

**BALDOR® • RELIANCE®**

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# Customer information packet

## CEM3709T

7.5HP, 3520RPM, 3PH, 60HZ, 213TC, 3728M, TEFC

ELECTRIC MOTOR WHOLESAL.COM

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	213TC
Frame Material	Steel
Frequency	60.00 Hz
Output @ Frequency	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
XP Class and Group	None
XP Division	Not Applicable
Agency Approvals	CSA CSA EEV NEMA PREMIUM UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	9.000 A @ 460.0 V 19.000 A @ 208.0 V 18.000 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 Shaft Indicator	None
Heater Indicator	No Heater

## Part detail

Revision	-
Type	AC
Mech. spec.	37G814
Base	
Status	PRD/A
Elec. spec.	37WGL869
Layout	37LYG814
Eff. date	02-21-2021
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	01-28-2021

High Voltage Full Load Amps	9.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3728M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	18.63 IN
Power Factor	84
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3520 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**

**NP3441LUA**

<b>CAT.NO.</b>	CEM3709T						
<b>SPEC</b>	37G814L869G1						
<b>HP</b>	7.5						
<b>VOLTS</b>	230/460						
<b>AMPS</b>	18/9						
<b>RPM</b>	3520						
<b>FRAME</b>	213TC	<b>HZ</b>	60	<b>PH</b>	3		
<b>SF</b>	1.15	<b>CODE</b>	J	<b>DES</b>	A	<b>CLASS</b>	F
<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	
<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 22/11A						SF1.0

## Parts list

Part number	Description	Quantity
SA390903	SA 37G814L869G1	1.000 ea
RA381372	RA 37G814L869G1	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
37PE3300A01	PUEP ASSEMBLY FOR ROUTING	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
10XN2520A30	HEX HD CAP SCREW-STD THD-.25 X 20 THD PE	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 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
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	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
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

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GOPA1000	PKG GRP, PRINT PK1026A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 1/21	1.000 ea

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## AC Induction Motor Performance Data

Record # 86805

Preliminary Data Sheet

Winding: 37WGL869-R002		Type: 3728M	Enclosure: TEFC	
<b>Nameplate Data</b>		<b>460 V, 60 Hz: High Voltage Connection</b>		
Rated Output (HP)	7.5	Full Load Torque	11.2 LB-FT	
Volts	230/460	Start Configuration	direct on line	
Full Load Amps	18/9	Breakdown Torque	40.3 LB-FT	
R.P.M.	3520	Pull-up Torque	19.7 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	3.52 A
NEMA Nom. Eff.	89.5 Power Factor	84	Line-line Res. @ 25°C	1.19 Ω
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rated Load	50°C
S.F. Amps		20/10	Temp. Rise @ S.F. Load	63°C
			Locked-rotor Power Factor	38.1
			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	49	71	81	86	88	89	87
Efficiency	83.9	89.7	91	90.9	90.2	89.2	90.3
Speed	3580	3560	3540	3518	3494	3468	3500
Line amperes	4.1	5.4	7.06	8.96	11	13.2	10.2

