

ABB BALDOR RELIANCE III

Customer information packet

SPM3709T

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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	WEEE NEMA PREMIUM 4
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	18.000 A @ 230.0 V 9.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	90.2 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.0 a
Insulation Class	F

Part Detail

Revision	A
Type	AC
Mech. spec.	37T646
Base	
Status	PRD/A
Elec. spec.	37WGL869
Layout	37LYT646
Eff. date	05-03-2024
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	09-05-2023

Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Max Speed	5400 rpm
Motor Lead Quantity/Wire Size	9 @ 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
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	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

NP4423A01A01L												
CAT #	SPM3709T					WGT	121	LBS				
SPEC	37T646L869					ENCL	TEFC					
SER #						CC	010A	IP	54			
HP	7.5	MAG CUR				7/3.5						
VOLTS	230/460					NEMA NOM. EFF				90.2		
AMPS	18/9					PF	86					
RATING	40C AMB-CONT											
RPM	3520					MAX RPM		5400				
FRAME	213T	HZ	60		CODE	J	CLASS		F			
SER.F.	1.15	SF AMP	20/10				PH	3	DES	A		
DE	6307		ODE		6206							
LUBRICATION	POLYREX EM											
ID LOGO	INVERTER TYPE		VPWM		CHP	60	TO		90	1.5:1		
ID LOGO	WK2	0.255	CT	6	TO	60	10:1					
ID LOGO	SL HZ	1.3	VT	3	TO	60	20:1					

AC Induction Motor Performance Data

Record # 100959

Typical performance - not guaranteed values

Winding: 37WGL869-R011			Type: 3728M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		7.5	Full Load Torque		11.2 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		18/9	Breakdown Torque		40.3 LB-FT		
R.P.M.		3520	Pull-up Torque		19.7 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		21.8 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		68.4 A
Service Factor (S.F.)		1.15	No-load Current		3.52 A		
NEMA Nom. Eff.		90.2	Power Factor	86	Line-line Res. @ 25°C		1.16 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		50°C
S.F. Amps		20/10	Temp. Rise @ S.F. Load		61°C		
			Locked-rotor Power Factor		33.7		
			Rotor inertia		0.255 lb-ft²		

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	49	71	81	86	88	89	87
Efficiency	87.4	91.5	92.1	91.6	90.8	89.4	91.1
Speed	3580	3560	3540	3518	3494	3468	3504
Line amperes	4.1	5.4	7.06	8.96	11	13.2	10.2

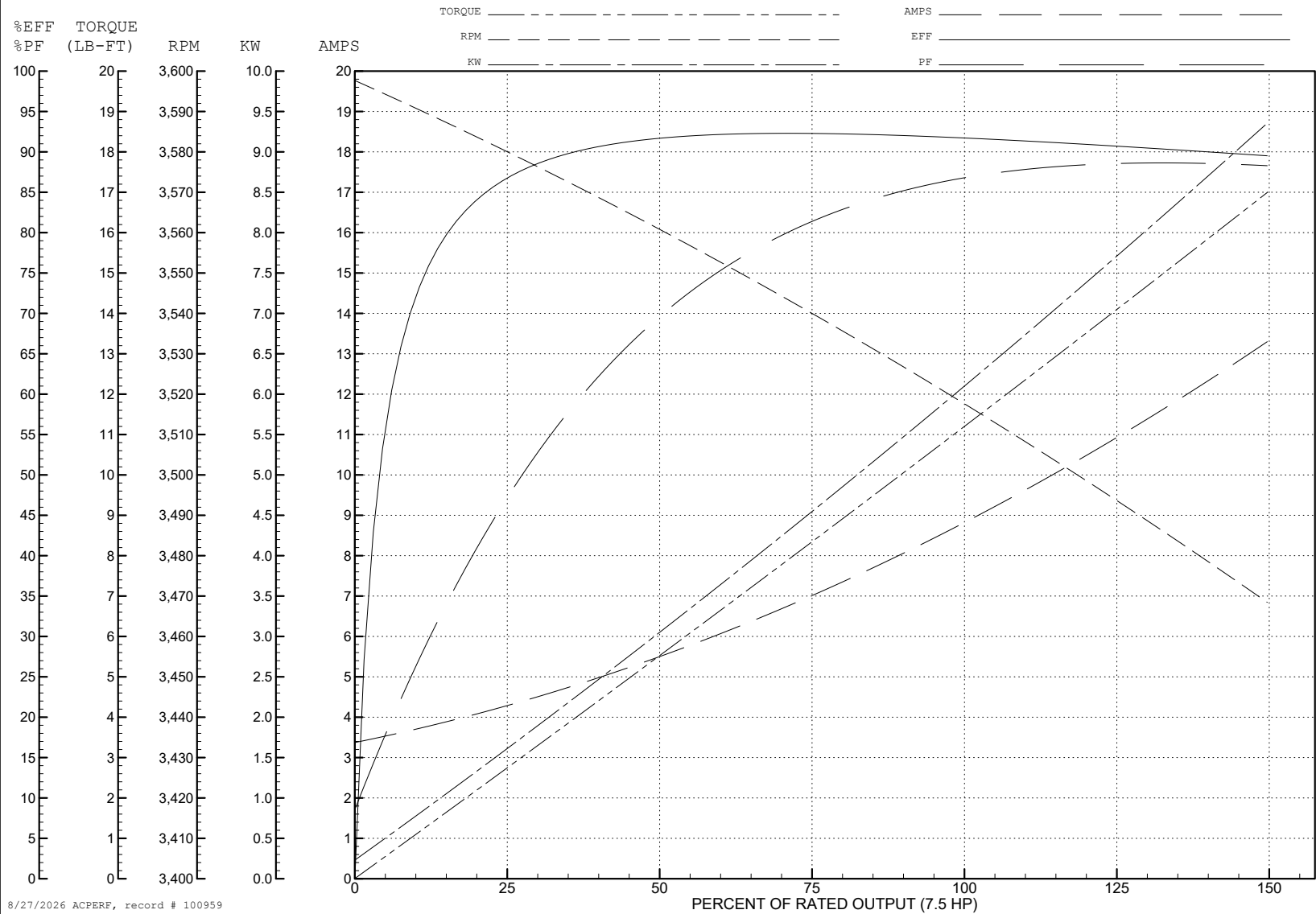
ABB Motors and Mechanical Inc.

