

**BALDOR® • RELIANCE** 

**Product Information Packet**

**VHECP4109T**

**40HP,3540RPM,3PH,60HZ,324HP,1240M,TEFC,F**

Part Detail							
Revision:	T	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	12WGX906	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	12S033	Layout:	12LYS033	Poles:	02	Created Date:	10-03-2008
Base:	N	Eff. Date:	10-22-2019	Leads:	9#8		

Specs			
Catalog Number:	VHECP4109T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Ready
Frame:	324HP	KVA Code:	H
Frame Material:	Iron	Lifting Lugs:	Vertical Lifting Lugs
Output @ Frequency:	40.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 8 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	1240M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	90
	CSA EEV	Product Family:	Super-E Chemical Processing
	UR	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	P-Base
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	P-Base Groove & Key
Base Indicator:	No Mounting	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Extension Location:	Pulley End
Blower:	None	Shaft Ground Indicator:	No Shaft Grounding

<b>Current @ Voltage:</b>	45.000 A @ 460.0 V	<b>Shaft Rotation:</b>	Reversible
	90.000 A @ 230.0 V	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Design Code:</b>	A	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	Drip Cover	<b>Motor Standards:</b>	NEMA
<b>Duty Rating:</b>	CONT	<b>Starting Method:</b>	Direct on line
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Thermal Device - Bearing:</b>	None
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Winding:</b>	None
<b>Front Face Code:</b>	Standard	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Front Shaft Indicator:</b>	None	<b>Winding Thermal 1:</b>	None
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 2:</b>	None

<b>Nameplate NP1260E</b>										
CAT.NO.	VHECP4109T									
SPEC.	12S033X906G1									
HP	40									
VOLTS	230/460									
AMP	90/45									
RPM	3540									
FRAME	324HP					HZ	60		PH	3
SER.F.	1.15			CODE	H	DES	A		CL	F
NEMA-NOM-EFF	93			PF	90					
RATING	40C AMB-CONT									
CC	010A					USABLE AT 208V				
DE	6312				ODE	6311				
ENCL	TEFC			SN						

Parts List		
Part Number	Description	Quantity
SA176155	SA 12S033X906G1	1.000 EA
RA164236	RA 12S033X906G1	1.000 EA
37FN3002C04	EXFN, PLASTIC, 6.00 OD, 2.003 ID	1.000 EA
10CB1000A16P	KOBX, MACH 2.00 NPT W/#26 DRAIN W/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
10XN2520K08	1/4-20 X .50 GRADE #5, STL, ZINC PLATE	1.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HA3400A18	STUD .50-13 X 7.50L W/4.19L HEX WELKER	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,879 OD, .509 I	4.000 EA
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 EA
12FH1002A08P	FAN COVER, MACH W/EPOXY PRIMER	1.000 EA
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
10XN3118K36	5/16-18 X 2.25" HEX HD, GRADE 5	2.000 EA
10XN3118K72	5/16-18 X 4.50" HEX HD, GRADE 5	4.000 EA
12EP1502A02P	ENDPLATE, MACH W/EPOXY PRIMER	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
10XN5013K36	1/2-13 X 2.25" HEX HD GRADE 5	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,879 OD, .509 I	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,879 OD, .509 I	4.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 EA
HW3203A02	1/2-13 HVY FORGED EYE-NUT	2.000 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
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	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
HW2501G32	KEY, 3/8 SQ X 3.750	1.000 EA
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 QT
MJ5001A14	DYNAPRO SEALANT, CP MTR VC#2508050 (603	0.029 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
LB1182	WARNING LABEL FOR MOTORS WITH EYENUTS	2.000 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
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.200 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA
MG1025N19	WILKOFASST, 778.50, RELIANCE BLUE-GREEN	0.125 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA

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LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA
PK6014	STEEL STRAP FOR 309-312 BASELESS MOTORS	3.000 EA
10XN5013K10	1/2-13 X .625 HEX HD, GRADE 5	3.000 EA
12EP1107A13GP6	FREP, MACH W/EPOXY PRIMER & MG1025N19	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP1260E	SS CP SUPER-E UL CSA CC	1.000 EA
10PA1052	PACKAGING GROUP, PRINT PK1151A06	1.000 EA

**AC Induction Motor Performance Data**

Record # 27714 - Typical performance - not guaranteed values

<b>Winding:</b> 12WGX906-R002	<b>Type:</b> 1240M	<b>Enclosure:</b> TEFC
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	40			Full Load Torque	59.5 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	90/45			Breakdown Torque	236 LB-FT
R.P.M.	3540			Pull-up Torque	62.9 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	80.2 LB-FT
NEMA Design Code	A	KVA Code	H	Starting Current	326 A
Service Factor (S.F.)	1.15			No-load Current	13.6 A
NEMA Nom. Eff.	93	Power Factor	90	Line-line Res. @ 25°C	0.148 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	81°C
S.F. Amps				Temp. Rise @ S.F. Load	96°C
				Locked-rotor Power Factor	21.5
				Rotor inertia	3.13 LB-FT <sup>2</sup>

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	61	80	87	90	90	90	90
Efficiency	87.7	92.3	93.4	93.5	93.2	92.6	93.3
Speed	3587	3573	3560	3547	3533	3515	3539
Line amperes	17.7	25.7	35	44.9	55.7	67.7	51.4

Performance Graph at 460V, 60Hz, 40.0HP Typical performance - Not guaranteed values

