ABB BALDOR RELIANCE

Customer information packet

IDNM2334T

20HP, 1780RPM, 3PH, 60HZ, 284T, 1056M, TENV, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TENV
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	20.000 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	26.000 A @ 460.0 V
	52.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Encoder/Feedback Device
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	26.0 a

Part Detail

Revision	AF
Type	AC
Mech. spec.	10F681
Base	
Status	PRD/A
Elec. spec.	10WGW586
Layout	10LYF681
Eff. date	08-18-2025
CD Diagram	CD0005
Poles	04
Leads	9#10
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	4000 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1056M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.36 IN
Power Factor	77
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 Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1780 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

NP1163L									
CAT NO	IDNM2334T								
SPEC.	10F681W586G1								
FRAME	284T			**HP**	20 TE				
VOLTS	230/460								
MAG CUR	29/14.5				**FLA**	52/26			
RPM	1780			**RPM MAX**	4000				
HZ	60	**PH**	3		**CLASS**	H			
SER.F.	1.00	**DES**	A			**SL HZ**	0.67		
NEMA-NOM-EFF	93		**WK2**	4.46					
BLWR V		**PH**		**HZ**		**A**			
RATING	40C AMB-CONT								
DE BRG	6311			**ODE BRG**	6309				
CC	010A	**SN**							
	1000:1 CT, 1000:1 VT								

Parts List

Part number	Description	Quantity
SA109285	SA 10F681W586G1	1.000 ea
RA100777	RA 10F681W586G1	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
10EP1104A105	FREP, TEBC W/THRU SHAFT ENCODER DESIGN &	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HA4017A10	1/8X1.25 GREASE EXT (F/S)	1.000 ea
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 ea
HA4017A10	1/8X1.25 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
HA1005A04	SLINGER, OD 3.620, ID 1.98,	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
HA4051A00	PLASTIC CAP FOR GREASE FITTING	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
HA6881	BEI HS35 THRU SHAFT ENCODER PROTECTIVE C	1.000 ea
10XN3816K12	3/8-16 X 3/4 HEX HD CAP GRADE 5	3.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	3.000 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
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	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
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 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
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
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
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.125 ga
LC0005E01	SPL CONN.DIA./WARN.LABEL(LC0005/LB1119)	1.000 ea
NP1163L	ALUM INV UL CSA CC	1.000 ea
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A07	1.000 ea
PE-0000013	ZRTG PE ASSEMBLY	1.000 ea

INP AMPS	52/26	MAX SAFE RPM	2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
HP	20 HP	Base Volt	460	R1	0.131	X1	0.594
BASE SPEED	1784	NL AMPS	14.50	R2	0.644	X2	0.478
PHASE/HZ	3/60	Slips(HZ)	0.53	R2B	0.094	X2B	0.811
		WK2 (LB-FT2)	4.440	R2E	0.027	XM	17.600

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1784	20.3	59.8	460	60	26.1
Max Speed	2676	20.3	39.8	460	90	23.5
Min Speed	0	0.0	59.8	13.24	0.53	26.1

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	14.5
1/4	1796	5.1	15.0	460	60	15.6
1/2	1792	10.2	30.0	460	60	18.2
3/4	1788	15.3	44.8	460	60	21.7
Full Load	1784	20.3	59.8	460	60	26.1
O/L	1765	40.7	121.0	460	60	47.5

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

Remarks: Calculated Data
Vector PWM Inverter Duty

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APP BY USBRRAN1
DATE 9/8/2017

