	GASKET, CAPACITOR BOX	1.000 ea
51XB1214A08	12-14 X 1/2HX WS SL SR TYBX	2.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
34EP3102A02SP	FR/PU ENDPLATE, MACH	1.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
34FN3002A01SP	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
34FH4002A01SP	IEC FH NO GREASER PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
34CB4517	CB LID 4 MTG HOLES .22 DIA STAMPED, FOR	1.000 ea
34GS1031A01	GASKET, FLAT CONDUIT BOX LID (LEXIDE)	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A04	KEY RETAINER 0.625 DIA SHAFTS	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.005 lb
WD1000A16	2-520128-2 AMP FLAG TERMINAL(4M/RL)	4.000 ea
34GS5003A01	FOAM SLEEVE, ID = 2 1/16" X 4 3/8"	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.014 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
HA3100A44	THRUBOLT 10-32 X 8.000	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

LB1087	LABEL,MANUAL RESET (ROLL LABEL)	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
NP1257L	ALUM UL CC THERMAL REV MTG	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A07	1.000 ea

AC Induction Motor Performance Data

Record # 63561

Typical performance - not guaranteed values

Winding: 34WGS193-R003				Type: 3421L		Enclosure: TEFC	
Nameplate Data				115 V, 60 Hz: Low Voltage Connection			
Rated Output (HP)		.5		Full Load Torque		1.5 LB-FT	
Volts		115/208-230		Start Configuration		direct on line	
Full Load Amps		7.4/3.6-3.7		Breakdown Torque		4.13 LB-FT	
R.P.M.		1725		Pull-up Torque		3.6 LB-FT	
Hz	60	Phase	1	Locked-rotor Torque		4.65 LB-FT	
NEMA Design Code		N	KVA Code	J	Starting Current		33 A
Service Factor (S.F.)		1		No-load Current		5.6 A	
NEMA Nom. Eff.		68	Power Factor	66	Line-line Res. @ 25°C		1.06 Ω A Ph 3.13 Ω B Ph
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		63°C	
				Locked-rotor Power Factor		91.9	
				Rotor inertia		0.0499 LB-FT2	

Load Characteristics 115 V, 60 Hz, 0.5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	35	47	57	64	70	72
Efficiency	42	58	65.3	68	69.2	67.9
Speed	1783	1765	1750	1730	1710	1680
Line amperes	5.6	6	6.6	7.4	8.2	9.6

ABB Motors and Mechanical Inc.

WINDING # 34WGS193

Typical performance - not guaranteed values.

0.5 HP 1 PH 60 HZ 1725 RPM 115 V 3421L

TORQUES (LB-FT): PO=4.13 PU=3.6 LR=4.65 LRA=33





