ABB BALDOR RELIANCE

Customer information packet

ZDM4100T

46M 6P TEBC HOR 284T TSTATS VECTOR
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEBC
Frame	284T
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	15.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 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	21.000 A @ 460.0 V
	42.000 A @ 208.0 V
	42.000 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 Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	21.0 a

Part Detail

Revision	H
Type	AC
Mech. spec.	10T004
Base	
Status	PRD/A
Elec. spec.	10WGY561
Layout	10LYT004
Eff. date	08-18-2025
CD Diagram	CD0180
Poles	06
Leads	9#10
Proprietary	False
Created date	03-14-2019

Insulation Class	H
Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1800 rpm
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1046M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	34.48 IN
Power Factor	73
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1175 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	ZDM4100T								
SPEC.	10T004Y561Z1								
FRAME	284T			**HP**	15 TE				
VOLTS	230/460								
MAG CUR	22/11				**FLA**	42/21			
RPM	1175			**RPM MAX**	1800				
HZ	60	**PH**	3		**CLASS**	H			
SER.F.	1.00	**DES**	A			**SL HZ**	1.3		
NEMA-NOM-EFF	91.7		**WK2**	4.9					
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
SA371423	SA 10T004Y561Z1	1.000 ea
RA361109	RA 10T004Y561Z1	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
10CB3500	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 PK1151A08	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
PE-0000013	ZRTG PE ASSEMBLY	1.000 ea

				WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP VOLTS	230/460						
NP AMPS	42/21	Base Volt	460	R1	0.265	X1	0.998
HP	15	NL AMPS	12.40	R2	0.163	X2	1.200
BASE SPEED	1185	Slip (HZ)	0.75			XM	19.000
PHASE/HZ	3/60	WK^2 (lb-ft^2)	5.630				

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1185	15.1	66.7	460	60	21.3
Max Speed	1778	15.0	44.4	460	90	18.0
CT Min Speed	1.185	0.015	66.7	0.46	0.06	21.3

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1199	0.0	0.0	460	60	12.4
1/4	1196	3.8	16.5	460	60	13.2
1/2	1193	7.5	32.8	460	60	15.1
3/4	1189	11.3	49.7	460	60	17.9
Full Load	1185	15.1	66.7	460	60	21.3
O/L	1170	30.1	135.0	460	60	37.6

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

Remarks: Calculated Data

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DR BY USBRRAN1
CK BY CD
APP BY USBRRAN1
DATE 11/1/2024

