

ABB BALDOR RELIANCE III

Customer information packet

GNEM3710T

7.5HP, 1760//1460RPM, 3PH, 60//50HZ, 213T, 37

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	213T
Frame Material	Steel
Frequency	50.00 Hz 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 7.500 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	190.0 V @ 50 HZ 208.0 V @ 60 HZ 230.0 V @ 60 HZ 380.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CE UKCA WEEE CURUS IE3 NEMA PREMIUM NEMA PREMIUM (OLD LOGO)
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	22.800 A @ 190.0 V 9.800 A @ 460.0 V

Part Detail

Revision	K
Type	AC
Mech. spec.	37H244
Base	
Status	PRD/A
Elec. spec.	37WGZ616
Layout	37LYH244
Eff. date	05-13-2024
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	02-16-2017

20.400 A @ 208.0 V

19.600 A @ 230.0 V

11.400 A @ 380.0 V

Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
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	9.8 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3742M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.02 IN
Power Factor	77
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
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	1460 rpm
	1760 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

NP4304L									
CAT.NO.	GNEM3710T								
SPEC.	37H244Z616G1								
HP	7.5/5.5KW						PH	3	
VOLTS	208-230/460//190/380								
AMPS	20.4-19.6/9.8//22.8/11.4								
R.P.M. (1/MIN)	1760//1460						WT.	67KG	KG
FRAME	213T		HZ	60//50			I.P.	44	
SER.F.	1.15	CODE	K	DES.	A	CLASS	F		
NOM.EFF.	91.7//89.6		% (100%)						
P.F.	77	IC411, 10:1 VT							
RATING	40C AMB-S1 CONT				CC	010A			
DE	6307		ODE	6206					
ENCL	TEFC	SN							
	IE3-50HZ-92.1(75%)91.9(50%)								
	IE3-60HZ-92.2(75%)91.1(50%)								

AC Induction Motor Performance Data

Record # 62288

Typical performance - not guaranteed values

Winding: 37WGZ616-R001			Type: 3742M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		7.5	Full Load Torque		22.13 LB-FT			
Volts		208-230/460//190/380	Start Configuration		direct on line			
Full Load Amps		20.4-19.6/9.8//22.8/11.4	Breakdown Torque		82.37 LB-FT			
R.P.M.		1760//1460	Pull-up Torque		38.15 LB-FT			
Hz		60//50	Phase		3	Locked-rotor Torque	50.17 LB-FT	
NEMA Design Code		A	KVA Code		K	Starting Current		82.21 A
Service Factor (S.F.)		1.15	No-load Current		5.03 A			
NEMA Nom. Eff.		91.7	Power Factor		77	Line-line Res. @ 25°C		1.21 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		40°C	
S.F. Amps			Temp. Rise @ S.F. Load		48°C			
			Locked-rotor Power Factor		37.3			
			Rotor inertia		1.03 LB-FT2			

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	37	58	71	77	81	83	79
Efficiency	86.3	91.1	92.2	92	91.4	90.6	91.6
Speed	1794	1788	1781	1774	1765	1757	1769
Line amperes	5.51	6.59	8.06	9.84	11.85	13.98	11

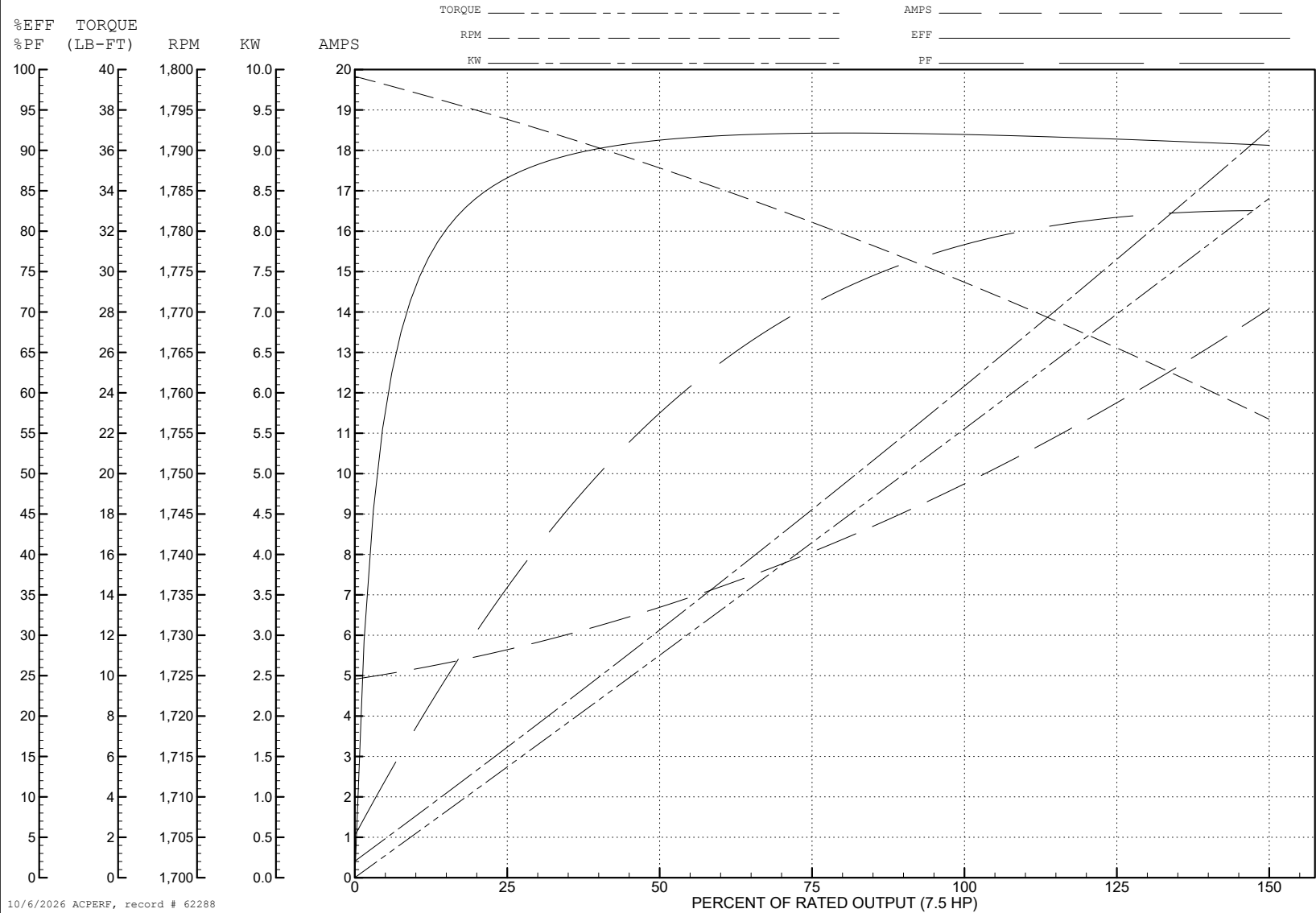
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WINDING # 37WGZ616

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1774 RPM 460 V 3742M

TORQUES (LB-FT) : PO=82.37 PU=38.15 LR=50.17 LRA=82.21



AC Induction Motor Performance Data

Record # 62289

Typical performance - not guaranteed values

Winding: 37WGZ616-R001				Type: 3742M		Enclosure: TEFC	
Nameplate Data				380 V, 50 Hz: High Voltage Connection			
Rated Output (HP)		7.5		Full Load Torque		26.67 LB-FT	
Volts		208-230/460//190/380		Start Configuration		direct on line	
Full Load Amps		20.4-19.6/9.8//22.8/11.4		Breakdown Torque		78.35 LB-FT	
R.P.M.		1760//1460		Pull-up Torque		39.22 LB-FT	
Hz		60//50		Phase		3	
NEMA Design Code		A		KVA Code		K	
Service Factor (S.F.)		1.15		No-load Current		4.93 A	
NEMA Nom. Eff.		91.7		Power Factor		77	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		50°C	
S.F. Amps				Temp. Rise @ S.F. Load		63°C	
				Locked-rotor Power Factor		41.5	
				Rotor inertia		1.03 LB-FT2	

Load Characteristics 380 V, 50 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	43	65	76	81	84	85	83
Efficiency	88.8	91.9	92.1	91.3	90.1	88.6	90.6
Speed	1493	1486	1478	1469	1459	1449	1463
Line amperes	5.58	7.06	9.04	11.4	14.08	16.93	13

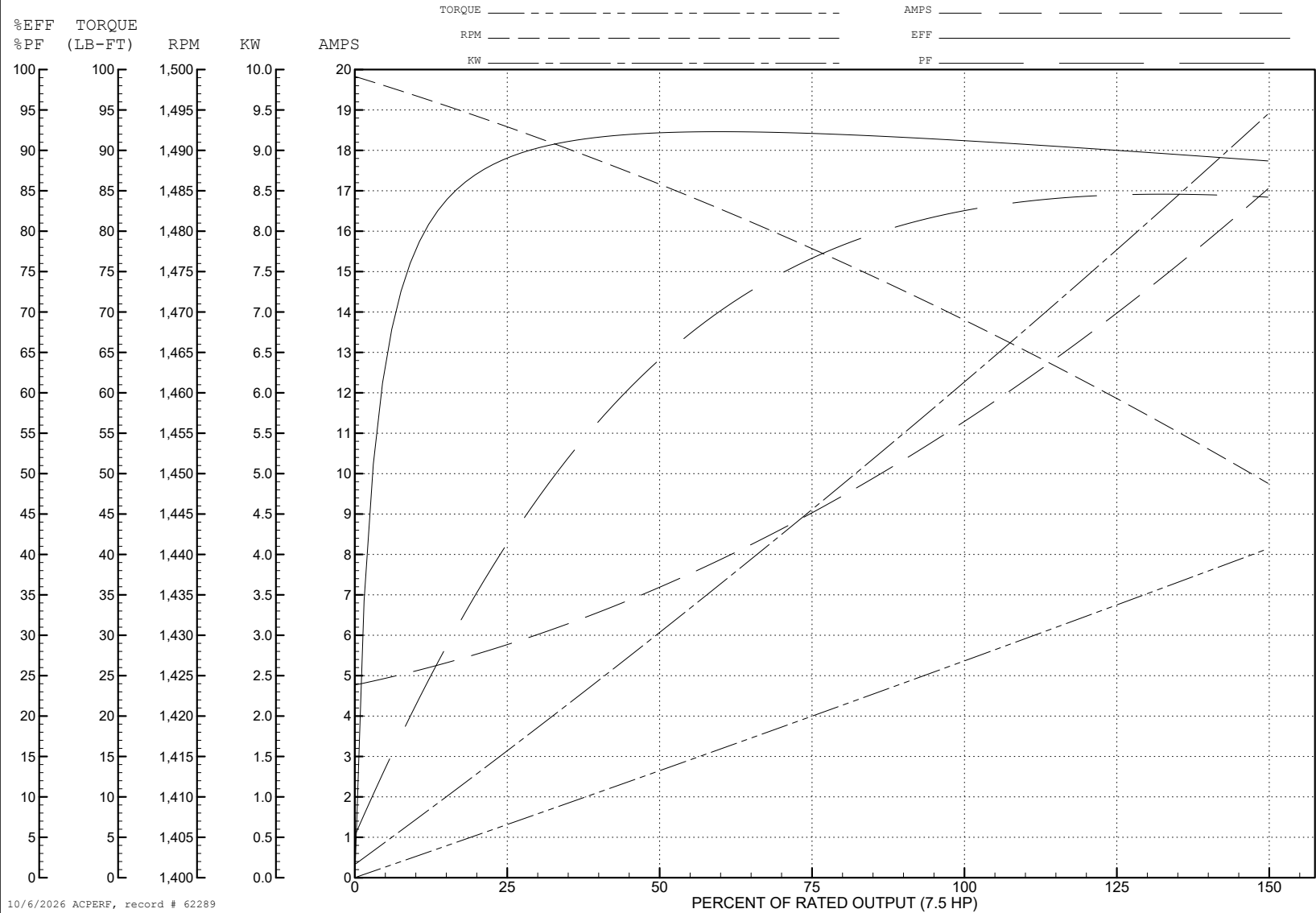
ABB Motors and Mechanical Inc.

WINDING # 37WGZ616

Typical performance - not guaranteed values.

7.5 HP 3 PH 50 HZ 1469 RPM 380 V 3742M

TORQUES (LB-FT) : PO=78.35 PU=39.22 LR=51.57 LRA=79.58



AC Induction Motor Performance Data

Record # 104161

Typical performance - not guaranteed values

Winding: 37WGZ616-R002		Type: 3742M	Enclosure: TEFC
Nameplate Data		208 V, 60 Hz: Low Voltage Connection	
Rated Output (HP)	7.5	Full Load Torque	22.15 LB-FT
Volts	208-230/460//190/380	Start Configuration	direct on line
Full Load Amps	20.4-19.6/9.8//22.8/11.4	Breakdown Torque	66.5 LB-FT
R.P.M.	1760//1460	Pull-up Torque	30.3 LB-FT
Hz	60//50 Phase	Locked-rotor Torque	39.8 LB-FT
NEMA Design Code	A KVA Code	Starting Current	146 A
Service Factor (S.F.)	1.15	No-load Current	8.33 A
NEMA Nom. Eff.	91.7 Power Factor	Line-line Res. @ 25°C	0.302 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	41°C
S.F. Amps		Temp. Rise @ S.F. Load	50°C
		Locked-rotor Power Factor	37.3
		Rotor inertia	1.03 LB-FT ²

Load Characteristics 208 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	46	68	78	82	85	85	84
Efficiency	88.3	91.9	92.4	91.9	90.9	89.7	91.3
Speed	1793	1786	1777	1769	1758	1748	1762
Line amperes	9.63	12.47	16.13	20.42	25.23	30.37	23.3

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WINDING # 37WGZ616

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1769 RPM 208 V 3742M

TORQUES (LB-FT): PO=66.5 PU=30.3 LR=39.8 LRA=146

