

ABB BALDOR RELIANCE III

Customer information packet

ZDM4104T

56M 4P TEBC HOR 286T T'STATS VECTOR

Class - None

Division - Not Applicable

Specifications

Enclosure	TEBC
Frame	286T
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	30.000 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	BLOWER
Current @ Voltage	38.000 A @ 460.0 V 76.000 A @ 230.0 V 78.000 A @ 208.0 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 Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	38.0 a

Part Detail

Revision	K
Type	AC
Mech. spec.	10T004
Base	
Status	PRD/A
Elec. spec.	10WGY538
Layout	10LYT004
Eff. date	06-05-2026
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	03-14-2019

Insulation Class	H
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	4000 rpm
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	34.48 IN
Power Factor	80
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1760 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	ZDM4104T								
SPEC.	10T004Y538Z1								
FRAME	286T			HP	30 TE				
VOLTS	230/460								
MAG CUR	39.6/19.8			FLA	76/38				
RPM	1760			RPM MAX	2700				
HZ	60	PH	3	CLASS	H				
SER.F.	1.00	DES	A	SL HZ	1.3				
NEMA-NOM-EFF	93.6	WK2	4.46						
BLWR V		PH		HZ		A			
RATING	40C AMB-CONT								
DE BRG	6311	ODE BRG			6309				
CC	010A	SER.NO							
	1000:1 CT, 1000:1 VT								

Parts List

Part number	Description	Quantity
SA371422	SA 10T004Y538Z1	1.000 ea
RA361108	RA 10T004Y538Z1	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
10EP1104A57	FR. E.P. TEBC W/THRU SHAFT ENCODER DESIG	1.000 ea
10XN3816K34	3/8-16 X 2.13 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HA1005A26	SLINGER, OD 3.00, ID 1.75, 309 BRG	1.000 ea
10XN2520K12	1/4-20 X.75 GRD 5	1.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	1.000 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
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
10EP1105A01	PU ENDPLATE	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
HA1005A04	SLINGER, OD 3.620, ID 1.98,	1.000 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
HA4017A01	1/8 X 4 GREASE EXT (F/S)	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
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
10FH5100A01	310 BLOWER ASSY. (10FH4022 & EF5102)	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.125 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
ENC02BC-B2	ENCDR KIT TEBC W/OEHS35A09 W/BLIND SHAFT	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP1168L	ALUM VEC UL CSA CC	1.000 ea
10PA1010	PACKAGING GROUP, PRINT PK1151A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
PE-0000013	ZRTG PE ASSEMBLY	1.000 ea

ABB BALDOR/460 RELIANCE III		CUSTOMER INFORMATION PACKET		MAX SAFE RPM 2700 Base Volt 460 NL AMPS 17.90 Slips(HZ) 0.78 WK2 (LB-FT2) 4.470	WYE CONNECTION R1 0.107 R2 0.515 R2B 0.075 R2E 0.022	OHMS PER PHASE (BASE RATING, 20C) X1 0.492 X2 0.443 X2B 0.692 XM 12.800
HP 30 HP						
BASE SPEED 1777						
PHASE/HZ 3/60						

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1776.5	30.0	88.7	460	60	37.6
Max Speed	2664	30.0	59.1	460	90	33.4
Min Speed	0	0.0	88.7	16.78	0.78	37.6

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1798.9	0.0	0.0	460	60	17.9
1/4	1792.2	7.5	22.1	460	60	19.8
1/2	1787.6	15.0	44.1	460	60	24.3
3/4	1782.4	22.5	66.2	460	60	30.7
Full Load	1776.5	30.0	88.7	460	60	37.6
O/L	1749	60.0	180.0	460	60	73.0

