

ABB BALDOR RELIANCE III

Customer information packet

ZDVSM4104T

30HP, 1760RPM, 3PH, 60HZ, 286TC, 1056M, TEFC, F

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	286TC
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	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	38.000 A @ 460.0 V 76.000 A @ 230.0 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	ENCODER
Front Face Code	Standard
Front Shaft Indicator	Standard
Heater Indicator	No Heater
High Voltage Full Load Amps	38.0 a

Part Detail

Revision	M
Type	AC
Mech. spec.	10H955
Base	
Status	PRD/A
Elec. spec.	10WGY538
Layout	10LYH955
Eff. date	06-05-2026
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	08-24-2017

Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	30.42 IN
Power Factor	80
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Extension Location	Double Shaft
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1760 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

NP3304L									
CAT NO	ZDVSM4104T								
SPEC.	10H955Y538Z1								
FRAME	286TC		HP	30 TE					
VOLTS	230/460								
MAG CUR	36/18			FLA	76/38				
RPM	1760		RPM MAX	2700					
HZ	60	PH	3	CLASS	F				
SER.F.	1.00		SL HZ	1.33					
NEMA-NOM-EFF	93.6		WK2	4.46					
RATING	40C AMB-CONT								
DE BRG	6311		ODE BRG	6309					
CC	010A	SER.NO							
	1.5:1 CHP PWM								
	1000:1 CT, 1000:1 VT								

ABB BALDOR/460 RELIANCE III		CUSTOMER INFORMATION PACKET		MAX SAFE RPM 2700 ZDVSM4104T - 30HP, 1760RPM, 3PH, 60HZ, 286TC, 1056M, TEFC, F	WYE CONN. EQ. CKT. OHMS PER PHASE (BASE RATING, 20C)
HP 30 HP	70/38	Base Volt 460	NL AMPS 17.90	R1 0.107	X1 0.492
BASE SPEED 1777		Slips(HZ) 0.78		R2 0.515	X2 0.443
PHASE/HZ 3/60		WK2 (LB-FT2) 4.470		R2B 0.075	X2B 0.692
				R2E 0.022	XM 12.800

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1776.5	30.0	88.7	460	60	37.6
Max Speed	2664	30.0	59.1	460	90	33.4
Min Speed	0	0.0	88.7	16.78	0.78	37.6

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1798.9	0.0	0.0	460	60	17.9
1/4	1792.2	7.5	22.1	460	60	19.8
1/2	1787.6	15.0	44.1	460	60	24.3
3/4	1782.4	22.5	66.2	460	60	30.7
Full Load	1776.5	30.0	88.7	460	60	37.6
O/L	1749	60.0	180.0	460	60	73.0

