

ABB BALDOR RELIANCE III

Customer information packet

CECP4109T

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

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	324TSC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV NEMA PREMIUM NEMA_PREMIUM UR CCSA US
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	6
Current @ Voltage	90.000 A @ 230.0 V 45.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	Severe Duty Features

Part Detail

Revision	Z
Type	AC
Mech. spec.	12F981
Base	
Status	PRD/A
Elec. spec.	12WGX906
Layout	12LYF981
Eff. date	10-16-2025
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	01-17-2011

Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Haz Area Temp Code	T3
Heater Indicator	No Heater
High Voltage Full Load Amps	45.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1240M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	28.84 IN
Power Factor	90
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3540 rpm
Speed Code	Single Speed

Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate
NP3241

CAT.NO.	CECP4109T			P/N					ENCLOSURE	TEFC			
SPEC.	12F981X906G1		CC	010A	FRAME	324TSC		S/N					
HP	40			CLASS	F	HZ	60	DES	A				
RPM	3540			RPM MAX	5400		PH	3	KVA-CODE	H			
VOLT	230/460			MOTOR WEIGHT			571						
AMP	90/45			SER.F.	1.15	PF	90	ODE BRG	6312	DE BRG	6312		
RATING	40C AMB-CONT			NEMA-NOM-EFF			93	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

Parts List

Part number	Description	Quantity
SA215497	SA 12F981X906G1	1.000 ea
RA202686	RA 12F981X906G1	1.000 ea
37FN3002C04	EXFN, PLASTIC, 6.00 OD, 2.003 ID	1.000 ea
10CB1000A203P	KOBX W/2.00 NPT & .31 GND MTG, EPOXY PRI	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
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
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	1.000 ea
HA4017A10	1/8X1.25 GREASE EXT (F/S)	1.000 ea
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 ea
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 ea
HA3400A13	STUD, 1/2-13 X 7" WELKER	4.000 ea
HW5100A15	W4997-050 WVY WSHR (WB)	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	2.000 ea
12EP1105A97P	PU EP, MACH, PLS W/EPOXY PRIMER	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
HA1005A04	SLINGER, OD 3.620, ID 1.98,	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 ea
10XN3118K40	5/16-18 X 2.75" HEX HD, GRADE 5	4.000 ea
12FH1002A33P	FAN COVER, MACH ,EPOXY PRIMER	1.000 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
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 ea
10CB1503P	CONDUIT BOX LIPPED, CAST W/EPOXY PRIMER	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
HW2501H18	KEY, 1/2 SQ X 2.000	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.030 ea
12EP1111A35GP6	FR ENDPLATE, MACH W/EPOXY PRIMER & RELIA	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.080 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3241	SS SUPER-E INV UL CSA-EEV PREM CC	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea

AC Induction Motor Performance Data

Record # 47236

Typical performance - not guaranteed values

Winding: 12WGX906-R011			Type: 1240M		Enclosure: 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-FT2			

