

ABB BALDOR RELIANCE III

Customer information packet

M1509T

7.5/3.8HP, 1740/860RPM, 3PH, 60HZ, 215T, 3754

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	215T
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 3.800 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
Agency Approvals	UR CSA
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	18.900 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
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	16.6 a
Insulation Class	F
Inverter Code	Not Inverter

Part Detail

Revision	P
Type	AC
Mech. spec.	37A001
Base	
Status	PRD/A
Elec. spec.	37WGS296
Layout	37LYA001
Eff. date	11-05-2025
CD Diagram	CD0011
Poles	04/08
Leads	6#14
Proprietary	False
Created date	02-06-2007

KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3754M
Mounting Arrangement	F1
Number of Poles	4 8
Overall Length	20.51 IN
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	1740 rpm 860 rpm
Speed Code	2S-1W-CT
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

NP1256L									
CAT.NO.	M1509T								
SPEC.	37A001S296								
HP	7.5/3.8								
VOLTS	230								
AMP	18.9/16.6								
RPM	1740/860								
FRAME	215T		HZ	60			PH	3	
SER.F.	1.15	CODE	K	DES	B	CLASS	F		
NEMA-NOM-EFF		PF							
RATING	40C AMB-CONT								
CC									
DE	6307		ODE	6206					
ENCL	TEFC	SN							

Parts List

Part number	Description	Quantity
SA153309	SA 37A001S296	1.000 ea
RA142024	RA 37A001S296	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
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
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
37FN3002A01SP	EXFN, PLASTIC, 9.00 OD, 1.155 ID	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.028 ga
HA3104A25	THRUBOLT .31-18 X 14.75	4.000 ea
LC0032	CONNECTION LABEL	1.000 ea
NP1256L	ALUM UL CC INDUSTRIAL MOTOR A60	1.000 ea
37PA1074	PALLET PACK GRP, PRINT BOX 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

Accessories

Part number	Description	Multiplier
37-3301	C FACE KIT	P1

AC Induction Motor Performance Data

Record # 23678

Typical performance - not guaranteed values

Winding: 37WGS296-R001			Type: 3754M		Enclosure: TEFC		
Nameplate Data				230 V, 60 Hz: High Speed Connection			
Rated Output (HP)		7.5/3.8		Full Load Torque		22.4 LB-FT	
Volts		230		Start Configuration		direct on line	
Full Load Amps		18.9/16.6		Breakdown Torque		114 LB-FT	
R.P.M.		1740/860		Pull-up Torque		29.3 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		67 LB-FT	
NEMA Design Code		B	KVA Code	K	Starting Current		163 A
Service Factor (S.F.)		1.15		No-load Current		8.18 A	
NEMA Nom. Eff.		0	Power Factor	0	Line-line Res. @ 25°C		0.489 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		75°C	
S.F. Amps				Temp. Rise @ S.F. Load		94°C	

Load Characteristics 230 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	46	69	80	85	88	89	87
Efficiency	83.9	88.4	88.6	87.4	85.7	83.5	86.4
Speed	1788	1775	1761	1746	1730	1710	1736
Line amperes	9.11	11.6	15	18.9	23.3	28.3	21.5

