

ABB BALDOR RELIANCE III

Customer information packet

EM3709T-5

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

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	213T
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	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM (OLD LOGO) CURUSEEV NEMA PREMIUM
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	7.000 A @ 575.0 V
Design Code	B
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
Heater Indicator	No Heater
High Voltage Full Load Amps	7.0 a
Insulation Class	F

Part Detail

Revision	L
Type	AC
Mech. spec.	37H244
Base	
Status	PRD/A
Elec. spec.	37WGR289
Layout	37LYH244
Eff. date	05-02-2024
CD Diagram	CD0006
Poles	02
Leads	3#14
Proprietary	False
Created date	05-10-2012

Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3728M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	17.89 IN
Power Factor	86
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	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

NP3441L											
CAT.NO.	EM3709T-5										
SPEC.	37H244R289G1										
HP	7.5										
VOLTS	575										
AMP	7										
RPM	3520										
FRAME	213T		HZ	60				PH	3		
SER.F.	1.15	CODE	H	DES	B	CL	F				
NEMA-NOM-EFF	89.5	PF	86								
RATING	40C AMB-CONT										
CC	010A										
DE	6307		ODE	6206							
ENCL	TEFC	SN									
VPWM INVERTER READY											
CT6-60H(10:1)VT3-60H(20:1											

Parts List

Part number	Description	Quantity
SA244920	SA 37H244R289G1	1.000 ea
RA231807	RA 37H244R289G1	1.000 ea
36FN3000B02	EXFN, PLASTIC, 6.00 OD, 1.175 ID	1.000 ea
HW3200A01	3/8-16X3/4 EYEBOLT 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
37EP3100A01	PUEP ASSEMBLY - ROUTING PUPROSES	1.000 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
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.028 ga
HA3104A14	THRUBOLT- 5/16-18 X12.125(OHIO)	4.000 ea
LC0006	CONNECTION LABEL	1.000 ea
NP3441L	ALUM SUPER-E VPWM INVERTER READY UL EEV	1.000 ea
G0PA1000	PKG GRP, PRINT PK1026A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

AC Induction Motor Performance Data

Record # 38326

Typical performance - not guaranteed values

Winding: 37WGR289-R001				Type: 3728M		Enclosure: TEFC		
Nameplate Data				575 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		7.5		Full Load Torque		10.9 LB-FT		
Volts		575		Start Configuration		direct on line		
Full Load Amps		7		Breakdown Torque		37.4 LB-FT		
R.P.M.		3520		Pull-up Torque		19 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		20.1 LB-FT		
NEMA Design Code		B		KVA Code	H		Starting Current	50.7 A
Service Factor (S.F.)		1.15		No-load Current		2.61 A		
NEMA Nom. Eff.		89.5	Power Factor	87		Line-line Res. @ 25°C		1.9 Ω
Rating - Duty		40C		AMB-CONT		Temp. Rise @ Rated Load		46°C
S.F. Amps						Temp. Rise @ S.F. Load		56°C
						Locked-rotor Power Factor		33
						Rotor inertia		0.255 LB-FT2

Load Characteristics 575 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	49	73	82	86	88	90	87
Efficiency	82	89	90.1	90.2	89.6	88.2	90.1
Speed	3579	3560	3538	3515	3490	3462	3500
Line amperes	3.06	4.03	5.42	6.98	8.66	10.4	7.99