WINDING # 37WGL869

Typical performance - not guaranteed values.

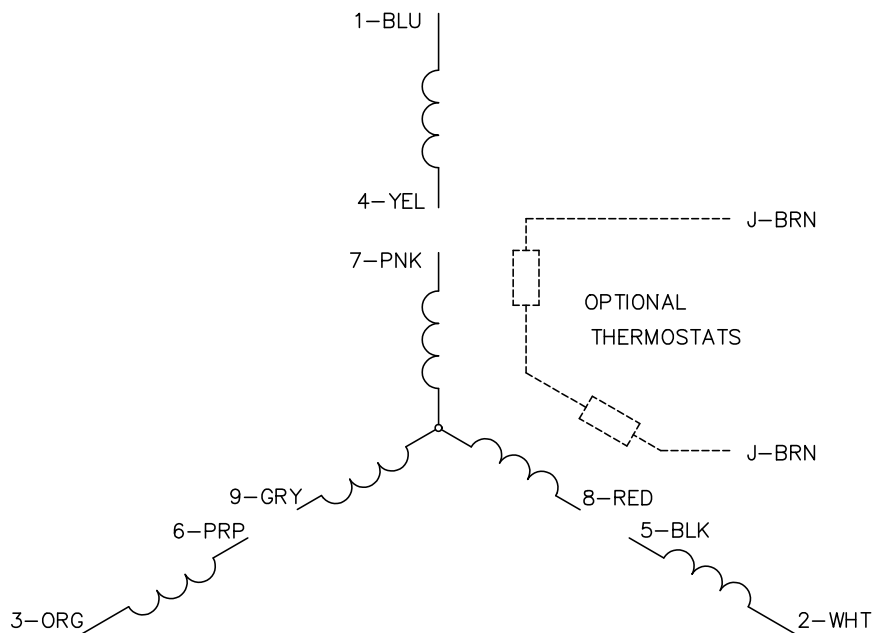
7.5 HP 3 PH 60 HZ 3520 RPM 460 V 3728M

TORQUES (LB-FT): PO=40.3 PU=19.7 LR=21.8 LRA=68.4

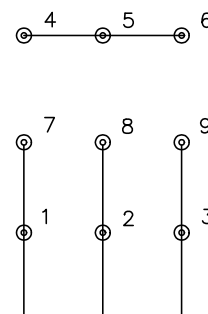




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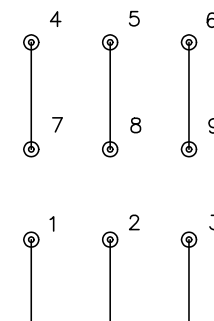


LOW VOLTAGE
(2Y)



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