

BALDOR® • RELIANCE 

Product Information Packet

VECP4102T

20HP, 1180RPM, 3PH, 60HZ, 286TC, 1054M, TEFC, F

Part Detail							
Revision:	E	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	10WGY730	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	10G312	Layout:	10LYG312	Poles:	06	Created Date:	08-11-2017
Base:	N	Eff. Date:	07-28-2021	Leads:	9#10		

Specs			
Catalog Number:	VECP4102T	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	286TC	Inverter Code:	Inverter Duty
Frame Material:	Iron	KVA Code:	H
Output @ Frequency:	20.000 HP @ 60 HZ	Lifting Lugs:	Standard Lifting Lugs
Synchronous Speed @ Frequency:	1200 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:	CLI GP A,B,C,D	Motor Lead Termination:	Flying Leads
XP Division:	Division II	Motor Type:	1054M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	77
	CSA	Product Family:	Super-E Chemical Processing
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	No Mounting	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:	1.0	Shaft Ground Indicator:	No Shaft Grounding
Current @ Voltage:	27.000 A @ 460.0 V	Shaft Rotation:	Reversible
	54.000 A @ 230.0 V	Shaft Slinger Indicator:	Shaft Slinger
	56.000 A @ 208.0 V	Speed Code:	Single Speed
Design Code:	A	Motor Standards:	NEMA
Drip Cover:	Drip Cover	Starting Method:	Direct on line
Duty Rating:	CONT	Thermal Device - Bearing:	None
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Winding:	None
Feedback Device:	NO FEEDBACK	Vibration Sensor Indicator:	No Vibration Sensor
Front Face Code:	Standard	Winding Thermal 1:	None
Front Shaft Indicator:	None	Winding Thermal 2:	None
		XP Temp Code:	T3C

Nameplate NP3241

CAT.NO.	VECP4102T	P/N		ENCLOSURE	TEFC
SPEC.	10G312Y730G1	CC	010A	FRAME	286TC
HP	20	CLASS	F	HZ	60
RPM	1180	DES	A		
VOLT	230/460	RPM MAX	1800	PH	3
AMP	54/27	MOTOR WEIGHT	437	KVA-CODE	H
RATING	40C AMB-CONT	SER.F.	1.15	ODE BRG	6311
		PF	77	DE BRG	6311
		NEMA-NOM-EFF	91.7	GREASE	POLYREX EM
				INV.TYPE	PWM
TEMP CODE	T3C	INVERTER-TEMP-CODE	180		
TEMP =	160	C HP FR	60	C HP TO	90
CT HZ FROM	1.0	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
SA343151	SA 10G312Y730G1	1.000 EA
RA331596	RA 10G312Y730G1	1.000 EA
09FN3001C02	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	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
10XN2520K06	1/4-20 X 3/8" HX HD SCREWGRADE 5, ZINC P	1.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	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
HA1005A04	SLINGER, OD 3.620, ID 1.98,	1.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
HA4017A11	1/8 X 2.75 GREASE EXT (F/S)	1.000 EA
HA4017A03	.125 X 1.75 GREASE EXT (F/S)	1.000 EA
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 EA
10XN3118K40	5/16-18 X 2.25" HEX HD, GRADE 5	4.000 EA
10EP1305A01P	PU ENDPLATE, MACH EPOXY	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
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA
10FH1007A06P	FAN HOUSING MODEL 310 TEFC MOTORS W/EPOX	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
10XN3118K24	5/16-18 X 1.50" HEX HD, GRADE 5	3.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	3.000 EA
12FH1500A01P	MACH DRIP COVER 310-312 MTRS	1.000 EA
10XN3816K36	3/8-16 X 2.25 HEX HD CAP SCREW, GRADE 5	4.000 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
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 EA
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 QT
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.026 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
PK6014	STEEL STRAP FOR 309-312 BASELESS MOTORS	4.000 EA
10XN3816K10	BOLT, 3/8-16 X 5/8 HHCS YZ	4.000 EA
10EP1110A06LP5	FREP, MACH W/PRIMER & MG1025L14	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
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.130 LB
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA

Product Information Packet: VECP4102T - 20HP,1180RPM,3PH,60HZ,286TC,1054M,TEFC,F

HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN	0.070 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP3241	SS SUPER-E INV UL CSA-EEV PREM CC	1.000 EA
10PA1025	PACKAGING GROUP, PRINT PK1151A06	1.000 EA
LB1449	DIV-2/NEC WARNING LABEL	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA

