

BALDOR® • RELIANCE 

Product Information Packet

EM3309T-BG

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

Part Detail							
Revision:	J	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	37WGS521	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	37N346	Layout:	37LYN346	Poles:	06	Created Date:	10-28-2013
Base:	RG	Eff. Date:	07-18-2019	Leads:	9#14		

Specs			
Catalog Number:	EM3309T-BG	Insulation Class:	H
Enclosure:	OPSB	Inverter Code:	Inverter Ready
Frame:	215T	KVA Code:	K
Frame Material:	Steel	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	5.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1200 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 14 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	3744M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	71
	CSA EEV	Product Family:	General Purpose
	UR	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Extension Location:	Pulley End
Blower:	None	Shaft Ground Indicator:	Shaft Grounding

Current @ Voltage:	14.800 A @ 230.0 V	Shaft Rotation:	Reversible
	7.400 A @ 460.0 V	Shaft Slinger Indicator:	No Slinger
Design Code:	A	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	None
Feedback Device:	NO FEEDBACK	Thermal Device - Winding:	None
Front Face Code:	Standard	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	None	Winding Thermal 1:	None
Heater Indicator:	No Heater	Winding Thermal 2:	None

Nameplate NP3553LUA

CAT.NO.	EM3309T-BG							
SPEC.	37N346S521G1							
HP	5							
VOLTS	230/460							
AMPS	14.8/7.4							
RPM	1160							
FRAME	215T		HZ	60		PH	3	
SF	1.15		CODE	K	DES	A	CLASS	H
NEMA NOM. EFF	89.5		PF	71				
RATING	40C AMB-CONT							
CC	010A		USABLE AT 208V					
DE	6307		ODE	6206				
ENCL	OPSB		SN					
VPWM INVERTER READY								
CT30-60(2:1) VT3-60(20:1)								
USABLE AT	50Hz 5HP 190/380V 17.2/8.6A						SF1.0	

Parts List		
Part Number	Description	Quantity
SA271445	SA 37N346S521G1	1.000 EA
RA258073	RA 37N346S521G1	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
37EP3204B00	MASTER,DE,307 BRG,GREASER,LOCKED BEARING	1.000 EA
10XN2520A28	1/4-20X 1 3/4 HEX HD	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 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
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
LB1508	LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.028 GA
HA3104A35	THRUBOLT .31-18 X 13.687	4.000 EA

Parts List (continued)		
Part Number	Description	Quantity
37AD2001A01	BAFFLE PLATE, PLASTIC 0.63" WIDTH	2.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA
NP3553LUA	ALUM SUPER-E VPWM INVERTER READY UL	1.000 EA
36PA1001	PKG GRP, PRINT PK1017A06	1.000 EA
PE-0000001	ZRTG PE ASSEMBLY	1.000 EA
FE-0000001	ZRTG FE ASSEMBLY	1.000 EA

AC Induction Motor Performance Data

Record # 62644 - Typical performance - not guaranteed values

Winding: 37WGS521-R002	Type: 3744M	Enclosure: OPSB
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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	1.74 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	33°C
S.F. Amps				Temp. Rise @ S.F. Load	40°C
				Locked-rotor Power Factor	22.7
				Rotor inertia	1.09 LB-FT ²

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	75	76	73
Efficiency	84.7	89.4	89.7	89.7	88.5	86.5	89
Speed	1192	1184	1174	1165	1154	1139	1158
Line amperes	4.14	4.95	6.08	7.36	8.92	10.7	8.3

Performance Graph at 460V, 60Hz, 5.0HP Typical performance - Not guaranteed values