A-C MOTOR PERFORMANCE CURVES

10WGW586
Record: 2299

IDNM2334T - 20HP, 1780RPM, 3PH, 60HZ, 284T, 1056M, TENV, F1

INT AMPS	52/26
HP	20 HP
BASE SPEED	1784
PHASE/HZ	3/60

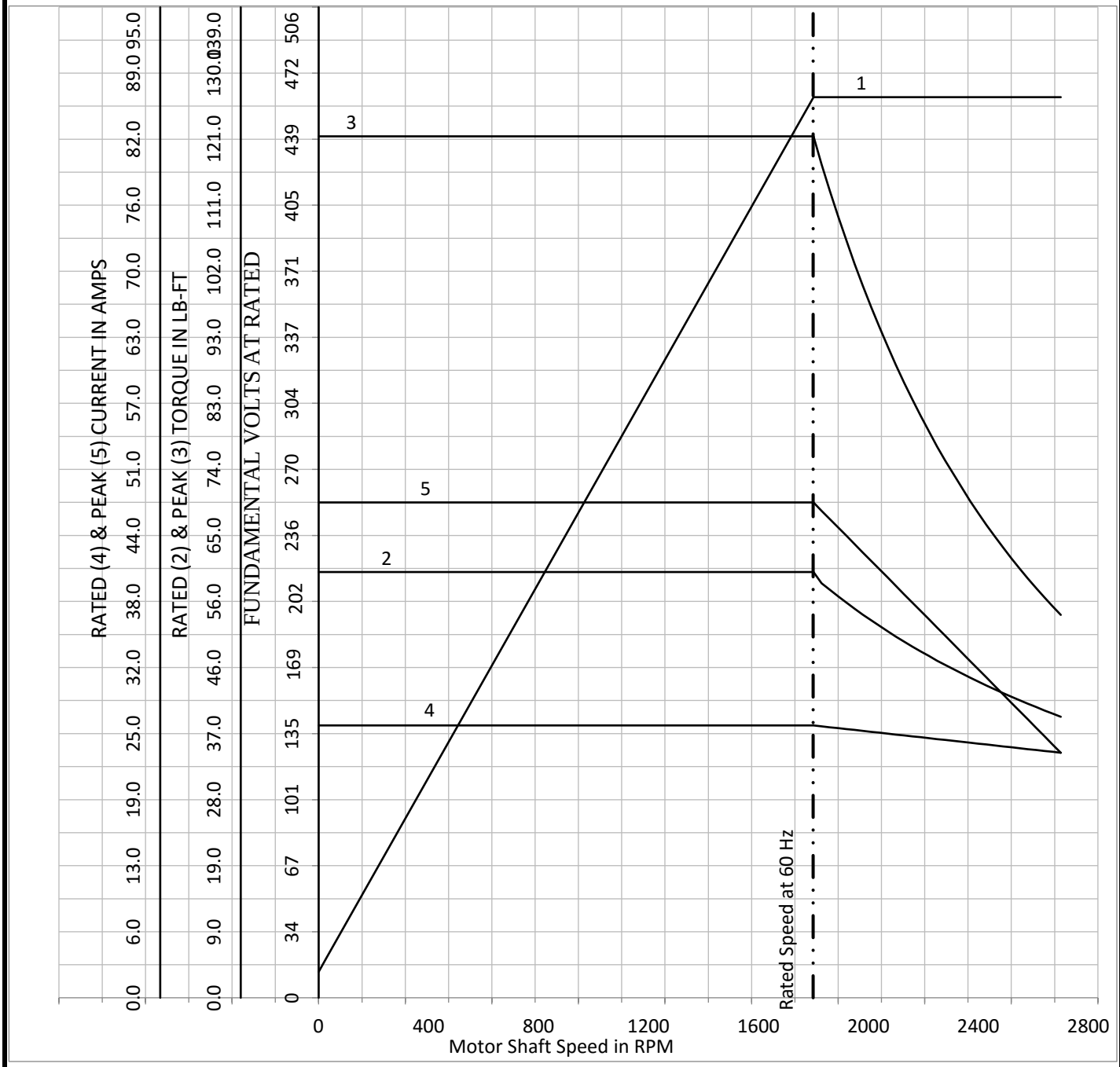
MAX SAFE RPM	2700
Base Volt	460
NL AMPS	14.50
Slips(HZ)	0.53
WK2 (LB-FT2)	4.440

