

ABB BALDOR RELIANCE III

Customer information packet

CEDM3709T

7.5HP, 3520RPM, 3PH, 60HZ, 213TC, 3728M, TEFC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	213TC
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	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM 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
Constant Torque Speed Range	6
Current @ Voltage	9.000 A @ 460.0 V 19.000 A @ 208.0 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

Part Detail

Revision	F
Type	AC
Mech. spec.	37N854
Base	
Status	PRD/A
Elec. spec.	37WGR224
Layout	37LYN854
Eff. date	06-24-2021
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	04-14-2016

Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
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	18.63 IN
Power Factor	84
Product Family	Dirty Duty Plus
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
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	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

NP3504											
CAT NO	CEDM3709T										
SPEC.	37N854R224G1					ENCL	TEFC				
FRAME	213TC	HP	7.5								
VOLTS	230/460										
FLA	18/9		I.P.	56							
RPM	3520	RPM MAX			5400						
HZ	60	PH	3	CLASS	F						
SER.F.	1.15	DES	A	CC	010A						
NEMA-NOM-EFF	89.5										
RATING	40C AMB-CONT										
DE BRG	6307	ODE BRG				6206					
GREASE	POLYREX EM										
C HP FR	60	C HP TO		90							
CT HZ FROM	6	CT HZ TO			60	VT HZ FROM	6	VT HZ TO		60	
SER.NO	50C AT 1.0 SF										

AC Induction Motor Performance Data

Record # 55732

Typical performance - not guaranteed values

Winding: 37WGR224-R038			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		1.1 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		45°C
S.F. Amps					Temp. Rise @ S.F. Load		55°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	90.7	90.2	89.4	90.3
Speed	3581	3563	3542	3520	3496	3471	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





