

BALDOR® • **RELIANCE**

Product Information Packet

EM4102T-BG

20HP, 1180RPM, 3PH, 60HZ, 286T, 1054M, TEFC, F1

Part Detail							
Revision:	G	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Prod. Type:	1054M	Elec. Spec:	10WGY730	CD Diagram:	CD0180
Enclosure:	TEFC	Mfg Plant:		Mech. Spec:	10J470	Layout:	10LYJ470
Frame:	286T	Mounting:	F1	Poles:	06	Created Date:	10-08-2013
Base:	RG	Rotation:	R	Insulation:	H	Eff. Date:	01-04-2017
Leads:	9#10					Replaced By:	
Literature:		Elec. Diagram:					

Nameplate NP2138L												
CAT.NO.	EM4102T-BG			P/N				ENCLOSURE	TEFC			
SPEC.	10J470Y730G1		CC	010A		FRAME	286T		S/N			
HP	20			CLASS	H		HZ	60				
RPM	1180			PH	3		DES	A				
VOLT	230/460				KVA-CODE	H		ODE BRG	6309		DE BRG	6311
AMP	54/27			USABLE AT 208V	56							
RATING	40C AMB-CONT				GREASE	POLYREX EM						
NEMA-NOM-EFF	91.7	PF	77	SER.F.	1.15							
HTR-VOLTS			HTR-AMPS			MAX. SPACE HEATER TEMP.						

Parts List		
Part Number	Description	Quantity
SA270535	SA 10J470Y730G1	1.000 EA
RA257169	RA 10J470Y730G1	1.000 EA
09FN3001C02	EXTERNAL FAN, PLASTIC	1.000 EA
S/P107-000-004	SUPER-E(284 FR. & UP)-CL PLANT,POLYREX E	1.000 EA
10CB3000SP	STD KO BOX MODEL 310,312,314 MTRS W/2.00	1.000 EA
12GS1000SP	GASKET	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
WD1000B16	T&B CX70TN TERMINAL	1.000 EA
51XF2520A08	SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L	1.000 EA
10EP1106A53	FR ENDPLATE, MACH	1.000 EA
10XN3816K32	BOLT, 3/8-16X2 HH YZ(5)	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 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
10EP1105A113	PU ENDPLATE, MACH	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
HW4600B40	V-RING SLINGER 2.000 X 2.680 X .28 VITON	1.000 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
10FH4000	310 FAN HOUSING STAMPED	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
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
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 (1000/bx) 11/14	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
LB1508	LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81	1.000 EA
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 EA
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.130 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.070 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP2138L	ALUM SUPER-E UL CSA-EEV PREM CC (300	1.000 EA
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A06	1.000 EA

