

# **BALDOR® • RELIANCE**

## **Product Information Packet**

# **ECP4109T**

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

Part Detail							
Revision:	H	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	12WGX906	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	12G154	Layout:	12LYG154	Poles:	02	Created Date:	01-27-2015
Base:	RG	Eff. Date:	05-25-2017	Leads:	9#8		

Specs			
Catalog Number:	ECP4109T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Duty
Frame:	324TS	KVA Code:	H
Frame Material:	Iron	Lifting Lugs:	Standard 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:	Division II	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:	Standard
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	Rigid	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	RoHS Status:	ROHS NON-COMPLIANT
Blower:	None	Shaft Extension Location:	Pulley End

<b>Constant Torque Speed Range:</b>	6	<b>Shaft Ground Indicator:</b>	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>	Shaft Slinger
<b>Design Code:</b>	A	<b>Speed Code:</b>	Single Speed
<b>Drip Cover:</b>	No 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>XP Temp Code:</b>	T3

Nameplate NP3241

CAT.NO.	ECP4109T	P/N		ENCLOSURE	TEFC
SPEC.	12G154X906G1	CC	010A	FRAME	324TS
HP	40	CLASS	F	HZ	60
RPM	3540	RPM MAX	5400	PH	3
VOLT	230/460	MOTOR WEIGHT	528	KVA-CODE	H
AMP	90/45	SER.F.	1.15	PF	90
RATING	40C AMB-CONT	NEMA-NOM-EFF	93	ODE BRG	6312
				DE BRG	6312
				GREASE	POLYREX EM
				INV.TYPE	PWM
TEMP CODE	T3	INVERTER-TEMP-CODE	200		
TEMP =	200	C HP FR	60	C HP TO	90
CT HZ FROM	6	CT HZ TO	60		
HTR-VOLTS		HTR-AMPS		HTR-WATTS	
				MAX. SPACE HEATER TEMP.	
				VT HZ FROM	3
				VT HZ TO	60

**AC Induction Motor Performance Data**

Record # 47236 - Typical performance - not guaranteed values

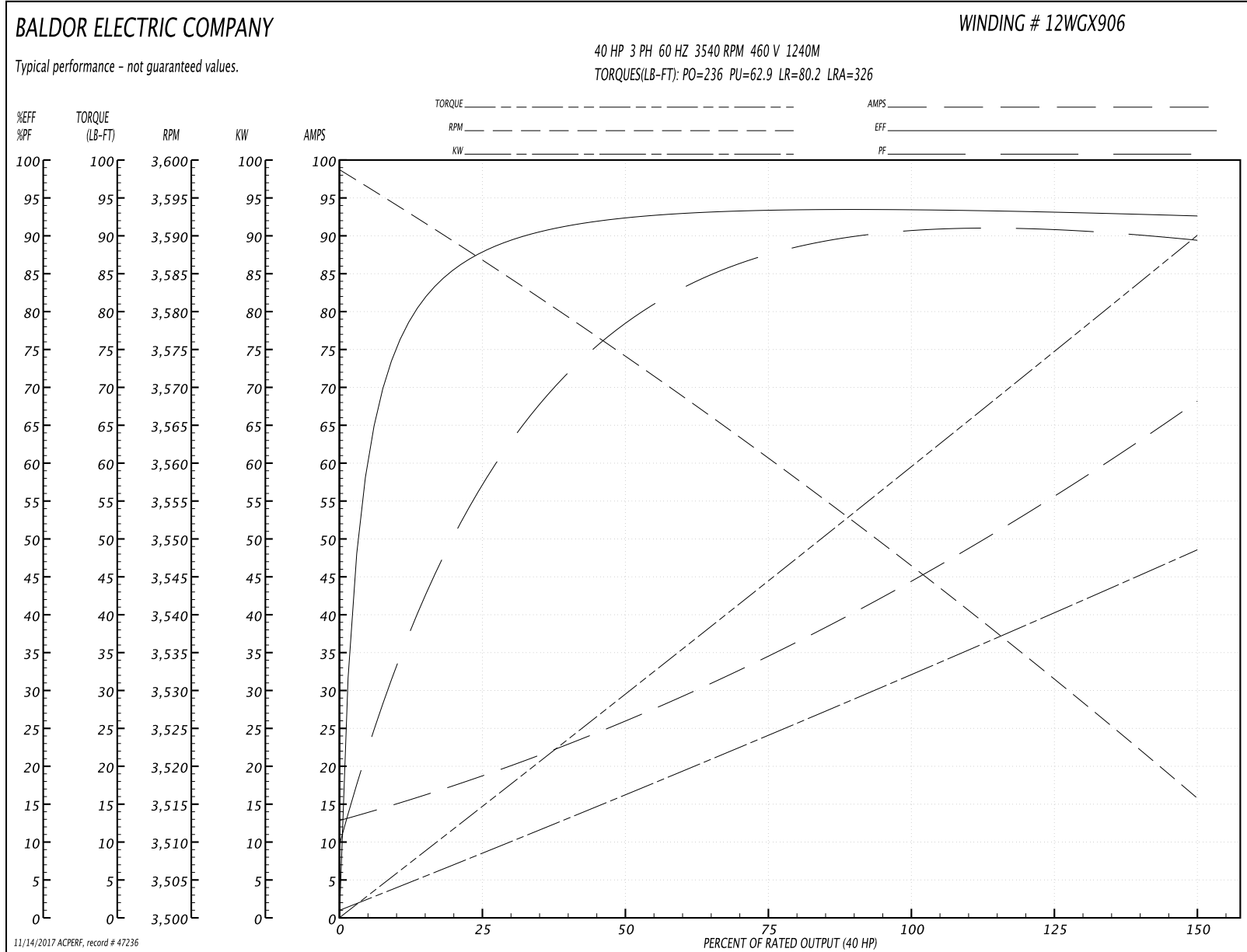
<b>Winding:</b> 12WGX906-R011	<b>Type:</b> 1240M	<b>Enclosure:</b> TEFC
-------------------------------	--------------------	------------------------

