

**BALDOR® • RELIANCE** 

**Product Information Packet**

**M1712T**

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

Part Detail							
Revision:	N	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	10WGY731	CD Diagram:	CD0011	Mfg Plant:	
Mech. Spec:	10C151	Layout:	10LYC151	Poles:	04/08	Created Date:	05-19-2010
Base:	RG	Eff. Date:	09-13-2019	Leads:	6#10		

Specs			
Catalog Number:	M1712T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Not Inverter
Frame:	284T	KVA Code:	G
Frame Material:	Iron	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	20.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
	10.000 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	6 @ 10 AWG
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	1046M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Product Family:	General Purpose
	CSA	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Extension Location:	Pulley End
Blower:	None	Shaft Ground Indicator:	No Shaft Grounding
Current @ Voltage:	25.000 A @ 460.0 V	Shaft Rotation:	Reversible

<b>Design Code:</b>	B	<b>Shaft Slinger Indicator:</b>	Shaft Slinger
<b>Drip Cover:</b>	No Drip Cover	<b>Speed Code:</b>	2S-1W-CT
<b>Duty Rating:</b>	CONT	<b>Motor Standards:</b>	NEMA
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Starting Method:</b>	Direct on line
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Bearing:</b>	None
<b>Front Face Code:</b>	Standard	<b>Thermal Device - Winding:</b>	None
<b>Front Shaft Indicator:</b>	None	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 1:</b>	None
		<b>Winding Thermal 2:</b>	None

<b>Nameplate NP1256L</b>										
<b>CAT.NO.</b>	M1712T									
<b>SPEC.</b>	10C151Y731									
<b>HP</b>	20/10									
<b>VOLTS</b>	460									
<b>AMP</b>	25/18.5									
<b>RPM</b>	1760/870									
<b>FRAME</b>	284T				<b>HZ</b>	60			<b>PH</b>	3
<b>SER.F.</b>	1.15		<b>CODE</b>	G	<b>DES</b>	B		<b>CLASS</b>	F	
<b>NEMA-NOM-EFF</b>			<b>PF</b>							
<b>RATING</b>	40C AMB-CONT									
<b>CC</b>									<b>USABLE AT 208V</b>	
<b>DE</b>	6311				<b>ODE</b>	6309				
<b>ENCL</b>	TEFC		<b>SN</b>							

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
09GS1000SP	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
10XN2520K32	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	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
10GS1000SP	GASKET, CONDUIT BOX LID	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
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 (1200/bx) 3/19	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	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, MOBIL POLYREX EM - 124047	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	HOSE CLAMP FOR 3.12 DIA S.S. OR PLATED	1.000 EA
MG1000G27	MED CHARCOAL METALLIC GREY 400-0096	0.125 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0032	CONNECTION LABEL	1.000 EA
NP1256L	ALUM UL CSA CC INDUSTRIAL MOTOR A60	1.000 EA
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A06	1.000 EA
FE-0000022	ZRTG FE ASSEMBLY	1.000 EA

PE-0000013	ZRTG PE ASSEMBLY	1.000 EA
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<b>Accessories</b>		
<b>Part Number</b>	<b>Description</b>	<b>Multiplier</b>
10-1305	C FACE KIT	A8
10EP1502A01SP	D-FLANGE KIT	A8

**AC Induction Motor Performance Data**

Record # 31205 - Typical performance - not guaranteed values

<b>Winding:</b> 10WGY731-R001	<b>Type:</b> 1046M	<b>Enclosure:</b> TEFC
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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	3	Locked-rotor Torque	100 LB-FT
NEMA Design Code	B	KVA Code	G	Starting Current	147 A
Service Factor (S.F.)	1.15			No-load Current	5.99 A
NEMA Nom. Eff.	0	Power Factor	0	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

Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values

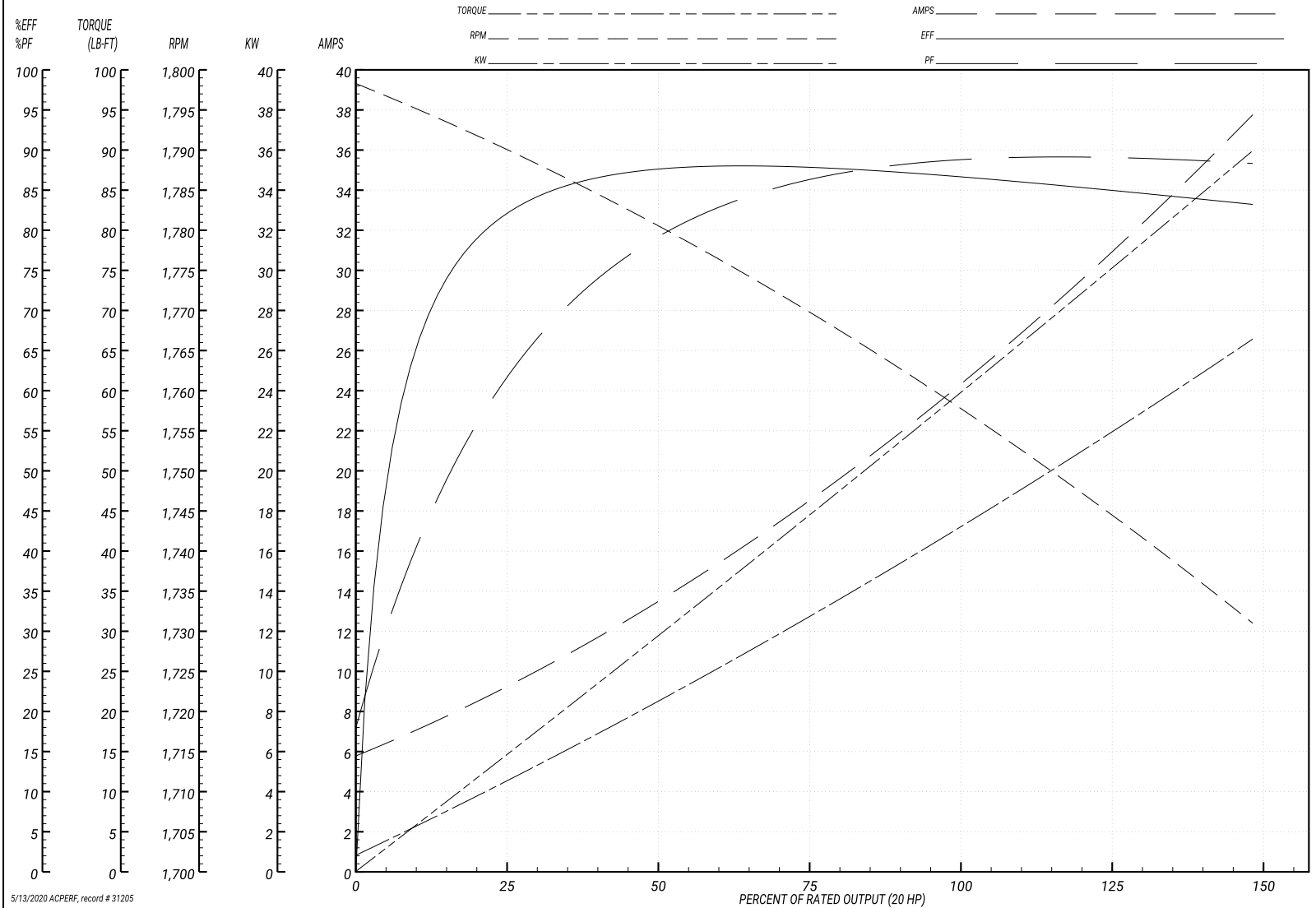
ABB Motors and Mechanical Inc.

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



5/13/2020 ACPERF, record # 31205

**AC Induction Motor Performance Data**

Record # 31206 - Typical performance - not guaranteed values

<b>Winding:</b> 10WGY731-R001	<b>Type:</b> 1046M	<b>Enclosure:</b> TEFC
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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

Performance Graph at 460V, 60Hz, 10.0HP Typical performance - Not guaranteed values