AC Induction Motor Performance Data

Record # 53030 - Typical performance - not guaranteed values

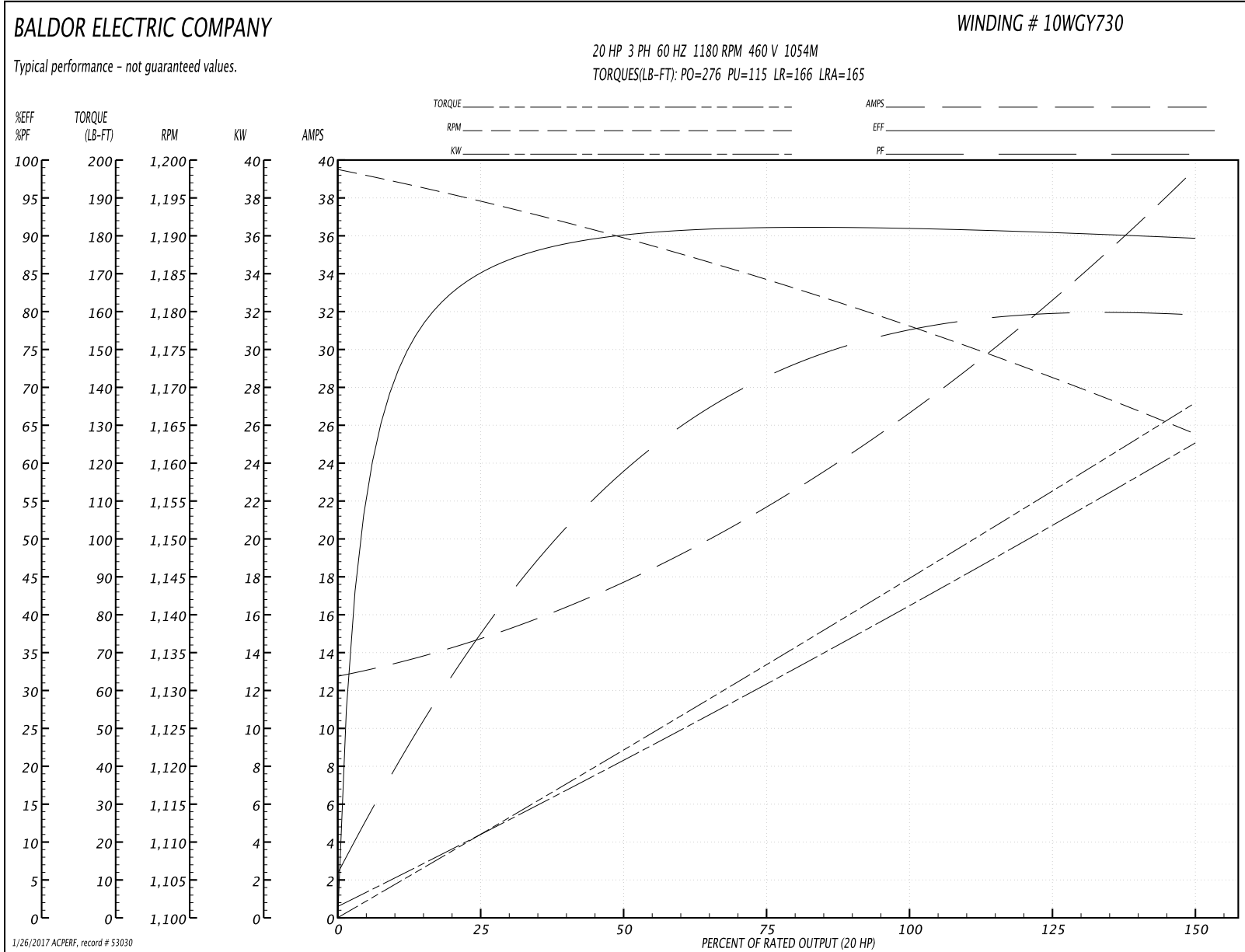
Winding: 10WGY730-R018	Type: 1054M	Enclosure: TEFC
-------------------------------	--------------------	------------------------

Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	20			Full Load Torque	90.1 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	54/27			Breakdown Torque	276 LB-FT
R.P.M.	1180			Pull-up Torque	115 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	166 LB-FT
NEMA Design Code	A	KVA Code	H	Starting Current	165 A
Service Factor (S.F.)	1.15			No-load Current	13.1 A
NEMA Nom. Eff.	91.7	Power Factor	77	Line-line Res. @ 25°C	0.425 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	65°C
S.F. Amps				Temp. Rise @ S.F. Load	79°C
				Locked-rotor Power Factor	32
				Rotor inertia	6.61 LB-FT ²