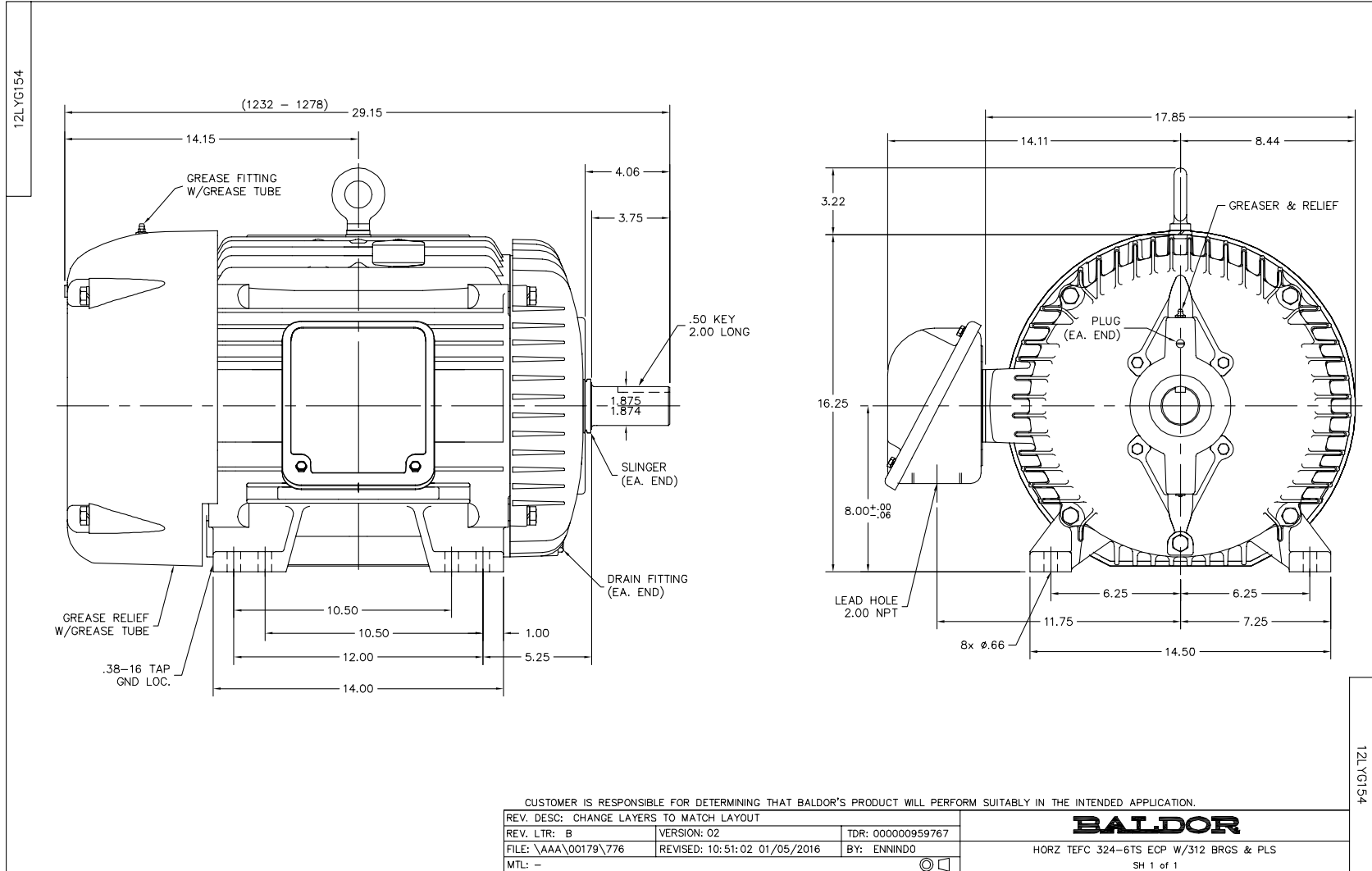
Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	40			Full Load Torque	59.5 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	90/45			Breakdown Torque	236 LB-FT
R.P.M.	3540			Pull-up Torque	62.9 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	80.2 LB-FT
NEMA Design 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

