

ABB BALDOR RELIANCE III

Customer information packet

ECP4106T-5

20HP, 3510RPM, 3PH, 60HZ, 256T, 0954M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	256T
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	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 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	17.900 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	Severe Duty Features
Feedback Device	NO FEEDBACK
Front Face Code	Standard

Part Detail

Revision	AF
Type	AC
Mech. spec.	09J371
Base	
Status	PRD/A
Elec. spec.	09WGT123
Layout	09LYJ371
Eff. date	09-16-2025
CD Diagram	CD0006
Poles	02
Leads	3#12
Proprietary	False
Created date	12-24-2014

Front Shaft Indicator	None
Haz Area Temp Code	T3
Heater Indicator	No Heater
High Voltage Full Load Amps	17.9 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0954M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	24.78 IN
Power Factor	91
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3510 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

NP3995ABBL														
CAT #		ECP4106T-5				SER				CC		010A		
SPEC		09J371T123G1				RATING		40C AMB-CONT						
HZ	VOLTS			AMPS			RPM	HP	CODE	SF	DES	PF	NEMA NOM. EFF	
60	575			17.9			3510	20	G	1.15	B	91 %	91 %	
PH		3	CL	F	MAX RPM		5400	MAX CORR KVAR		2.1	USABLE AT 208V		N/A	
IP55		FR		256T	ENCL		TEFC	DE BRG		6309	ODE BRG		6309	
GREASE		POLYREX EM						MTR WT		310	LBS			
USABLE AT		N/A												
CL I DIV 2 GRPS A,B,C,D					CL I ZONE 2 GRPS					IIA,IIB,IIC		TEMP T	200	C
1.0 SF ON PWM INVERTER					POWER		INV TEMP CL		200	C				
CHP	60-90	HZ	1.5:1	CT	3-60	HZ	20:1	VT	0-60	HZ	1000:1			
SPACE HEATER LEADS H1-H2:					TIE LIKE NUMBERS					TOGETHER				
V		A		W	MAX SPACE HEATER TEMP									

Parts List

Part number	Description	Quantity
SA291597	SA 09J371T123G1	1.000 ea
RA277720	RA 09J371T123G1	1.000 ea
37FN3002C02	EXFN, PLASTIC, 6.00 OD, 1.503 ID	1.000 ea
09CB1002A12P	KOBX W/1.25 NPT LEAD HOLE & 2.38 MTG HOL	1.000 ea
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 ea
HA3400A39	STUD- 3/8-16 X 6.44 OAL HEX	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 ea
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 ea
HA4017A08	.125 X 3.50 LGTH GREASER EXTEN.	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
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 ea
09FH1000P	FAN COVER, CAST W/EPOXY PRIMER	1.000 ea
09EP1118A38P	PUEP MACH,309 BRG,PLS GRSR,RLF,EPOXY PRI	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
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	4.000 ea
12CB1503P	CONDUIT BOX LID, CAST W/EPOXY PRIMER	1.000 ea
12GS1002	GASKET, CONDUIT BOX LID, NEOP	1.000 ea
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	2.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 ea

MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.033 ea
09EP1118A37LP5	FREP MACH, 309 BRG. EPOXY PRIMER	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.080 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	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
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1025N19	WILKOFASST, 778.50, RELIANCE BLUE-GREEN 8	0.050 ga
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
NP3995ABBL	SS SUPER-E SD XEX CLI DIV2 UR CSA-C-US E	1.000 ea
40PA1005	PACKAGING GROUP, 09 STD	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LD7020D03	LEAD SET, 12AWG, 3 LEAD, 20" LONG LEADS	1.000 ea

AC Induction Motor Performance Data

Record # 92413

Typical performance - not guaranteed values

Winding: 09WGT123-R001			Type: 0954M	Enclosure: TEFC			
Nameplate Data			575 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		20	Full Load Torque		30.1 LB-FT		
Volts		575	Start Configuration		direct on line		
Full Load Amps		17.9	Breakdown Torque		99 LB-FT		
R.P.M.		3510	Pull-up Torque		33 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		43 LB-FT	
NEMA Design Code		B	KVA Code	G	Starting Current		116 A
Service Factor (S.F.)		1.15	No-load Current		3.75 A		
NEMA Nom. Eff.		91	Power Factor	91	Line-line Res. @ 25°C		0.683 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		68°C
S.F. Amps		20.3	Temp. Rise @ S.F. Load		86°C		
			Locked-rotor Power Factor		26.7		
			Rotor inertia		1.38 lb-ft²		

Load Characteristics 575 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	73	87	91	91	92	91	93
Efficiency	91.4	93.4	93	91	90.6	88.8	91.6
Speed	3579	3559	3537	3513	3484	3451	3520
Line amperes	5.87	9.39	13.3	17.9	22.7	27.8	20.3

