ABB BALDOR RELIANCE

Customer information packet

ZDVSM4115T

50HP, 1775RPM, 3PH, 60HZ, 326T, 1272M, TEFC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	326T
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	50.000 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	116.000 A @ 230.0 V
	58.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	ENCODER
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	58.0 a
Insulation Class	F

Part Detail

Revision	E
Type	AC
Mech. spec.	12G535
Base	
Status	PRD/A
Elec. spec.	12WGZ279
Layout	12LYG535
Eff. date	08-18-2025
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	02-03-2021

Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 6 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1272M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	33.14 IN
Power Factor	85
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	2.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1775 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

NP3304L					
CAT NO	ZDVSM4115T				
SPEC.	12G535Z279Z1				
FRAME	326T	**HP**	50 TE		
VOLTS	230/460				
MAG CUR	40/20	**FLA**	116/58		
RPM	1775	**RPM MAX**	2700		
HZ	60	**PH**	3	**CLASS**	F
SER.F.	1.00	**SL HZ**	0.8		
NEMA-NOM-EFF	94.5	**WK2**	9.59		
RATING	40C AMB-CONT				
DE BRG	6312	**ODE BRG**	6311		
CC	010A	**SER.NO**			
	1.5:1 CHP PWM				
	1000:1 CT, 1000:1 VT				

NP VOLTS	230/460	MAX SAFE RPM	2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	116/58	Base Volt	460	R1	0.057	X1	0.352
HP	50HP	NL AMPS	20.8	R2	0.050	X2	0.440
BASE SPEED	1800	Slips (Hz)	0.80			XM	11.900
PHASE/HZ	3/60	WK^2 (lb-ft^2)	9.59				

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1776	50.1	148.0	460	60	57.9
Max Speed	2663	50.0	98.5	460	90	55.9
Min Speed	0	0.0	148.0	18.38	0.80	57.9

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	20.8
1/4	1794	12.5	36.5	460	60	24.8
1/2	1788	25.0	73.5	460	60	33.9
3/4	1782	37.7	111.0	460	60	45.3
Full Load	1776	50.1	148.0	460	60	57.9
O/L	1753	99.8	299.0	460	60	116.0

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

Remarks: Calculated Data
Vector PWM Inverter Duty

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DATE 11/28/2023

A-C MOTOR PERFORMANCE CURVES

12WGZ279

NP VOLTS	230/460
NP AMPS	116/58
HP	50HP
BASE SPEED	1800
PHASE/HZ	3/60

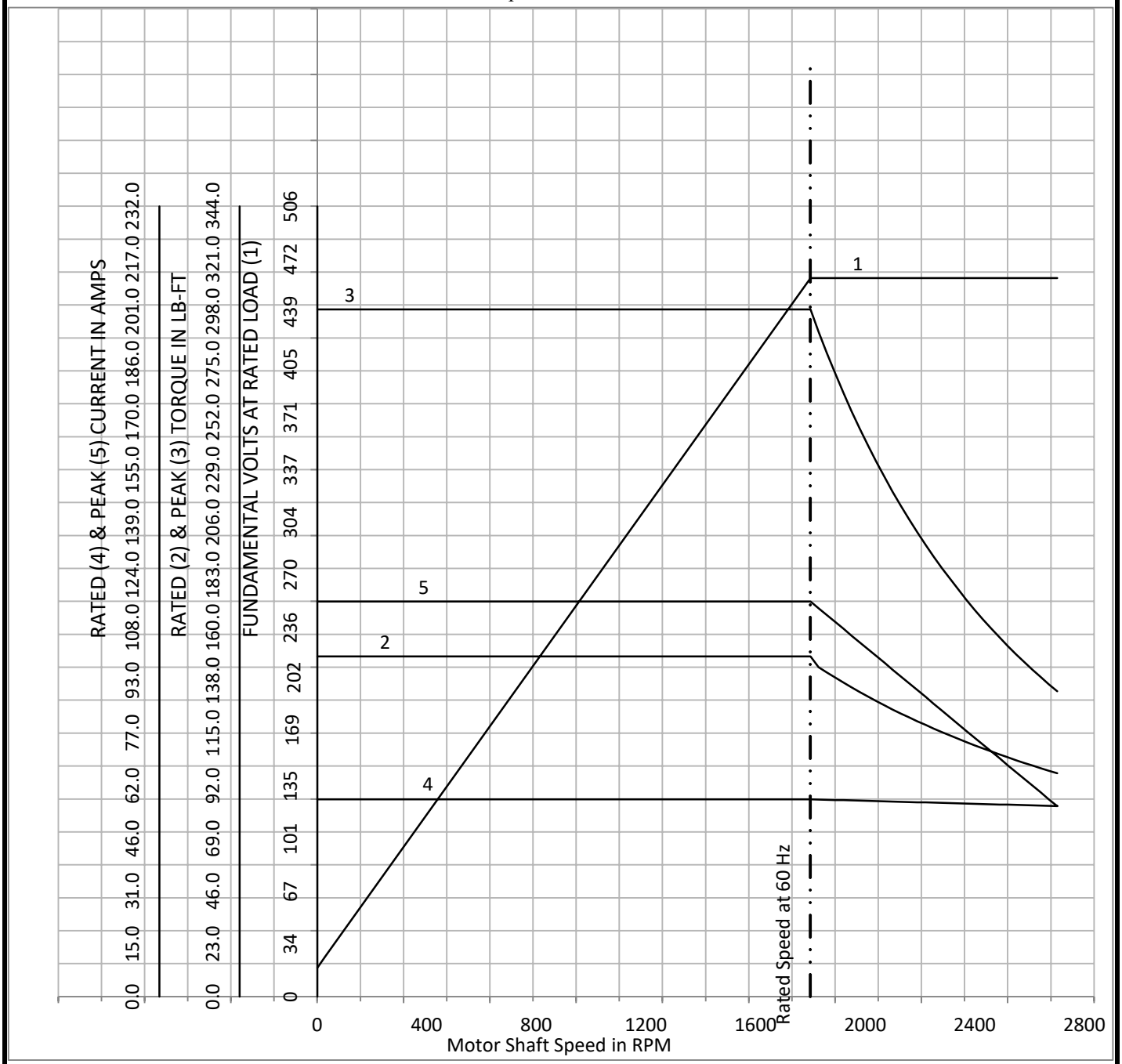
MAX SAFE RPM	2700
Base Volt	460
NL AMPS	20.8
Slips (Hz)	0.80
WK2 (lb-ft2)	9.59

