

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM3709T-G**

**7.5HP,3520RPM,3PH,60HZ,213T,3728M,TEFC,F**

Part Detail							
Revision:	S	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	37WGR224	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	37J838	Layout:	37LYJ838	Poles:	02	Created Date:	09-11-2012
Base:	RG	Eff. Date:	09-06-2019	Leads:	9#14		

Specs			
Catalog Number:	EM3709T-G	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	H
Frame:	213T	Inverter Code:	Inverter Ready
Frame Material:	Steel	KVA Code:	J
Output @ Frequency:	7.500 HP @ 60 HZ	Lifting Lugs:	Standard Lifting Lugs
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 14 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	3728M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	84
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	Standard
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

<b>Current @ Voltage:</b>	18.000 A @ 230.0 V	<b>Shaft Ground Indicator:</b>	Shaft Grounding
	19.400 A @ 208.0 V	<b>Shaft Rotation:</b>	Reversible
	9.000 A @ 460.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	A	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
		<b>Winding Thermal 2:</b>	None

<b>Nameplate NP3441LUA</b>										
<b>CAT.NO.</b>	EM3709T-G									
<b>SPEC</b>	37J838R224G1									
<b>HP</b>	7.5									
<b>VOLTS</b>	230/460									
<b>AMPS</b>	18/9									
<b>RPM</b>	3520									
<b>FRAME</b>	213T				<b>HZ</b>	60			<b>PH</b>	3
<b>SF</b>	1.15		<b>CODE</b>	J	<b>DES</b>	A		<b>CLASS</b>	H	
<b>NEMA NOM. EFF</b>	89.5		<b>PF</b>	84						
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>	010A			<b>USABLE AT 208V</b>			19.4			
<b>ENCL</b>	TEFC		<b>SER</b>							
<b>DE</b>	6307			<b>ODE</b>	6206					
<b>VPWM INVERTER READY</b>										
<b>CT6-60H(10:1)VT3-60H(20:1)</b>										
50Hz 7.5HP 190/380V 21/10.5A									SF1.0	

Parts List		
Part Number	Description	Quantity
SA250908	SA 37J838R224G1	1.000 EA
RA237756	RA 37J838R224G1	1.000 EA
36FN3000B02	EXFN, PLASTIC, 6.00 OD, 1.175 ID	1.000 EA
HW3200A01	3/8-16X3/4 I-BLT WELDED F/S	1.000 EA
37CB3006	37 CB CASTING W/1.38 LEAD HOLE @ 6:00	1.000 EA
37GS1000SP	GASKET, CONDUIT BOX STD., .06 THICK LEXI	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
37EP3101A01	FR ENDPLATE, FOR ROUTING PURPOSES	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 EA
37EP3100B06	PU EP 307 LOCK BRG,GRSR,DRAIN,2 RET HLS	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
07FH4007SP	PRIMED	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
37CB4516	LIPPED LID FOR 37 FRAME NEC KOBX	1.000 EA
37GS1008	37 GS FOR CB LID - LEXIDE	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

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
LB1459	AEGIS SGR LABEL "AEGISLBL-100"	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
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA
HA3104A14	THRUBOLT- 5/16-18 X12.125(OHIO)	4.000 EA
LC0005E01	CONN.DIA./WARNING LABEL (LC0005/LB1119N)	1.000 EA
NP3441LUA	ALUM SUPER-E VPWM INV READY UL CSA-EEV C	1.000 EA
36PA1001	PKG GRP, PRINT PK1017A06	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA
LB1350	BAR CODE LABEL FOR YORK	1.000 EA

**AC Induction Motor Performance Data**

Record # 53379 - Typical performance - not guaranteed values

<b>Winding:</b> 37WGR224-R034	<b>Type:</b> 3728M	<b>Enclosure:</b> TEFC
-------------------------------	--------------------	------------------------

Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	7.5			Full Load Torque	10.9 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	18/9			Breakdown Torque	40.4 LB-FT
R.P.M.	3520			Pull-up Torque	20.6 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	21.8 LB-FT
NEMA Design Code	A	KVA Code	J	Starting Current	68.4 A
Service Factor (S.F.)	1.15			No-load Current	3.73 A
NEMA Nom. Eff.	89.5	Power Factor	84	Line-line Res. @ 25°C	1.1531 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	45°C
S.F. Amps				Temp. Rise @ S.F. Load	54°C
				Locked-rotor Power Factor	33
				Rotor inertia	0.255 LB-FT <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	69	79	84	87	89	86
Efficiency	81.5	88.8	90.5	90.6	90.1	89.2	90.3
Speed	3580.5	3562.7	3541.6	3520.3	3496.3	3470.9	3506
Line amperes	4.22	5.36	7.03	8.94	11	13.1	10.2

