

ABB BALDOR RELIANCE III

Customer information packet

ZDNM2334T

20HP, 1780RPM, 3PH, 60HZ, 284T, 1056M, TENV, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	284T
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	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	UR CSA
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	26.000 A @ 460.0 V 52.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	ENCODER
Front Face Code	Encoder/Feedback Device
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	26.0 a

Part Detail

Revision	AG
Type	AC
Mech. spec.	10F679
Base	
Status	PRD/A
Elec. spec.	10GW586
Layout	10LYF679
Eff. date	06-13-2025
CD Diagram	CD0005
Poles	04
Leads	9#10
Proprietary	False
Created date	01-01-0001

Insulation Class	H
Inverter Code	Inverter Duty
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	4000 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.36 IN
Power Factor	77
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	NONE (OLD)
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1168L									
CAT NO	ZDNM2334T								
SPEC.	10F679W586Z1								
FRAME	284T			HP	20 TE				
VOLTS	230/460								
MAG CUR	29/14.5				FLA	52/26			
RPM	1780			RPM MAX		4000			
HZ	60		PH	3	CLASS			H	
SER.F.	1.00		DES	A	SL HZ			0.67	
NEMA-NOM-EFF	93		WK2		4.46				
BLWR V		PH		HZ		A			
RATING	40C AMB-CONT								
DE BRG	6311		ODE BRG			6309			
CC	010A	SER.NO							

Parts List

Part number	Description	Quantity
SA109284	SA 10F679W586Z1	1.000 ea
RA100776	RA 10F679W586Z1	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
10EP1104A215	FREP, TEBC W/THRU SH ENCODER DESIGN	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
10XN2520K12	1/4-20 X.75 GRD 5	1.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	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
HA1005A04	SLINGER, OD 3.620, ID 1.98,	1.000 ea
HA1005A26	SLINGER, OD 3.00, ID 1.75, 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 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
10EP1105A113	PU ENDPLATE, MACH	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	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
HA6881	BEI HS35 THRU SHAFT ENCODER PROTECTIVE C	1.000 ea
10XN3816K12	3/8-16 X 3/4 HEX HD CAP GRADE 5	3.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	3.000 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
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea

HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
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
OE5001A80SP	ENCDR KIT TENV W/OEHS35A10 W/BLIND SHAFT	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.125 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0145B01	CONNECTION LABEL	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
NP1168L	ALUM VEC UL CSA CC	1.000 ea
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A07	1.000 ea
PE-0000013	ZRTG PE ASSEMBLY	1.000 ea

ABB BALDOR/460 RELIANCE III		CUSTOMER INFORMATION PACKET		MAX SAFE RPM 2700 Base Volt 460	WYE CONN. EQ. CKT. OHMS PER PHASE (BASE RATING, 20C) R1 0.131 X1 0.594	
HP 20 HP				NL AMPS 14.50	R2 0.644 X2 0.478	
BASE SPEED 1784				Slips(HZ) 0.53	R2B 0.094 X2B 0.811	
PHASE/HZ 3/60				WK2 (LB-FT2) 4.440	R2E 0.027 XM 17.600	

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1784	20.3	59.8	460	60	26.1
Max Speed	2676	20.3	39.8	460	90	23.5
Min Speed	0	0.0	59.8	13.24	0.53	26.1

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	14.5
1/4	1796	5.1	15.0	460	60	15.6
1/2	1792	10.2	30.0	460	60	18.2
3/4	1788	15.3	44.8	460	60	21.7
Full Load	1784	20.3	59.8	460	60	26.1
O/L	1765	40.7	121.0	460	60	47.5

Blower Data	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data
Vector PWM Inverter Duty

