

ABB BALDOR RELIANCE III

Customer information packet

CEM3309T-G

5HP, 1160RPM, 3PH, 60HZ, 215TC, OPSB, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	OPSB
Frame	215TC
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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA CSA EEV NEMA PREMIUM UR
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	7.400 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
Heater Indicator	No Heater
High Voltage Full Load Amps	7.4 a

Part Detail

Revision	G
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	37WGS521
Layout	37LYK447
Eff. date	06-11-2024
CD Diagram	CD0005
Poles	06
Leads	9#14
Proprietary	False
Created date	02-24-2020

Insulation Class	H
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3744M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	18.19 IN
Power Factor	71
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
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

NP3553LUA									
CAT.NO.	CEM3309T-G								
SPEC.	37-0000-0219								
HP	5								
VOLTS	230/460								
AMPS	14.8/7.4								
RPM	1160								
FRAME	215TC		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								
ENCL	OPSB	SN							
DE	6307		ODE	6206					
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
SA379360	SA 37-0000-0219	1.000 ea
RA369354	RA 37-0000-0219	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP3553LUA	ALUM SUPER-E VPWM INV READY UL CC NEMA P	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HA3104A35	THRUBOLT .31-18 X 13.687	4.000 ea
LB1459	AEGIS SGR LABEL "AEGISLBL-100"	1.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
37EP3203A00	MASTER,ODE,206 BRG,GREASER	1.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
37EP3400A01	FACE MT EP-OPEN-307 BRG-213-215TC W/GREA	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
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 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
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
37AD2001A01	BAFFLE PLATE, PLASTIC 0.63" WIDTH	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.022 ga
37AD2001A01	BAFFLE PLATE, PLASTIC 0.63" WIDTH	1.000 ea
37PA1074	PALLET PACK GRP, PRINT BOX PK1026A06	1.000 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
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

AC Induction Motor Performance Data

Record # 62644

Typical performance - not guaranteed values

Winding: 37WGS521-R002			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		1.74 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-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	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

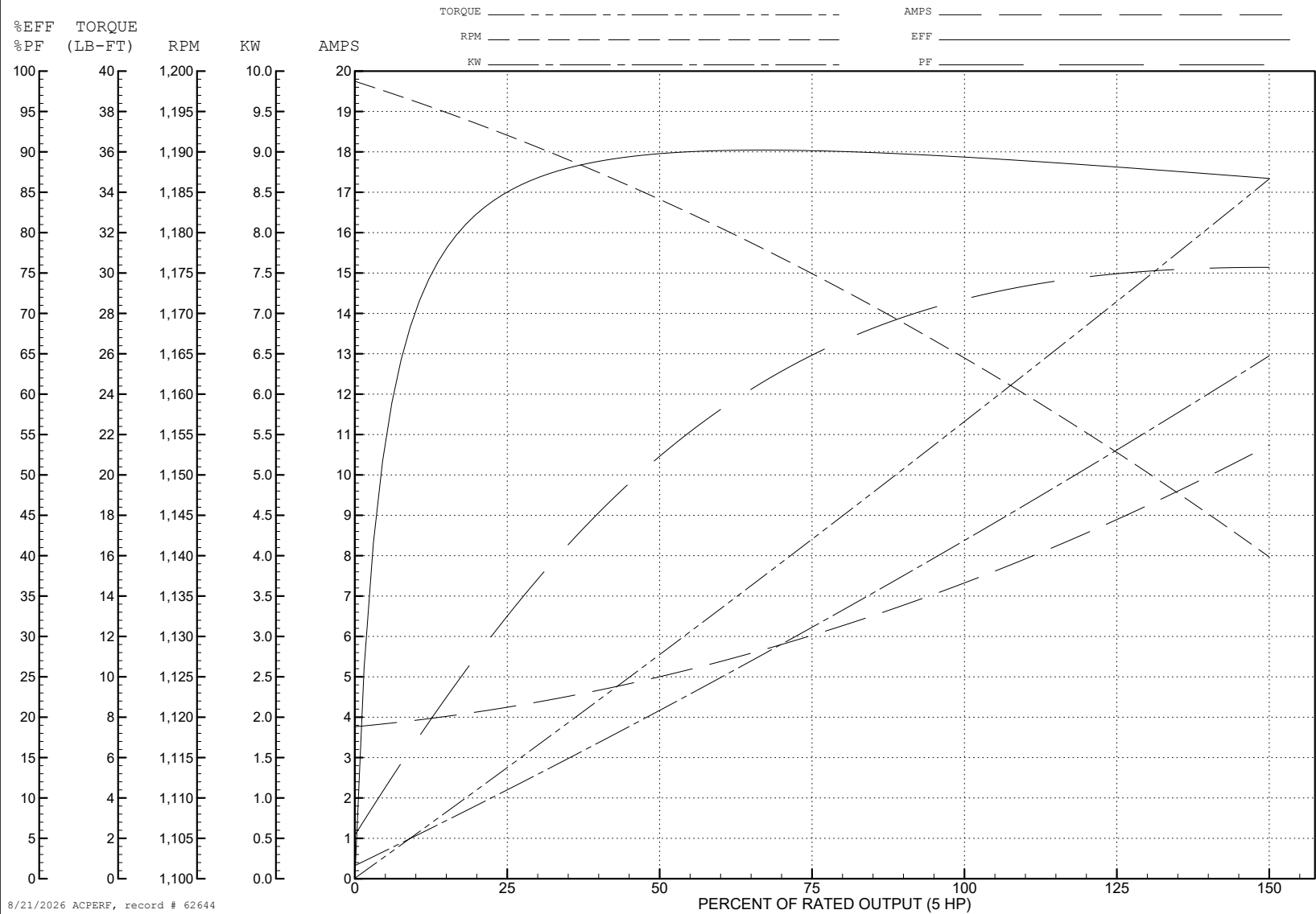
ABB Motors and Mechanical Inc.

