

# ABB BALDOR RELIANCE III

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## Customer information packet

IDVSNM2238T

10HP, 1775RPM, 3PH, 60HZ, 254TC, TENV, FOOT,

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TENV
<b>Frame</b>	254TC
<b>Frame Material</b>	Iron
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	None
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Three Phase
<b>Output @ Frequency</b>	10.000 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1800 RPM @ 60 HZ
<b>Voltage @ Frequency</b>	230.0 V @ 60 HZ 460.0 V @ 60 HZ
<b>Agency Approvals</b>	UR CSA
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Auxiliary Box Lead Termination</b>	None
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Blower</b>	None
<b>Current @ Voltage</b>	13.000 A @ 460.0 V 26.000 A @ 230.0 V
<b>Design Code</b>	A
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	91.7 %
<b>Electrically Isolated Bearing</b>	Not Electrically Isolated
<b>Feedback Device</b>	NO FEEDBACK
<b>Front Face Code</b>	Encoder/Feedback Device
<b>Front Shaft Indicator</b>	None
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	13.0 a

**Part Detail**

<b>Revision</b>	Z
<b>Type</b>	AC
<b>Mech. spec.</b>	09F278
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	09WGY402
<b>Layout</b>	09LYF278
<b>Eff. date</b>	08-28-2025
<b>CD Diagram</b>	CD0005
<b>Poles</b>	04
<b>Leads</b>	9#12
<b>Proprietary</b>	False
<b>Created date</b>	02-10-2012

<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Duty
<b>KVA Code</b>	K
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	Locked Bearing
<b>Max Speed</b>	2700 rpm
<b>Motor Lead Exit</b>	Ko Box
<b>Motor Lead Quantity/Wire Size</b>	9 @ 12 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	0948M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	24.05 IN
<b>Power Factor</b>	78
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	C-Face
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.00
<b>Shaft Diameter</b>	1.625 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	Shaft Slinger
<b>Speed</b>	1770 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	Normally Closed Thermostat
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

<b>NP3302L</b>	
<b>CAT NO</b>	IDVSNM2238T
<b>SPEC.</b>	09F278Y402G2
<b>FRAME</b>	254TC <b>HP</b> 10 TE
<b>VOLTS</b>	230/460
<b>MAG CUR</b>	11.2/5.6 <b>FLA</b> 26/13
<b>RPM</b>	1770 <b>RPM MAX</b> 2700
<b>HZ</b>	60 <b>PH</b> 3 <b>CLASS</b> F
<b>SER.F.</b>	1.00 <b>SL HZ</b> 0.9
<b>NEMA-NOM-EFF</b>	91.7 <b>WK2</b> 2.1
<b>RATING</b>	40C AMB-CONT
<b>DE BRG</b>	6309 <b>ODE BRG</b> 6208
<b>CC</b>	010A <b>SN</b>
	1.5:1 CHP PWM
	1000:1 CT, 1000:1 VT

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 <sup>2</sup> (lb-ft <sup>2</sup> )	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