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 8/24/2017

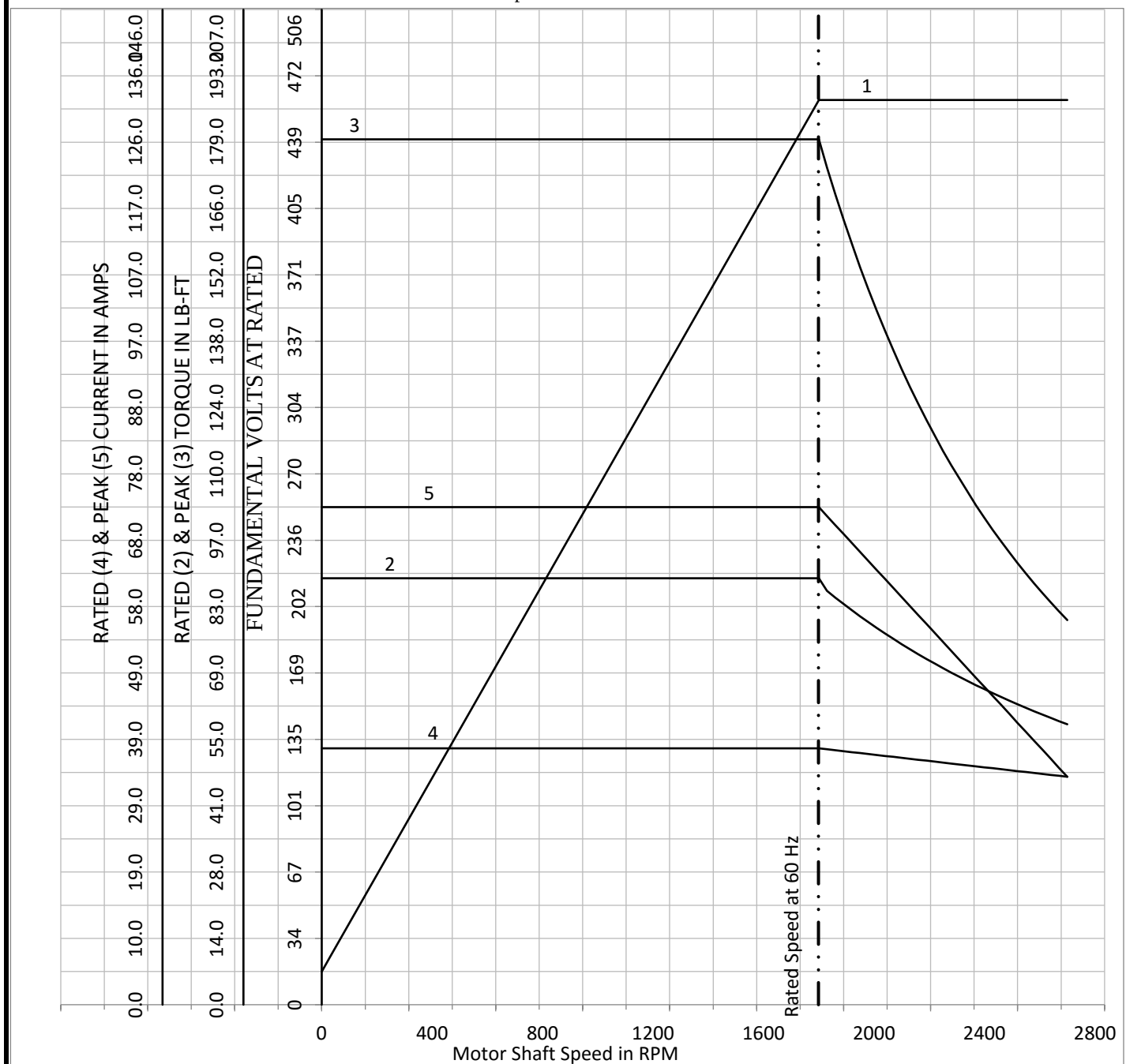
**A-C MOTOR
PERFORMANCE
CURVES**
10WGY538
Record: 52925

HP 30 HP
 BASE SPEED 1776.5
 PHASE/HZ 3/60

MAX SAFE RPM 2700
 Base Volt 460
 NL AMPS 17.90
 Slips(HZ) 0.78
 WK2 (LB-FT2) 4.470

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
 R1 0.107 X1 0.492
 R2 0.515 X2 0.443
 R2B 0.075 X2B 0.692
 R2E 0.022 XM 12.800

Vector PWM Inverter Duty
 Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only