WINDING # 37WGS521

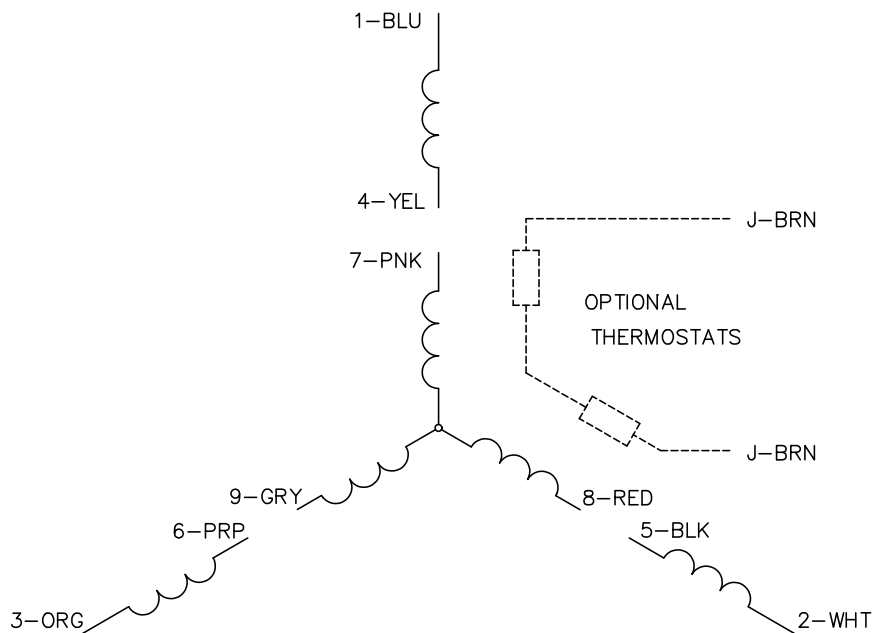
Typical performance - not guaranteed values.

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

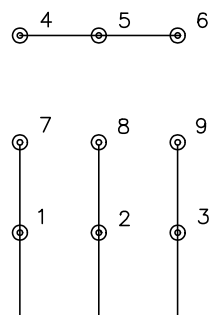
TORQUES (LB-FT): PO=77.9 PU=47.4 LR=54.8 LRA=53



CD0005

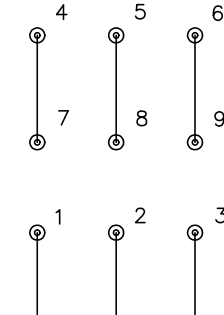


LOW VOLTAGE
(2Y)



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

900000

FILE: AAA00005140

MDL: -

MTL: -

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005