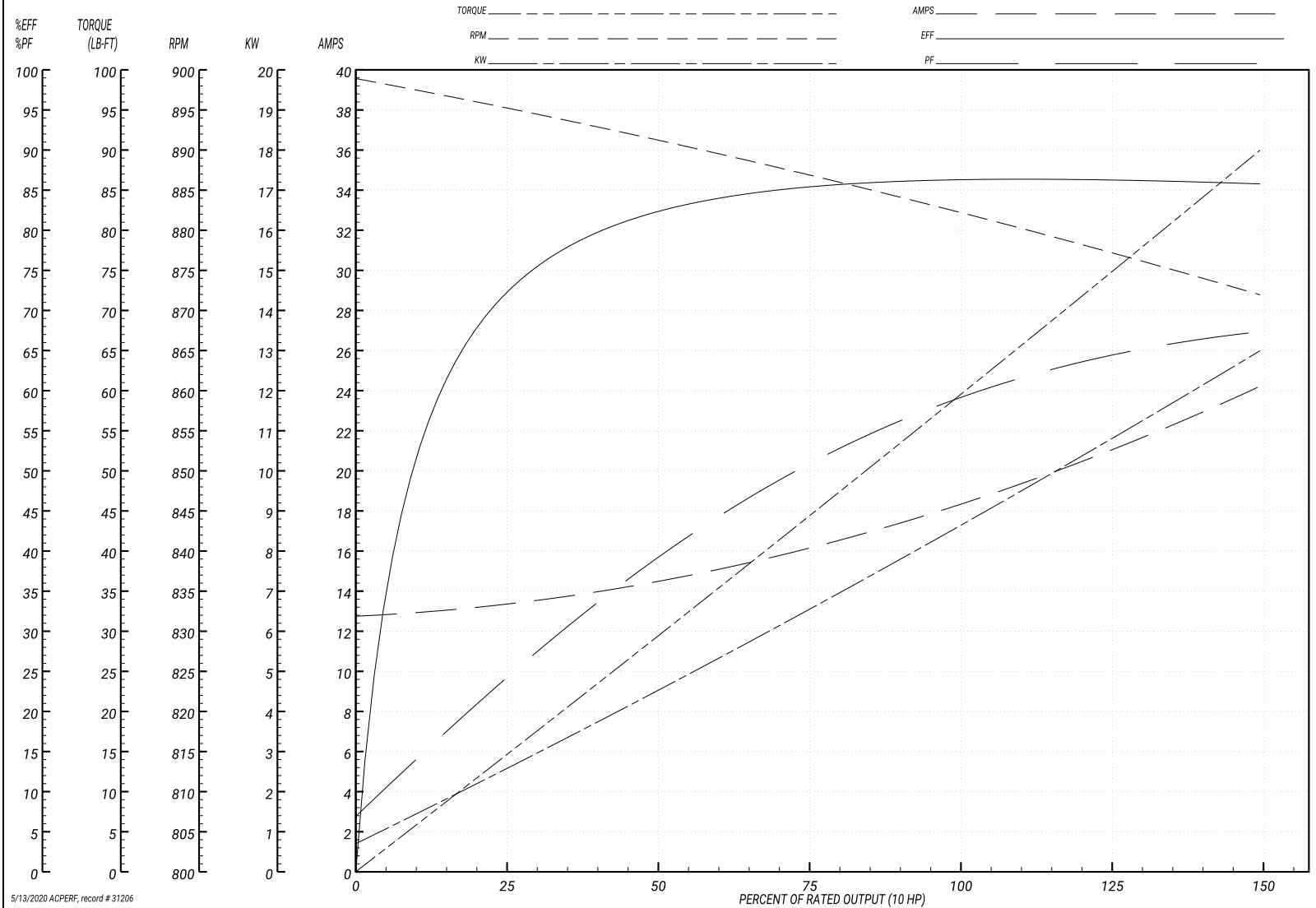
ABB Motors and Mechanical Inc.