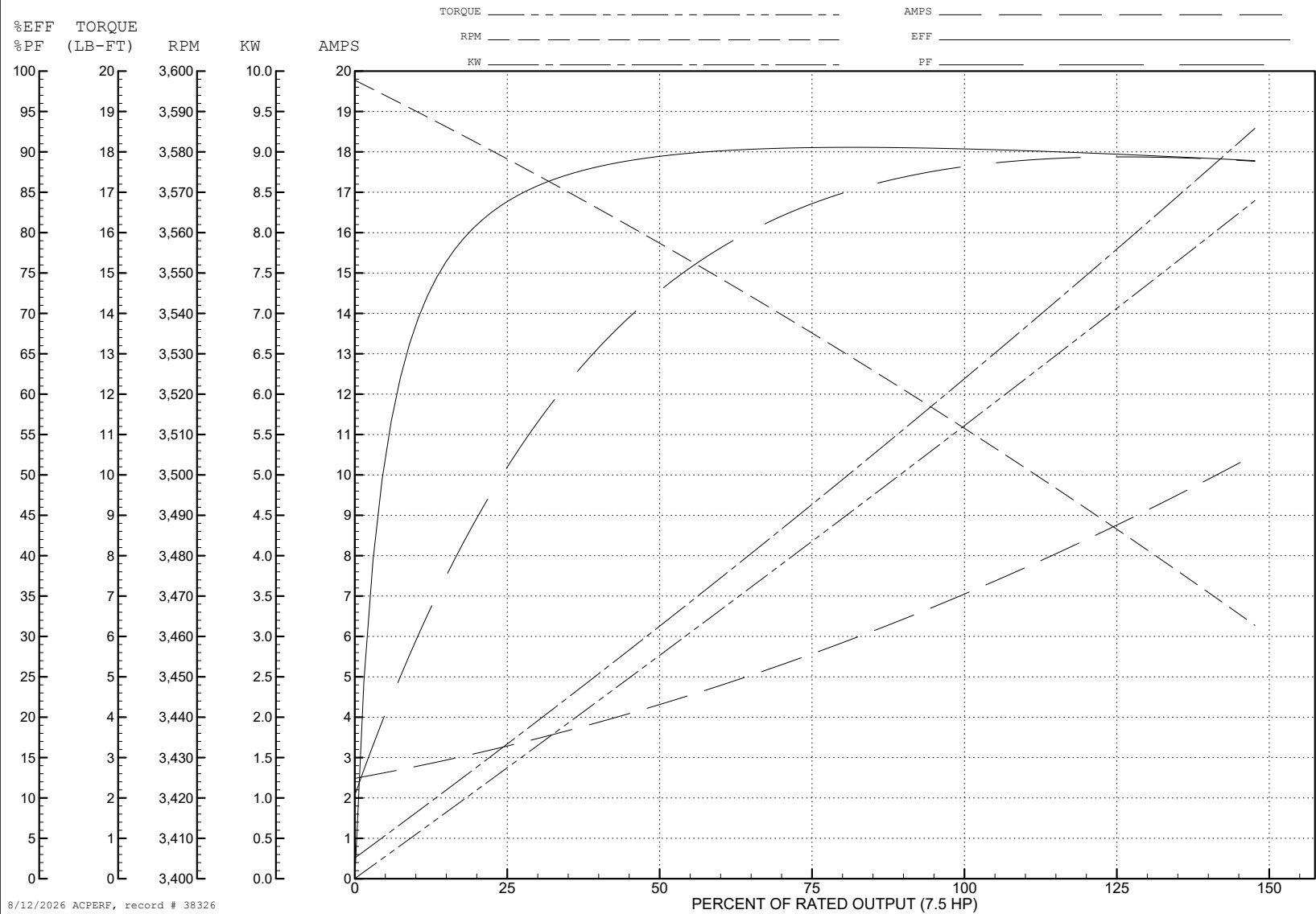
ABB Motors and Mechanical Inc.

