

BALDOR® • RELIANCE 

Product Information Packet

ECP84102T-5

20HP, 1175RPM, 3PH, 60HZ, 286T, TEFC, F1

Part Detail							
Revision:	F	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	10WGZ466	CD Diagram:	CD0006	Mfg Plant:	
Mech. Spec:		Layout:	10LYH231	Poles:	06	Created Date:	12-06-2018
Base:		Eff. Date:	03-07-2022	Leads:	3#12		

Specs			
Catalog Number:	ECP84102T-5	Inverter Code:	Inverter Duty
Enclosure:	TEFC	IP Rating:	IP56
Frame:	286T	KVA Code:	G
Frame Material:	Iron	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	20.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1200 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	3 @ 12 AWG
Voltage @ Frequency:	575.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	CLI GP A,B,C,D	Motor Lead Termination:	Ring Terminals
XP Division:	Division II	Motor Type:	1056M
Agency Approvals:	CCSA US	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	78
	UR	Product Family:	Chem Process S/P 32-8 IEEE 841
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
Constant Torque Speed Range:	1	Shaft Ground Indicator:	No Shaft Grounding

Current @ Voltage:	21.000 A @ 575.0 V	Shaft Rotation:	Reversible
Design Code:	B	Shaft Slinger Indicator:	No Slinger
Drip Cover:	No Drip Cover	Speed Code:	Single Speed
Duty Rating:	CONT	Motor Standards:	NEMA
Electrically Isolated Bearing:	Not Electrically Isolated	Starting Method:	Direct on line
Enclosure Modification:	841	Thermal Device - Bearing:	None
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
Heater Indicator:	No Heater	Winding Thermal 2:	None
Insulation Class:	F	XP Temp Code:	T3C

Nameplate NP3190											
STK.NO.	ECP84102T-5		P/N			ENCLOSURE	TEFC				
SPEC.	10-0000-0400		CC	010A	FRAME	286T	S/N				
HP	20		CLASS	F	HZ	60	ODE BRG	6311	DE BRG	6311	
RPM	1175	RPM MAX	1800	PH	3	DES	B	D.E. BRG.	55BC03X30X		
VOLT	575		KVA-CODE	G		O.D.E. BRG.	55BC03X30X				
AMP	21		MOTOR WEIGHT	429		GREASE	POLYREX EM				
RATING	40C AMB-CONT		MAX. KVAR	7.7		BLANK					
NEMA-NOM-EFF	91.7	# OF ROTOR BARS	42	SER.F.	1.15		IP	56			
G.MIN.EFF	90.2	# OF STATOR SLOTS	54	PF	78		INV.TYPE	PWM			
TEMP CODE	T3C		INVERTER-TEMP-CODE	180							
TEMP =	160		C HP FR	60	C HP TO	90					
CT HZ FROM	1.3	CT HZ TO	60								
HTR-VOLTS		HTR-AMPS		HTR-WATTS		MAX. SPACE HEATER TEMP.		VT HZ FROM	0	VT HZ TO	60

Parts List		
Part Number	Description	Quantity
SA363737	SA 10-0000-0400	1.000 EA
RA353028	RA 10-0000-0400	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0006	CONNECTION LABEL	1.000 EA
LB1449	DIV-2/NEC WARNING LABEL	1.000 EA
NP3190	SS IEEE841 INV DIV-2 UL CSA-C US EEV	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA
WD1000B49	T&B C73,RING TERMINAL 10-12 AWG 3/8 STUD	3.000 EA
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 EA
80XN3816A12	SET SCREW,HEX SOCKET CUP POINT,3/8-16 X	4.000 EA
10FH1007A24GP6	FAN COVER W/1.00 SLOT @ 6:00	1.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 EA
10XN3118K20	5/16-18 X 1 1/4 GRADE 5 STEEL ZC PLATED	3.000 EA
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.130 LB
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 EA
10EP1110A02GP6	FR ENDPLATE, MACH W/PRIMER & PAINT	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
HW4601A53	INPRO/SEAL VBXX FOR 311 BEARING/310 FRAM	1.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HA4017A02	.125X2.50 GREASER EXTENS.F/S	1.000 EA
HA4017A02	.125X2.50 GREASER EXTENS.F/S	1.000 EA
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 EA
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 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
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 EA
HA4002A03	#304 S.S. DRAIN FITTING, .125 NPT (.44 H	1.000 EA
10EP1110A01P	MACH'D EPOXY PRIMED EP	1.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 EA
HW4601A53	INPRO/SEAL VBXX FOR 311 BEARING/310 FRAM	1.000 EA
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA
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
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
10CB1000A09P	KOBX, MACH W/1.50 NPT & PRIMER	1.000 EA
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 EA
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 EA

