

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										

Parts List

Part number	Description	Quantity
SA319731	SA 37N854R224G1	1.000 ea
RA307440	RA 37N854R224G1	1.000 ea
HW3200A01	3/8-16X3/4 EYEBOLT WELDED F/S	1.000 ea
37CB1000A17E	37 KOBX .75 NPT @ 6:00 (E-COAT)	1.000 ea
37GS1016B01	SANTOPRENE KOBX GASKET W/LIP (BLACK)	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
37EP1100E37EP5	FRONT TEFC 206 BRG W/CLIPPER	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW4606A03	JM CLIPPER/SEAL (LWE-1156-1875-AL44)	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
37EP1300B75E	PULLEY 213-5TC ENCL 307 BRG (E-COAT)	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW4606A04	JM CLIPPER/SEAL (LWE-1376-2125-AL45)	1.000 ea
HW4500S33	1/8 NPT STAINLESS #304 SS PLUG	3.000 ea
10XN2520S28	1/4-20X 1 3/4 HEX HD SS X	4.000 ea
XY3118S12	5/16-18 HEX NUT, STAINLESS STEEL	4.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
07FH4011EP5	FH CAST - POWDER COAT PRIMER 5 MILS	1.000 ea
10XN1032S08	10-32X1/2 HEX HEAD S STL	3.000 ea
36CB4518E	36 LIPPED CB LID E-COATING	1.000 ea
37GS1003	1/16 NEOPRENE GASKET-BLACK, CONDUIT BOX	1.000 ea
59XN0832S07	8/32 X 7/16 HX WS HD SER X	4.000 ea
HW2502F21	#303 SS,SQ KEY 5/16 X 2.375	1.000 ea
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 ea
MJ5001A02	732 CL SEALANT 3 OZ DIXIE BEARING 289100	0.001 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1164	LABEL,WARNING AND DRAIN	1.000 ea
MJ5001A23	P.D. GEORGE B-276 AIR DRY VARNISH	0.001 ga

LB1000	LABEL, DIRTY DUTY	1.000 ea
WD1000D21	TRM,T&B #B71M,RING,18-14,.25,NON-INSL	9.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1500Y02	WILKOPON PRIMER YELLOW	0.010 ga
MG1025L01	WILKOFAST FD, 786.04, BLACK	0.010 ga
36FN3000C02SP	EXFN, PLASTIC, 5.25 OD, 1.175 ID	1.000 ea
HA3104S14	THRUBOLT 12.125LG SS	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP3504	SS DIRTY DUTY PLUS,INV,CURUS EEV,NEMA PR	1.000 ea
37PA1074	PALLET PACK GRP, PRINT BOX PK1026A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

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	
Service Factor (S.F.)		1.15	No-load Current		3.73 A	
NEMA Nom. Eff.		89.5	Power Factor		84	
Rating - Duty		40C	AMB-CONT			
S.F. Amps			Temp. Rise @ Rated Load		45°C	
			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





