

BALDOR® • RELIANCE 

Product Information Packet

EM4112T

20HP,880RPM,3PH,60HZ,324T,1252M,TEFC,F1

Part Detail							
Revision:	E	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	12WGY615	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	12C51	Layout:	12LYC051	Poles:	08	Created Date:	04-07-2015
Base:	RG	Eff. Date:	08-21-2018	Leads:	9#10		

Specs			
Catalog Number:	EM4112T	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	324T	Inverter Code:	Inverter Ready
Frame Material:	Iron	KVA Code:	H
Output @ Frequency:	20.000 HP @ 60 HZ	Lifting Lugs:	Standard Lifting Lugs
Synchronous Speed @ Frequency:	900 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 10 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	1252M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	60
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	Standard
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

Current @ Voltage:	35.000 A @ 460.0 V	Shaft Ground Indicator:	No Shaft Grounding
	66.000 A @ 208.0 V	Shaft Rotation:	Reversible
	70.000 A @ 230.0 V	Shaft Slinger Indicator:	Shaft Slinger
Design Code:	B	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	NONE (OLD)
Feedback Device:	NO FEEDBACK	Thermal Device - Winding:	None
Front Face Code:	Standard	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	None	Winding Thermal 1:	None
		Winding Thermal 2:	None

Nameplate NP2138L												
CAT.NO.	EM4112T			P/N				ENCLOSURE	TEFC			
SPEC.	12C051Y615G1		CC	010A		FRAME	324T		S/N			
HP	20			CLASS	F		HZ	60				
RPM	880			PH	3		DES	B				
VOLT	230/460				KVA-CODE	H		ODE BRG	6311		DE BRG	6312
AMP	70/35			USABLE AT 208V	66							
RATING	40C AMB-CONT			GREASE	POLYREX EM							
NEMA-NOM-EFF	90.2	PF	60		SER.F.	1.15						
HTR-VOLTS			HTR-AMPS									

Parts List		
Part Number	Description	Quantity
SA296443	SA 12C051Y615G1	1.000 EA
RA282483	RA 12C051Y615G1	1.000 EA
S/P107-000-004	SUPER-E(284 FR. & UP)-CL PLANT,POLYREX E	1.000 EA
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	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
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
HA3400A13	STUD, 1/2-13 X 7" WELKER	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I	4.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
10XN3118K36	5/16-18 X 2.25" HEX HD, GRADE 5	2.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 EA
12EP1106A01	PU ENDPLATE, MACH 324-6T	1.000 EA
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 EA
10XN5013K28	1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I	4.000 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
12FH1002SP	FAN COVER, CAST	1.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I	4.000 EA
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 EA
10CB3500SP	CONDUIT BOX LID, CAST	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
10GS1000SP	GASKET, CONDUIT BOX LID	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 EA
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
12EP1107A05	FR ENDPLATE, MACH 324-6T	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 (USe 4824-15A)	0.200 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
09FN3001B03SP	EXTERNAL FAN, PLASTIC	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,	0.080 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
12PA1000	PACKAGING GROUP PRINT PK1024A06	1.000 EA

MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA
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AC Induction Motor Performance Data

