

ABB BALDOR RELIANCE III

Customer information packet

EM3309T

5HP, 1160RPM, 3PH, 60HZ, 215T, 3744M, OPSB, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	OPSB
Frame	215T
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	5.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM NEMA PREMIUM (OLD LOGO)
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	15.200 A @ 208.0 V 7.400 A @ 460.0 V 14.800 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	Y
Type	AC
Mech. spec.	37F614
Base	
Status	PRD/A
Elec. spec.	37WGS521
Layout	37LYF614
Eff. date	05-11-2026
CD Diagram	CD0005
Poles	06
Leads	9#14
Proprietary	False
Created date	04-11-2008

Heater Indicator	No Heater
High Voltage Full Load Amps	7.4 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3744M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	17.45 IN
Power Factor	71
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1160 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

NP1259LUA											
CAT.NO.	EM3309T										
SPEC.	37F614S521G1										
HP	5										
VOLTS	230/460										
AMPS	14.8/7.4										
R.P.M.	1160										
FRAME	215T		HZ	60				PH	3		
SER.F.	1.15		CODE	K	DES	A		CLASS	F		
NEMA NOM. EFF.	89.5		P.F.	71							
RATING	40C AMB-CONT										
CC	010A										
DE	6307		ODE	6206							
ENCL	OPSB		SN								
USABLE AT	50HZ 5HP 190/380V 17.2/8.6A									SF1.0	

Parts List

Part number	Description	Quantity
SA170012	SA 37F614S521G1	1.000 ea
RA158268	RA 37F614S521G1	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
37CB3006	37 CB CASTING W/1.38 LEAD HOLE @ 6:00	1.000 ea
51XW2520A10	.25-20 X .62, TAPTITE II, HEX WSHR SLTD	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
37EP3203A00	MASTER,ODE,206 BRG,GREASER	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
37EP3204D00	MASTER,DE,307 BRG,GREASER	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
37CB4516	LIPPED LID FOR 37 FRAME NEC KOBX	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3104A35	THRUBOLT .31-18 X 13.687	4.000 ea
37AD2001A01	BAFFLE PLATE, PLASTIC 0.63" WIDTH	2.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.028 ga
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP1259LUA	ALUM SUPER-E UL CC NEMA PREMIUM "USABLE	1.000 ea
37PA1074	PALLET PACK GRP, PRINT BOX PK1026A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

Accessories

Part number	Description	Multiplier
37-1404	C FACE KIT	A8

AC Induction Motor Performance Data

Record # 53393

Typical performance - not guaranteed values

Winding: 37WGS521-R008			Type: 3744M		Enclosure: OPSB	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		5	Full Load Torque		22.5 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		14.8/7.4	Breakdown Torque		77.9 LB-FT	
R.P.M.		1160	Pull-up Torque		47.4 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque	54.8 LB-FT	
NEMA Design Code	A	KVA Code	K	Starting Current	53 A	
Service Factor (S.F.)		1.15	No-load Current		3.84 A	
NEMA Nom. Eff.	89.5	Power Factor	71	Line-line Res. @ 25°C	1.7514 Ω	
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load		33°C	
S.F. Amps			Temp. Rise @ S.F. Load		41°C	
			Locked-rotor Power Factor		23	
			Rotor inertia		1.09 LB-FT2	

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	33	53	65	71	74	76	73
Efficiency	84.5	89.4	90.1	89.5	88.3	86.5	88.8
Speed	1191.9	1183.8	1173.7	1164.6	1153.5	1139.2	1158
Line amperes	4.14	4.95	6.08	7.36	8.92	10.7	8.3

ABB Motors and Mechanical Inc.

WINDING # 37WGS521

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1160 RPM 460 V 3744M

TORQUES (LB-FT): PO=77.9 PU=47.4 LR=54.8 LRA=53