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)

R1	0.057	X1	0.352
R2	0.050	X2	0.440
		XM	11.900

Vector PWM Inverer Duty

Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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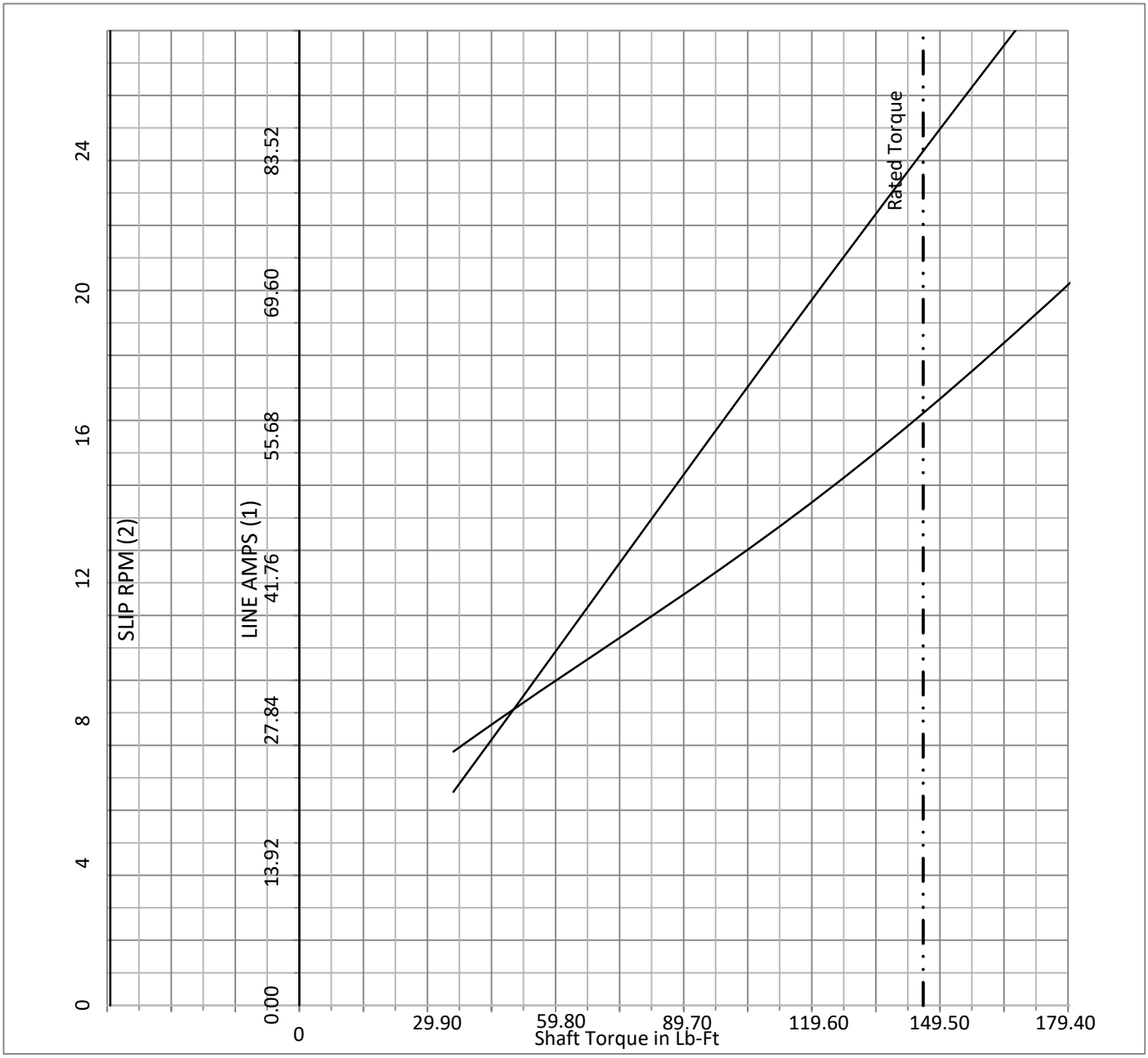
A-C MOTOR PERFORMANCE CURVES