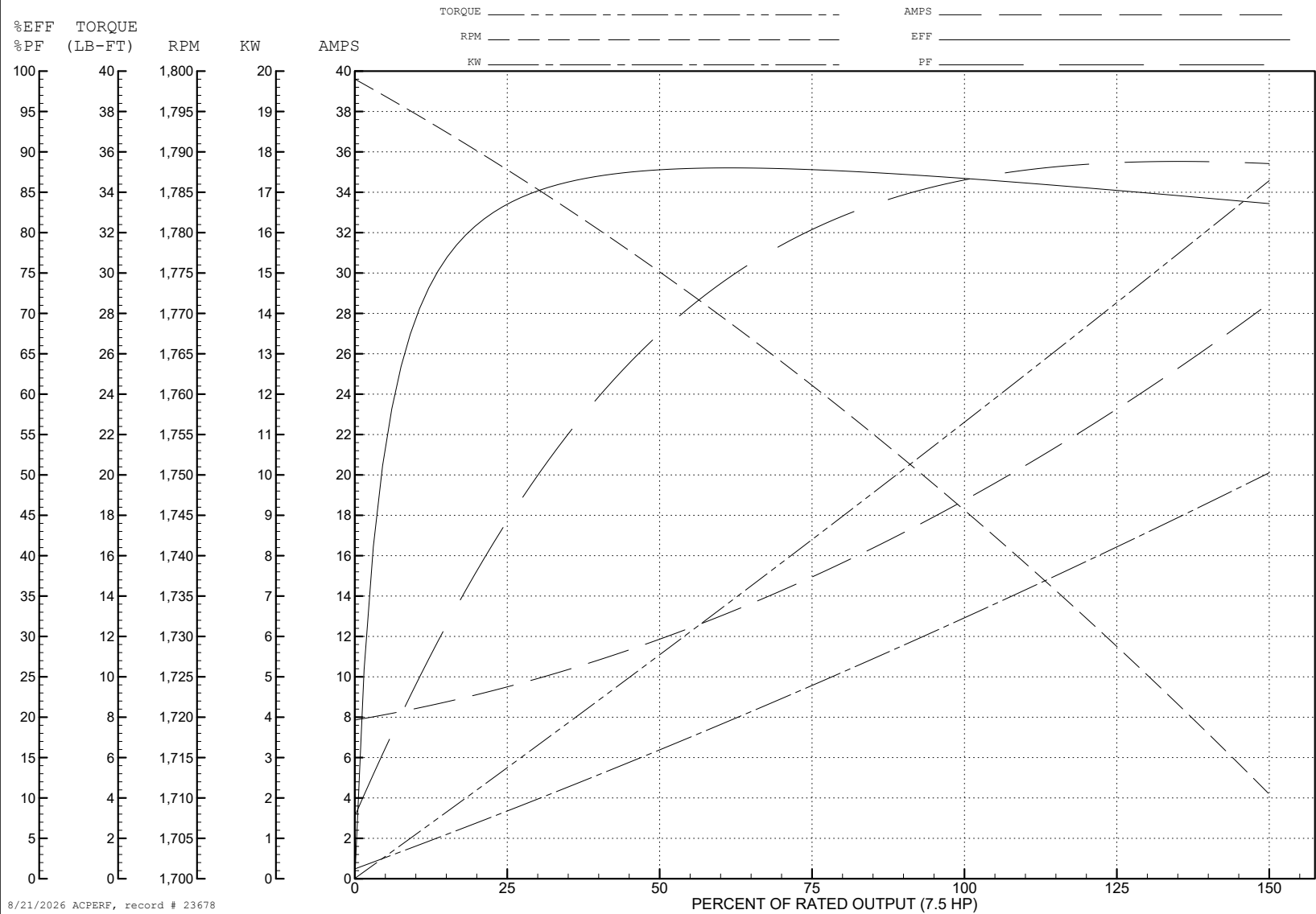
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WINDING # 37WGS296

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1746 RPM 230 V 3754M

TORQUES (LB-FT): PO=114 PU=29.3 LR=67 LRA=163



AC Induction Motor Performance Data

Record # 23679

Typical performance - not guaranteed values

Winding: 37WGS296-R001			Type: 3754M		Enclosure: TEFC		
Nameplate Data				230 V, 60 Hz: Low Speed Connection			
Rated Output (HP)		7.5/3.8		Full Load Torque		23.1 LB-FT	
Volts		230		Start Configuration		direct on line	
Full Load Amps		18.9/16.6		Breakdown Torque		95.2 LB-FT	
R.P.M.		1740/860		Pull-up Torque		38 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		58.3 LB-FT	
NEMA Design Code		B	KVA Code	K	Starting Current		85.8 A
Service Factor (S.F.)		1.15		No-load Current		13.3 A	
NEMA Nom. Eff.		0	Power Factor	0	Line-line Res. @ 25°C		0.645 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		84°C	
S.F. Amps				Temp. Rise @ S.F. Load		98°C	

Load Characteristics 230 V, 60 Hz, 3.8 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	20	33	44	52	59	64	56
Efficiency	65.8	77.3	80.9	81.8	81.3	80.1	81.5
Speed	892	884	876	867	857	845	861
Line amperes	13.4	14.1	15.1	16.6	18.4	20.7	17.7

