

ABB BALDOR RELIANCE III

Customer information packet

ZDNM2238T

10HP, 1770RPM, 3PH, 60HZ, 256TC, 0948M, TENV

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	256TC
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	10.000 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	13.000 A @ 460.0 V 26.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
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	13.0 a

Part Detail

Revision	AJ
Type	AC
Mech. spec.	09F277
Base	
Status	PRD/A
Elec. spec.	09WGY402
Layout	09LYF277
Eff. date	11-14-2023
CD Diagram	CD0005
Poles	04
Leads	9#12
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	5000 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0948M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	24.05 IN
Power Factor	78
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	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1168L									
CAT NO	ZDNM2238T								
SPEC.	09F277Y402Z1								
FRAME	256TC			HP	10 TE				
VOLTS	230/460								
MAG CUR	11.2/5.6				FLA	26/13			
RPM	1770		RPM MAX			5000			
HZ	60	PH	3	CLASS			H		
SER.F.	1.00	DES	A	SL HZ			0.9		
NEMA-NOM-EFF	91.7	WK2	2.1						
BLWR V		PH		HZ		A			
RATING	40C AMB-CONT								
DE BRG	6309	ODE BRG			6208				
CC	010A	SER.NO							

NP VOLTS	230/460	MAX SAFE RPM	5000	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	26/13	Base Volt	460	R1	0.355	X1	1.360
HP	10HP	NL AMPS	5.6	R2	0.289	X2	1.650
BASE SPEED	1770	Slips (Hz)	0.90			XM	45.200
PHASE/HZ	3/60	WK ² (lb-ft ²)	2.1				

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1773	10.1	29.8	460	60	13.0
Max Speed	2659	10.0	19.8	460	90	12.2
Min Speed	0	0.0	29.8	21.51	0.90	13.0

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	5.6
1/4	1793	2.5	7.5	460	60	6.6
1/2	1787	5.1	14.9	460	60	8.1
3/4	1780	7.6	22.4	460	60	10.4
Full Load	1773	10.1	29.8	460	60	13.0
O/L	1748	20.1	60.3	460	60	24.6

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

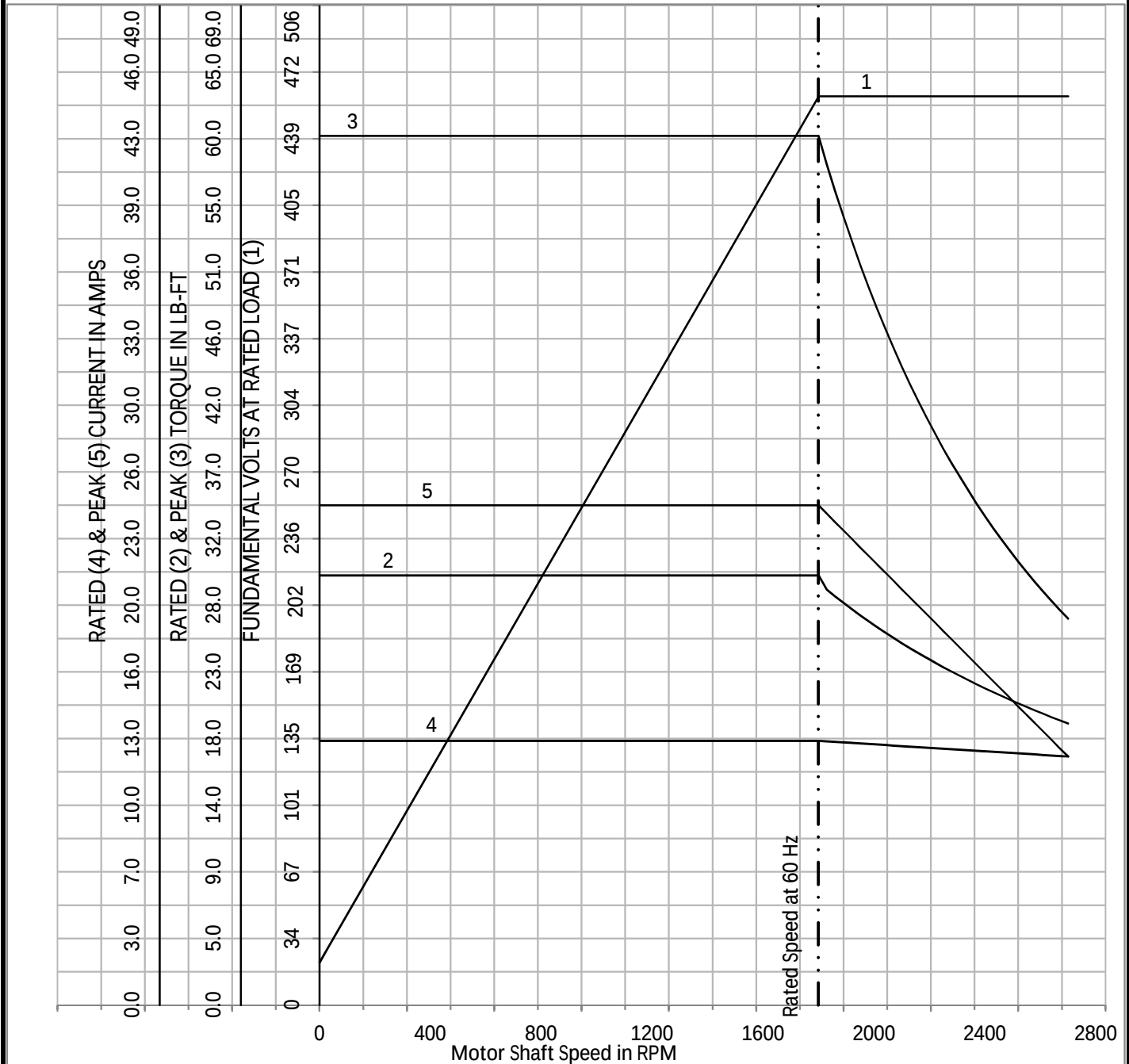
Remarks: Calculated Data
Vector PWM Inverter Duty

