

ABB BALDOR RELIANCE III

Customer information packet

EL3509

1HP, 3450RPM, 1PH, 60HZ, 56/56H, 3520LC, TEFC

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	Cap Start, Cap Run
Output @ Frequency	1.000 HP @ 60 HZ
Phase	1
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 115.0 V @ 60 HZ 208.0 V @ 60 HZ
Agency Approvals	C UR US
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	4.700 A @ 230.0 V 5.000 A @ 208.0 V 9.400 A @ 115.0 V
Design Code	N
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	74.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	X
Type	AC
Mech. spec.	35J385
Base	
Status	PRD/A
Elec. spec.	35WGM131
Layout	35LYJ385
Eff. date	06-15-2026
CD Diagram	CD0055
Poles	02
Leads	4#16 A PH,2#18 B PH
Proprietary	False
Created date	11-07-2008

High Voltage Full Load Amps	4.7 a
Insulation Class	B
Inverter Code	Not Inverter
KVA Code	H
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	4 @ 16 AWG, A PH
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3520LC
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.91 IN
Power Factor	94
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
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	3450 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

NP2116L											
CAT.NO.	EL3509										
SPEC.	35J385M131G1										
HP	1										
VOLTS	115/208-230										
AMP	9.4/5-4.7										
RPM	3450										
FRAME	56H			HZ		60		PH		1	
SER.F.	1.25	CODE	H	DES		N	CL	B			
NEMA-NOM-EFF	74	PF	94								
RATING	40C AMB-CONT										
CC											
DE	6205	ODE		6203							
ENCL	TEFC	SN									
	SFA 11.6/6.9-6.8										

Parts List

Part number	Description	Quantity
SA177174	SA 35J385M131G1	1.000 ea
RA165223	RA 35J385M131G1	1.000 ea
OC3035F09SP	CYL OIL CAP 35MFD/370V	1.000 ea
EC1645A06SP	ELEC CAP, 645-774 MFD, 125V, 2.06D X 4.	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3007	35 CB CASTING W/.88 DIA. LEAD HOLE	1.000 ea
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	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
35EP3122K00	MASTER ODE,203 BRG,.683SH,#26 DRN,FH MTG	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	2.000 ea
35CB3801	CAPACITOR COVER, CAST	1.000 ea
34GS3002	GASKET, CAPACITOR BOX	1.000 ea
HA7010	CAPACITOR RETENTION CLAMP	1.000 ea
51XB1016A08	10-16X 1/2HXWSSLD SERTYB	2.000 ea
NS2501A02	INSULATOR, CAPACITOR BOX	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3123A00	MASTER DE,205 BRG,.998SH,#26 DRN	1.000 ea
XY1032A02	10-32 HEX NUT DIRECTIONAL SERRATION	4.000 ea
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 ea
35FH4005A32	IEC FH NO GRSR W/3 HOLES - PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
35CB4521GX	CONDUIT BOX LID KIT **ORDER INDIV PARTS	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
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
WD1000A15	3-520132-2 AMP FLAG (4M/RL NON-CANC/NON-	4.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
35FN3002A05SP	EXFN, PLASTIC, 6.376 OD, .638 ID	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.017 ga

LC0001A01	CONN LABEL / WARNING LABEL (LC0001 / LB1	1.000 ea
NP2116L	ALUM SUPER-E UL CC	1.000 ea
HA3100A18	THRUBOLT 10-32 X 9.250	4.000 ea
SP5181A01	MODEL 35 LC TORQ STAT SWITCH LEAD ASSY	1.000 ea
35PA1066	PKG GRP, PRINT PK1008A07	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 83315

Preliminary Data Sheet

Winding: 35WGM131-R012			Type: 3520LC		Enclosure: TEFC		
Nameplate Data				115 V, 60 Hz: Low Voltage Connection			
Rated Output (HP)		1		Full Load Torque		1.5 LB-FT	
Volts		115/208-230		Start Configuration		direct on line	
Full Load Amps		9.4/5-4.7		Breakdown Torque		4.12 LB-FT	
R.P.M.		3450		Pull-up Torque		3.55 LB-FT	
Hz	60	Phase	1	Locked-rotor Torque		4.84 LB-FT	
NEMA Design Code		N	KVA Code	H		Starting Current	75.9 A
Service Factor (S.F.)		1		No-load Current		2.98 A	
NEMA Nom. Eff.		74	Power Factor	94		Line-line Res. @ 25°C	0.517 Ω A Ph 1.77 Ω B Ph
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		45°C	

