ABB BALDOR RELIANCE

Customer information packet

ZDNM2238T

10HP, 1770RPM, 3PH, 60HZ, 256TC, 0948M, TENV
Class - None
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/18/2026 3:46:07 AM

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

BALDOR
A MEMBER OF THE ABB GROUP

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

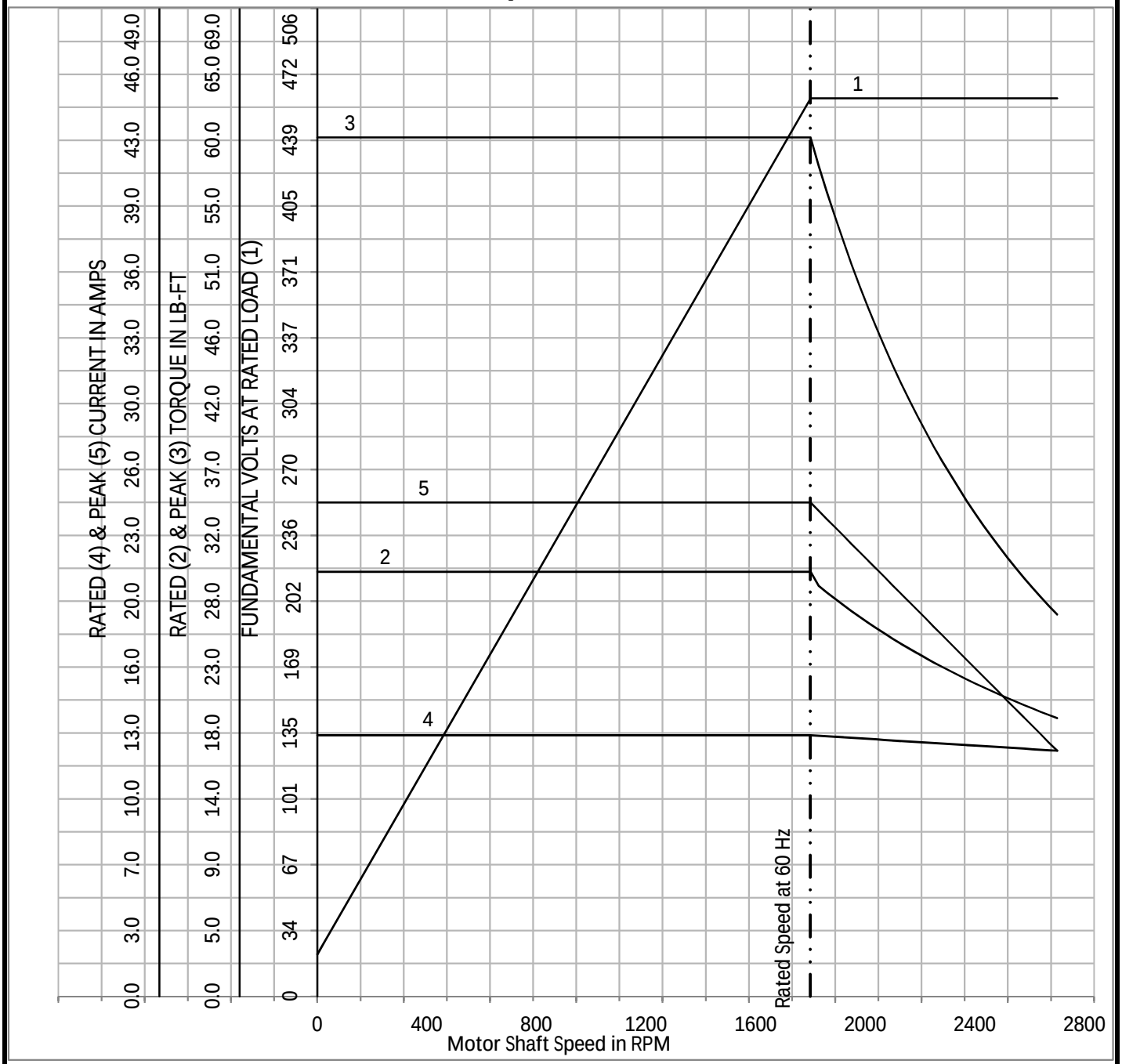
A-C MOTOR PERFORMANCE CURVES

09WGY402

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

Vector PWM Inverer 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

