

ABB BALDOR RELIANCE III

Customer information packet

ZDVSM4103T

25HP, 1775RPM, 3PH, 60HZ, 284TC, 1054M, TEFC, F

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	284TC
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	25.000 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	CSA UR
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	64.000 A @ 208.0 V 62.000 A @ 230.0 V 31.000 A @ 460.0 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

Part Detail

Revision	N
Type	AC
Mech. spec.	10H955
Base	
Status	PRD/A
Elec. spec.	10WGZ651
Layout	10LYH955
Eff. date	08-18-2025
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	12-13-2017

High Voltage Full Load Amps	31.0 a
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 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1054M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	30.42 IN
Power Factor	81
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	1775 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	ZDVSM4103T			
SPEC.	10H955Z651Z1			
FRAME	284TC	HP	25 TE	
VOLTS	230/460			
MAG CUR	27.2/13.6		FLA	62/31
RPM	1775	RPM MAX		2700
HZ	60	PH	3	CLASS F
SER.F.	1.00		SL HZ	0.8
NEMA-NOM-EFF	93.6	WK2	4.13	
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			

Parts List

Part number	Description	Quantity
SA349121	SA 10H955Z651Z1	1.000 ea
RA337719	RA 10H955Z651Z1	1.000 ea
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
10EP1104A01	FR ENDPLATE	1.000 ea
HA4017A11	1/8 X 2.75 GREASE EXT (F/S)	1.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
10XN2520K36	1/4-20 X 2.00 HX HD SCRW GRADE 5, ZINC P	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
10EP1305A01	PU ENDPLATE, MACH	1.000 ea
HW4600B40	V-RING SLINGER 2.000 X 2.680 X .28 VITON	1.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
10FH1007A21	FAN COVER, MACH FOR DBL SHF MTRS	1.000 ea
10XN3118K20	5/16-18 X 1 1/4 GRADE 5 STEEL ZC PLATED	3.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 ea
HA6881	BEI HS35 THRU SHAFT ENCODER PROTECTIVE C	1.000 ea
10XN2520K12	1/4-20 X.75 GRD 5	2.000 ea
HW1000A25	1/4 SAE FLAT WASHER (FS)	2.000 ea
10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
10GS1000	GASKET, CONDUIT BOX LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea

HW2501H28	KEY, 1/2 SQ X 3.250	1.000 ea
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
OE5001A80SP	ENCDR KIT TENV W/OEHS35A10 W/BLIND SHAFT	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.070 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3304L	ALUM VEC UL CSA CC (W/OUT DESIGN FIELD)	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
FE-0000022	ZRTG FE ASSEMBLY	1.000 ea
PE-0000013	ZRTG PE ASSEMBLY	1.000 ea

ABB BALDOR/460		CUSTOMER INFORMATION PACKET		MAX SAFE RPM 2700		WYE CONN. EQ. CKT. OHMS PER PHASE (BASE RATING, 20C)			
RELIANCE III		ZDVSM4103T - 25HP, 1775RPM,		8PH, 60HZ, 284TC, 1054M, TEFC, F					
HP AMP	02/31	Base Volt	460	R1	0.121	X1	0.578		
HP	25 HP	NL AMPS	13.60	R2	0.588	X2	0.512		
BASE SPEED	1778	Slips(HZ)	0.74	R2B	0.086	X2B	0.790		
PHASE/HZ	3/60	WK2 ()	0.000	R2E	0.025	XM	16.600		

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1777.8	25.1	74.0	460	60	30.6
Max Speed	2666	25.1	49.4	460	90	27.9
Min Speed	0	0.0	74.0	15.59	0.74	30.6

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1798.9	0.0	0.0	460	60	13.6
1/4	1794.1	6.2	18.2	460	60	15.3
1/2	1789.3	12.6	36.9	460	60	19.3
3/4	1783.5	18.8	55.3	460	60	24.6
Full Load	1777.8	25.1	74.0	460	60	30.6
O/L	1753	50.1	150.0	460	60	59.4

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

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CK BY
APP BY USBRRAN1
DATE 12/13/2017