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

R1	0.131	X1	0.594
R2	0.644	X2	0.478
R2B	0.094	X2B	0.811
R2E	0.027	XM	17.600

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

10WGW586

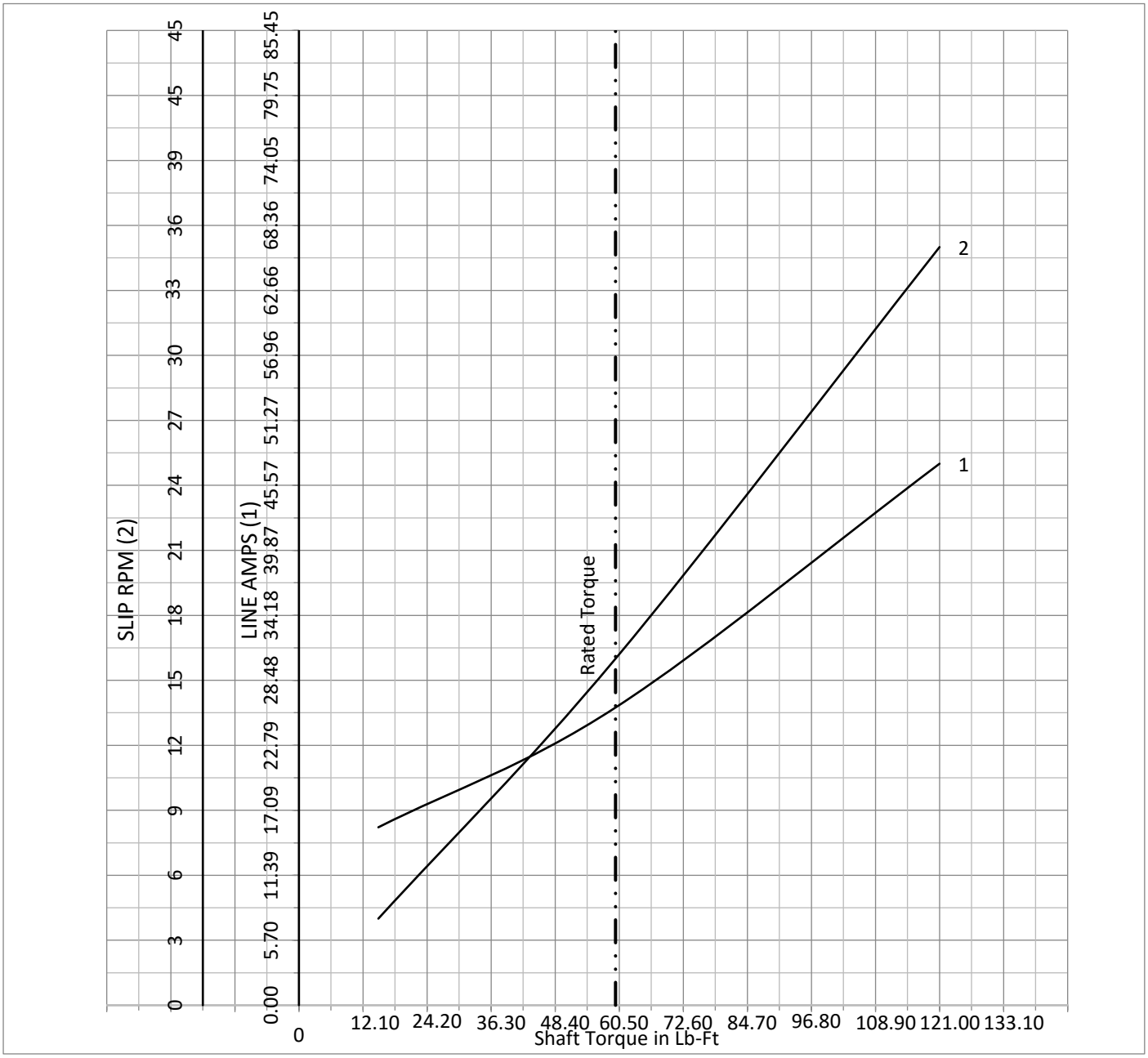
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IDNM2334T - 20HP, 1780RPM, 3PH, 60HZ, 284T, 1056M, TENV, F1

VOLTS	208/460	MAX SAFE RPM	2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
FL AMPS	52/26	Base Volt	460	R1	0.131	X1	0.594
HP	20 HP	NL AMPS	14.50	R2	0.644	X2	0.478
BASE SPEED	1784	Slips(HZ)	0.53	R2B	0.094	X2B	0.811
PHASE/HZ	3/60	WK2 (LB-FT2)	4.440	R2E	0.027	XM	17.600

Vector PWM Inverer Duty

Vaiable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

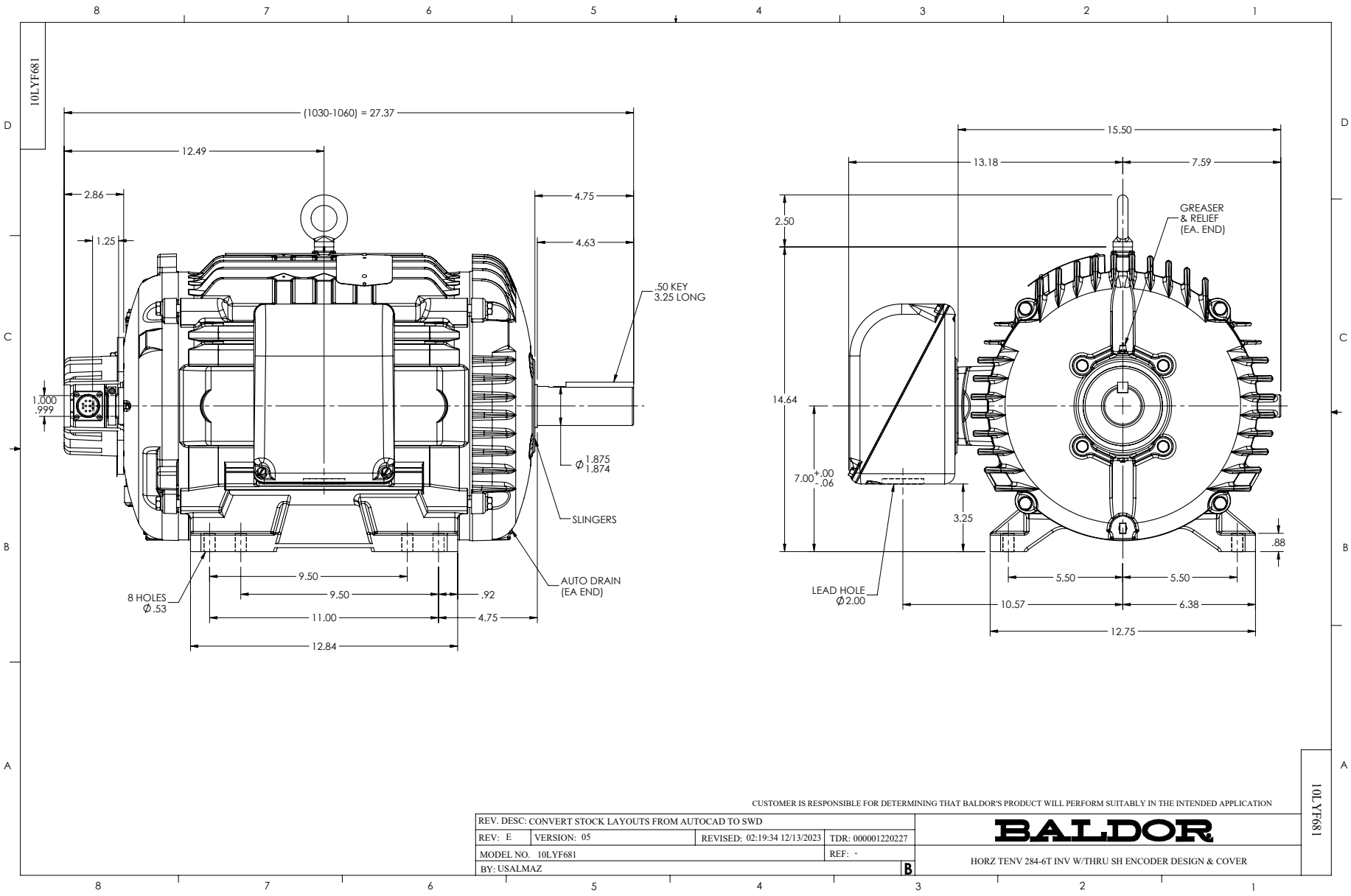
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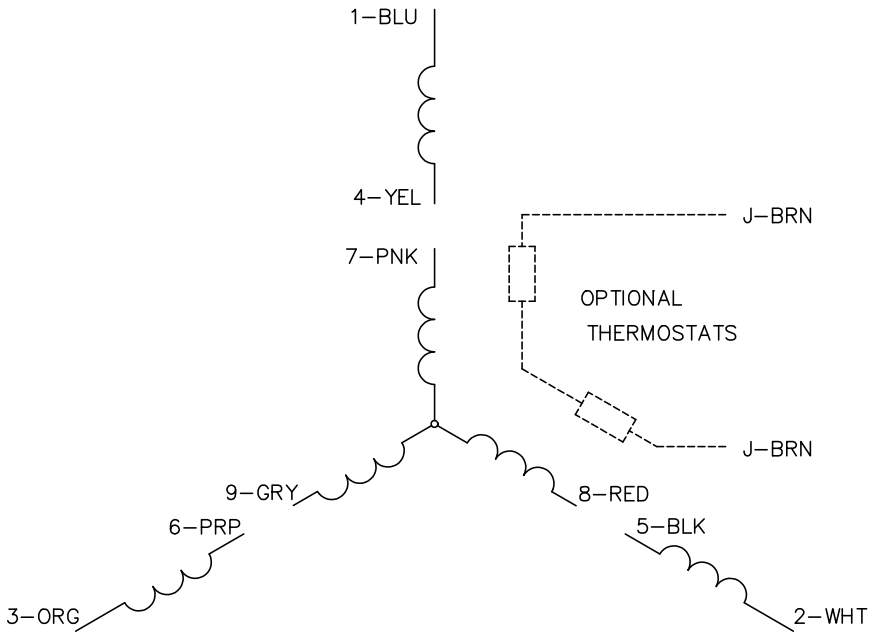
A-C MOTOR PERFORMANCE CURVES