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59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 EA
10CB1503A01P	CONDUIT BOX LIPPED LID, MACH W/EPXY PRMR	1.000 EA
14GS1003	GASKET CONDUIT BOX LID, NEOP	1.000 EA
10XN2520K16	1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN	0.125 GA
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 QT
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.033 EA
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 EA
10PA1000	PACKAGING GROUP COMBINED PRINT PK1023A06	1.000 EA
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 EA
MJ5004A59	ADHESIVE LOCTITE #401 SURFACE INSENSITIV	0.010 EA

AC Induction Motor Performance Data

Record # 53506

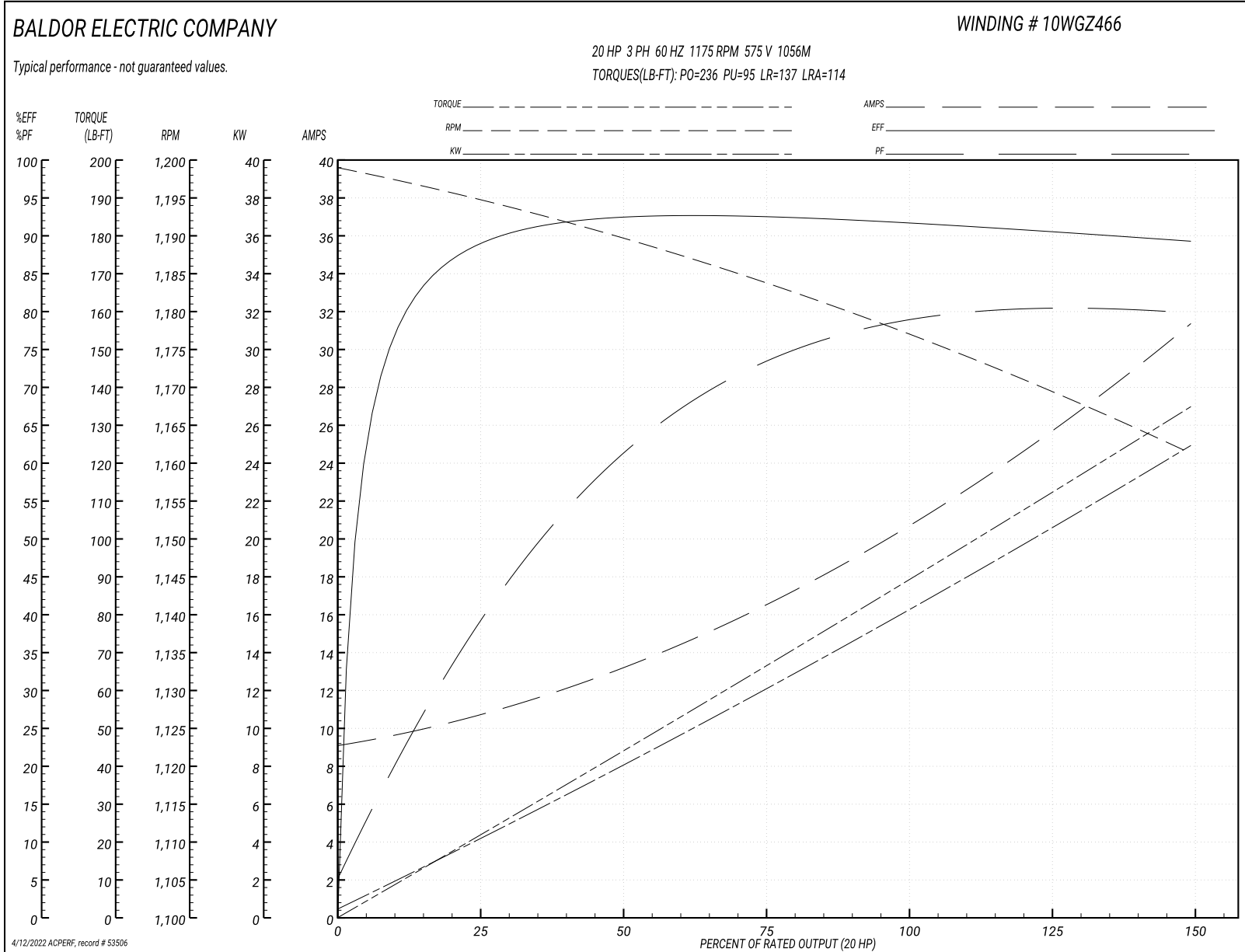
Typical performance - not guaranteed values