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

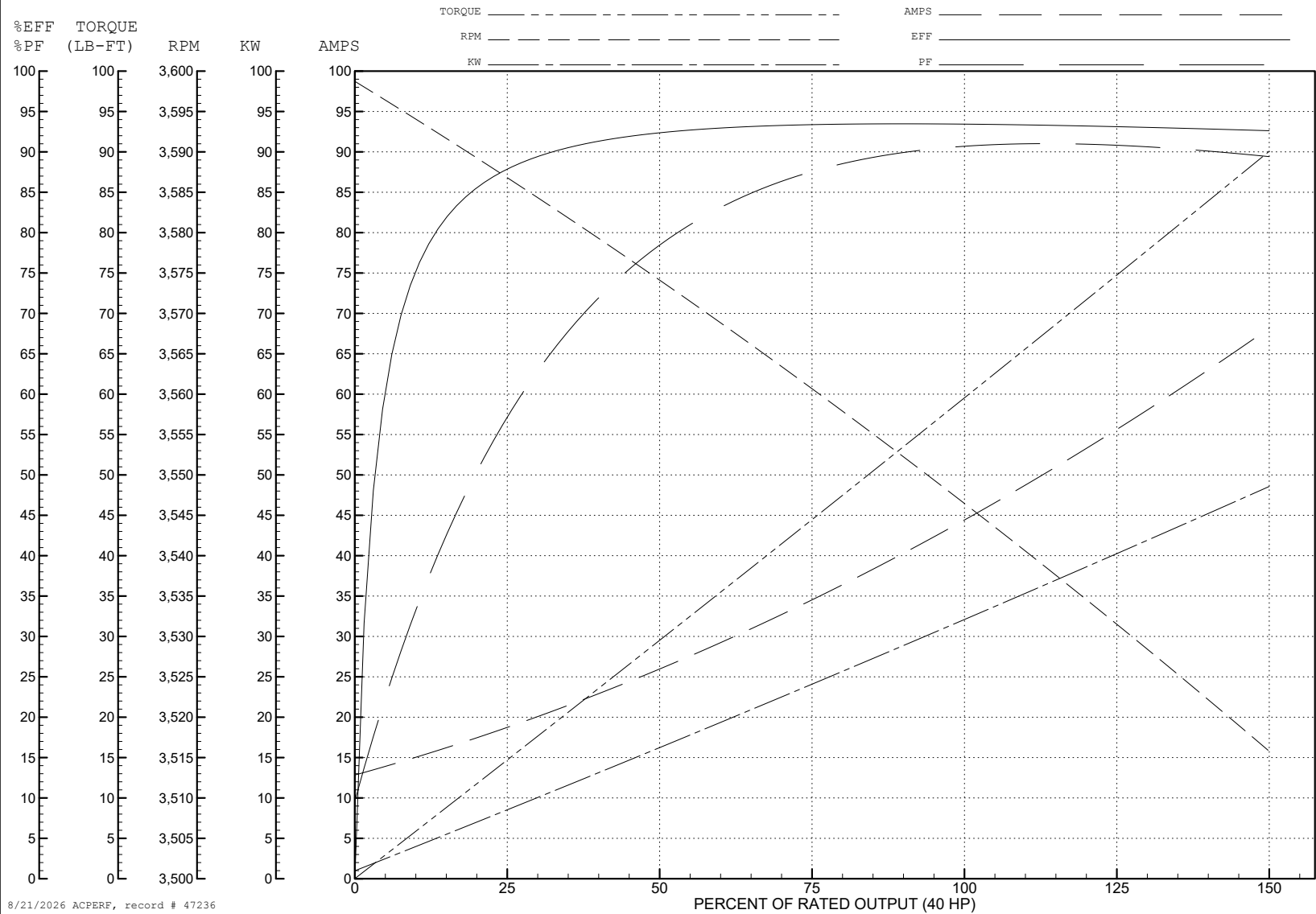
ABB Motors and Mechanical Inc.

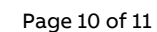
WINDING # 12WGX906

Typical performance - not guaranteed values.

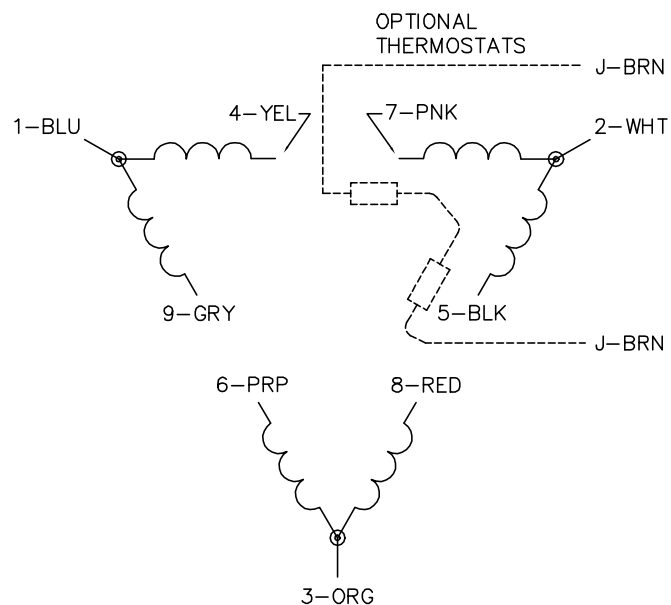
40 HP 3 PH 60 HZ 3540 RPM 460 V 1240M

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

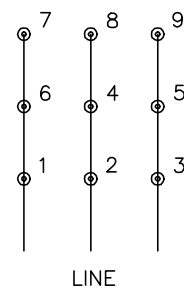




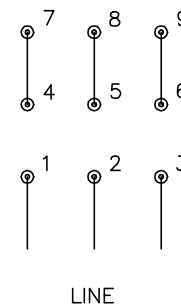
CD0180



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

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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