Load Characteristics 115 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	82	91	94	95	94	93
Efficiency	48.3	63.9	70.8	73.3	74	73.1
Speed	3563	3537	3509	3477	3441	3397
Line amperes	4.16	5.66	7.39	9.29	11.5	13.9

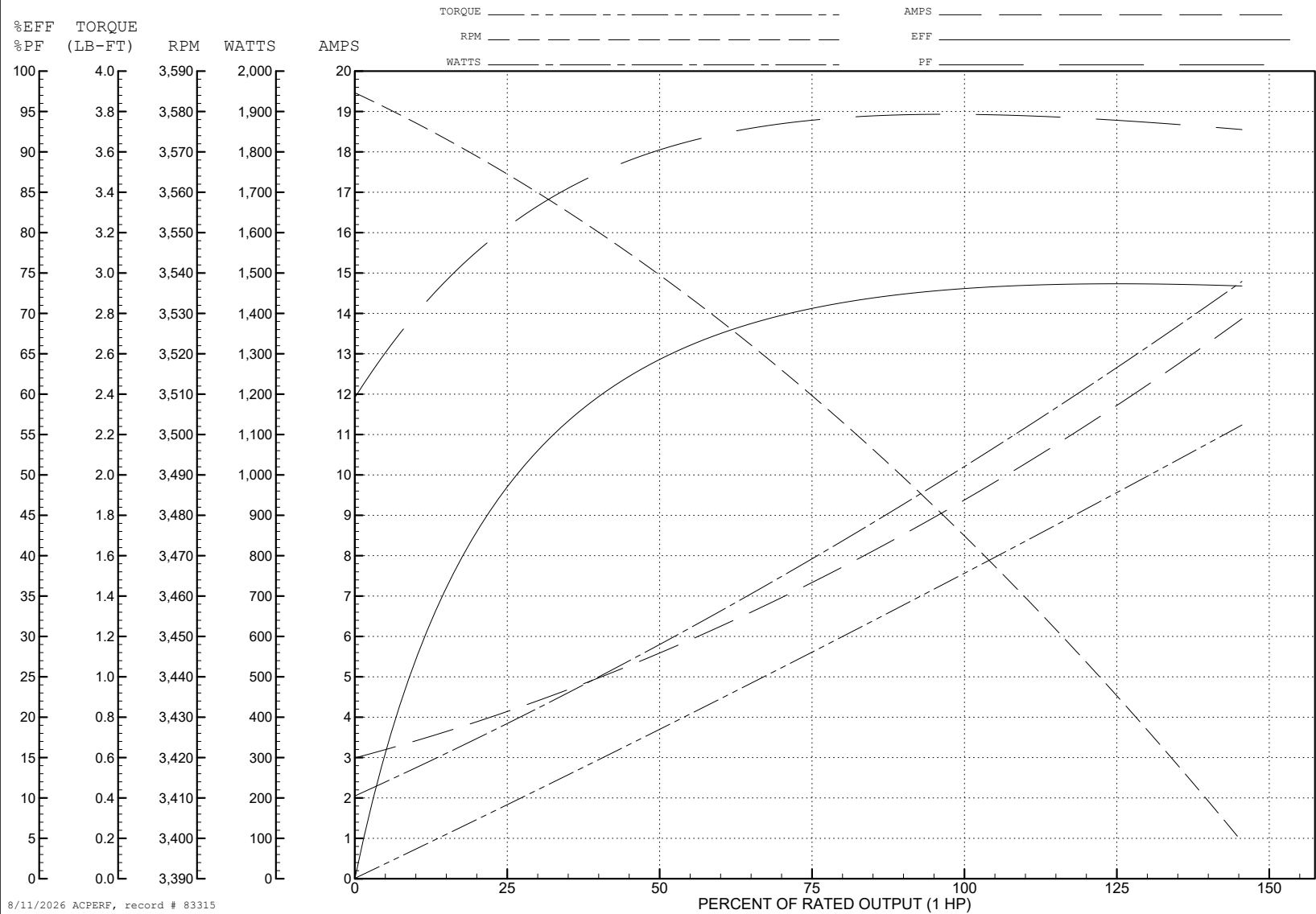
ABB Motors and Mechanical Inc.

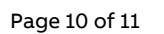
WINDING # 35WGM131

Typical performance - not guaranteed values.

1 HP 1 PH 60 HZ 3450 RPM 115 V 3520LC

TORQUES (LB-FT) : PO=4.12 PU=3.55 LR=4.84 LRA=75.9





CD0055