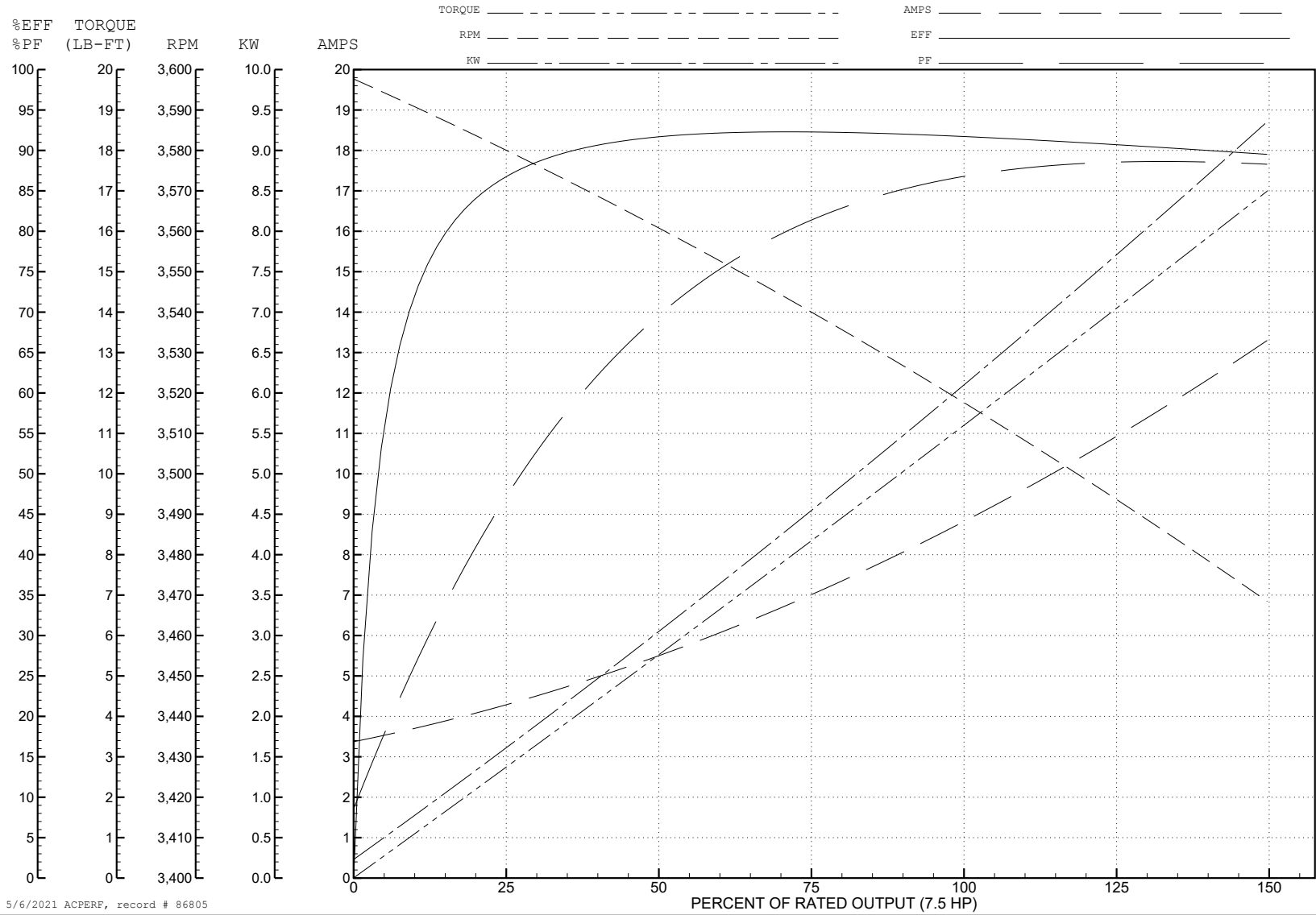
ABB Motors and Mechanical Inc.