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 DATE 8/24/2017

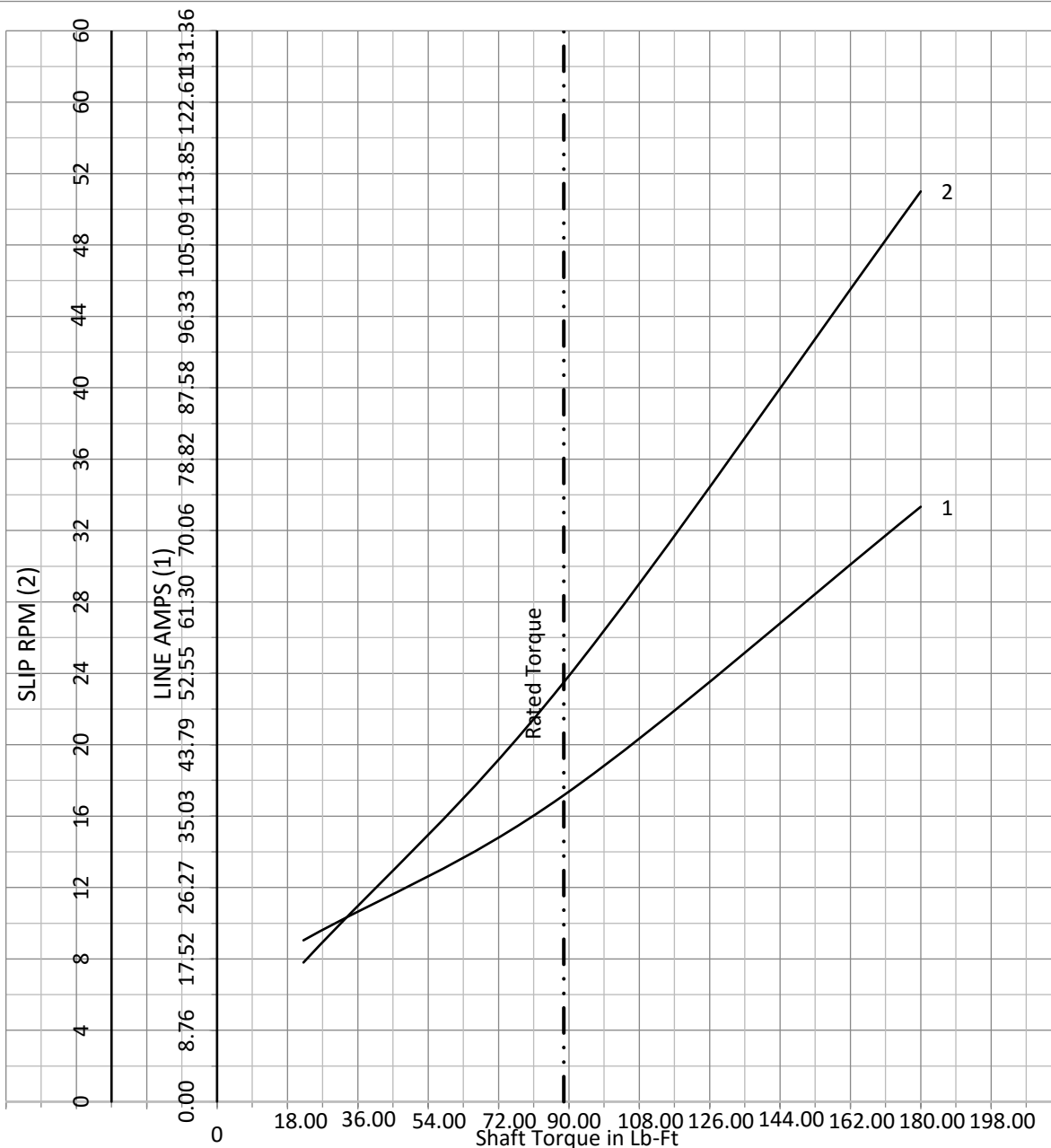
**A-C MOTOR
 PERFORMANCE
 CURVES**
10WGY538
 Record: 52925

HP 30 HP
 BASE SPEED 1776.5
 PHASE/HZ 3/60

MAX SAFE RPM 2700
 ZOM4104T - 56M 4P TEB C HOR 286T T'S TATS VECTOR
 Base Volt 460
 NL AMPS 17.90
 Slips(HZ) 0.78
 WK2 (LB-FT2) 4.470

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
 R1 0.107 X1 0.492
 R2 0.515 X2 0.443
 R2B 0.075 X2B 0.692
 R2E 0.022 XM 12.800

Vector PWM Inverter Duty
 Vaible Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