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

DR BY USBRRAN1
CK BY
APP BY USBRRAN1
DATE 8/24/2017

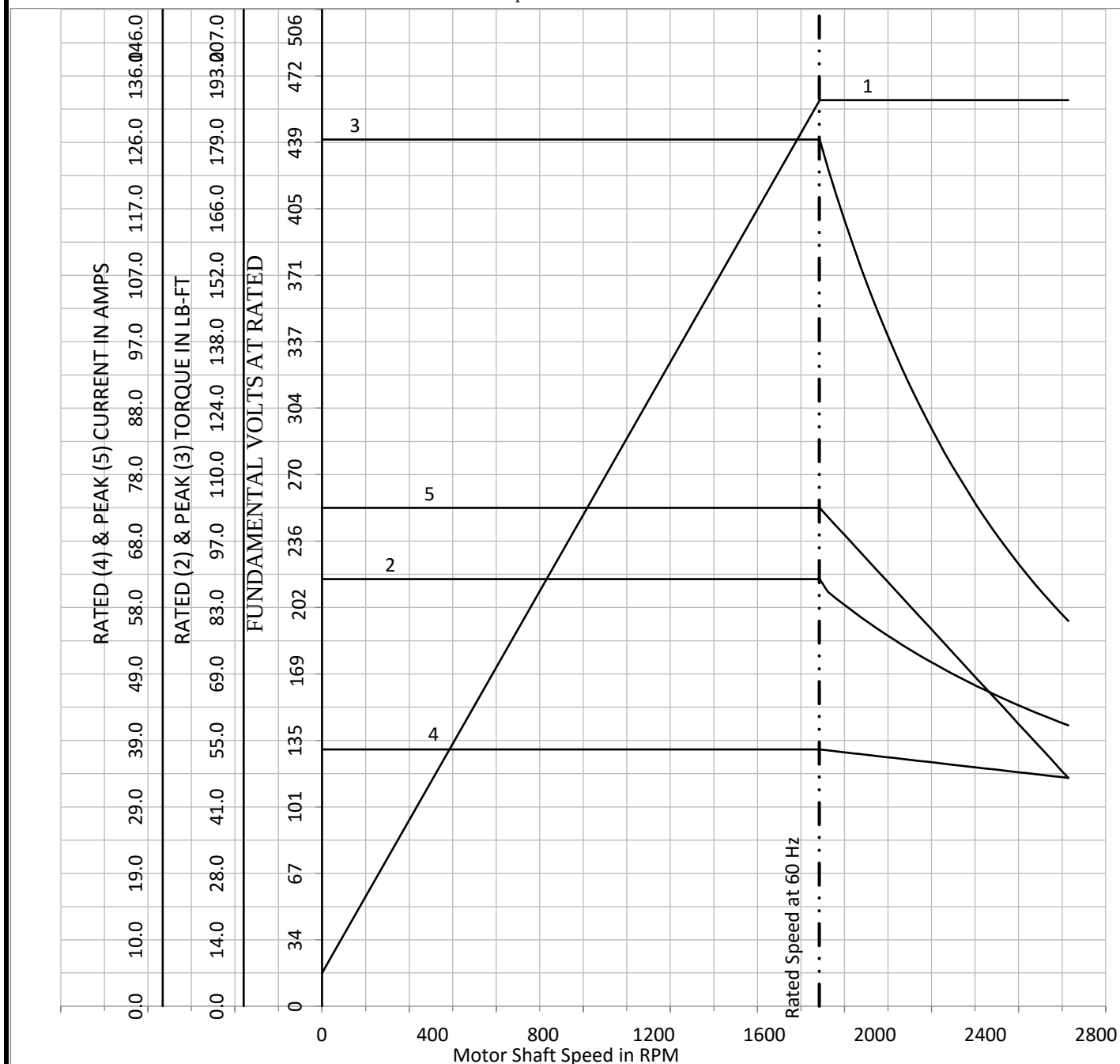
**A-C MOTOR
PERFORMANCE
CURVES**
10WGY538
Record: 52925

HP 30 HP
 BASE SPEED 1776.5
 PHASE/HZ 3/60

MAX SAFE RPM 2700
 ZDVSM4104T - 30HP, 1760RPM, 460V
 Base Volt 460
 NL AMPS 17.90
 Slips(HZ) 0.78
 WK2 (LB-FT2) 4.470

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
 3PH, 60HZ, 286TC, 1056M, TEFC, F
 R1 0.107 X1 0.492
 R2 0.515 X2 0.443
 R2B 0.075 X2B 0.692
 R2E 0.022 XM 12.800

Vector PWM Inverter Duty
 Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only