BALDOR
A MEMBER OF THE ABB GROUP

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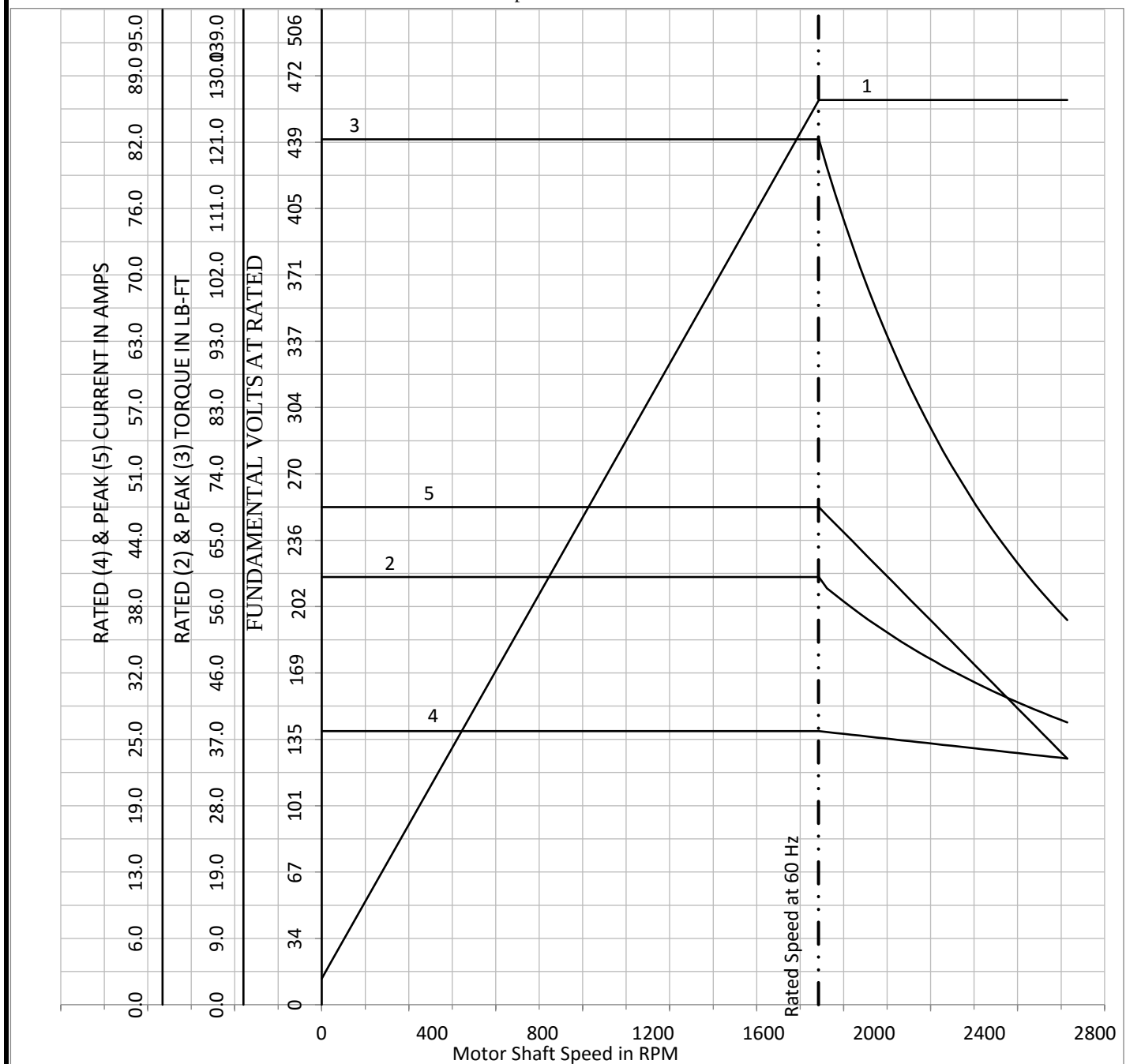
**A-C MOTOR
PERFORMANCE
CURVES**
10WGW586
Record: 2299

HP 20 HP
 BASE SPEED 1784
 PHASE/HZ 3/60

MAX SAFE RPM 2700
 Base Volt 460
 NL AMPS 14.50
 Slips(HZ) 0.53
 WK2 (LB-FT2) 4.440

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
 R1 0.131 X1 0.594
 R2 0.644 X2 0.478
 R2B 0.094 X2B 0.811
 R2E 0.027 XM 17.600

Vector PWM Inverter Duty
 Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only