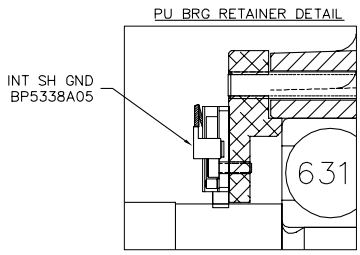
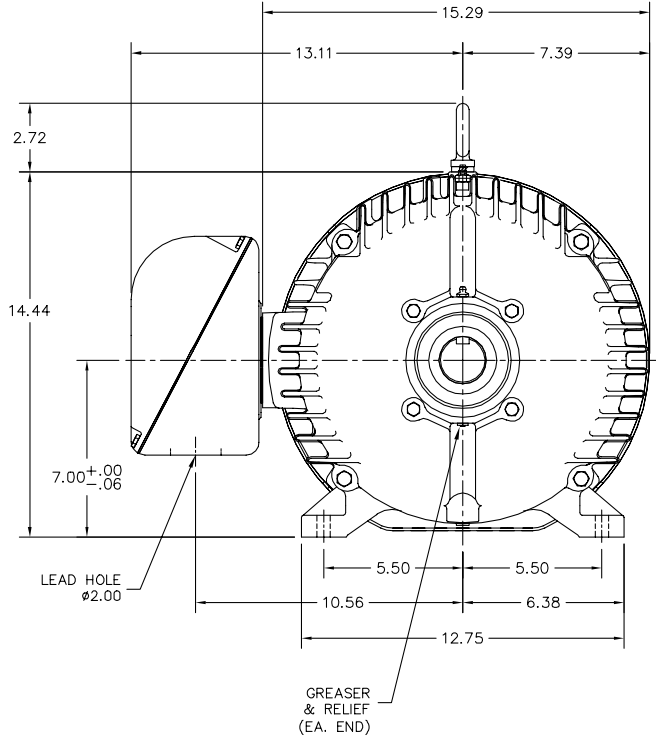
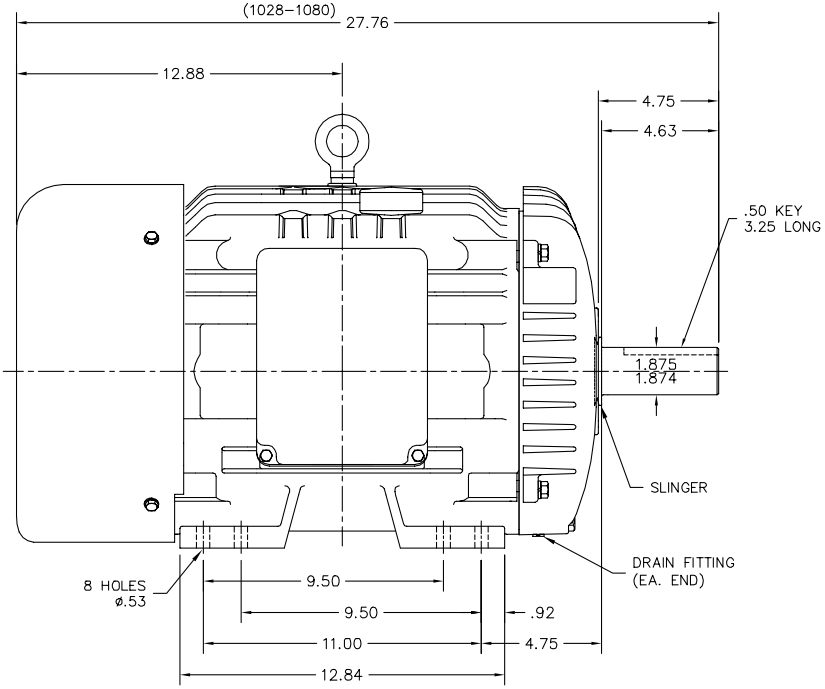
Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	39	60	71	77	79	80	78
Efficiency	86.6	91.1	91.9	91.7	90.9	89.8	91.2
Speed	1194.6	1189.5	1184.1	1178.3	1171.4	1163.8	1174
Line amperes	14.3	17.5	21.9	26.9	32.7	39.3	30.4

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



10LYJ470



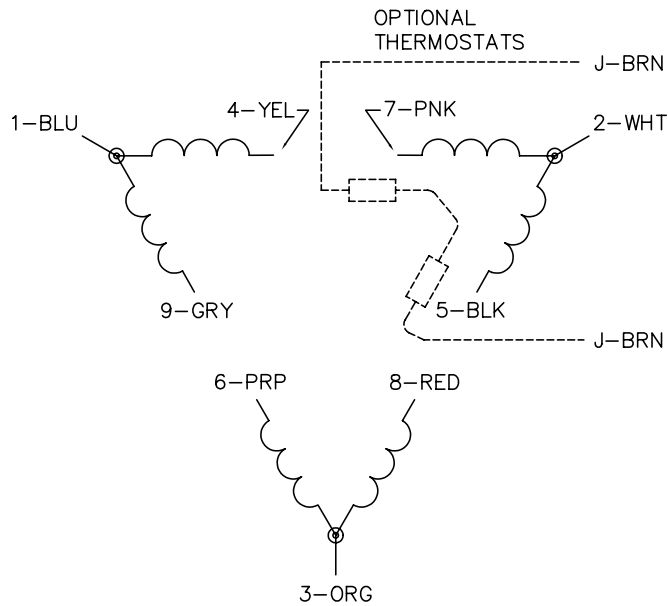
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: REMOVE LOCKNUT	VERSION: 02	TDR: 000000952817
REV. LTR: B	REVISED: 03:48:10 11/10/2015	BY: ENMARSO
FILE: \AAA\00203\999		
MTL: -		

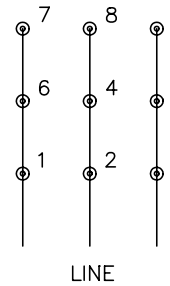
BALDOR
 HORZ TEFC 284-6T W/INT SH GND
 SH 1 of 1

10LYJ470

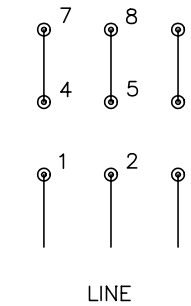
CD0180



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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: C	BY: JLP	REVISED: 01/21/99 2:28	TDR: 0171435
0810D0		FILE: AAA00005148	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS, DELTA CONNECTION

CD0180