DR BY USBRRAN1
 CK BY
 APP BY USBRRAN1
 DATE 8/24/2017

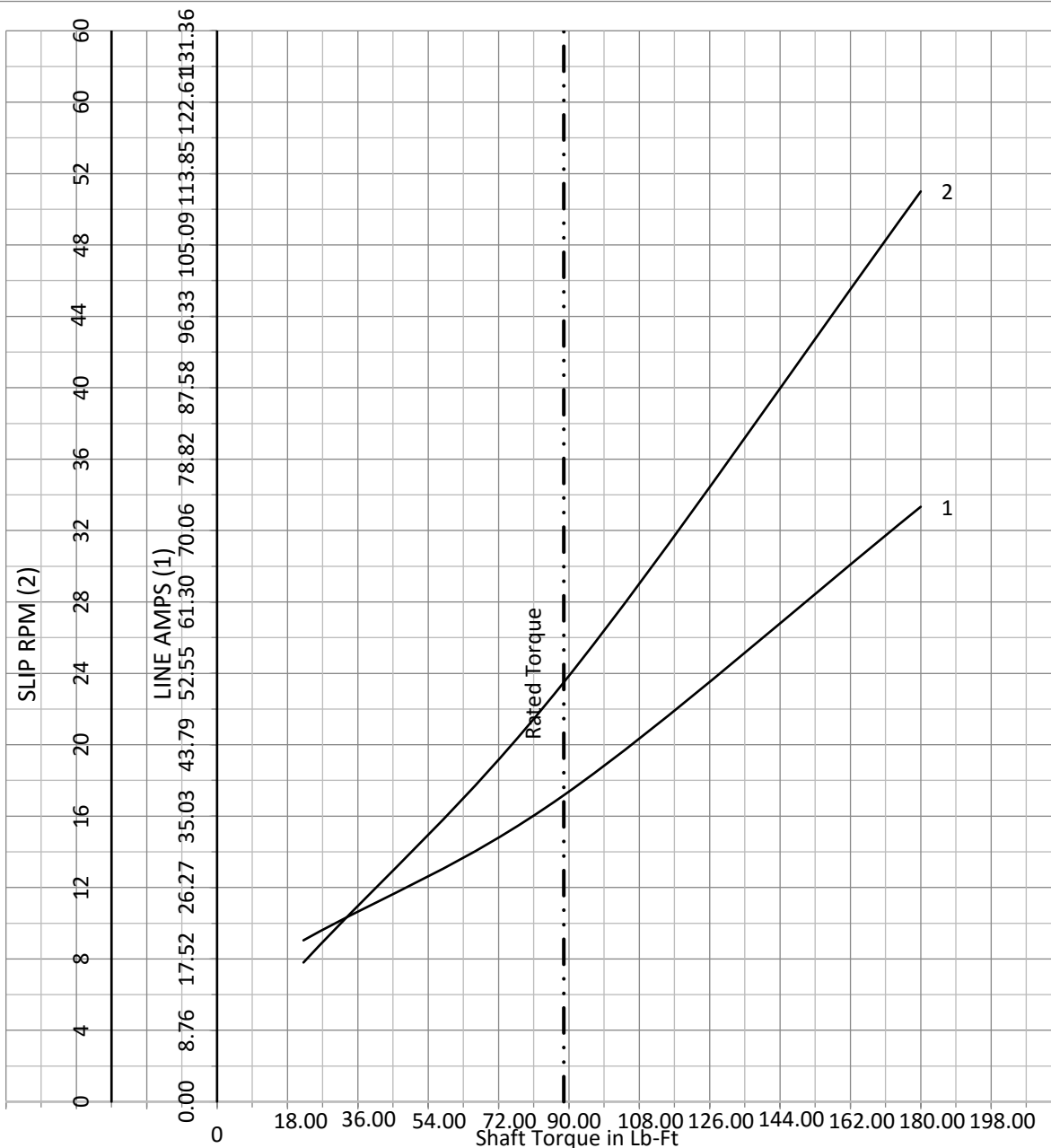
**A-C MOTOR
 PERFORMANCE
 CURVES**
10WGY538
 Record: 52925

HP 30 HP
 BASE SPEED 1776.5
 PHASE/HZ 3/60

MAX SAFE RPM 2700
 ZDVSM4104T - 30HP, 1760RPM,
 Base Volt 460
 NL AMPS 17.90
 Slips(HZ) 0.78
 WK2 (LB-FT2) 4.470

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
 3PH, 60HZ, 286TC, 1056M, TEFC, F
 R1 0.107 X1 0.492
 R2 0.515 X2 0.443
 R2B 0.075 X2B 0.692
 R2E 0.022 XM 12.800

Vector PWM Inverter Duty
 Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

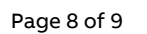


DR BY USBRRAN1
 CK BY
 APP BY USBRRAN1
 DATE 8/24/2017

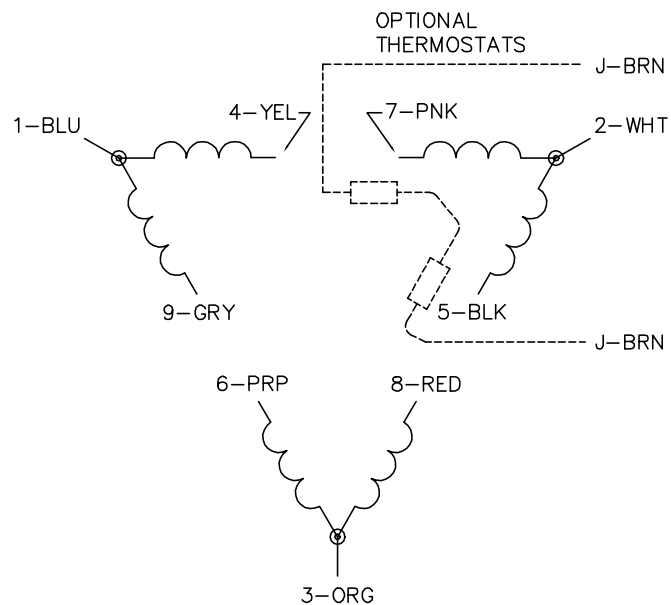
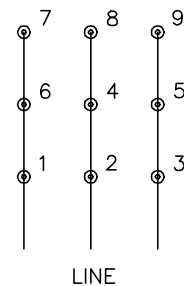
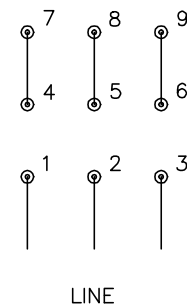
**A-C MOTOR
 PERFORMANCE
 CURVES**

10WGY538

Record: 52925



CD0180


 LOW VOLTAGE
(2D)

 HIGH VOLTAGE
(1D)

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —


BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1