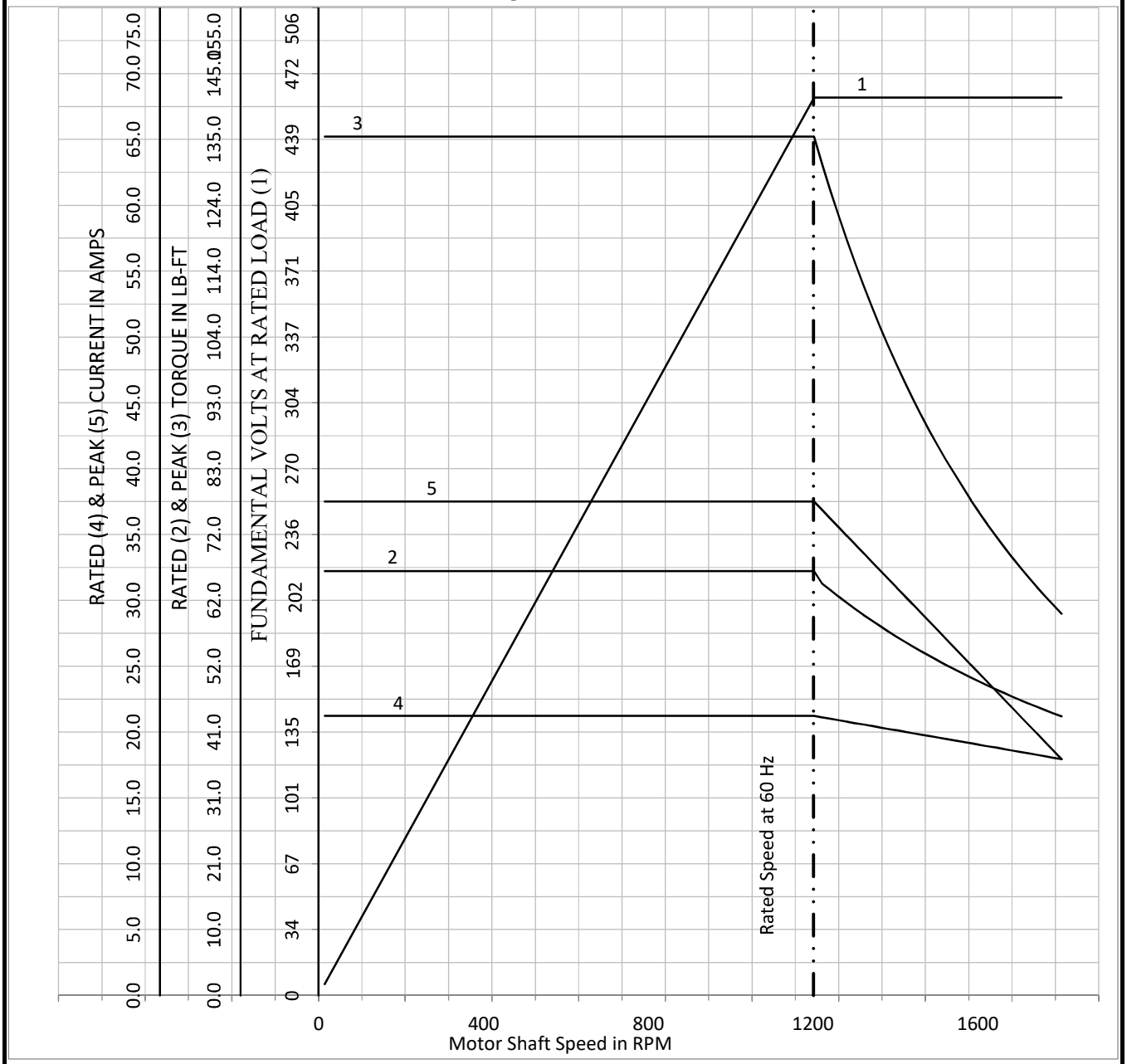
A-C MOTOR PERFORMANCE CURVES

10WGY561

Record: 68450

NP VOLTS	230/460			WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	42/21	Base Volt	460	R1	0.265	X1	0.998
HP	15	NL AMPS	12.40	R2	0.163	X2	1.200
BASE SPEED	1185	Slip (HZ)	0.75			XM	19.000
PHASE/HZ	3/60	WK^2 (lb-ft^2)	5.630				

Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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A-C MOTOR PERFORMANCE CURVES