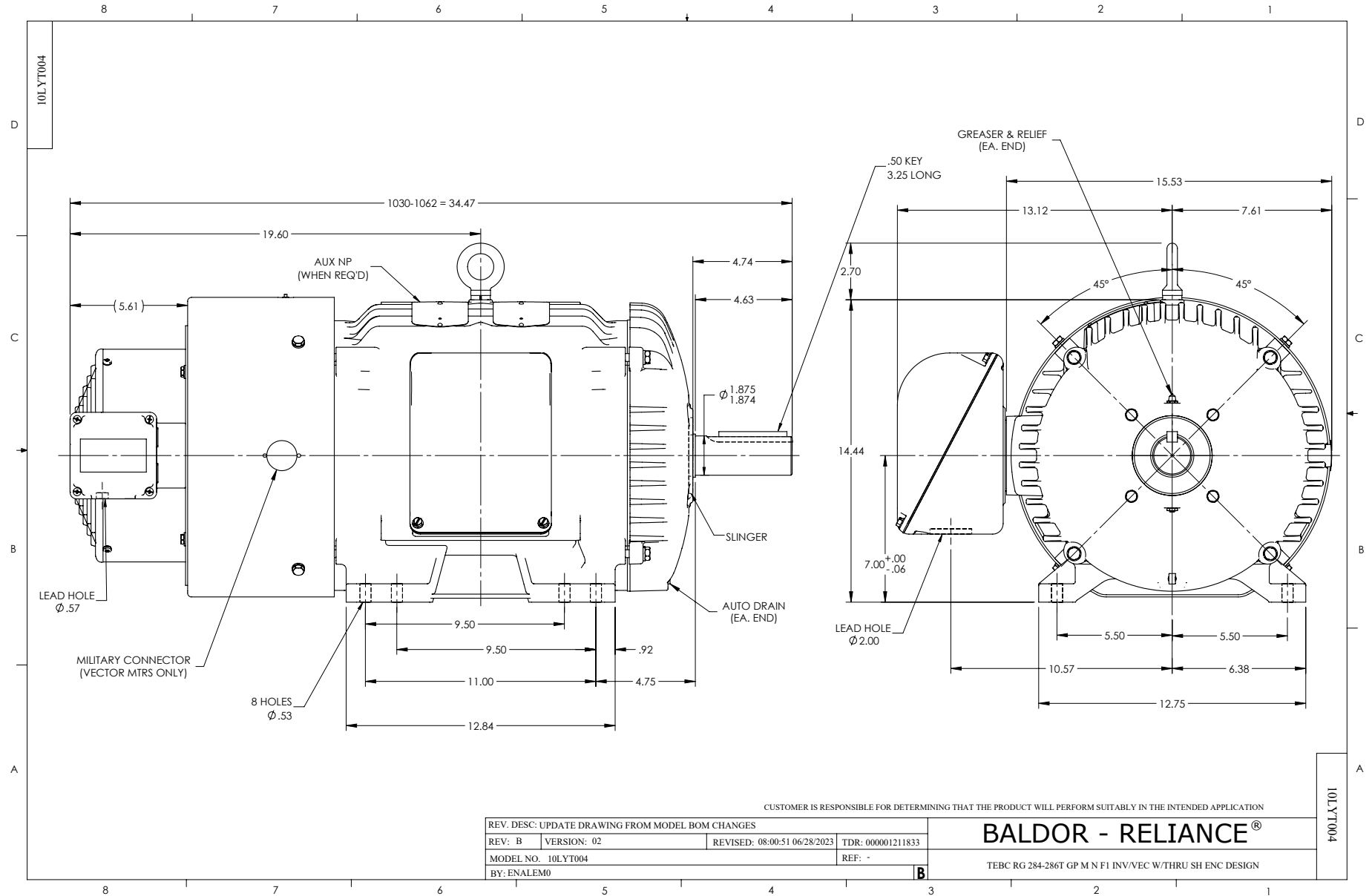


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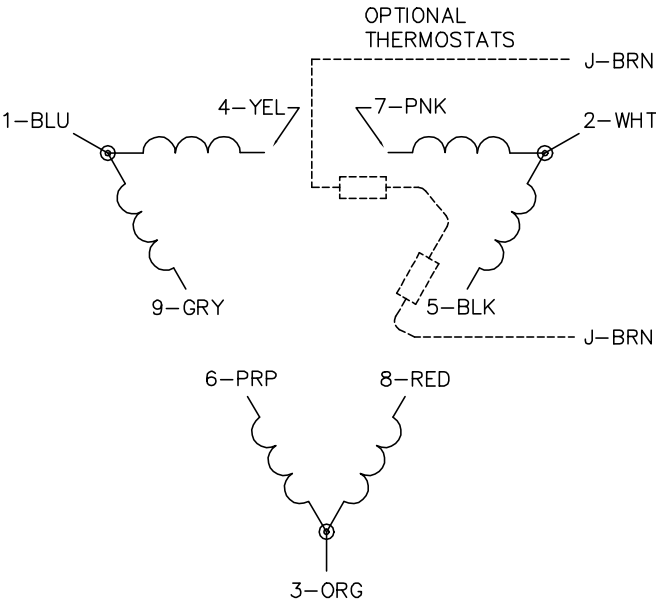
**A-C MOTOR
 PERFORMANCE
 CURVES**

10WGY538

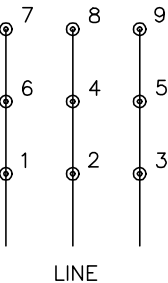
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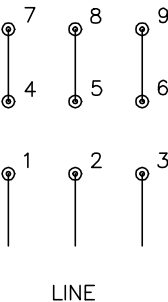
CD0180



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
SH 1 of 1