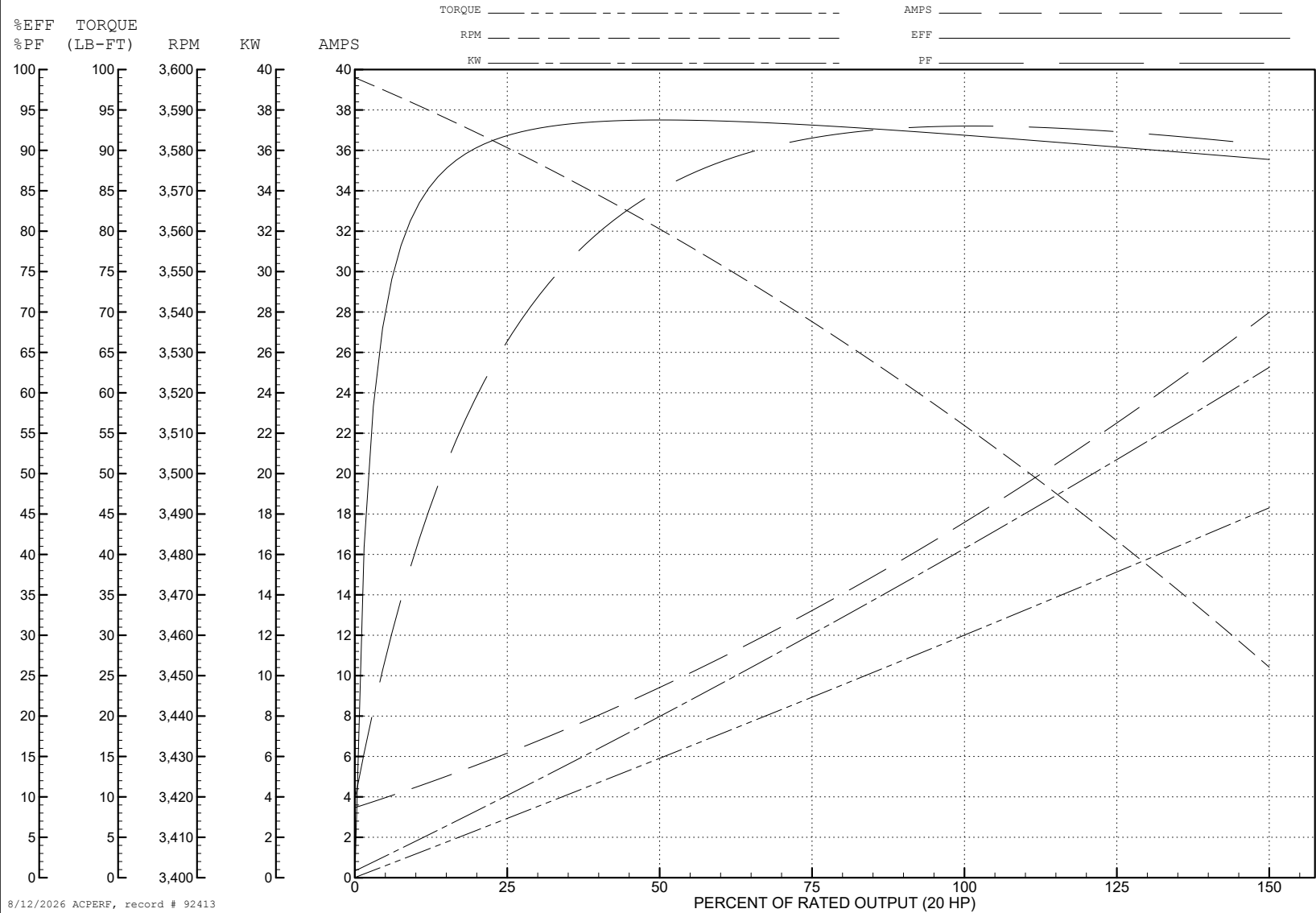
ABB Motors and Mechanical Inc.

WINDING # 09WGT123

Typical performance - not guaranteed values.

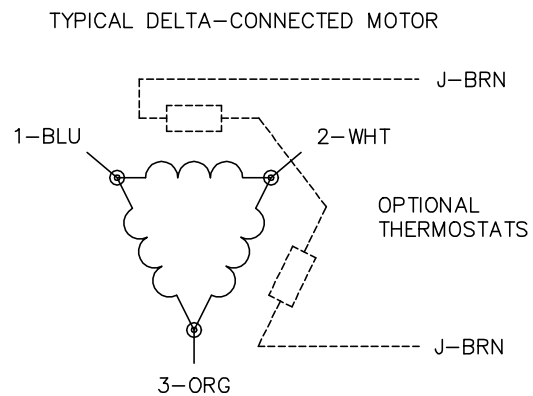
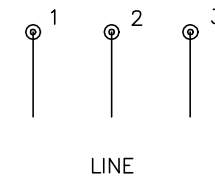
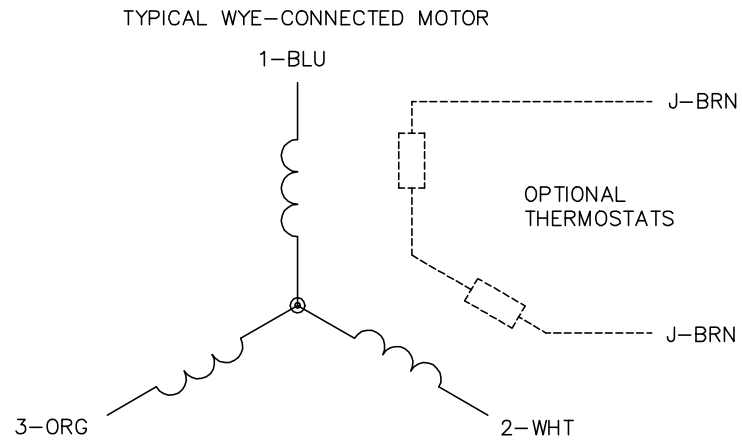
20 HP 3 PH 60 HZ 3510 RPM 575 V 0954M

TORQUES (LB-FT) : PO=99 PU=33 LR=43 LRA=116





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

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

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BY: ENBRIRO

MTL: -



BALDOR - RELIANCE®

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

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