12WGZ279

NP VOLTS	230/460	MAX SAFE RPM	2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	116/58	Base Volt	460	R1	0.057	X1	0.352
HP	50HP	NL AMPS	20.8	R2	0.050	X2	0.440
BASE SPEED	1800	Slips (Hz)	0.80			XM	11.900
PHASE/HZ	3/60	WK2 (lb-ft2)	9.59				

Vector PWM Inverer Duty

Vaiable Speed AC Motor Curves



Calculated Data

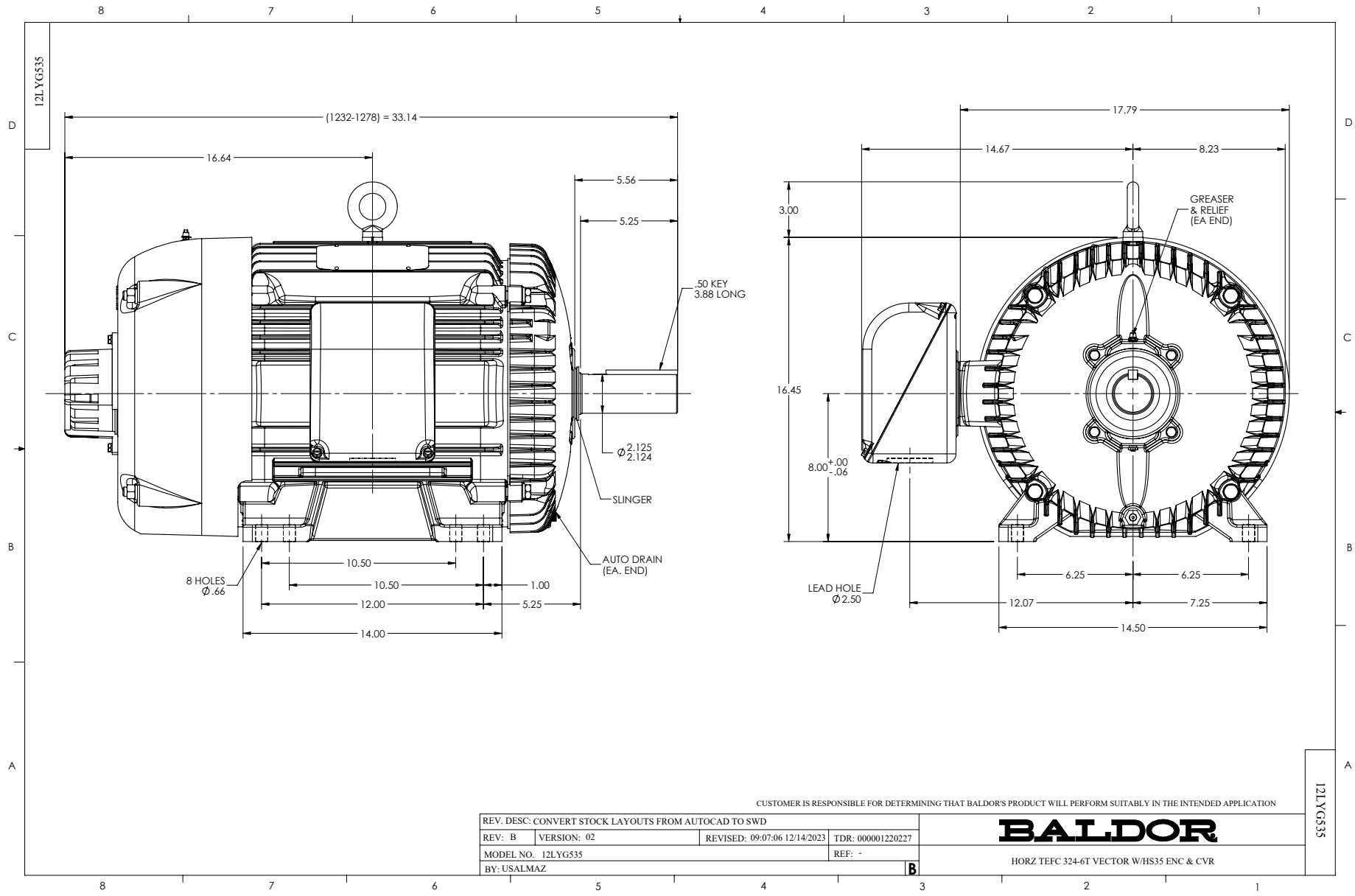
Data Valid For Nameplate Speed Range only