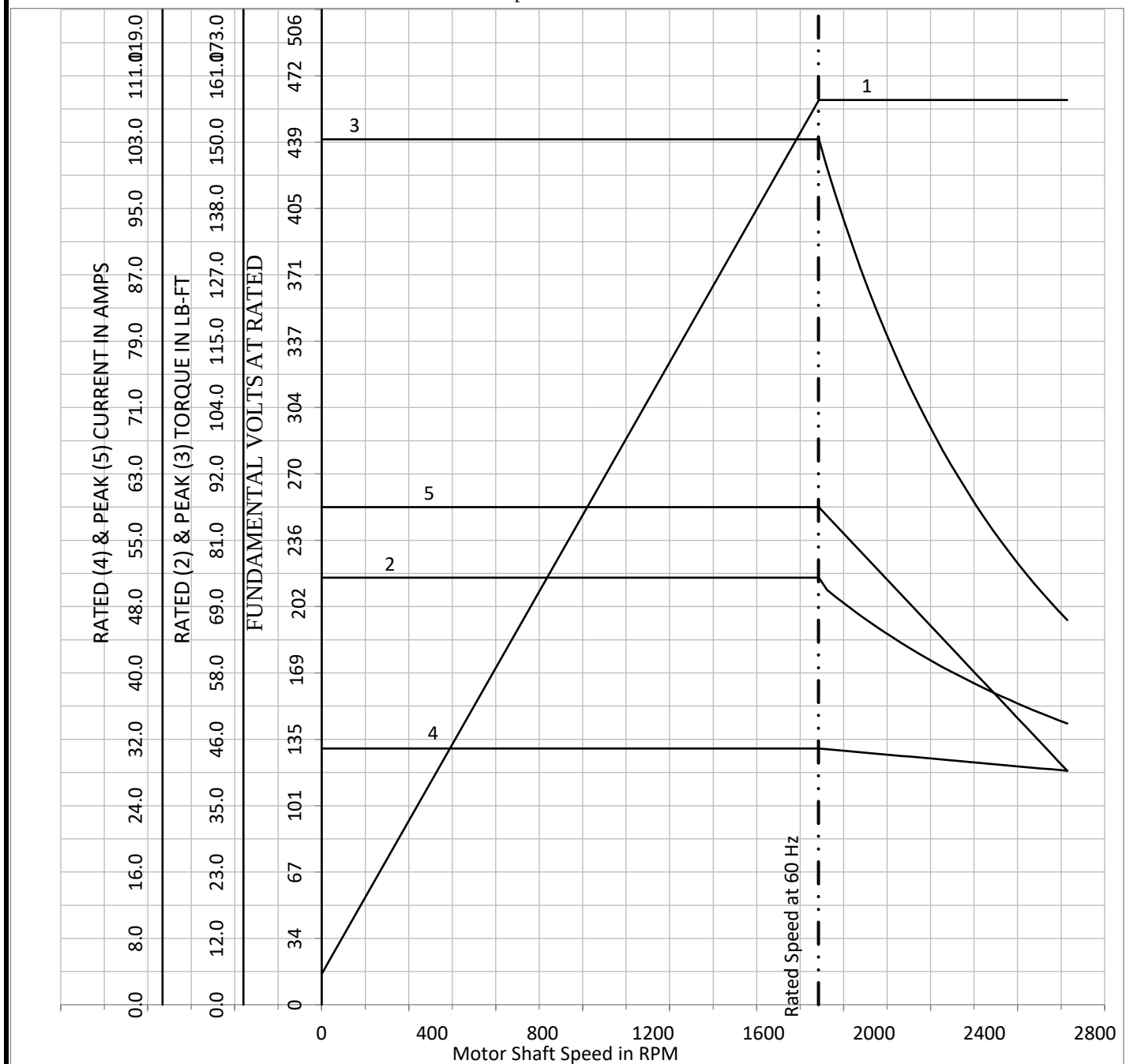
**A-C MOTOR
PERFORMANCE
CURVES**
10WGZ651
Record: 68462

HP 25 HP
 BASE SPEED 1777.80005
 PHASE/HZ 3/60

MAX SAFE RPM 2700
 VSM4103T - 25HP, 1775RPM, 3PH, 60HZ, 284TC, 1054M, TEFC, F
 Base Volt 460
 NL AMPS 13.60
 Slips(HZ) 0.74
 WK2 () 0.000

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
 R1 0.121 X1 0.578
 R2 0.588 X2 0.512
 R2B 0.086 X2B 0.790
 R2E 0.025 XM 16.600