Performance Graph at 460V, 60Hz, 7.5HP Typical performance - Not guaranteed values

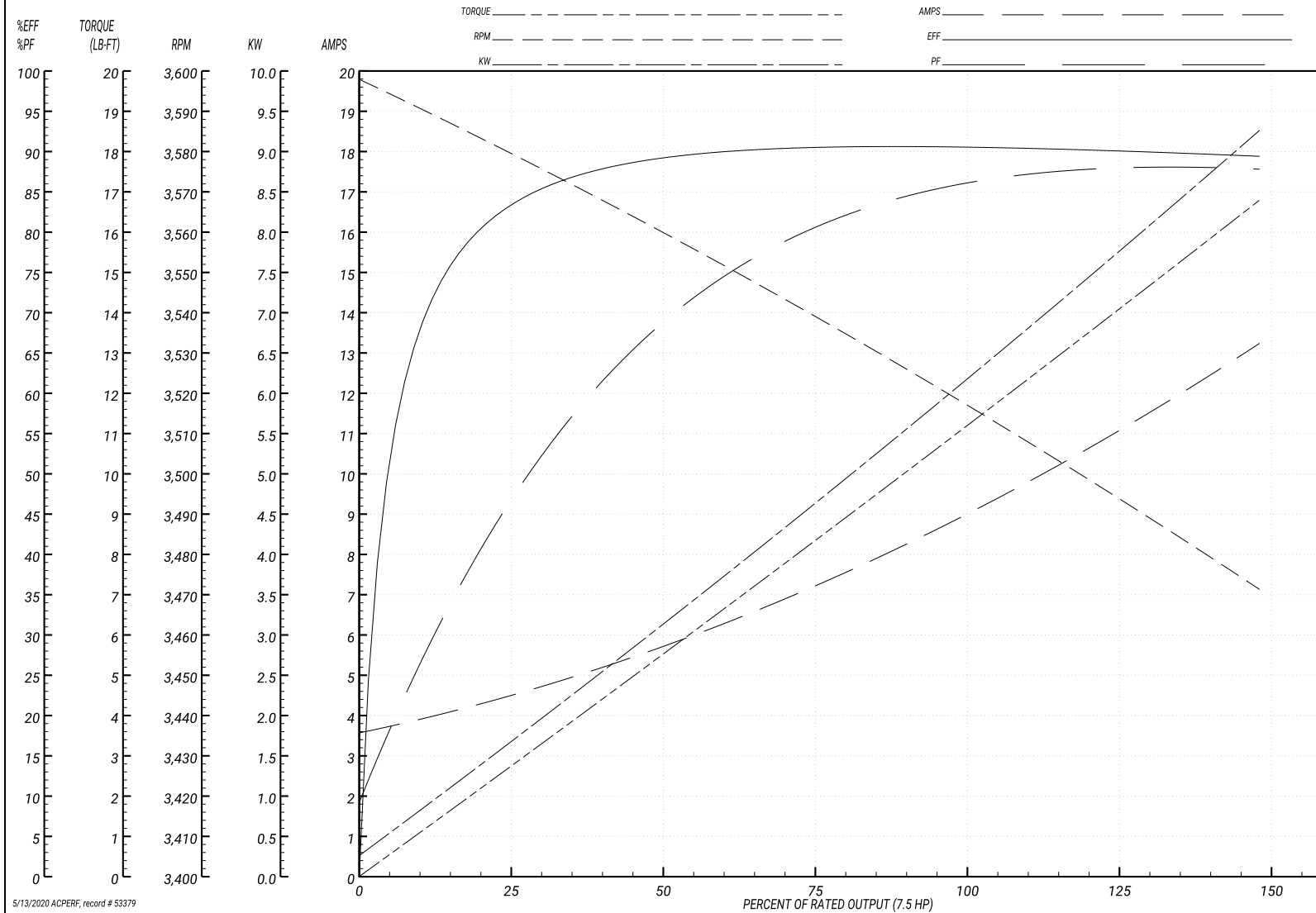
ABB Motors and Mechanical Inc.