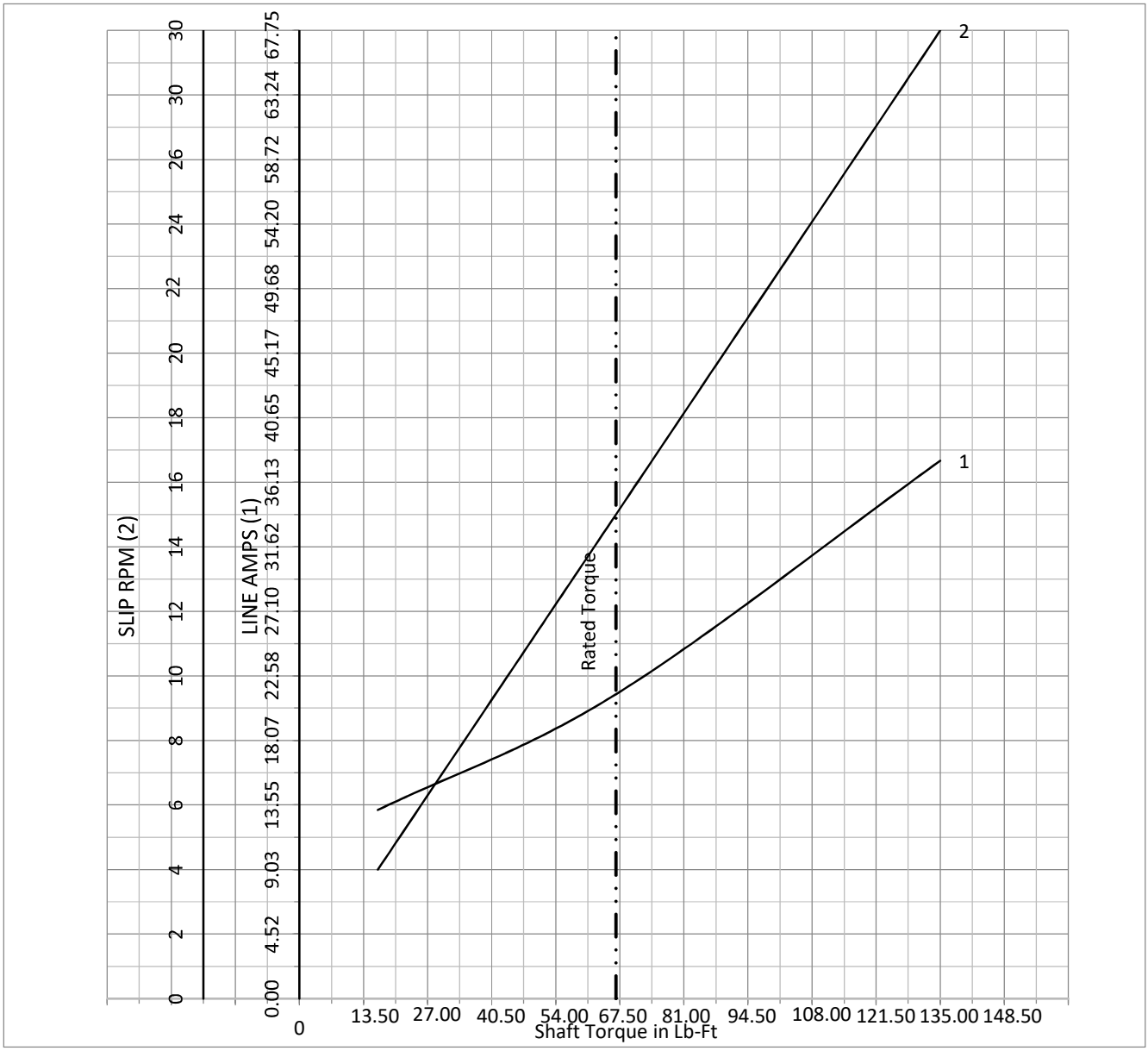
10WGY561

Record: 68450

NP VOLTS	230/460	0	0	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	42/21	Base Volt	460	R1	0.265	X1	0.998
HP	15	NL AMPS	12.40	R2	0.163	X2	1.200
BASE SPEED	1185	Slip (HZ)	0.75			XM	19.000
PHASE/HZ	3/60	WK2 (lb-ft2)	5.630				