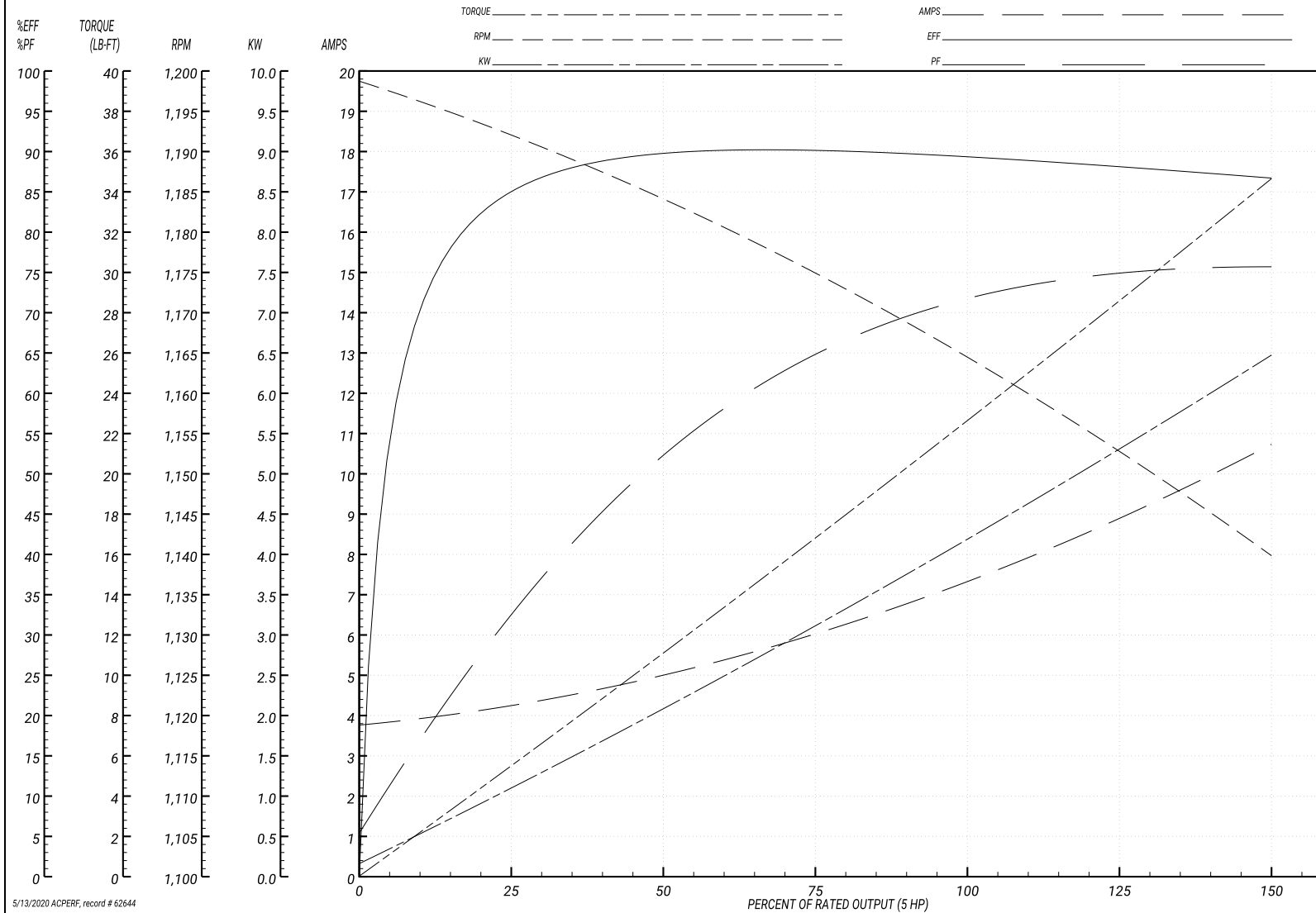
ABB Motors and Mechanical Inc.

WINDING # 37WGS521

Typical performance - not guaranteed values.