AC Induction Motor Performance Data

Record # 52812

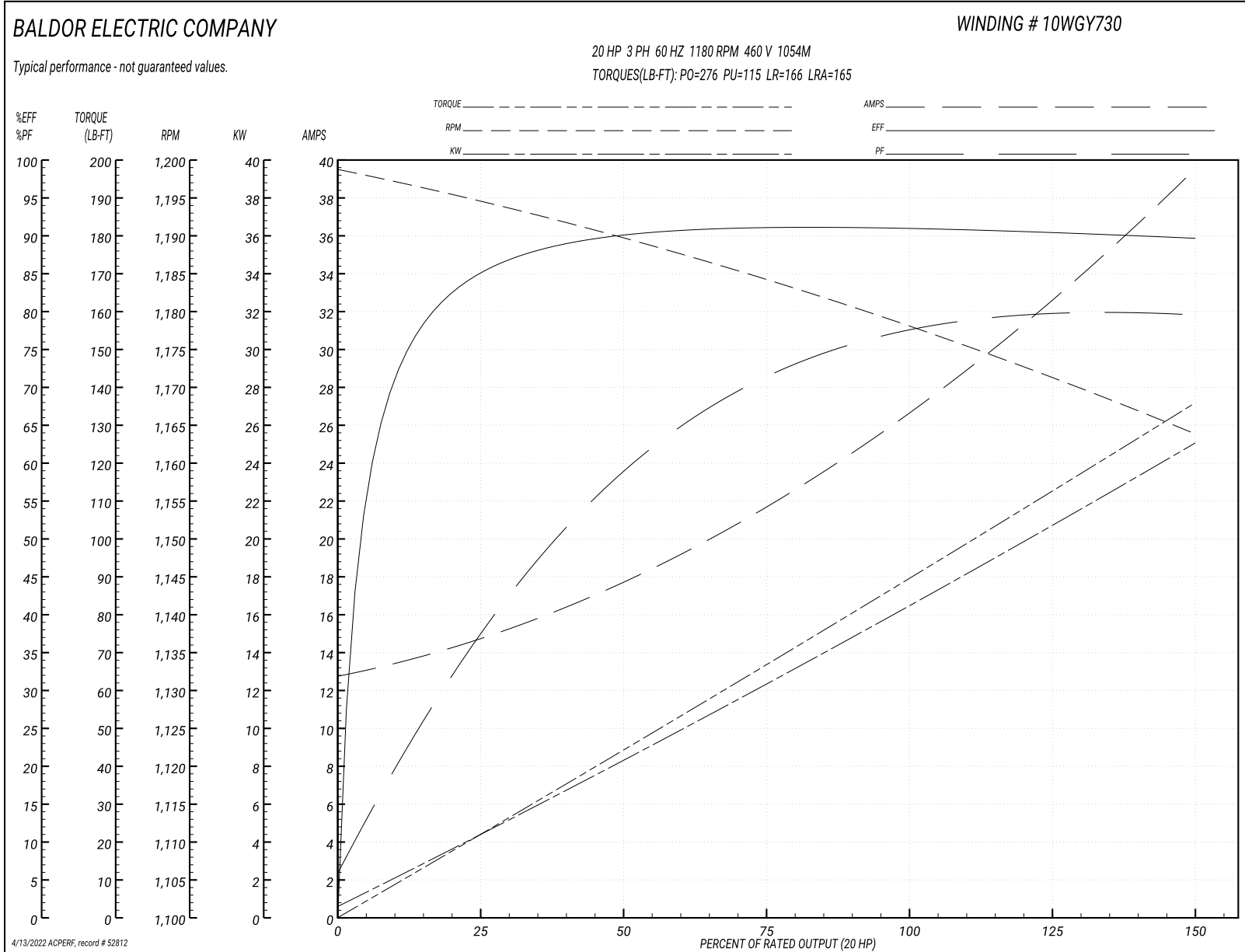
Typical performance - not guaranteed values

Winding: 10WGY730-R020		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	Locked-rotor Torque	166 LB-FT		
NEMA Design Code	A	Starting Current	165 A		
Service Factor (S.F.)	1.15	No-load Current	13.1 A		
NEMA Nom. Eff.	91.7	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		