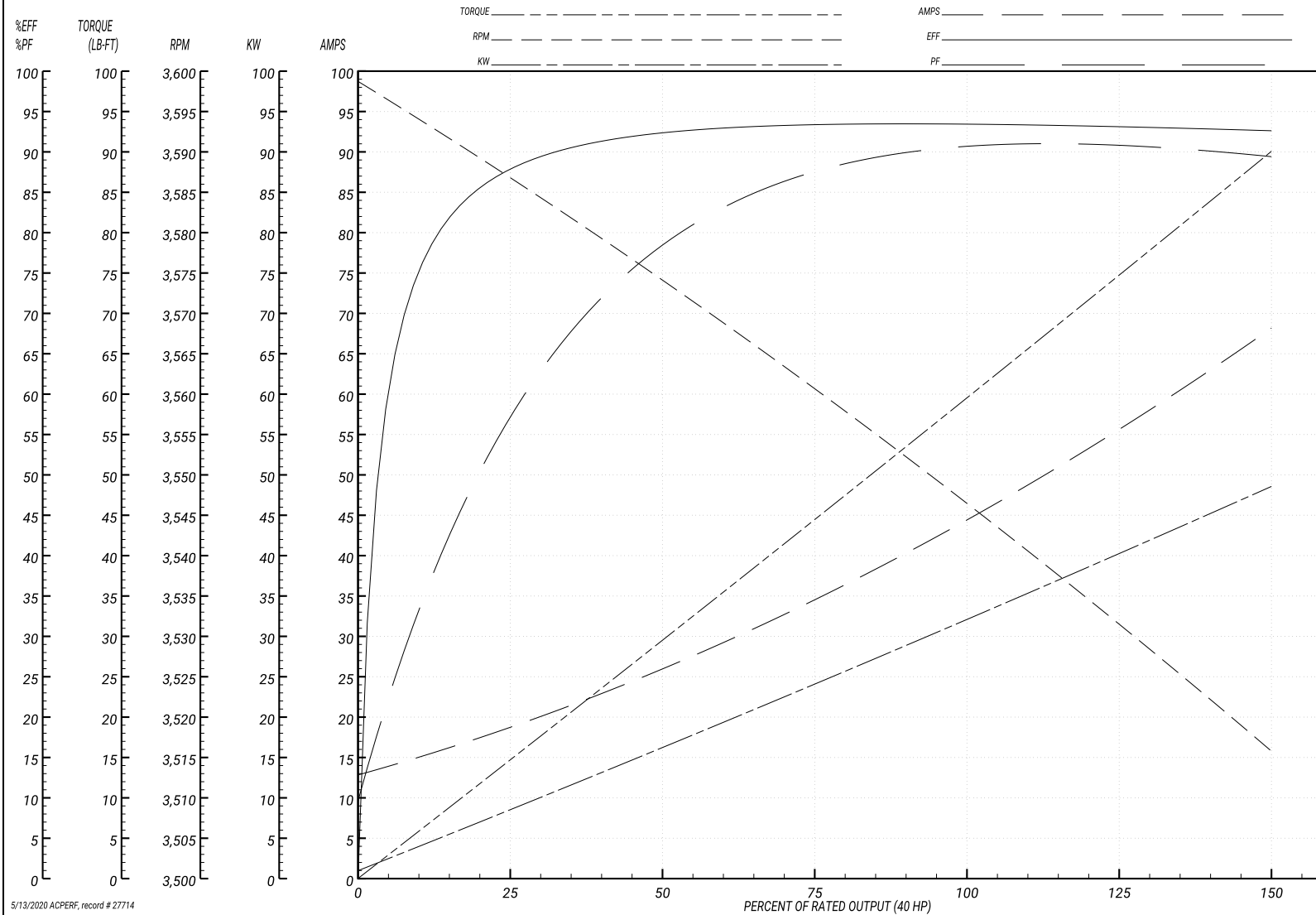
ABB Motors and Mechanical Inc.

WINDING # 12WGX906

Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 3540 RPM 460 V 1240M

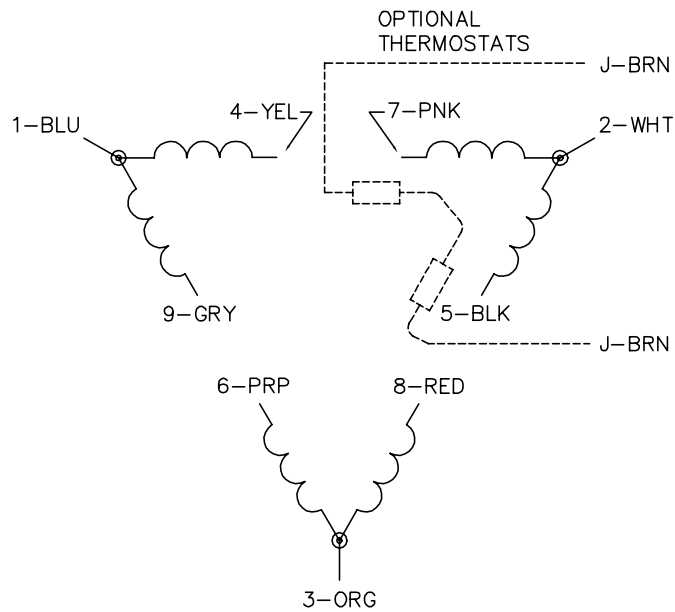
TORQUES(LB-FT): PO=236 PU=62.9 LR=80.2 LRA=326



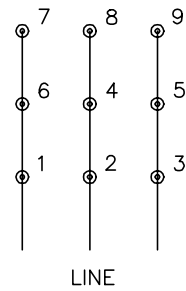
5/13/2020 ACPERF, record # 27714



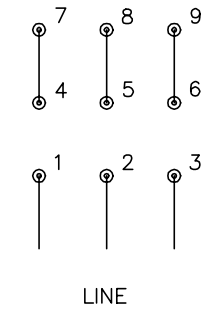
CD0180



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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REV. LTR: D	VERSION: 01	TDR: 000001099922
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**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

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