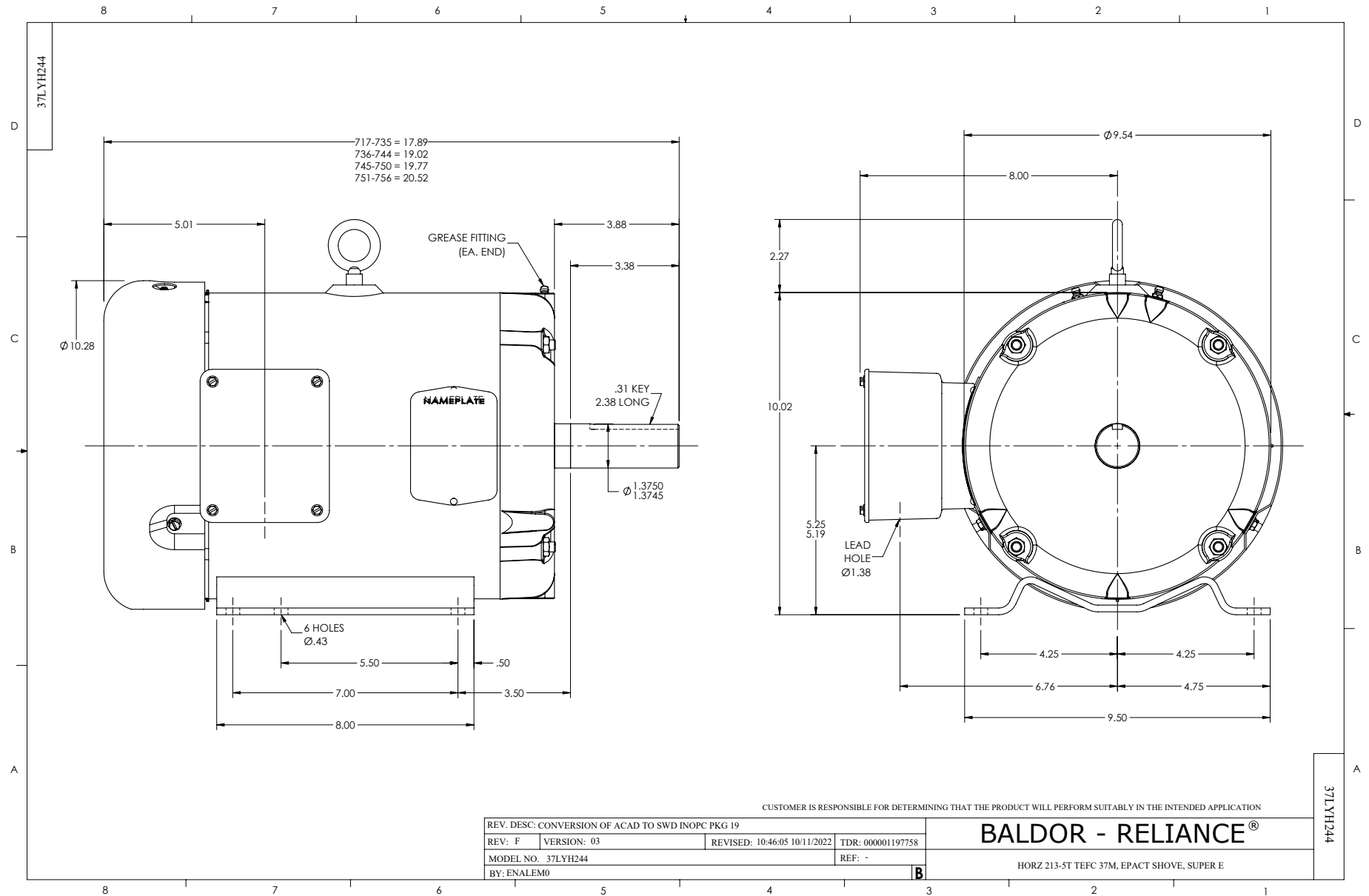
WINDING # 37WGR289

Typical performance - not guaranteed values.

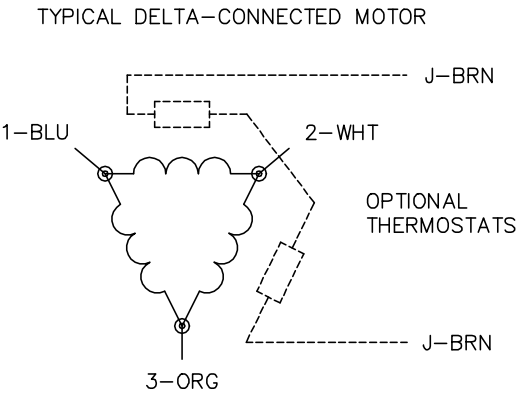
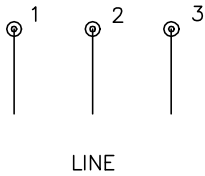
7.5 HP 3 PH 60 HZ 3520 RPM 575 V 3728M

TORQUES (LB-FT): PO=37.4 PU=19 LR=20.1 LRA=50.7





CD0006



- NOTES:
1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
 2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
 3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
 4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
 5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10: 24: 49 02/19/2019	BY: ENBRIRO
MTL: —		

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1