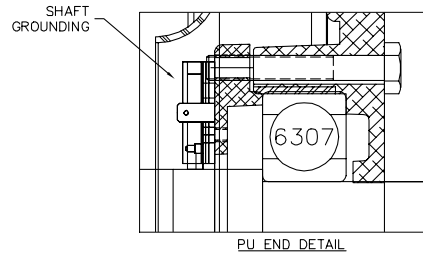
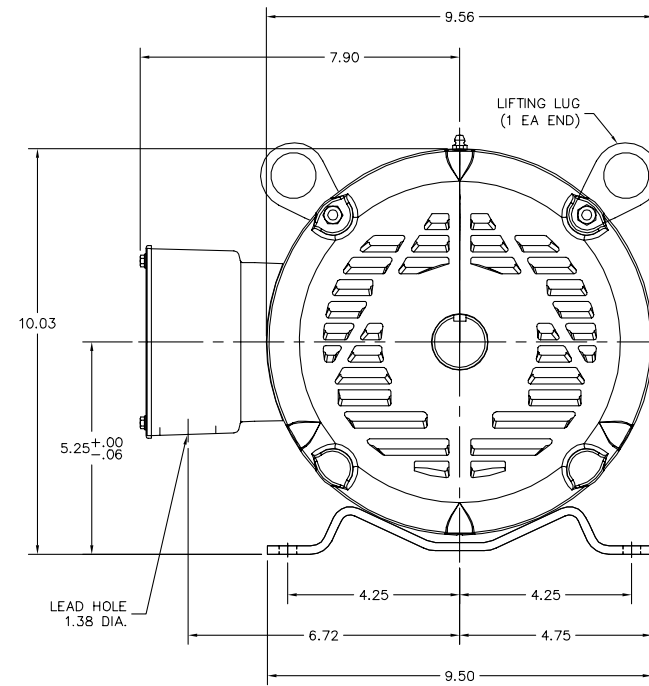
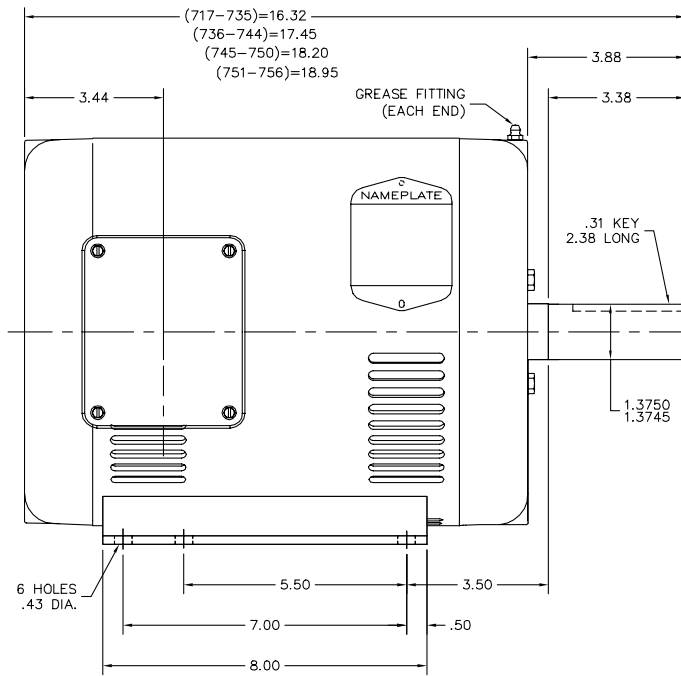
5 HP 3 PH 60 HZ 1160 RPM 460 V 3744M

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



5/13/2020 ACPERF, record # 62644

37LYN346



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: CORRECT LAYERS		
REV. LTR: C	VERSION: 03	TDR: 000001046695
FILE: \AAA\00204\478	REVISED: 11:17:09 11/02/2017	BY: ENBRAMO
MTL: -		

BALDOR
 HORZ 213-5T OPSB 37M, BALDOR INT SHAFT GND
 SH 1 of 1

37LYN346

CD0005

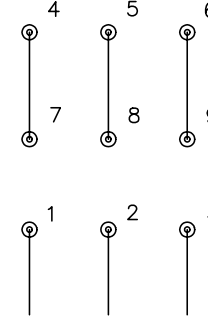


LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
90000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005