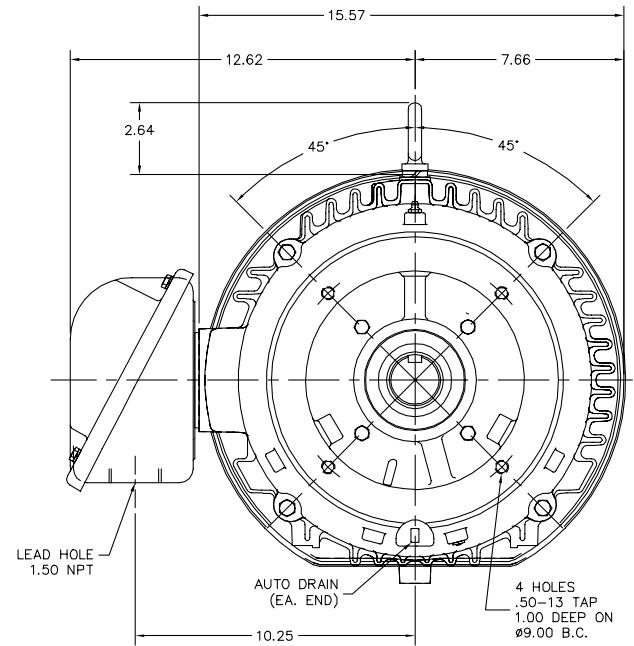
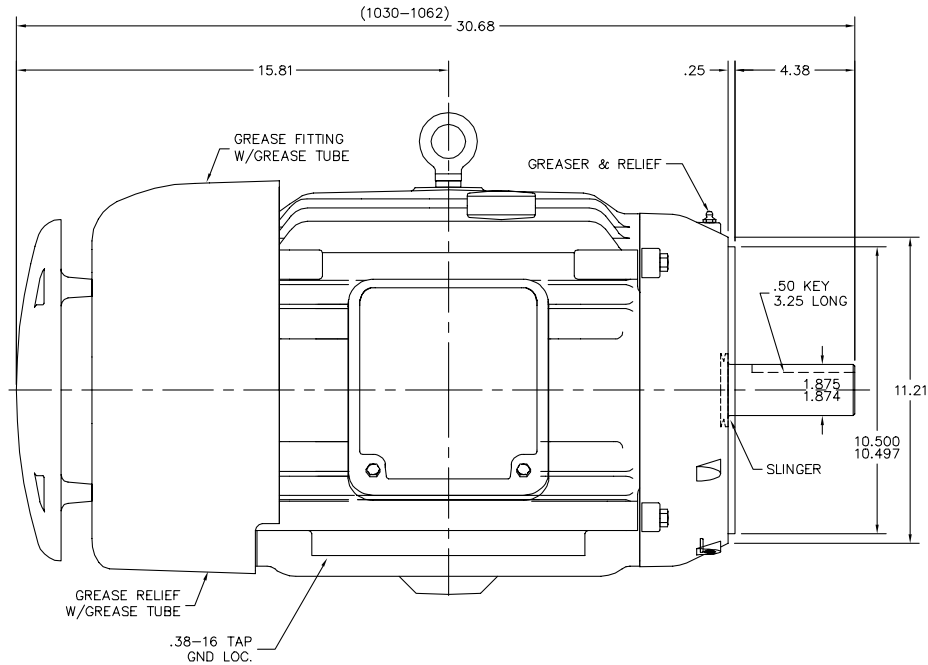
Load Characteristics 460 V, 60 Hz, 20 HP

% 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



10LYG312



10LYG312

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

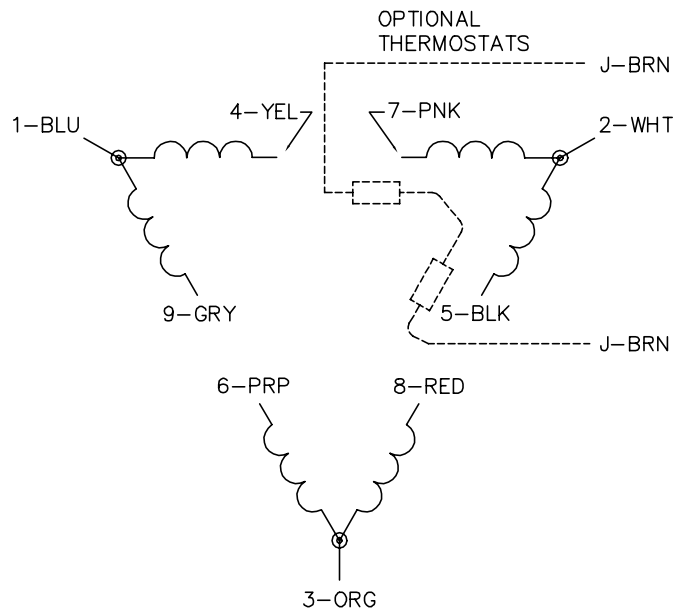
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BALDOR

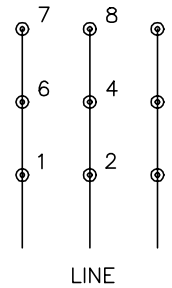
VERT TEFC 284-6TC ECP W/DRIP CVR & 311 BRGS

SH 1 of 1

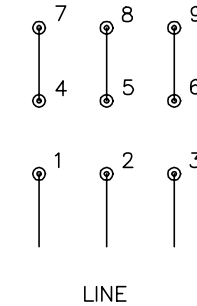
CD0180



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.

CD0180

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3PH, DV, 9 LEADS, DELTA CONNECTION

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