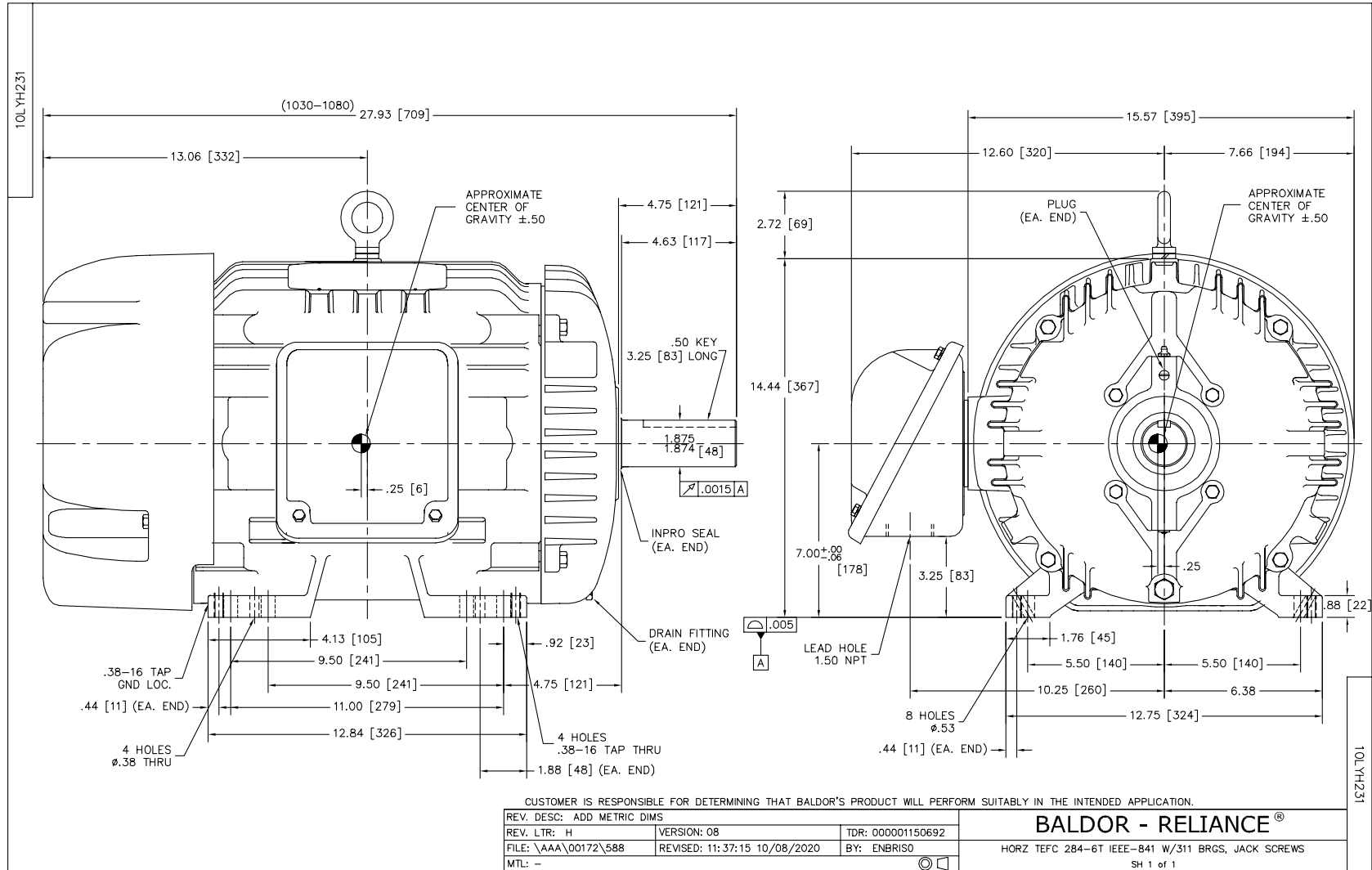
Winding: 10WGZ466-R001		Type: 1056M	Enclosure: TEFC
Nameplate Data		575 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	20	Full Load Torque	89.1 LB-FT
Volts	575	Start Configuration	direct on line
Full Load Amps	21	Breakdown Torque	236 LB-FT
R.P.M.	1175	Pull-up Torque	95 LB-FT
Hz	60 Phase	Locked-rotor Torque	137 LB-FT
NEMA Design Code	B KVA Code	Starting Current	114 A
Service Factor (S.F.)	1.15	No-load Current	9.28 A
NEMA Nom. Eff.	91.7 Power Factor	Line-line Res. @ 25°C	0.757 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	64°C
S.F. Amps		Temp. Rise @ S.F. Load	78°C
		Locked-rotor Power Factor	32
		Rotor inertia	6.86 LB-FT ²

Load Characteristics 575 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	41	63	73	78	80	80	79
Efficiency	88.5	92.1	92.4	91.8	91.1	89.1	91.4
Speed	1195	1189	1184	1177	1170	1161	1173
Line amperes	10.5	13.1	16.6	20.9	25.6	31.3	23.7

Performance Graph at 575V, 60Hz, 20.0HP Typical performance - Not guaranteed values





CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

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BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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