Record # 53038 - Typical performance - not guaranteed values

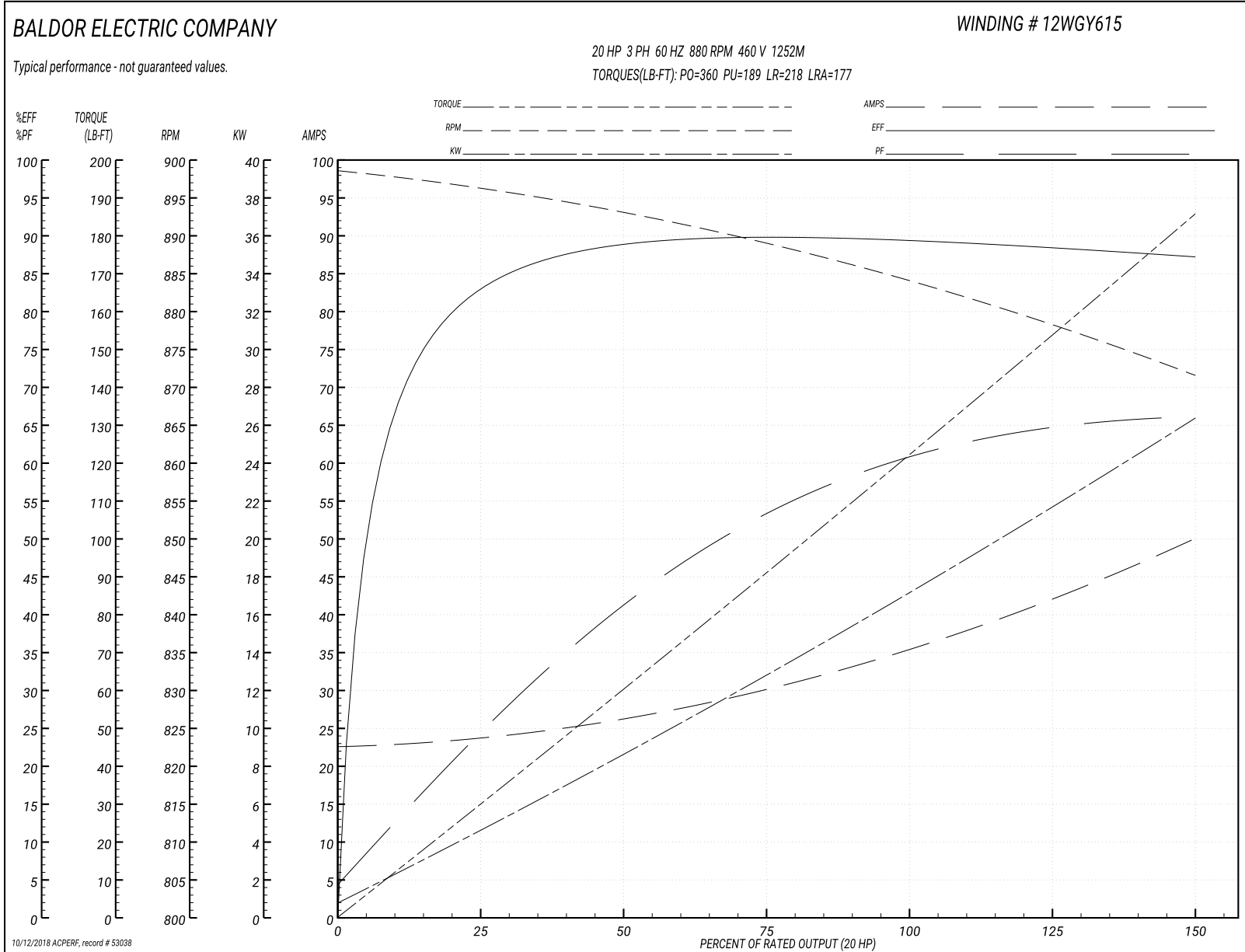
Winding: 12WGY615-R007	Type: 1252M	Enclosure: TEFC
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	20			Full Load Torque	119 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	70/35			Breakdown Torque	360 LB-FT
R.P.M.	880			Pull-up Torque	189 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	218 LB-FT
NEMA Design Code	B	KVA Code	H	Starting Current	177 A
Service Factor (S.F.)	1.15			No-load Current	22.7 A
NEMA Nom. Eff.	90.2	Power Factor	60	Line-line Res. @ 25°C	0.397 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	58°C
S.F. Amps				Temp. Rise @ S.F. Load	68°C
				Locked-rotor Power Factor	37.5
				Rotor inertia	9.9 LB-FT ²