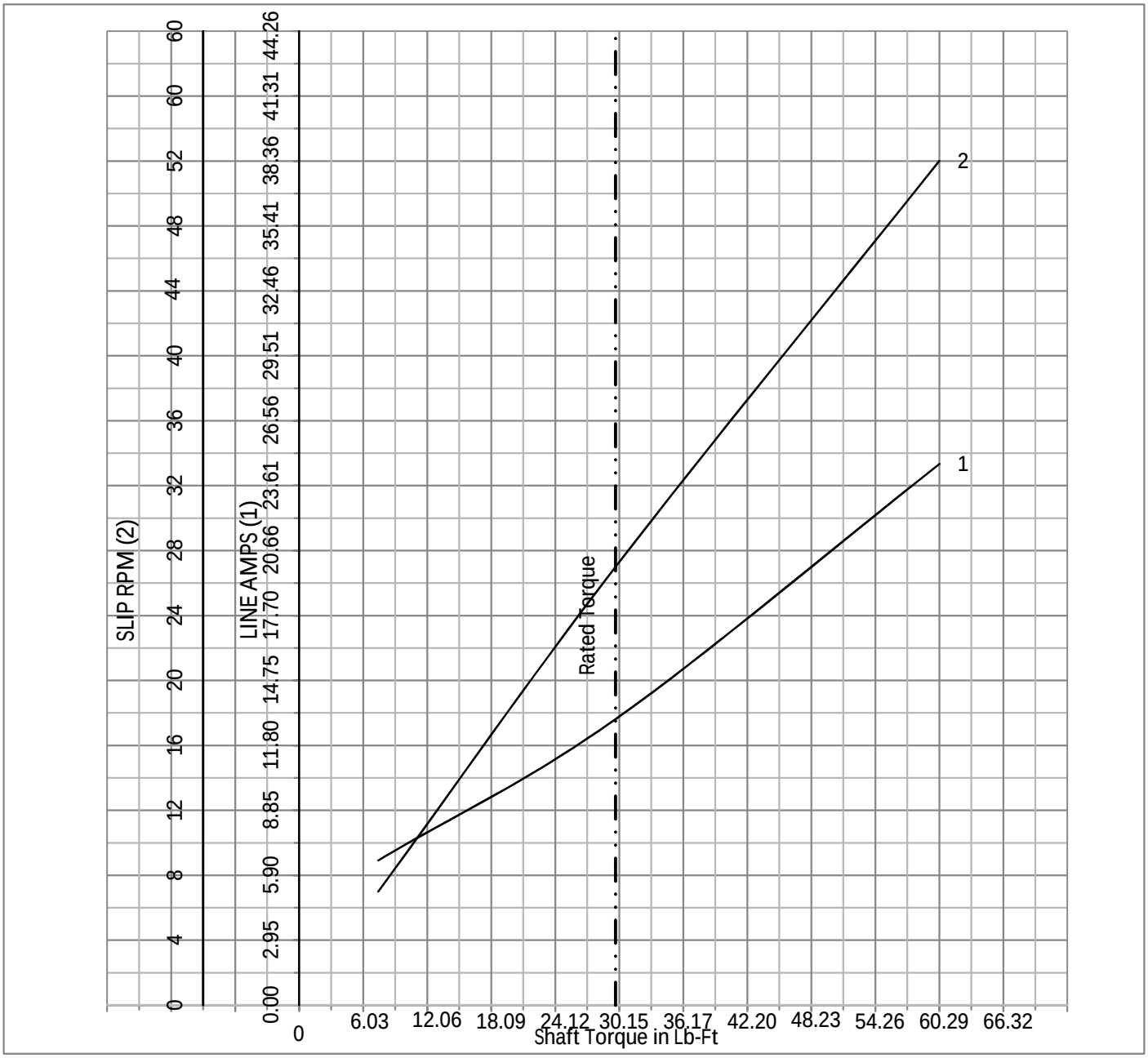
A-C MOTOR PERFORMANCE CURVES

09WGY402

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

Vector PWM Inverer Duty

Vaiable Speed AC Motor Curves



Calculated Data

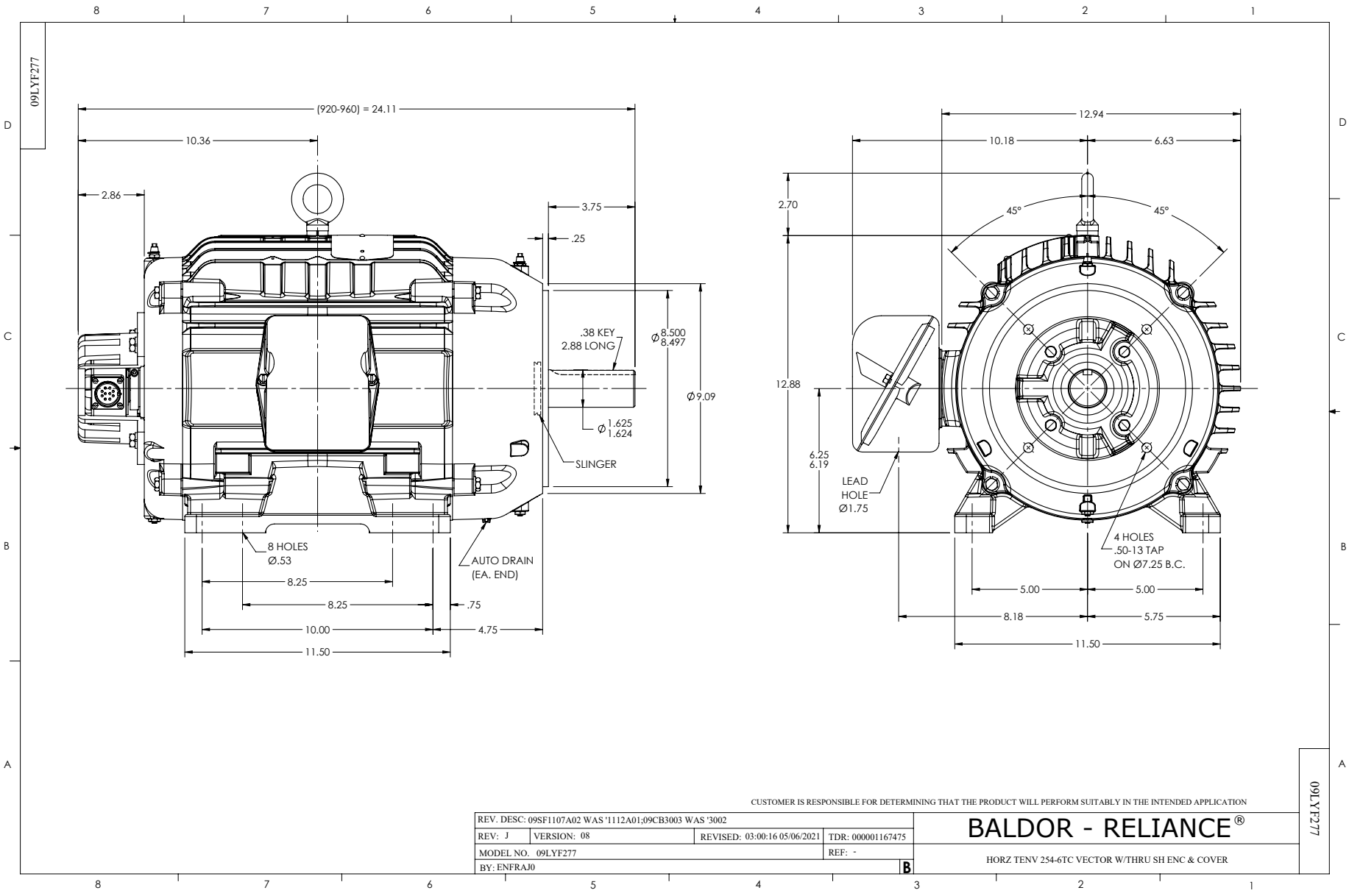
Data Valid For Nameplate Speed Range only