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

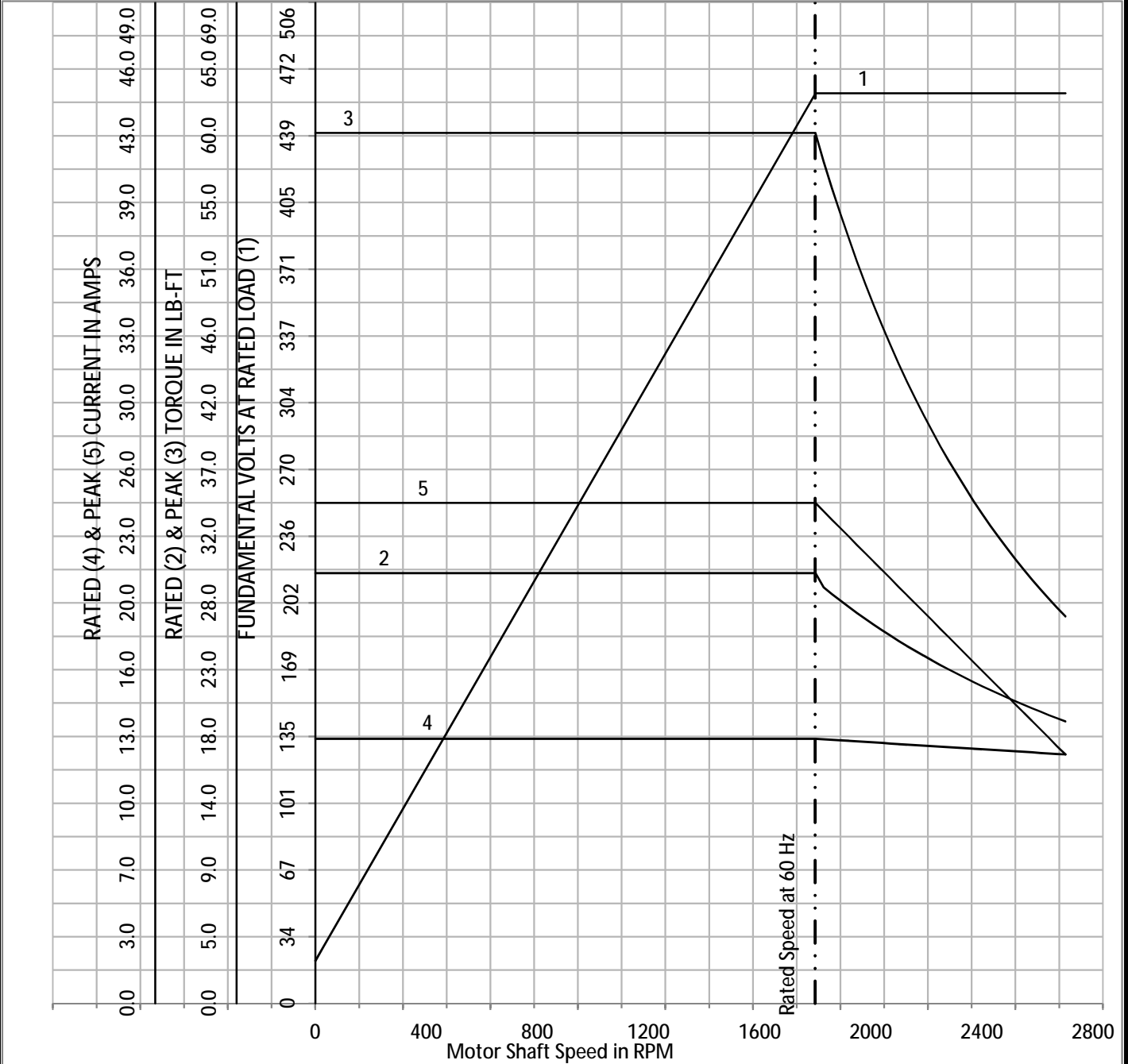
A-C MOTOR **09WGY402**  
PERFORMANCE  
CURVES

