

ABB BALDOR RELIANCE III

Customer information packet

EM3709T-BG

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	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CSA CSA EEV 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	19.400 A @ 208.0 V 9.000 A @ 460.0 V 18.000 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
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	R
Type	AC
Mech. spec.	37N339
Base	
Status	PRD/A
Elec. spec.	37WGR224
Layout	37LYN339
Eff. date	04-01-2026
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	10-04-2013

Heater Indicator	No Heater
High Voltage Full Load Amps	9.0 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	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	3728M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	17.89 IN
Power Factor	84
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	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

NP3441L											
CAT.NO.	EM3709T-BG										
SPEC.	37N339R224G1										
HP	7.5										
VOLTS	230/460										
AMP	18/9										
RPM	3520										
FRAME	213T		HZ	60				PH	3		
SER.F.	1.15	CODE	J	DES	A	CL	H				
NEMA-NOM-EFF	89.5	PF	84								
RATING	40C AMB-CONT										
CC	010A										
DE	6307		ODE	6206							
ENCL	TEFC	SN									
VPWM INVERTER READY											
CT6-60H(10:1)VT3-60H(20:1											

AC Induction Motor Performance Data

Record # 53379

Typical performance - not guaranteed values

Winding: 37WGR224-R034				Type: 3728M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		7.5		Full Load Torque		10.9 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		18/9		Breakdown Torque		40.4 LB-FT	
R.P.M.		3520		Pull-up Torque		20.6 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		3.73 A	
NEMA Nom. Eff.		89.5	Power Factor	84	Line-line Res. @ 25°C		1.1531 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		45°C	
S.F. Amps				Temp. Rise @ S.F. Load		54°C	
				Locked-rotor Power Factor		33	
				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	45	69	79	84	87	89	86
Efficiency	81.5	88.8	90.5	90.6	90.1	89.2	90.3
Speed	3580.5	3562.7	3541.6	3520.3	3496.3	3470.9	3506
Line amperes	4.22	5.36	7.03	8.94	11	13.1	10.2

ABB Motors and Mechanical Inc.

WINDING # 37WGR224

Typical performance - not guaranteed values.

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

TORQUES (LB-FT): PO=40.4 PU=20.6 LR=21.8 LRA=68.4