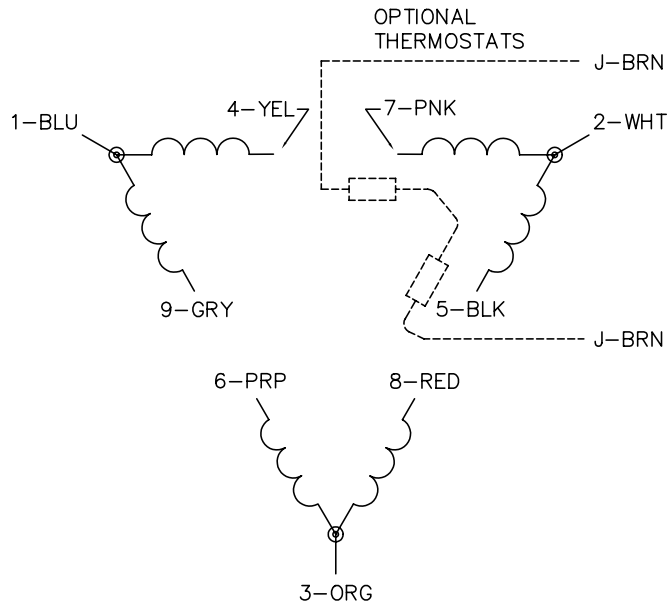
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	61	80	87	90	90	90	90
Efficiency	87.7	92.3	93.4	93.5	93.2	92.6	93.3
Speed	3587	3573	3560	3547	3533	3515	3539
Line amperes	17.7	25.7	35	44.9	55.7	67.7	51.4

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

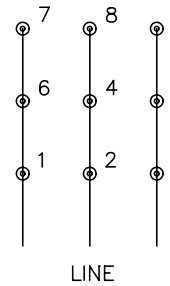




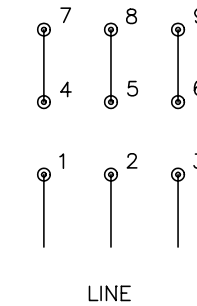
CD0180



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