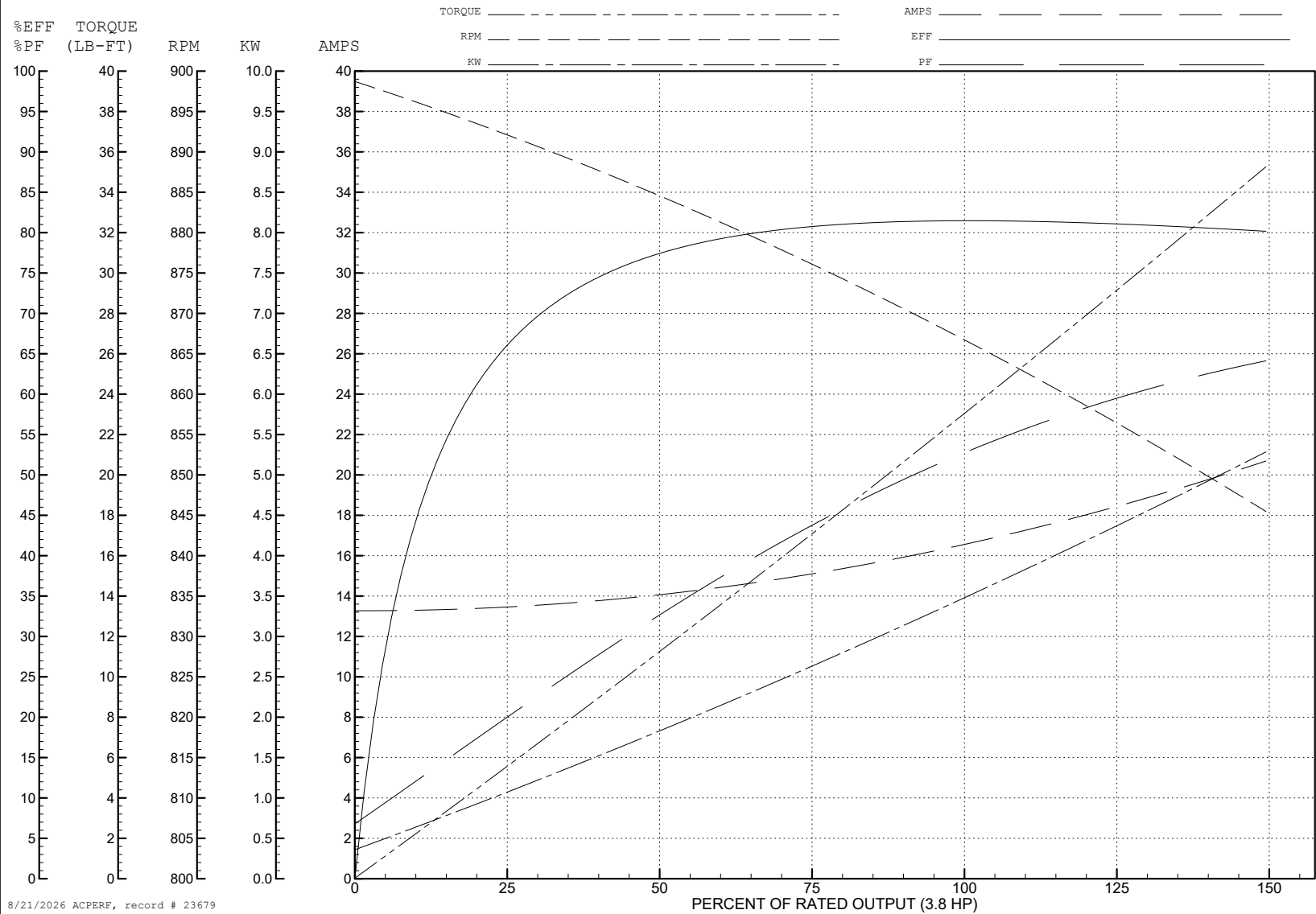
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WINDING # 37WGS296

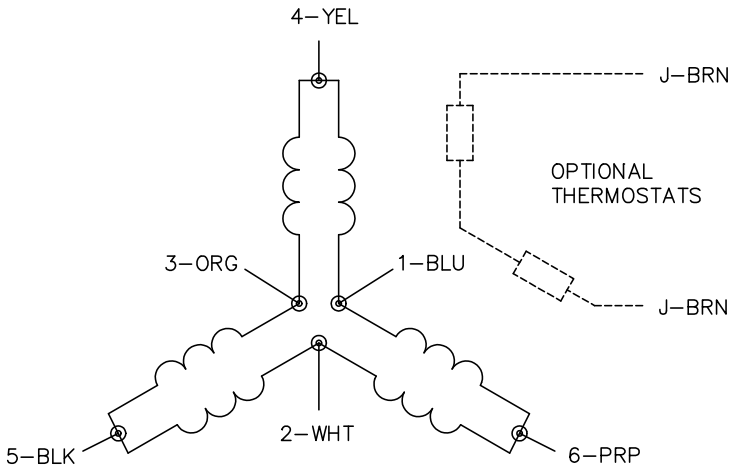
Typical performance - not guaranteed values.

3.8 HP 3 PH 60 HZ 867 RPM 230 V 3754M

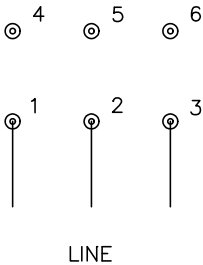
TORQUES (LB-FT): PO=95.2 PU=38 LR=58.3 LRA=85.8



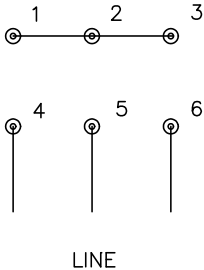
CD0011



LOW SPEED
(1D)



HIGH SPEED
(2Y)



- 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: F	BY: JLP	REVISED: 01/21/99 5:04	TDR: 0171435
110000		FILE: DWG\142.wg	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, SV, 6 LEADS, 2-SPEED 1-WINDING CONSTANT TORQUE

CD0011