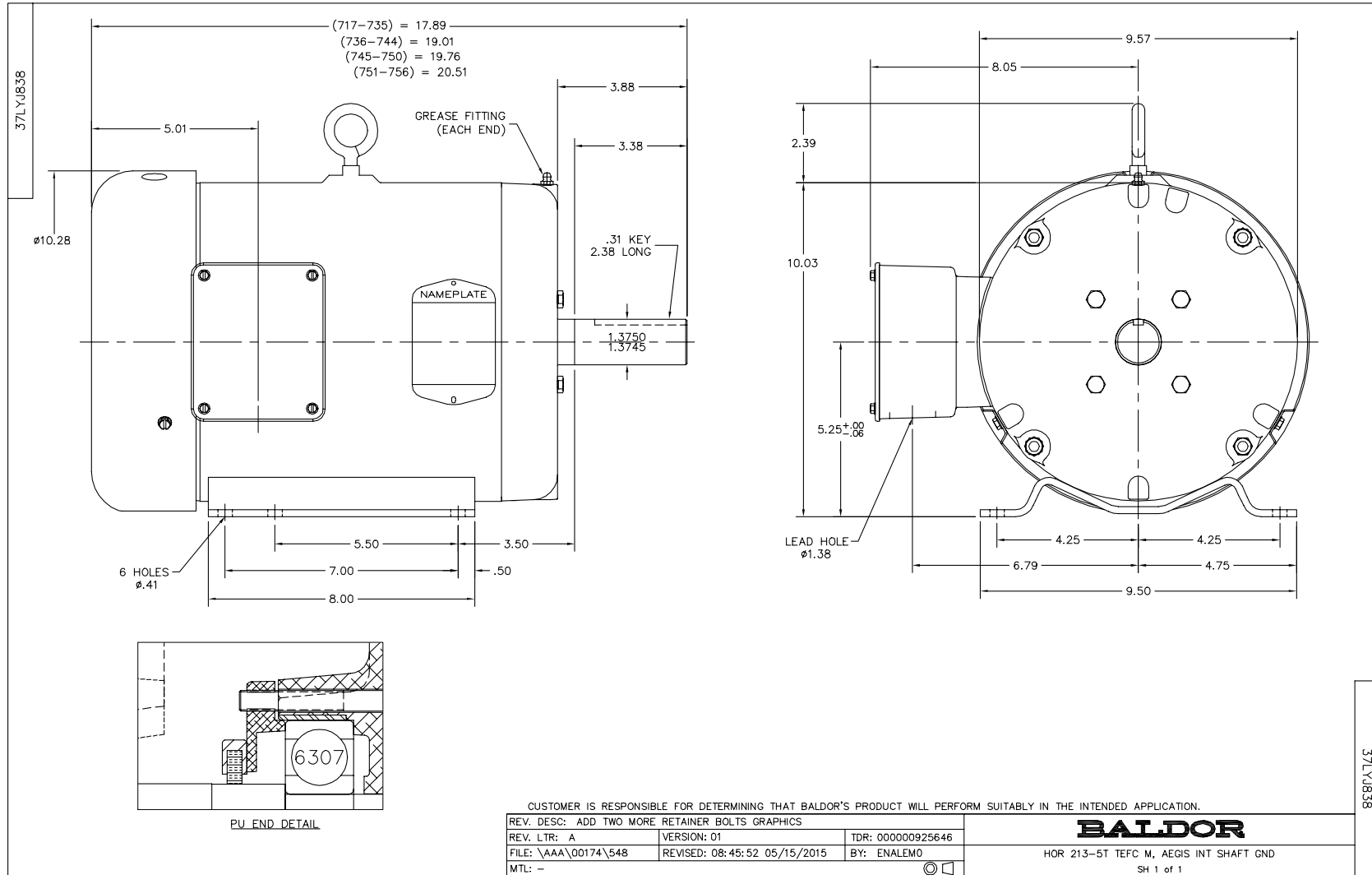
WINDING # 37WGR224

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3520 RPM 460 V 3728M

TORQUES(LB-FT): PO=40.4 PU=20.6 LR=21.8 LRA=68.4





CD0005

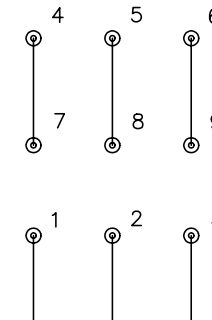


LOW VOLTAGE  
(2Y)



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