**RELIANCE III**  
 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



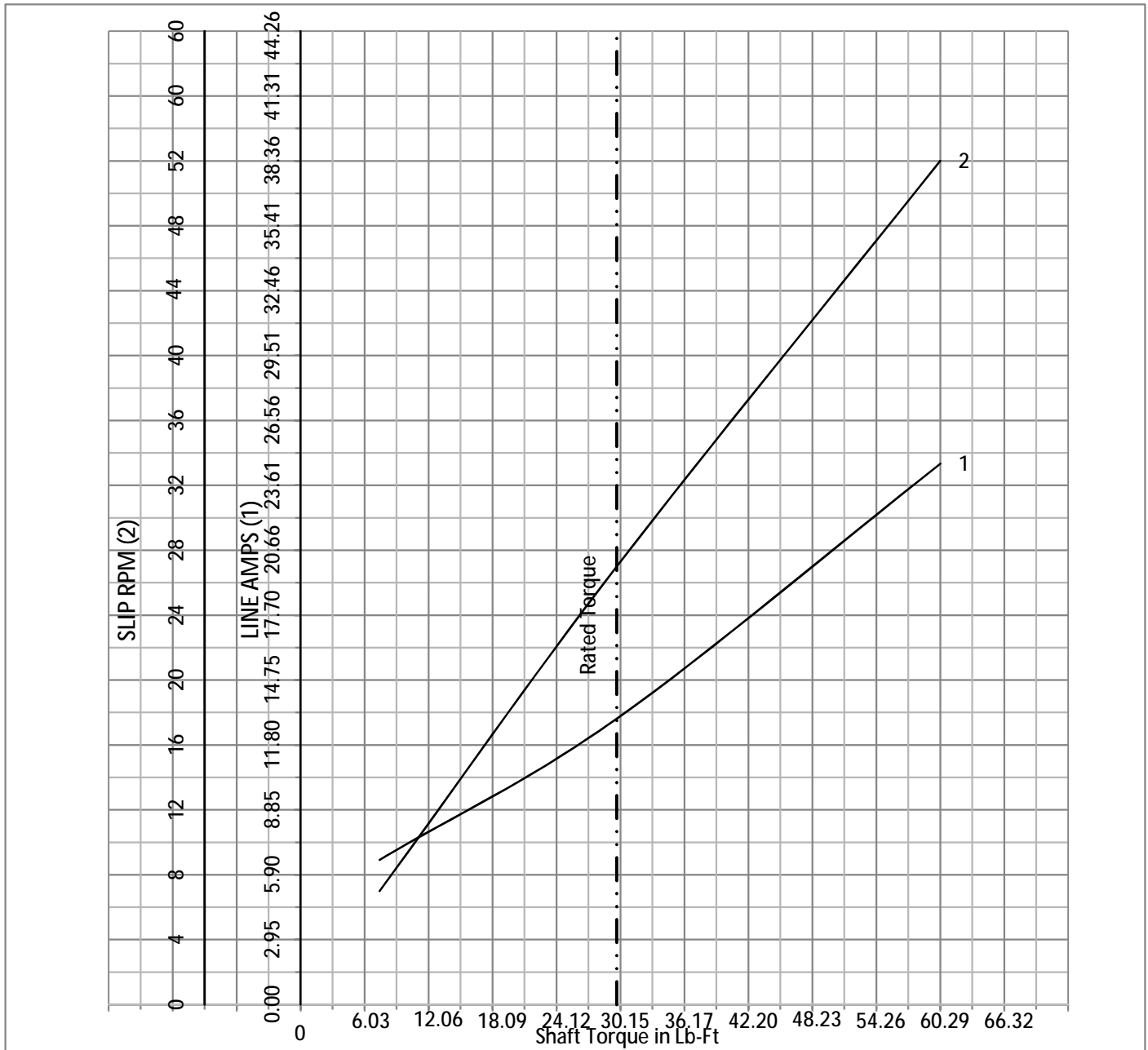
DR BY BR  
 CK BY  
 APP BY BR  
 DATE 3/28/2017

A-C MOTOR **09WGY402**  
 PERFORMANCE  
 CURVES

**RELIANCE III**

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
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PHASE/HZ	3/60	WK2 (lb-ft <sup>2</sup> )	2.1				

Vector PWM Inverter Duty  
Variable Speed AC Motor Curves



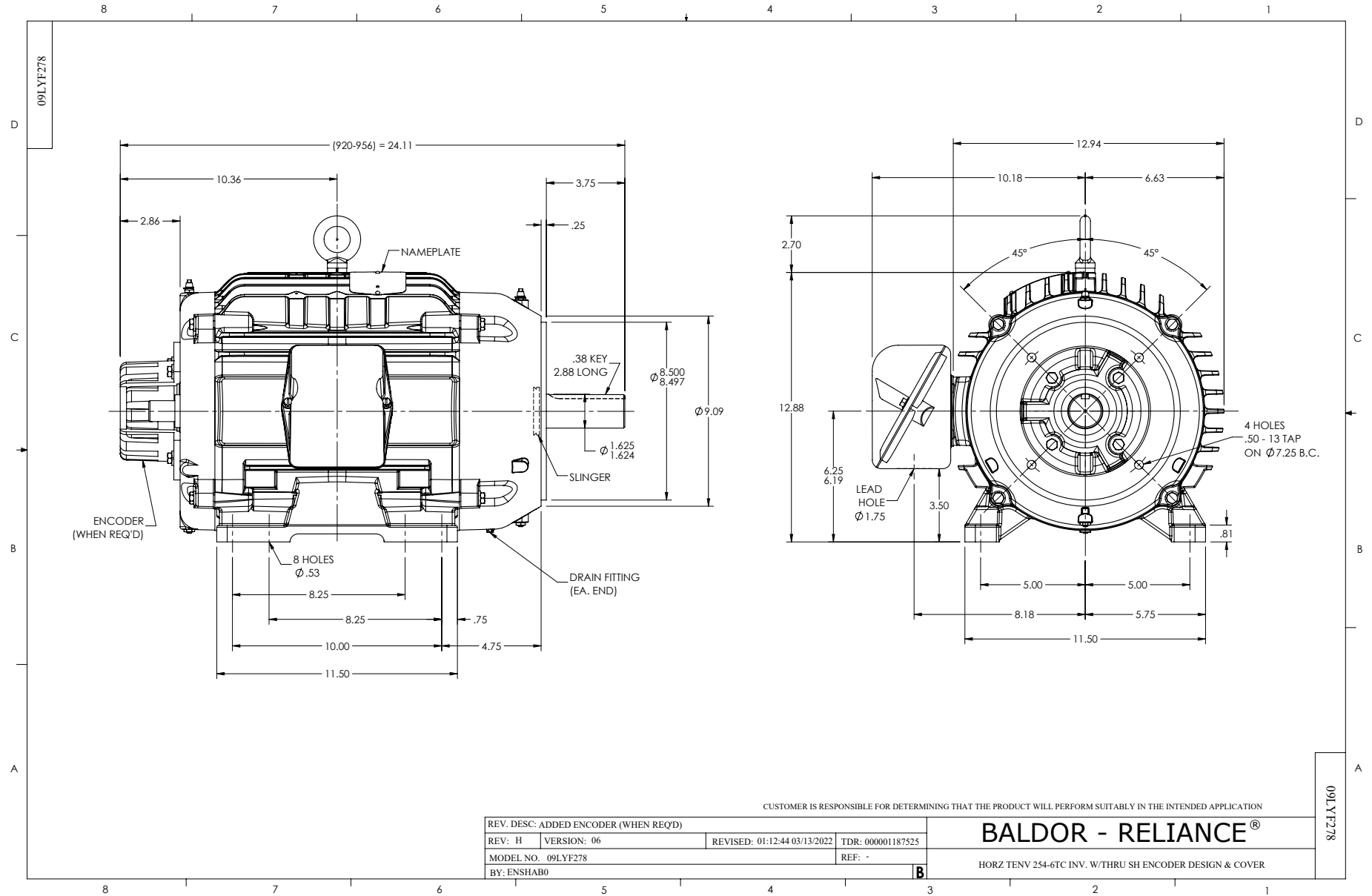
Calculated Data

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

A-C MOTOR **09WGY402**  
 PERFORMANCE  
 CURVES



CD0005



LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E BY: JLP REVISED: 01/19/99 10:15 TDR: 0171435

500000

FILE: AAA00005140

MDL: -

MTL: -

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS