

ABB BALDOR RELIANCE III

Customer information packet

EM3709

7.5HP, 3488RPM, 3PH, 60HZ, 215, 3640M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	215
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	CURUSEEV 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	22.600 A @ 230.0 V 11.300 A @ 460.0 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 Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	11.3 a
Insulation Class	F

Part Detail

Revision	A
Type	AC
Mech. spec.	36G890
Base	
Status	PRD/A
Elec. spec.	36WGZ654
Layout	36LYG890
Eff. date	09-14-2026
CD Diagram	CD0005
Poles	02
Leads	9#16
Proprietary	False
Created date	11-07-2025

Inverter Code	Inverter Ready
KVA Code	L
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 16 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3640M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	18.17 IN
Power Factor	86
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	1.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3488 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

NP1259L									
CAT.NO.	EM3709								
SPEC.	36G890Z654								
HP	7.5								
VOLTS	230/460								
AMP	17.6/8.8								
RPM	3490								
FRAME	215		HZ	60			PH	3	
SER.F.	1.15	CODE	L	DES	A	CL	F		
NEMA-NOM-EFF	89.5	PF	86						
RATING	40C AMB-CONT								
CC	010A								
DE	6206		ODE	6205					
ENCL	TEFC	SN							

AC Induction Motor Performance Data

Record # 115765

Typical performance - not guaranteed values

Winding: 36WGZ654-R001			Type: 3640M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		7.5	Full Load Torque		11.39 LB-FT		
Volts		208-230/460	Start Configuration		direct on line		
Full Load Amps		25-22.6/11.3	Breakdown Torque		76.7 LB-FT		
R.P.M.		3488	Pull-up Torque		45.1 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		57.2 LB-FT	
NEMA Design Code		A	KVA Code	Starting Current		109 A	
Service Factor (S.F.)		1.15	No-load Current		3.6 A		
NEMA Nom. Eff.		89.5	Power Factor	Line-line Res. @ 25°C		1.4142 Ω	
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		75°C
S.F. Amps					Temp. Rise @ S.F. Load		93°C
					Locked-rotor Power Factor		50

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	51	73	83	89	91	92	90
Efficiency	84.8	89.7	90.4	90	88.9	87.5	89.3
Speed	3571.6	3545.5	3517.7	3488.2	3456.6	3423.4	3469
Line amperes	4.17	5.41	7.06	8.89	10.9	13	10.1

ABB Motors and Mechanical Inc.

WINDING # 36WGZ654

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3488 RPM 460 V 3640M

TORQUES (LB-FT): PO=76.7 PU=45.1 LR=57.2 LRA=109





