

ABB BALDOR RELIANCE III

Customer information packet

EM2280T

52M 8P TEFC HOR 254T

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	254T
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	5.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	900 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM NEMA PREMIUM (OLD LOGO)
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	17.800 A @ 208.0 V 8.600 A @ 460.0 V 17.200 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	G
Type	AC
Mech. spec.	09P11
Base	
Status	PRD/A
Elec. spec.	09WGT414
Layout	09LYP011
Eff. date	03-19-2024
CD Diagram	CD0005
Poles	08
Leads	9#12
Proprietary	False
Created date	12-16-2021

High Voltage Full Load Amps	8.6 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0952M
Mounting Arrangement	F1
Number of Poles	8
Overall Length	23.36 IN
Power Factor	61
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	880 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

NP3441LUA									
CAT.NO.	EM2280T								
SPEC	09P011T414								
HP	5								
VOLTS	230/460								
AMPS	17.2/8.6								
RPM	880								
FRAME	254T		HZ	60			PH	3	
SF	1.15		CODE	K	DES	A	CLASS	F	
NEMA NOM. EFF	86.5		PF	61					
RATING	40C AMB-CONT								
CC	010A								
ENCL	TEFC		SER						
DE	6309			ODE	6208				
VPWM INVERTER READY		SFA 19/9.5							
CT6-60H(10:1)VT3-60H(20:1									
	50HZ 5HP 190/380V 19.6/9.8A								

Parts List

Part number	Description	Quantity
SA400206	SA 09P011T414	1.000 ea
RA391357	RA 09P011T414	1.000 ea
HW1002A63	WASHER, 5/8 HI-COLLAR SPRICKWASHER	1.000 ea
09CB3003	CB W/1.75" DIA LD HL - 37, 39, 307 & 309	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 ea
HA3400A33	STUD- 3/8-16 X 4.96 HEX	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 ea
09EP1101A136	PU ENDPLATE, MACH	1.000 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
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 ea
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
09FH4000SP	309 FH - BLACK PRIMER	1.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 ea
09GS1013SP	GS FOR 09CB3501, 12CB1500 & 12CB1503 LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 ea
09EP1100A208	ENDPLATE, MACH	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
HW4500A05	1669B ALEM/UNIV860 GR FTG X	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea

HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.080 lb
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
09FN3001D01SP	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.070 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP3441LUA	AL SUPER-E VPWM INV RDY,UL EEV,NEMA PREM	1.000 ea
09PA1000	PACKAGING GROUP COMBINED PRINT	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LD7020D09	LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS	1.000 ea
PE-0000003	ZRTG PE ASSEMBLY	1.000 ea
FE-0000013	ZRTG FE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 62448

Typical performance - not guaranteed values

Winding: 09WGT414-R001				Type: 0952M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		5		Full Load Torque		29.55 LB-FT	
Volts		230/460		Start Configuration		direct on line	
Full Load Amps		17.2/8.6		Breakdown Torque		82 LB-FT	
R.P.M.		880		Pull-up Torque		46.8 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		72.2 LB-FT	
NEMA Design Code		A	KVA Code	K	Starting Current		53.5 A
Service Factor (S.F.)		1.15		No-load Current		5.53 A	
NEMA Nom. Eff.		86.5	Power Factor	61	Line-line Res. @ 25°C		1.6349 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		42°C	
S.F. Amps		19/9.5		Temp. Rise @ S.F. Load		50°C	
				Locked-rotor Power Factor		27.3	
				Rotor inertia		4.19 lb-ft²	

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	26	42	54	61	66	70	64
Efficiency	78.6	86	87.9	88.2	87.6	86.6	87.8
Speed	896.5	893.4	889.8	886	882.1	877.6	884
Line amperes	5.8	6.45	7.42	8.62	10	11.7	9.45

ABB Motors and Mechanical Inc.

WINDING # 09WGT414

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 880 RPM 460 V 0952M

TORQUES (LB-FT): PO=82 PU=46.8 LR=72.2 LRA=53.5