Vector PWM Inverter Duty
 Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

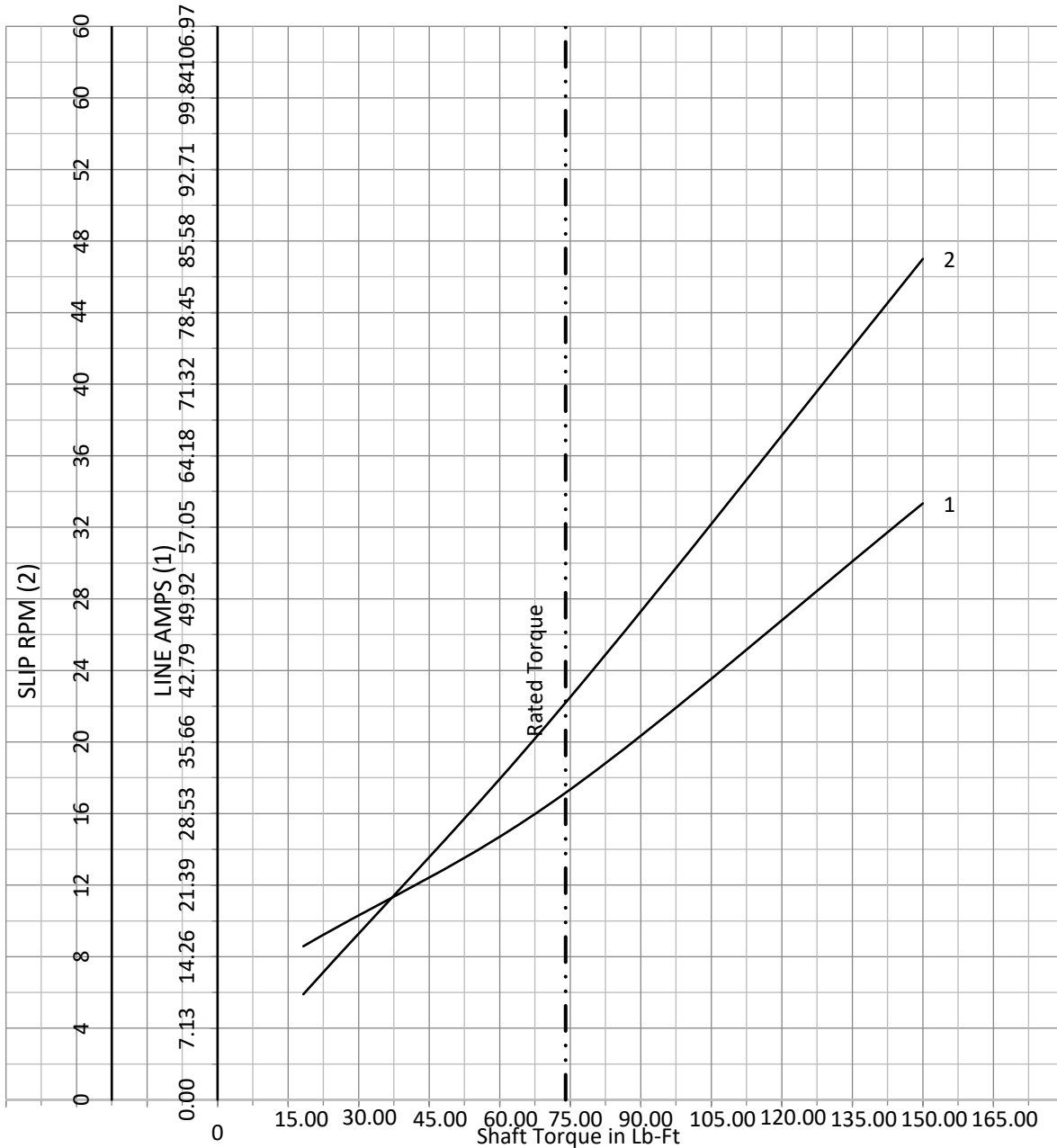


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 DATE 12/13/2017

**A-C MOTOR
 PERFORMANCE
 CURVES**
10WGZ651
 Record: 68462

ABB BALDOR RELIANCE		336/460 62/111	CUSTOMER INFORMATION PACKET		MAX SAFE RPM 2700 ZDVSM4103T - 25HP, 1775RPM, 3PH, 60HZ, 284TC, 1054M, TEFC, F	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
HP	25 HP		Base Volt	460		R1	0.121	X1	0.578
BASE SPEED	1777.800049		NL AMPS	13.60		R2	0.588	X2	0.512
PHASE/HZ	3/60		Slips(HZ)	0.74		R2B	0.086	X2B	0.790
			WK2 ()	0.000		R2E	0.025	XM	16.600

Vector PWM Inverer Duty
Vaiable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