WINDING # 37WGL869

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

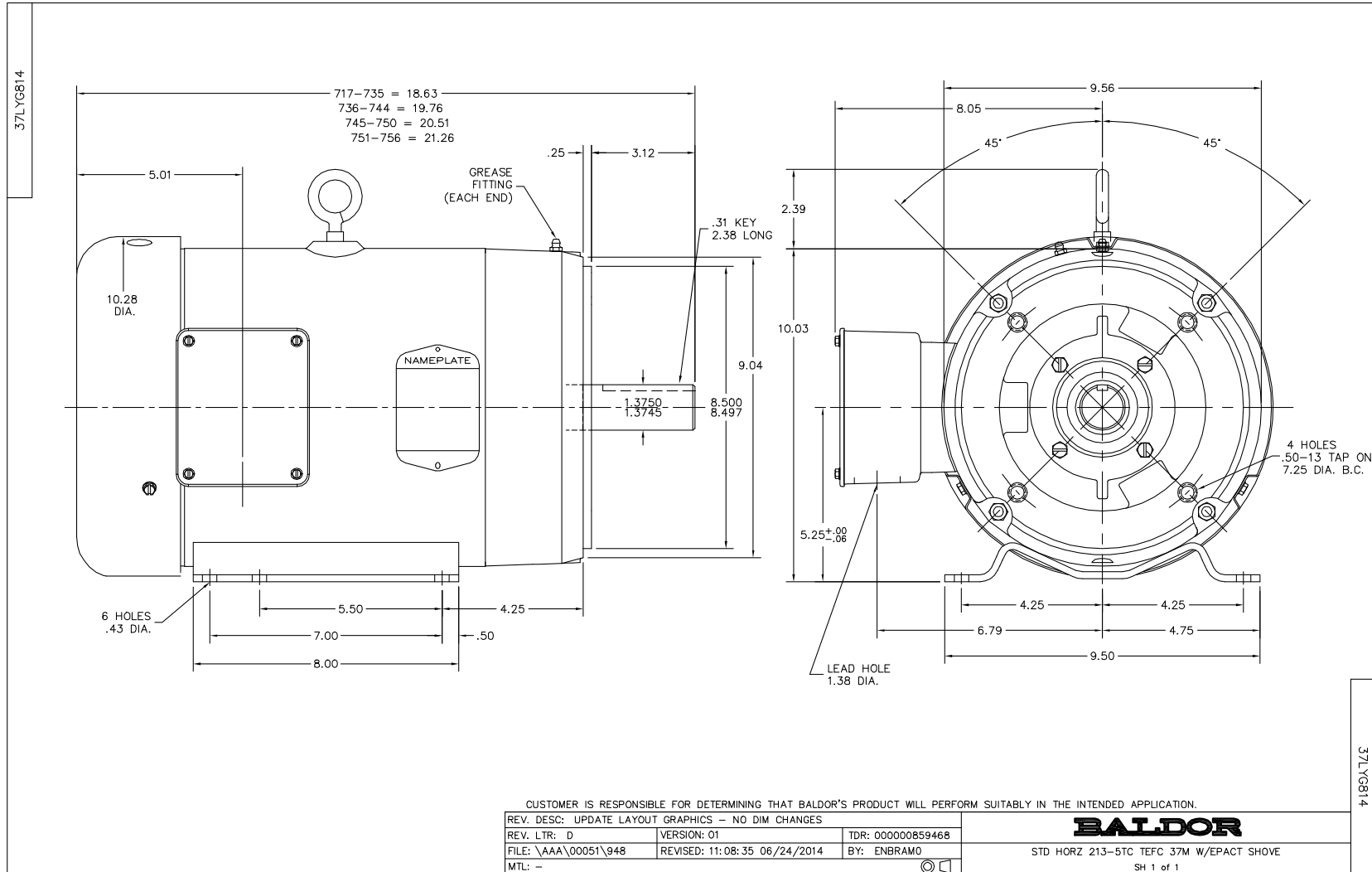
Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=40.3 PU=19.7 LR=21.8 LRA=68.4

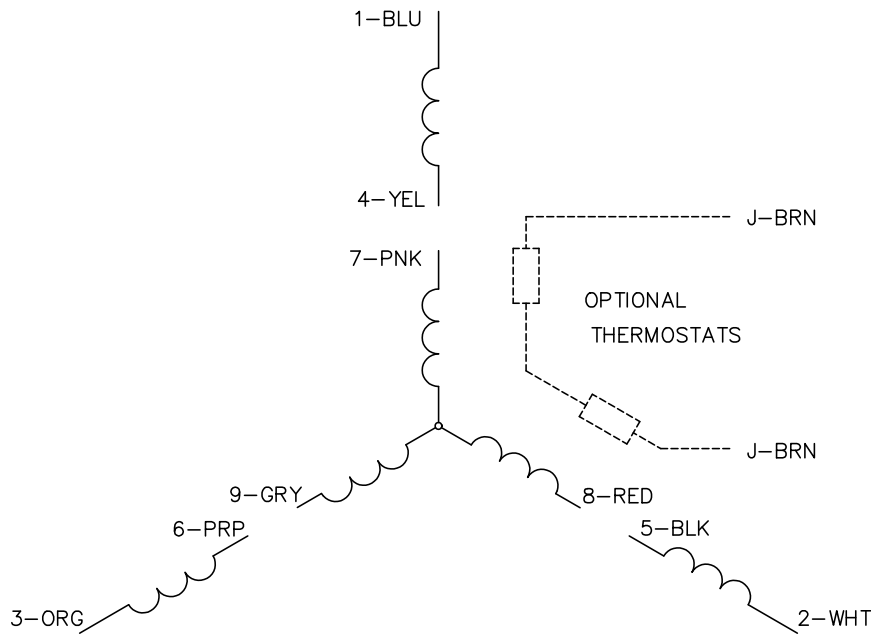


5/6/2021 ACPERF, record # 86805

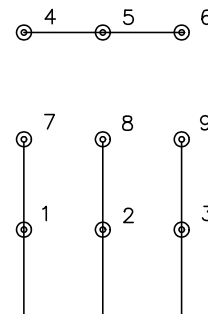




CD0005

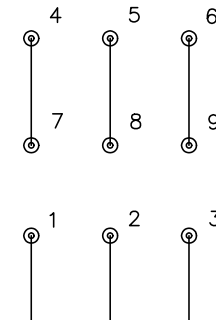


LOW VOLTAGE  
(2Y)



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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS