

ABB BALDOR RELIANCE III

Customer information packet

GNEM3704T

3HP//2.2KW, 1170//960RPM, 3PH, 60//50HZ, 213

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	3.000 HP @ 60 HZ 2.200 KW @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1200 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 WEEE UKCA CURUSEEV IE3 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	9.400 A @ 208.0 V 9.000 A @ 230.0 V 5.200 A @ 380.0 V

Part Detail

Revision	A
Type	AC
Mech. spec.	37H244
Base	
Status	PRD/A
Elec. spec.	37WGS519
Layout	37LYH244
Eff. date	05-13-2024
CD Diagram	CD0005
Poles	06
Leads	9#14
Proprietary	False
Created date	09-12-2023

	4.500 A @ 460.0 V
	10.400 A @ 190.0 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 Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	4.5 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	L
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3738M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	19.02 IN
Power Factor	68
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 Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible

Shaft Slinger Indicator	No Slinger
Speed	1170 rpm
	960 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.	GNEM3704T								
SPEC.	37H244S519G6								
HP	3HP//2.2KW						PH	3	
VOLTS	208-230/460//190/380								
AMPS	9.4-9/4.5//10.4/5.2								
R.P.M. (1/MIN)	1170//960						WT.	61KG	KG
FRAME	213T		HZ	60//50			I.P.	44	
SER.F.	1.15	CODE	L	DES.	B	CLASS	F		
NOM.EFF.	89.5//84.4		% (100%)						
P.F.	68	IC411, 10:1 VT							
RATING	40C AMB-S1 CONT				CC	010A			
DE	6307		ODE	6206					
ENCL	TEFC	SN							
	SFA 10.8-10.2/5.1//12/6								
	IE3-50HZ 89.2(75%),88.4(50%)								
	IE3-60HZ 89.4(75%),87.7(50%)								

AC Induction Motor Performance Data

Record # 101064

Typical performance - not guaranteed values

Winding: 37WGS519-R065			Type: 3738M		Enclosure: TEFC			
Nameplate Data				460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		3HP//2.2KW		Full Load Torque		13.44 LB-FT		
Volts		208-230/460//190/380		Start Configuration		direct on line		
Full Load Amps		9.4-9/4.5//10.4/5.2		Breakdown Torque		46.2 LB-FT		
R.P.M.		1170//960		Pull-up Torque		29.2 LB-FT		
Hz		60//50	Phase	3	Locked-rotor Torque		37.8 LB-FT	
NEMA Design Code		B		KVA Code	L	Starting Current		34.4 A
Service Factor (S.F.)		1.15		No-load Current		2.6 A		
NEMA Nom. Eff.		89.5	Power Factor	68	Line-line Res. @ 25°C		2.5761 Ω	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		37°C		
S.F. Amps		10.8-10.2/5.1//12/6		Temp. Rise @ S.F. Load		44°C		
				Locked-rotor Power Factor		22.9		
				Rotor inertia		0.97 lb-ft²		

Load Characteristics 460 V, 60 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	30	49	61	68	72	74	70
Efficiency	81	87.7	89.4	89.5	88.8	87.7	89.1
Speed	1194	1185.9	1178.9	1171.9	1161.8	1151.7	1166
Line amperes	2.79	3.24	3.85	4.61	5.49	6.44	5.14

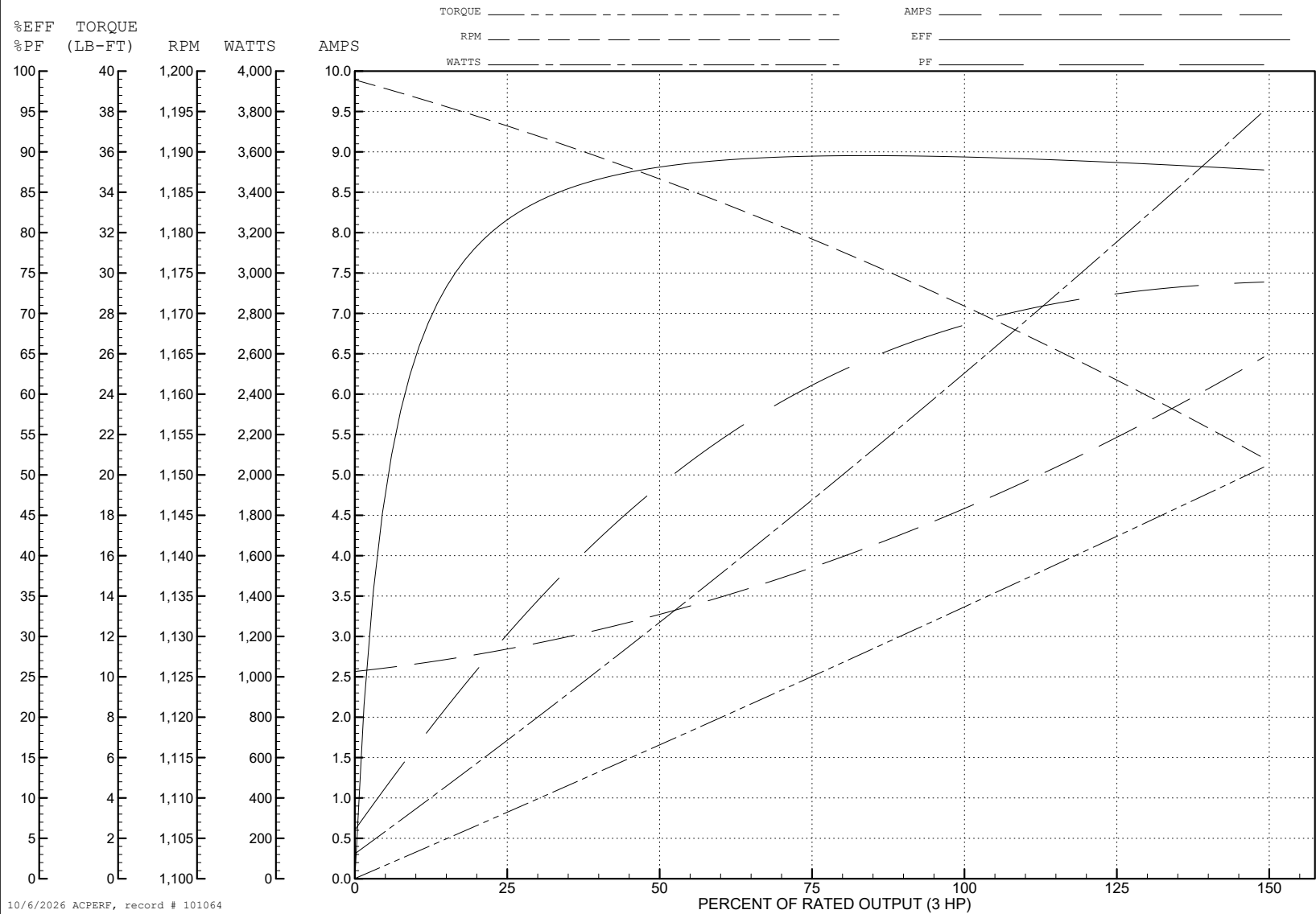
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WINDING # 37WGS519

Typical performance - not guaranteed values.

3 HP 3 PH 60 HZ 1171.9 RPM 460 V 3738M

TORQUES (LB-FT): PO=46.2 PU=29.2 LR=37.8 LRA=34.4



AC Induction Motor Performance Data

Record # 101065

Typical performance - not guaranteed values

Winding: 37WGS519-R065		Type: 3738M	Enclosure: TEFC	
Nameplate Data			380 V, 50 Hz: High Voltage Connection	
Rated Output (HP)	3HP//2.2KW		Full Load Torque	16.28 LB-FT
Volts	208-230/460//190/380		Start Configuration	direct on line
Full Load Amps	9.4-9/4.5//10.4/5.2		Breakdown Torque	48.6 LB-FT
R.P.M.	1170//960		Pull-up Torque	35.1 LB-FT
Hz	60//50	Phase 3	Locked-rotor Torque	37.4 LB-FT
NEMA Design Code	B	KVA Code L	Starting Current	33.3 A
Service Factor (S.F.)	1.15		No-load Current	2.53 A
NEMA Nom. Eff.	89.5	Power Factor 68	Line-line Res. @ 25°C	2.67 Ω
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	49°C
S.F. Amps	10.8-10.2/5.1//12/6		Temp. Rise @ S.F. Load	62°C
			Locked-rotor Power Factor	26.5
			Rotor inertia	0.945 LB-FT2

Load Characteristics 380 V, 50 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	35	57	68	73	76	76	70
Efficiency	84.7	88.4	89.2	88.6	86.9	84	89.1
Speed	992	983	973	963	950	933	1166
Line amperes	2.77	3.38	4.24	5.23	6.51	7.98	5.14

ABB Motors and Mechanical Inc.

WINDING # 37WGS519

Typical performance - not guaranteed values.

3 HP 3 PH 50 HZ 963 RPM 380 V 3738M

TORQUES (LB-FT) : PO=48.6 PU=35.1 LR=37.4 LRA=33.3