NP VOLTS 230/460
NP AMPS 26/13
HP 10HP
BASE SPEED 1770
PHASE/HZ 3/60

MAX SAFE RPM 5000
Base Volt 460
NL AMPS 5.6
Slips (Hz) 0.90
WK2 (lb-ft²) 2.1

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
R1 0.355 X1 1.360
R2 0.289 X2 1.650
XM 45.200

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

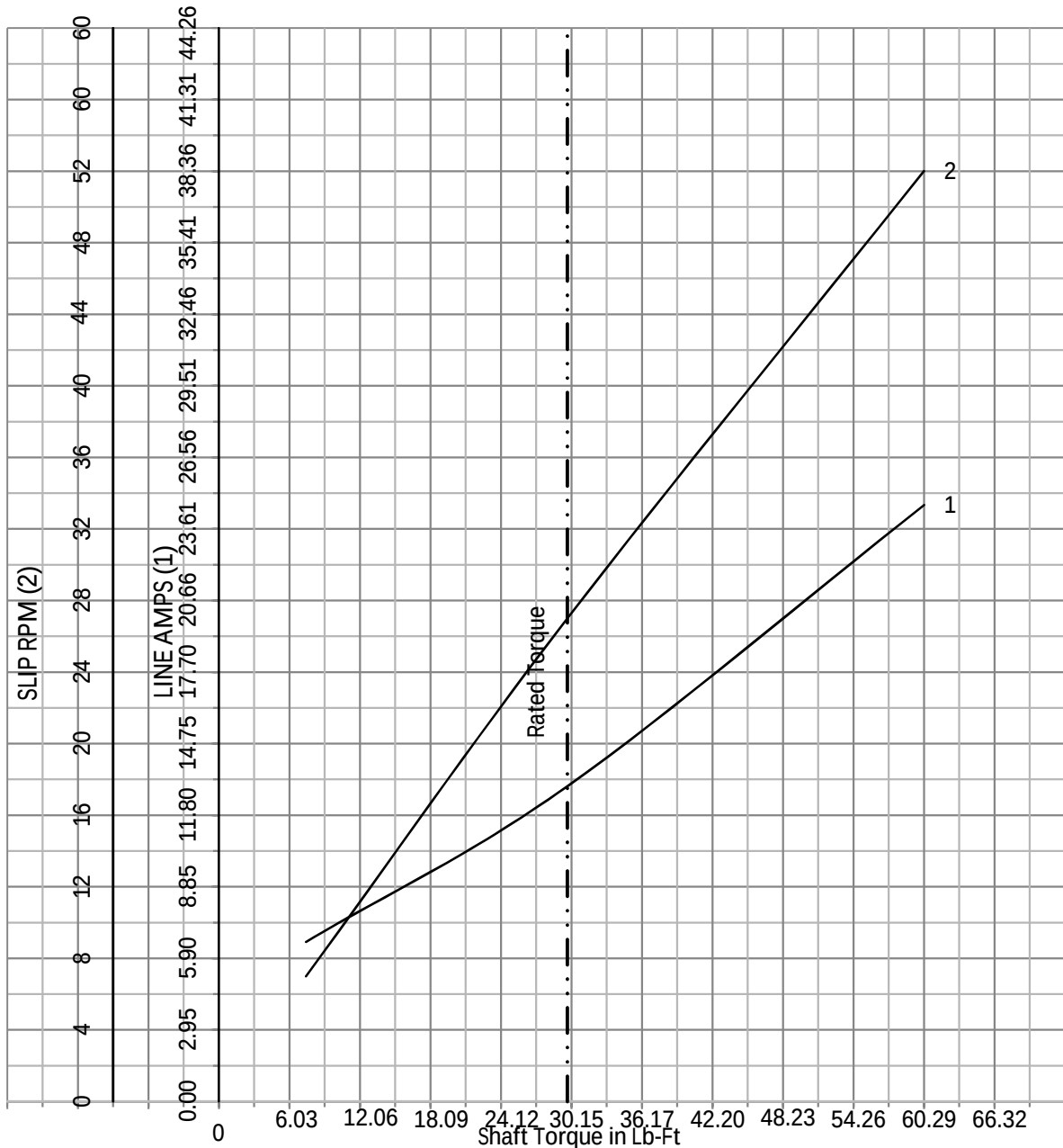
BALDOR
A MEMBER OF THE ABB GROUP

DR BY BR
CK BY
APP BY BR
DATE 3/28/2017

A-C MOTOR
PERFORMANCE
CURVES
09WGY402

NP VOLTS	230/460	MAX SAFE RPM	5000	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
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PHASE/HZ	3/60	WK2 (lb-ft2)	2.1				

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



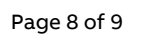
Calculated Data

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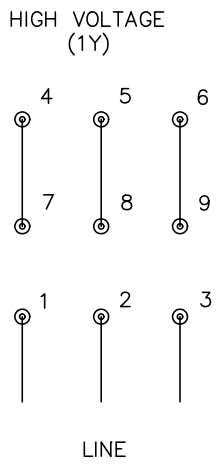
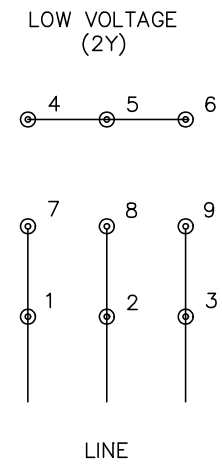
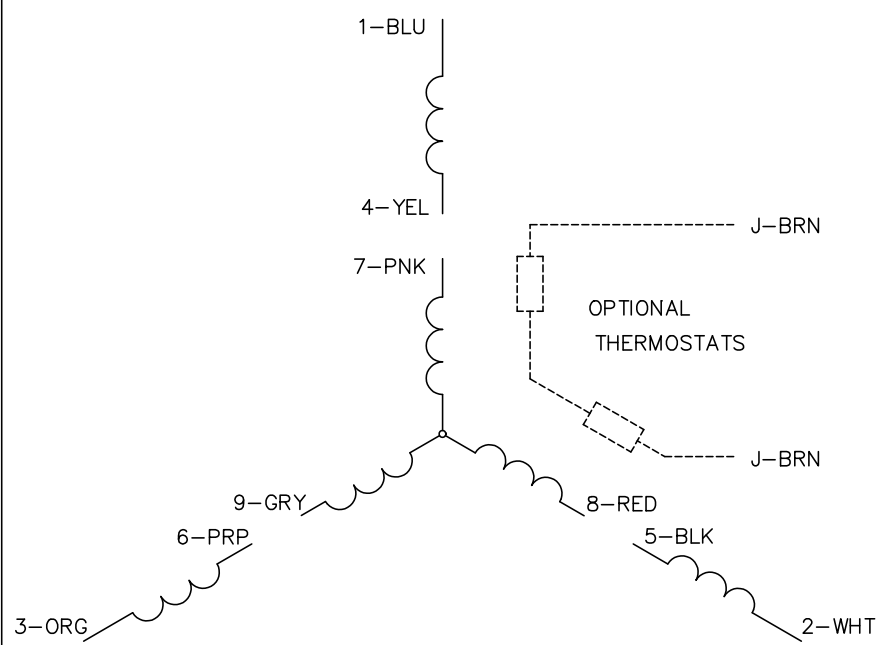


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A-C MOTOR
PERFORMANCE
CURVES
09WGY402



CD0005



- 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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
900000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005