Vector PWM Inverer Duty

Vaiable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

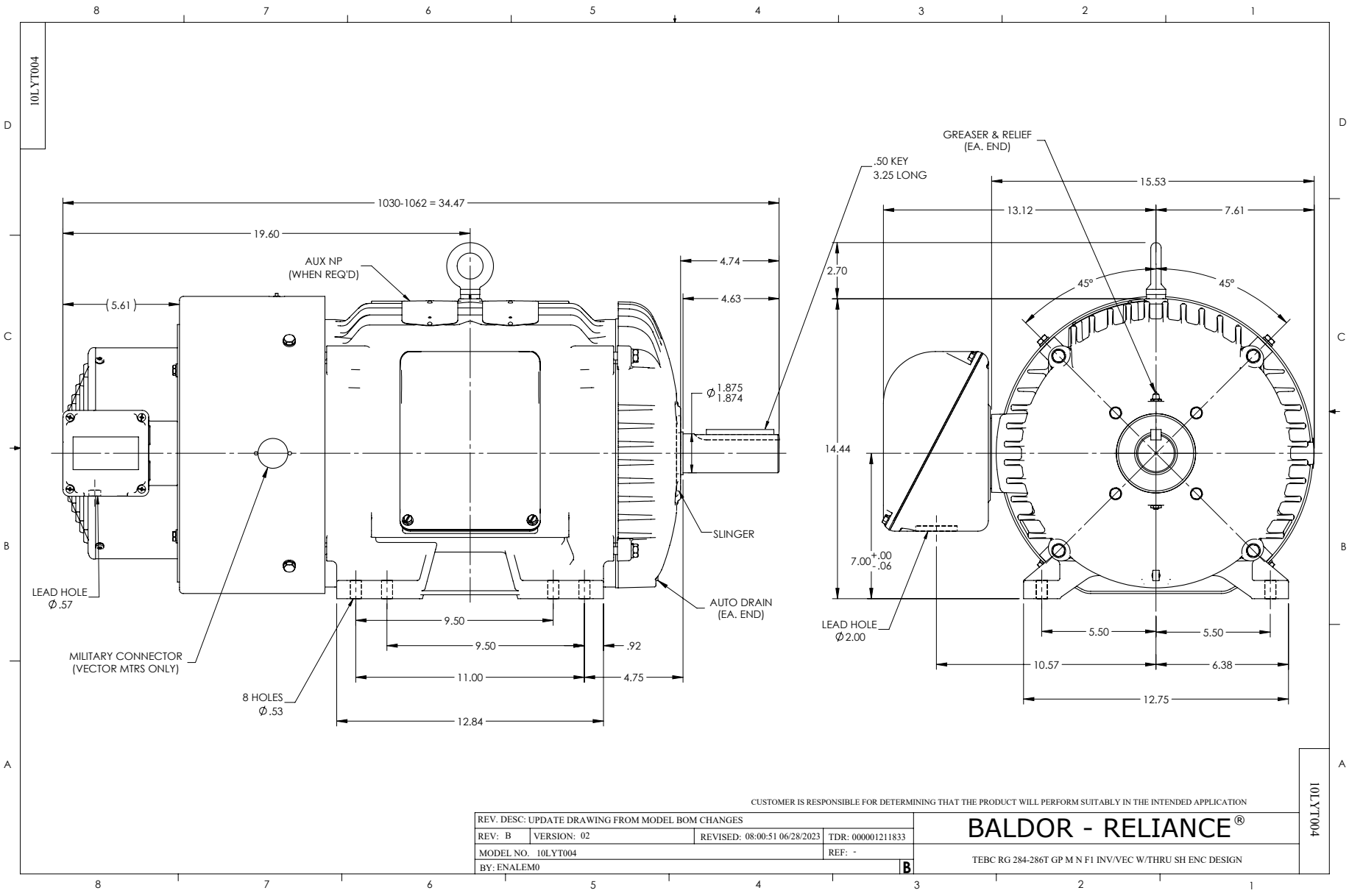
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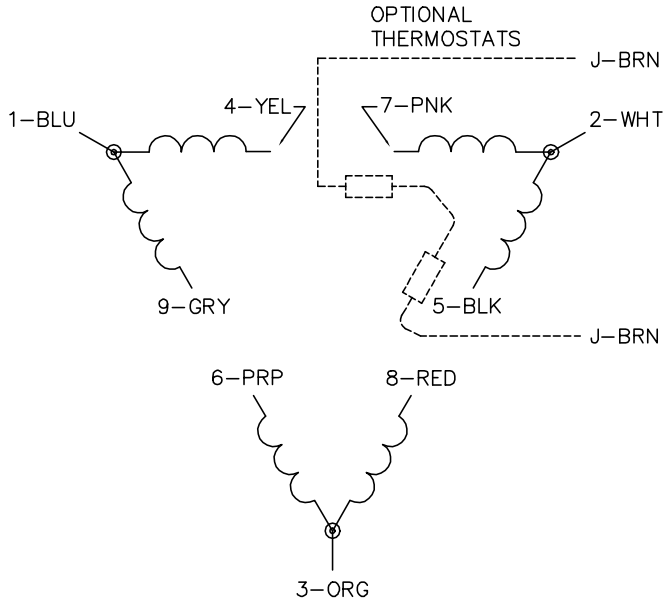
A-C MOTOR PERFORMANCE CURVES

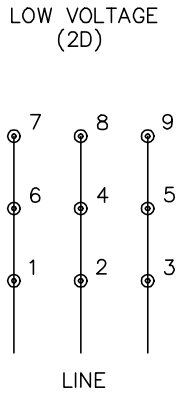
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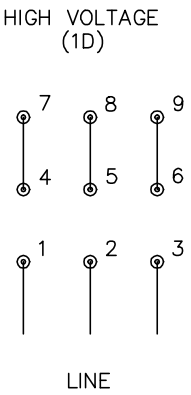
Record: 68450


10LYT004
1030-1062 = 34.47
19.60
AUX NP
(WHEN REQ'D)
(5.61)
4.74
4.63
Ø 1.875
1.874
SLINGER
AUTO DRAIN
(EA. END)
LEAD HOLE
Ø .57
MILITARY CONNECTOR
(VECTOR MTRS ONLY)
8 HOLES
Ø .53
9.50
9.50
.92
11.00
4.75
12.84
GREASER & RELIEF
(EA. END)
.50 KEY
3.25 LONG
15.53
13.12
7.61
2.70
45°
45°
14.44
7.00 +.00 -.06
LEAD HOLE
Ø 2.00
5.50
5.50
10.57
6.38
12.75
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE DRAWING FROM MODEL BOM CHANGES
REV: B
VERSION: 02
REVISED: 08:00:51 06/28/2023
TDR: 000001211833
MODEL NO. 10LYT004
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
TEBC RG 284-286T GP M N F1 INV/VEC W/THRU SH ENC DESIGN
10LYT004

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: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1