

ABB BALDOR RELIANCE III

Customer information packet

EHM4104T

30HP, 1770RPM, 3PH, 60HZ, 286T, 1060M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	286T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	30.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 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	76.000 A @ 230.0 V 78.000 A @ 208.0 V 38.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	Y
Type	AC
Mech. spec.	10H756
Base	
Status	PRD/A
Elec. spec.	10WGY648
Layout	10LYH756
Eff. date	07-10-2024
CD Diagram	CD0005
Poles	04
Leads	9#10
Proprietary	False
Created date	12-12-2011

Heater Indicator	No Heater
High Voltage Full Load Amps	38.0 a
Insulation Class	F
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 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1060M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.76 IN
Power Factor	79
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	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	Mounting Provisions Only
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	NONE (OLD)
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2

None

Nameplate

NP2138L															
CAT.NO.	EHM4104T			P/N					ENCLOSURE		TEFC				
SPEC.	10H756Y648G1			CC	010A		FRAME		286T		S/N				
HP	30			CLASS		F		HZ		60					
RPM	1770			PH	3		DES		A						
VOLT	230/460					KVA-CODE			J		ODE BRG		6309	DE BRG	6311
AMP	76/38														
RATING	40C AMB-CONT				GREASE			POLYREX EM							
NEMA-NOM-EFF	93.6	PF	79	SER.F.		1.15									
HTR-VOLTS			HTR-AMPS												

Parts List

Part number	Description	Quantity
SA235708	SA 10H756Y648G1	1.000 ea
RA222667	RA 10H756Y648G1	1.000 ea
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
10EP1106A01	FR ENDPLATE, MACH	1.000 ea
10XN3816K32	BOLT, 3/8-16X2 HH YZ(5)	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
10XN2520K36	1/4-20 X 2.00 HX HD SCRW GRADE 5, ZINC P	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
10EP1105A106	PU ENDPLATE, MACH W/1/2 SH GND MTG	1.000 ea
84XN0632J08	#6-32 X .50 SOCK HD, BK OX	2.000 ea
84XN0540J08	5-40 X 1/2" SHCS, BLACK OXIDE	3.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10FH4000	310 FAN HOUSING STAMPED, PRIMED W/O P SU	1.000 ea
51XF2520A08	SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L	4.000 ea
10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
10GS1000	GASKET, CONDUIT BOX LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HW4500A35	1/8 NPT STEEL HEX CAP, ZINC	1.000 ea

HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
HW4500A20	1/8NPT SL PIPE PLUG	2.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.070 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	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
NP2138L	ALUM SUPER-E UL PREM CC (300	1.000 ea
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A07	1.000 ea
LB1350	BAR CODE LABEL FOR YORK	1.000 ea
FE-0000022	ZRTG FE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 53027

Typical performance - not guaranteed values

Winding: 10WGY648-R002			Type: 1060M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		30	Full Load Torque		88.9 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		76/38	Breakdown Torque		314 LB-FT		
R.P.M.		1770	Pull-up Torque		151 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		172 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		274 A
Service Factor (S.F.)		1.15	No-load Current		19.3 A		
NEMA Nom. Eff.		93.6	Power Factor	79	Line-line Res. @ 25°C		0.182 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		55°C
S.F. Amps					Temp. Rise @ S.F. Load		66°C
					Locked-rotor Power Factor		32
					Rotor inertia		4.77 LB-FT ²

Load Characteristics 460 V, 60 Hz, 30 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	38	60	70	79	81	82	80
Efficiency	90	93.4	94.2	94.3	93.8	93.2	94
Speed	1795	1789	1783	1777	1771	1763	1773
Line amperes	21	25.5	32.1	37.6	46.3	54.8	42.8

ABB Motors and Mechanical Inc.

WINDING # 10WGY648

Typical performance - not guaranteed values.

30 HP 3 PH 60 HZ 1770 RPM 460 V 1060M

TORQUES (LB-FT): PO=314 PU=151 LR=172 LRA=274