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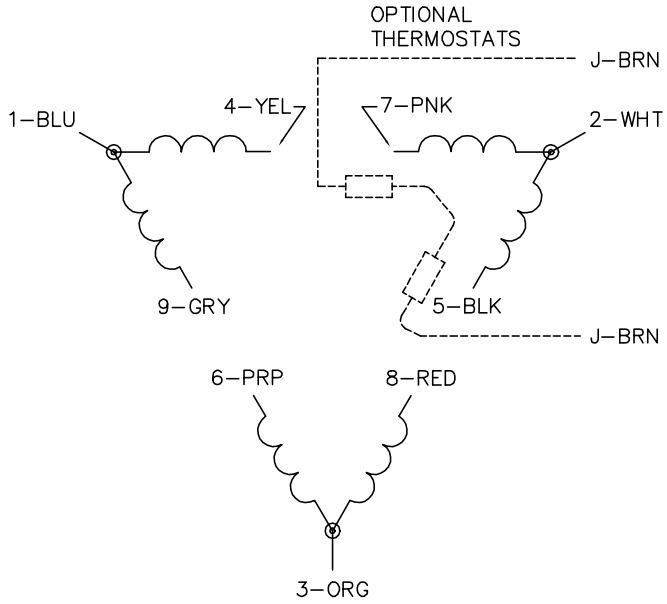
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DATE 11/28/2023

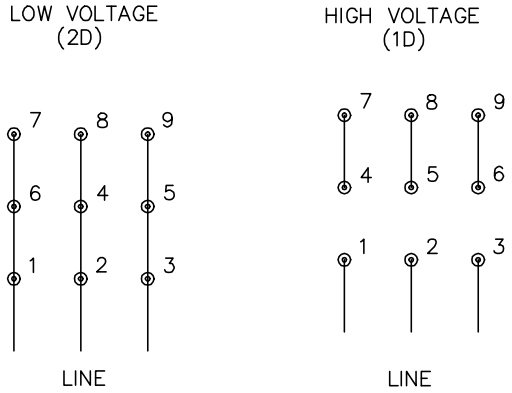
A-C MOTOR PERFORMANCE CURVES

12WGZ279


12LYG535
(1232-1278) = 33.14
16.64
5.56
5.25
.50 KEY
3.88 LONG
Ø2.125
2.124
SLINGER
AUTO DRAIN
(EA. END)
8 HOLES
Ø.66
10.50
10.50
1.00
12.00
5.25
14.00
17.79
14.67
8.23
3.00
GREASER
& RELIEF
(EA END)
16.45
8.00 +.00 -.06
LEAD HOLE
Ø2.50
6.25
6.25
12.07
7.25
14.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT STOCK LAYOUTS FROM AUTOCAD TO SWD
REV: B
VERSION: 02
REVISED: 09:07:06 12/14/2023
TDR: 000001220227
MODEL NO. 12LYG535
REF: -
BY: USALMAZ
B
BALDOR
HORZ TEFC 324-6T VECTOR W/HS35 ENC & CVR
12LYG535

CD0180





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: ENBRIR0
MTL: –		

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3PH, DV, 9 LEADS, DELTA CONNECTION

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