BALDOR
A MEMBER OF THE ABB GROUP

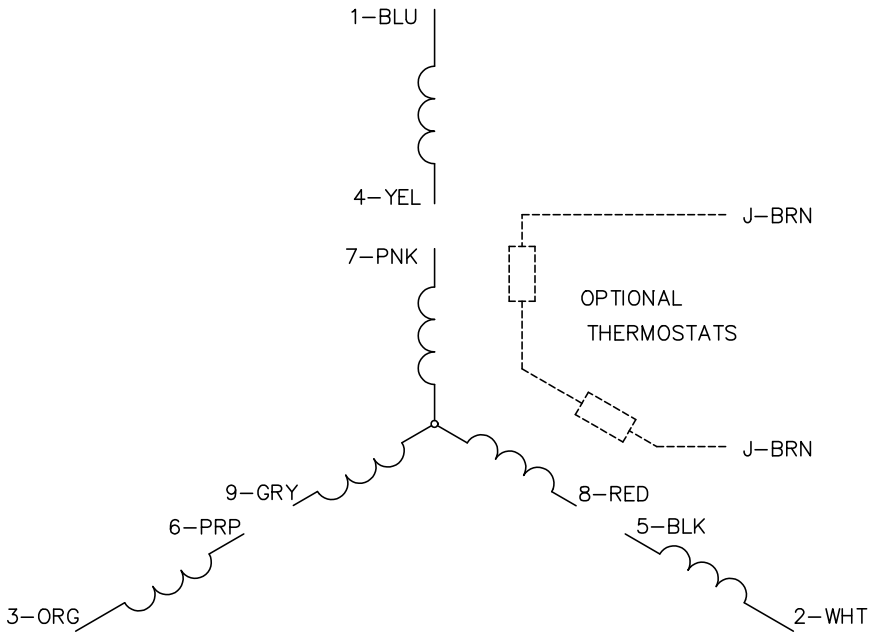
DR BY	BR
CK BY	
APP BY	BR
DATE	3/28/2017

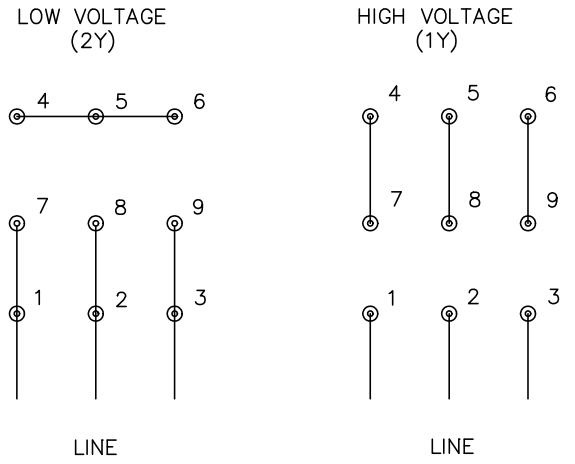
A-C MOTOR PERFORMANCE CURVES

09WGY402


09LYF277
(920-960) = 24.11
10.36
2.86
3.75
.25
.38 KEY
2.88 LONG
Ø 8.500
8.497
Ø 9.09
Ø 1.625
1.624
SLINGER
8 HOLES
Ø.53
AUTO DRAIN
(EA. END)
8.25
8.25
.75
10.00
4.75
11.50
12.94
10.18
6.63
2.70
45°
45°
12.88
6.25
6.19
LEAD
HOLE
Ø1.75
4 HOLES
.50-13 TAP
ON Ø7.25 B.C.
5.00
5.00
8.18
5.75
11.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: 09SF1107A02 WAS '1112A01;09CB3003 WAS '3002
REV: J
VERSION: 08
REVISED: 03:00:16 05/06/2021
TDR: 000001167475
MODEL NO. 09LYF277
REF: -
BY: ENFRAJ0
B
BALDOR - RELIANCE®
HORZ TENV 254-6TC VECTOR W/THRU SH ENC & COVER
09LYF277

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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS