

ABB BALDOR RELIANCE III

Customer information packet

M1712T

20/10HP, 1760/870RPM, 3PH, 60HZ, 284T, 1046M

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
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 10.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	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	25.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	18.5 a
Insulation Class	F
Inverter Code	Not Inverter

Part Detail

Revision	V
Type	AC
Mech. spec.	10C151
Base	
Status	PRD/A
Elec. spec.	10WGY731
Layout	10LYC151
Eff. date	01-07-2026
CD Diagram	CD0011
Poles	04/08
Leads	6#10
Proprietary	False
Created date	05-19-2010

KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1046M
Mounting Arrangement	F1
Number of Poles	4
	8
Overall Length	27.76 IN
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
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	1760 rpm
	870 rpm
Speed Code	2S-1W-CT
Starting Method	Direct on line
Thermal Device - Bearing	NONE (OLD)
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1256L									
CAT.NO.	M1712T								
SPEC.	10C151Y731								
HP	20/10								
VOLTS	460								
AMP	25/18.5								
RPM	1760/870								
FRAME	284T		HZ	60			PH	3	
SER.F.	1.15	CODE	G	DES	B	CLASS	F		
NEMA-NOM-EFF		PF							
RATING	40C AMB-CONT								
CC									
DE	6311		ODE	6309					
ENCL	TEFC	SN							

Parts List

Part number	Description	Quantity
SA196939	SA 10C151Y731	1.000 ea
RA184380	RA 10C151Y731	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
10EP1106A01	FR ENDPLATE, MACH	1.000 ea
10XN3816K32	BOLT, 3/8-16X2 HH YZ(5)	4.000 ea
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 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
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
10FH4000	310 FAN HOUSING STAMPED, PRIMED W/O P SU	1.000 ea
51XF2520A08	SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L	4.000 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
HW4600B40	V-RING SLINGER 2.000 X 2.680 X .28 VITON	1.000 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
HA4051A00	PLASTIC CAP FOR GREASE FITTING	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
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
HA4051A00	PLASTIC CAP FOR GREASE FITTING	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
10FN3001A01	EXTERNAL FAN	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
HA6390A01	#44, 3.12" DIA WORM DRIVE HOSE CLAMP	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.125 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0032	CONNECTION LABEL	1.000 ea
NP1256L	ALUM UL CC INDUSTRIAL MOTOR A60	1.000 ea
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A07	1.000 ea
FE-0000022	ZRTG FE ASSEMBLY	1.000 ea
PE-0000013	ZRTG PE ASSEMBLY	1.000 ea

Accessories

Part number	Description	Multiplier
10-1305	C FACE KIT	A8
10EP1502A01SP	D-FLANGE KIT	A8

AC Induction Motor Performance Data

Record # 31205

Typical performance - not guaranteed values

Winding: 10WGY731-R001		Type: 1046M	Enclosure: TEFC
Nameplate Data		460 V, 60 Hz: High Speed Connection	
Rated Output (HP)	20/10	Full Load Torque	60 LB-FT
Volts	460	Start Configuration	direct on line
Full Load Amps	25/18.5	Breakdown Torque	158 LB-FT
R.P.M.	1760/870	Pull-up Torque	67.6 LB-FT
Hz	60 Phase	Locked-rotor Torque	100 LB-FT
NEMA Design Code	B KVA Code	Starting Current	147 A
Service Factor (S.F.)	1.15	No-load Current	5.99 A
NEMA Nom. Eff.	0 Power Factor	Line-line Res. @ 25°C	0.612 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	71°C
S.F. Amps		Temp. Rise @ S.F. Load	87°C

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	65	81	86	88	88	89	88
Efficiency	81.9	87	87.3	87	85.7	82.8	86.2
Speed	1789	1780	1769	1758	1746	1730	1751
Line amperes	8.99	13.6	18.8	24.6	30.8	37.7	28.3