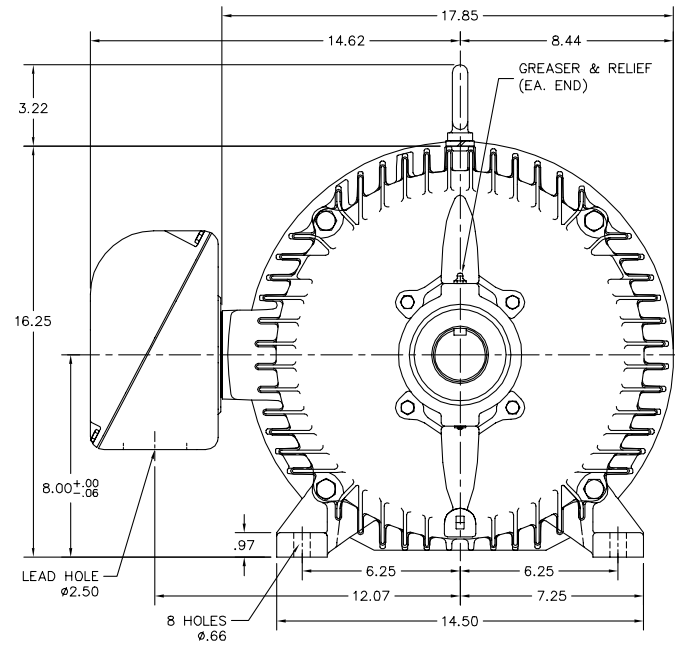
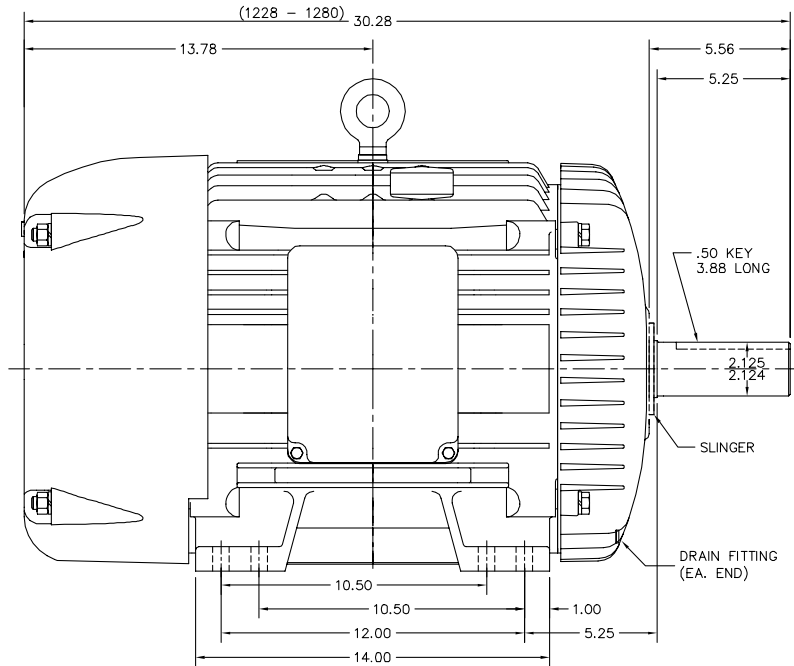
Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	25	41	52	60	65	66	63
Efficiency	81.2	87.7	89.5	90.2	88.9	87	89.5
Speed	896	893	889	885	880	871	882
Line amperes	23.4	26.1	30	34.9	40.7	50.2	38.4

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



12LYC051



12LYC051

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

REV. DESC: ADDED FOOT THICKNESS DIM.		
REV. LTR: Y	VERSION: 08	TDR: 000000957396
FILE: \AAA\00001\609	REVISED: 11:12:13 12/17/2015	BY: ENNINDO
MTL: -		

BALDOR

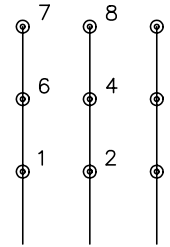
HORZ TEFC 324-6T

SH 1 of 1

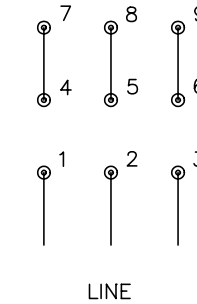
CD0180



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