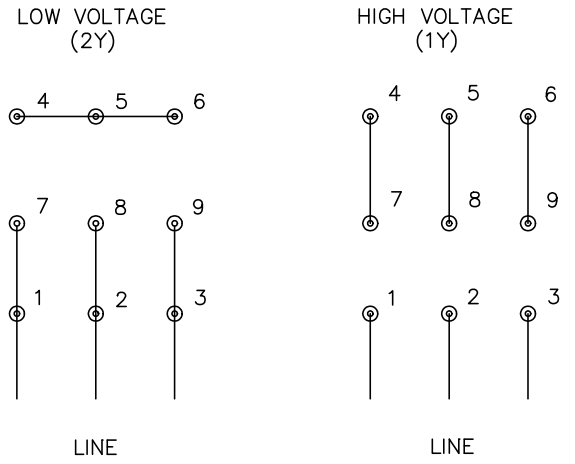
10WGW586

Record: 2299


10LYF681
(1030-1060) = 27.37
12.49
2.86
1.25
4.75
4.63
.50 KEY
3.25 LONG
1.000
.999
Ø 1.875
1.874
SLINGERS
AUTO DRAIN
(EA END)
8 HOLES
Ø .53
9.50
9.50
.92
11.00
4.75
12.84
15.50
13.18
7.59
GREASER
& RELIEF
(EA. END)
2.50
14.64
7.00 +.00 -.06
3.25
.88
LEAD HOLE
Ø 2.00
5.50
5.50
10.57
6.38
12.75
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: E
VERSION: 05
REVISED: 02:19:34 12/13/2023
TDR: 000001220227
MODEL NO. 10LYF681
REF: -
BY: USALMAZ
B
BALDOR
HORZ TENV 284-6T INV W/THRU SH ENCODER DESIGN & COVER
10LYF681

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