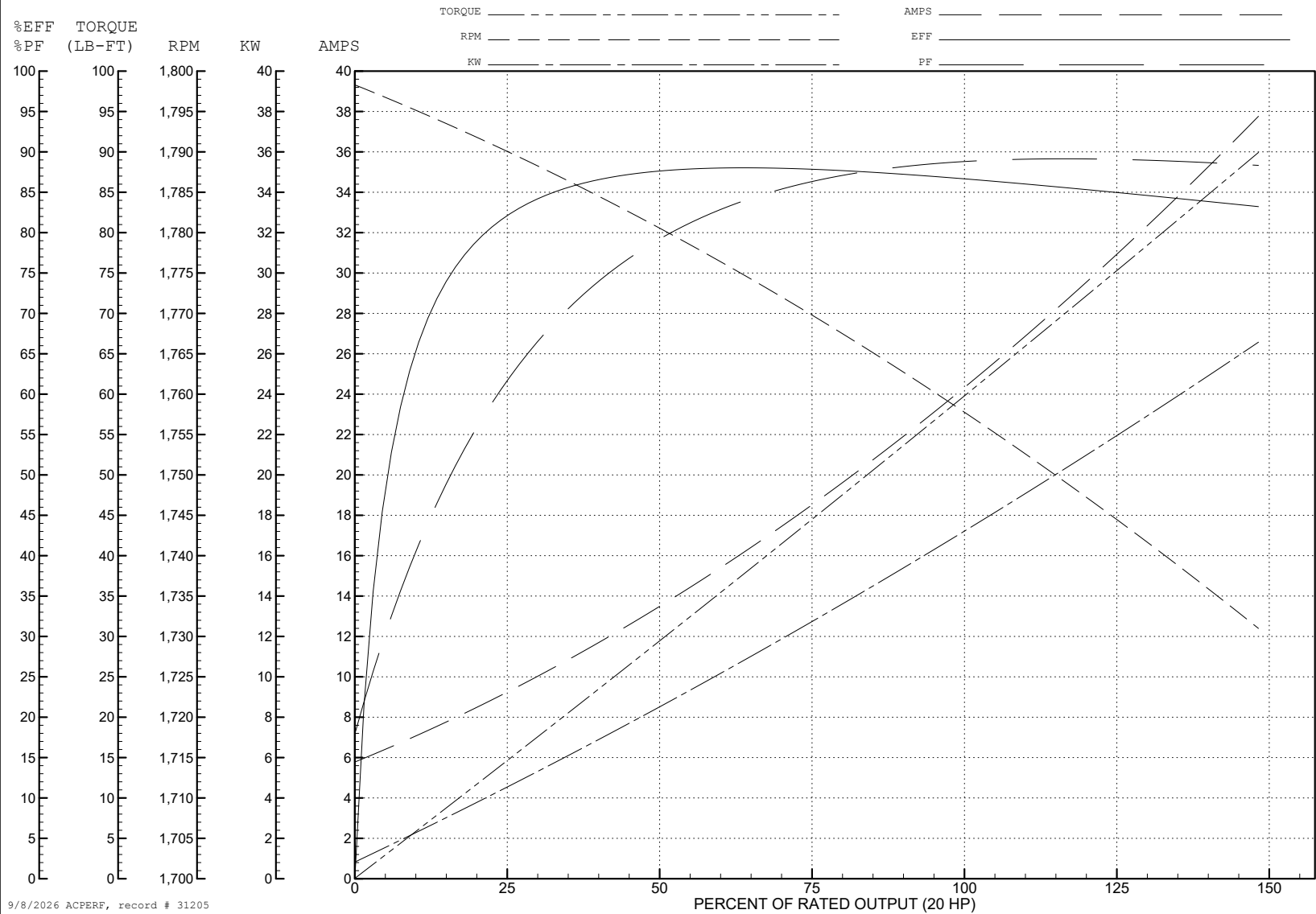
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WINDING # 10WGY731

Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1758 RPM 460 V 1046M

TORQUES (LB-FT): PO=158 PU=67.6 LR=100 LRA=147



AC Induction Motor Performance Data

Record # 31206

Typical performance - not guaranteed values

Winding: 10WGY731-R001			Type: 1046M		Enclosure: TEFC		
Nameplate Data				460 V, 60 Hz: Low Speed Connection			
Rated Output (HP)		20/10		Full Load Torque		60 LB-FT	
Volts		460		Start Configuration		direct on line	
Full Load Amps		25/18.5		Breakdown Torque		178 LB-FT	
R.P.M.		1760/870		Pull-up Torque		100 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		132 LB-FT	
NEMA Design Code		B	KVA Code	G	Starting Current		92.2 A
Service Factor (S.F.)		1.15		No-load Current		12.8 A	
NEMA Nom. Eff.		0	Power Factor	0	Line-line Res. @ 25°C		0.816 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		55°C	
S.F. Amps				Temp. Rise @ S.F. Load		63°C	

Load Characteristics 460 V, 60 Hz, 10 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	25	40	51	59	64	68	62
Efficiency	72.9	81.9	85.2	86.7	86.4	85.6	86.5
Speed	895	891	887	882	877	872	879
Line amperes	13.3	14.5	16.3	18.4	21.1	24.2	20

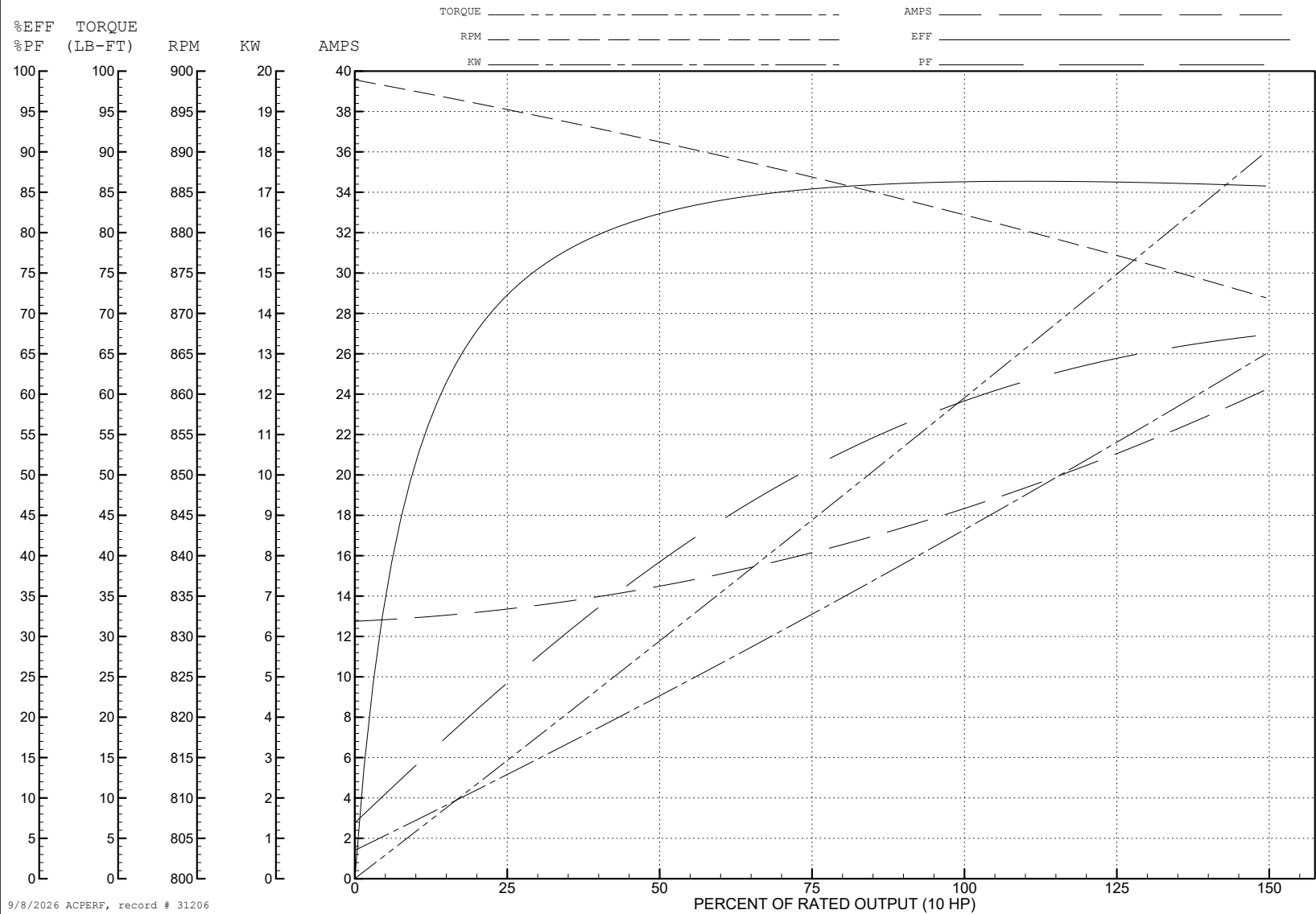
ABB Motors and Mechanical Inc.

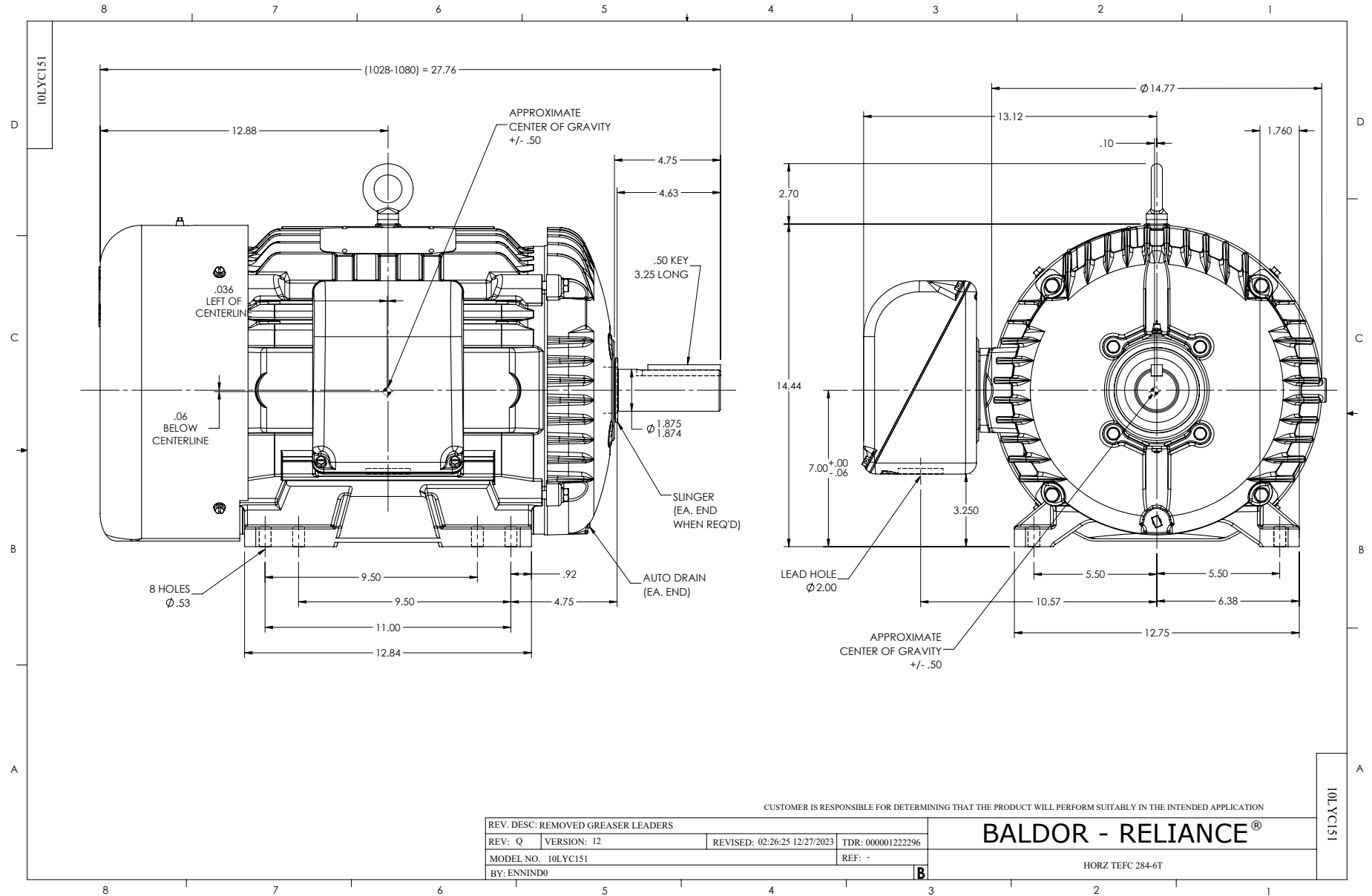
WINDING # 10WGY731

Typical performance - not guaranteed values.

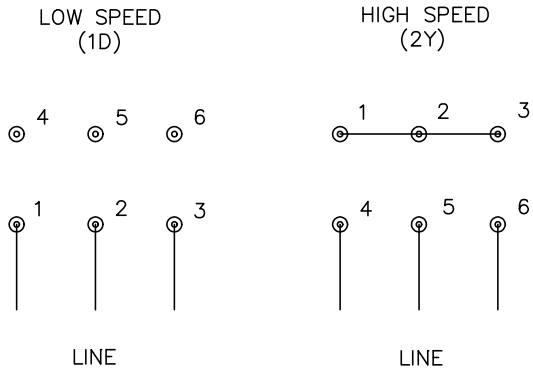
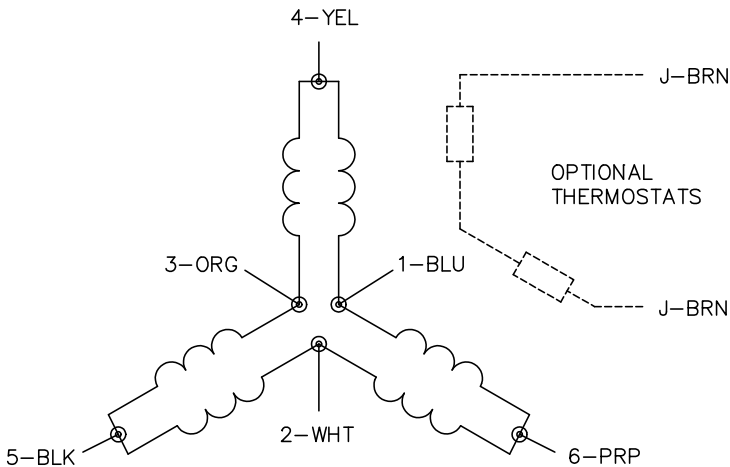
10 HP 3 PH 60 HZ 882 RPM 460 V 1046M

TORQUES (LB-FT): PO=178 PU=100 LR=132 LRA=92.2





CD0011



- 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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: F	BY: JLP	REVISED: 01/21/99 5:04	TDR: 0171435
110000		FILE: DWG\142.wg	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, SV, 6 LEADS, 2-SPEED 1-WINDING CONSTANT TORQUE

CD0011