WINDING # 10WGY731

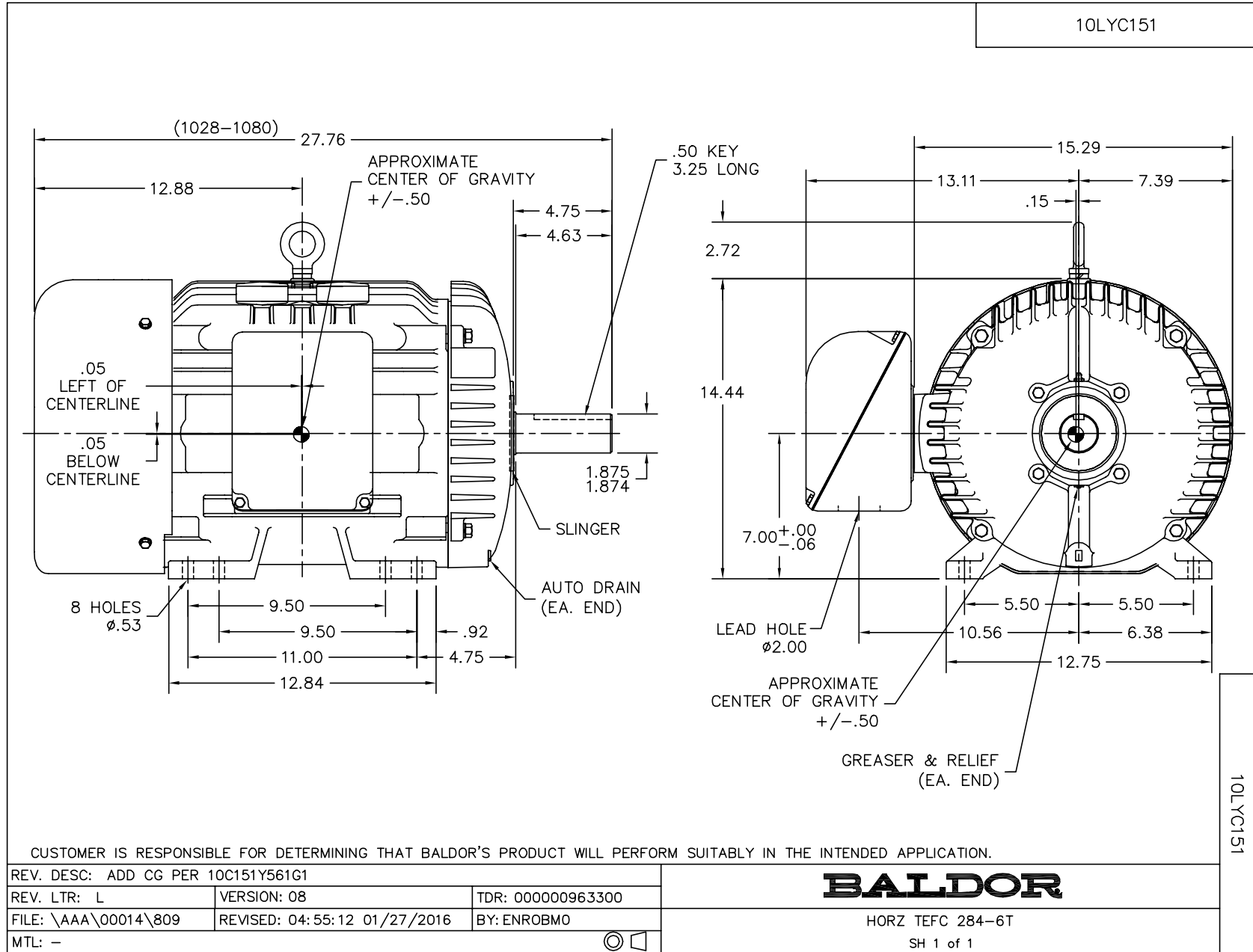
Typical performance - not guaranteed values.

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

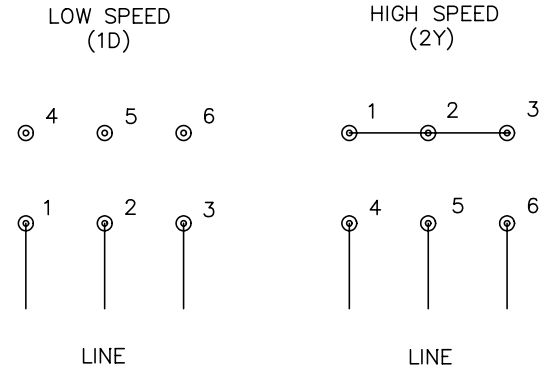
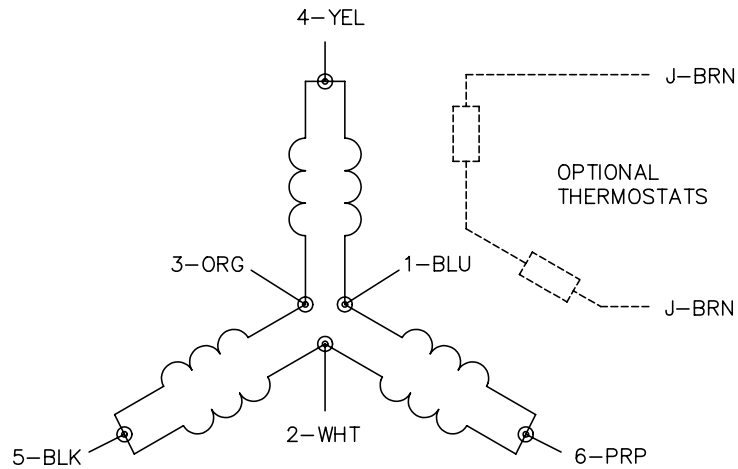
TORQUES(LB-FT): PO=178 PU=100 LR=132 LRA=92.2



5/13/2020 ACPERF, record # 31206



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

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