

ABB BALDOR RELIANCE III

Customer information packet

FDEM3709T

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	CSA CSA EEV 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
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
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

Part Detail

Revision	E
Type	AC
Mech. spec.	37N377
Base	
Status	PRD/A
Elec. spec.	37WGL869
Layout	37LYN377
Eff. date	11-27-2024
CD Diagram	CD0005
Poles	02
Leads	9#14
Proprietary	False
Created date	01-28-2021

Heater Indicator	No Heater
High Voltage Full Load Amps	9.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
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	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft 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

NP3126L											
CAT.NO.	FDEM3709T										
SPEC.	37N377L869G1										
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	F				
NEMA-NOM-EFF	89.5	PF	84								
RATING	40C AMB-CONT										
CC	010A										
DE	6307		ODE	6206							
ENCL	TEFC	SN									
	IP44										

Parts List

Part number	Description	Quantity
SA390893	SA 37N377L869G1	1.000 ea
RA381362	RA 37N377L869G1	1.000 ea
36FN3000B02	EXFN, PLASTIC, 6.00 OD, 1.175 ID	1.000 ea
HW3200A01	3/8-16X3/4 EYEBOLT WELDED F/S	1.000 ea
37CB3006	37 CB CASTING W/1.38 LEAD HOLE @ 6:00	1.000 ea
37GS1000SP	GASKET, CONDUIT BOX STD., .06 THICK LEXI	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
37EP3101A04	FR ENDPLATE, MACH	1.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
37PE3100A42	37 PUEP ASSEMBLY FOR SEAL	1.000 ea
HW4600H13	SEAL 1.375 X 2.125 X 0.313 SINGLE LIP DB	1.000 ea
HW4600B33	V-RING SLINGER 1.375 X 1.890 X .35 VITON	1.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
07FH4007A07	IEC FH NO GRSR, NOTCH @ 6:00 & 3 F/C HOL	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
37CB4516	LIPPED LID FOR 37 FRAME NEC KOBX	1.000 ea
37GS1008	37 GS FOR CB LID - LEXIDE	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 ea
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.001 qt
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
MG1025C02	WILKOFASST SG, 787.105, TAN	0.028 ga
HA3104A14	THRUBOLT- 5/16-18 X12.125(OHIO)	4.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
NP3126L	ALUM FARM DUTY SUPER-E UL CSA-EEV PREM	1.000 ea
37PA1074	PALLET PACK GRP, PRINT BOX PK1026A06	1.000 ea

FE-0000001	ZRTG FE ASSEMBLY	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

AC Induction Motor Performance Data

Record # 86805

Preliminary Data Sheet

Winding: 37WGL869-R002				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.		89.5	Power Factor	84	Line-line Res. @ 25°C		1.19 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		50°C	
S.F. Amps		20/10		Temp. Rise @ S.F. Load		63°C	
				Locked-rotor Power Factor		38.1	
				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	83.9	89.7	91	90.9	90.2	89.2	90.3
Speed	3580	3560	3540	3518	3494	3468	3500
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