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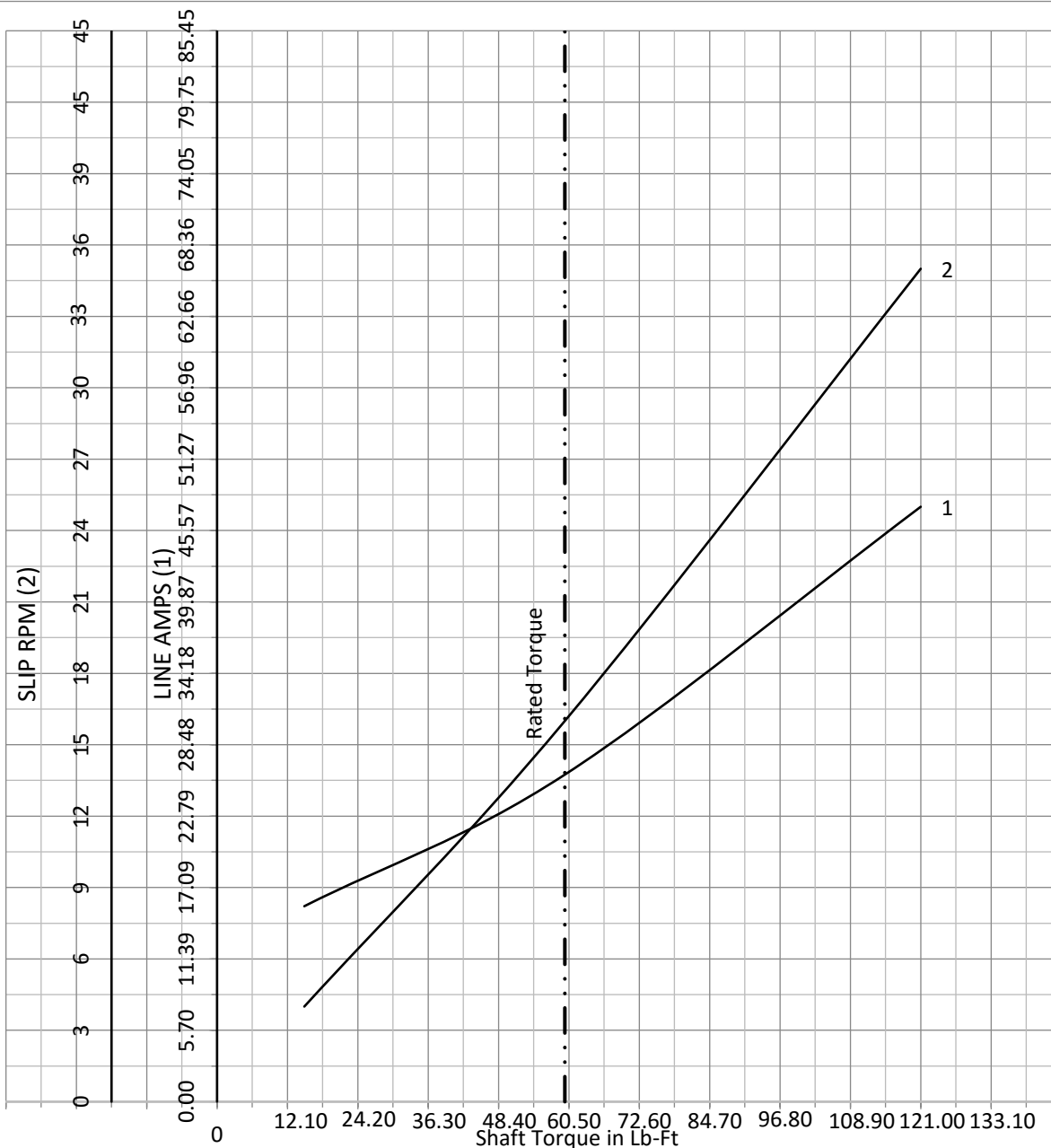
**A-C MOTOR
 PERFORMANCE
 CURVES**
10WGW586
 Record: 2299

HP 20 HP
 BASE SPEED 1784
 PHASE/HZ 3/60

MAX SAFE RPM 2700
 Z0NM2334T - 20HP, 1780RPM, 3
 Base Volt 460
 NL AMPS 14.50
 Slips(HZ) 0.53
 WK2 (LB-FT2) 4.440

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
 PH, 60HZ, 284T, 1056M, TENV, F1
 R1 0.131 X1 0.594
 R2 0.644 X2 0.478
 R2B 0.094 X2B 0.811
 R2E 0.027 XM 17.600

Vector PWM Inverter Duty
 Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only



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**A-C MOTOR
 PERFORMANCE
 CURVES**

10WGW586

Record: 2299