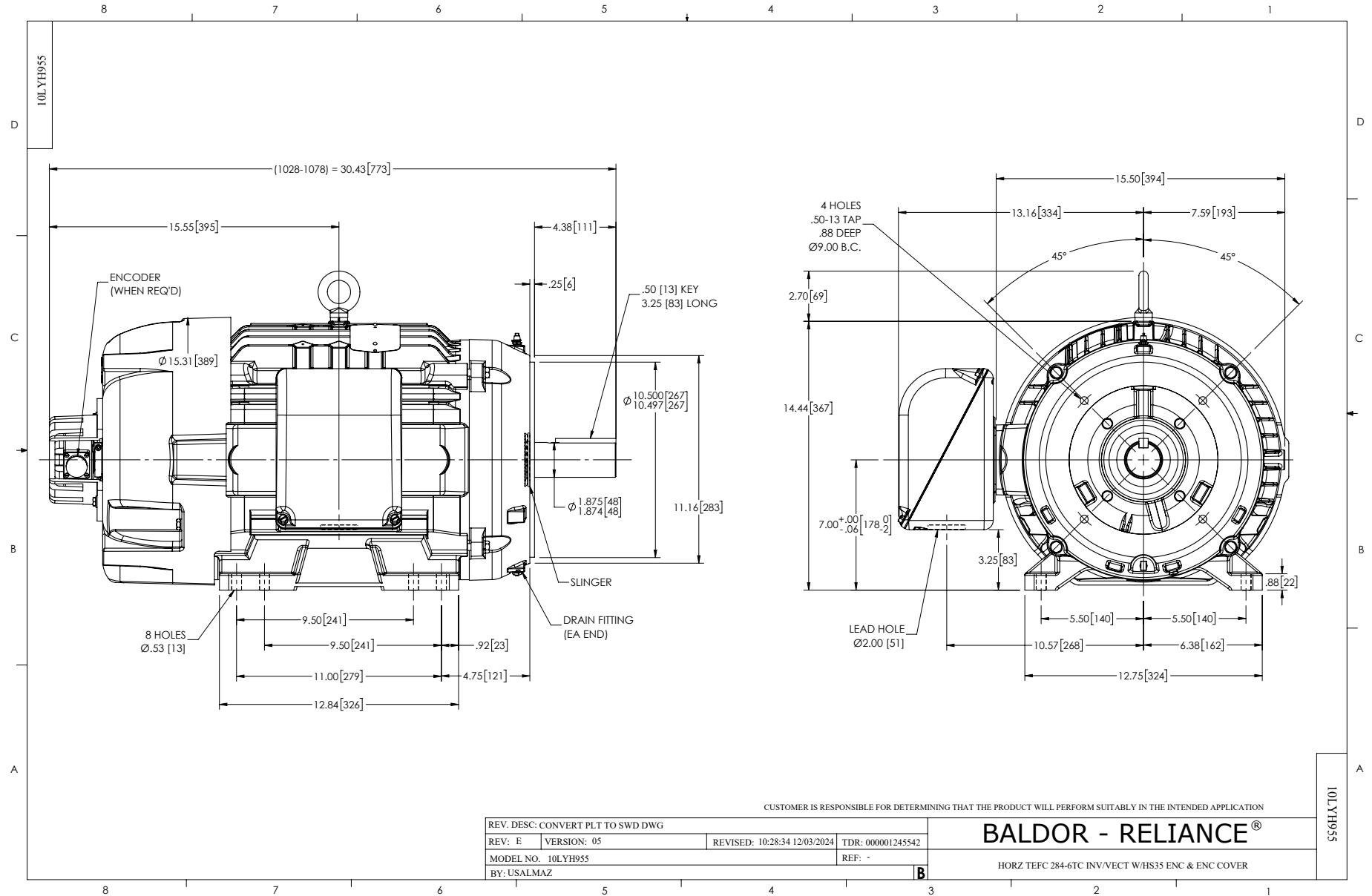


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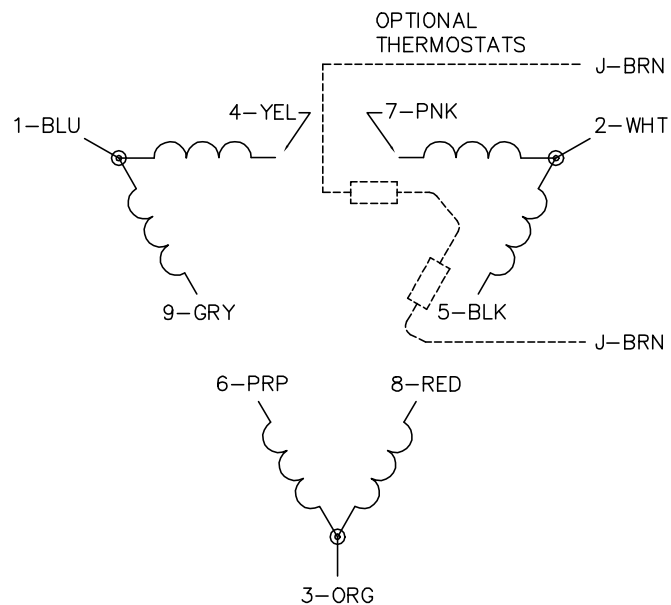
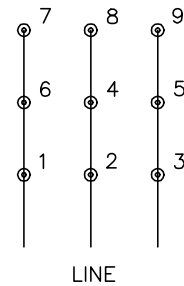
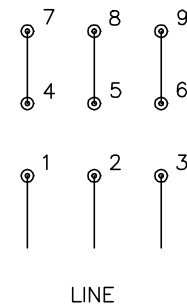
**A-C MOTOR
PERFORMANCE
CURVES**

10WGZ651

Record: 68462



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

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