

ABB BALDOR RELIANCE III

Customer information packet

ECP4106T-4

20HP, 3540RPM, 3PH, 60HZ, 256T, 0944M, 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	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	23.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	Severe Duty Features
Feedback Device	NO FEEDBACK
Front Face Code	Standard

Part Detail

Revision	AX
Type	AC
Mech. spec.	09J371
Base	
Status	PRD/A
Elec. spec.	09WGY640
Layout	09LYJ371
Eff. date	09-12-2024
CD Diagram	CD00006
Poles	02
Leads	3#10
Proprietary	False
Created date	08-29-2010

Front Shaft Indicator	None
Haz Area Temp Code	T3
Heater Indicator	No Heater
High Voltage Full Load Amps	23.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
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 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0944M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	24.78 IN
Power Factor	89
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	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
NP3995ABBL

CAT #		ECP4106T-4					SER				CC		010A								
SPEC		09J371Y640G1					RATING		40C AMB-CONT												
HZ		VOLTS			AMPS			RPM		HP		CODE		SF		DES		PF		NEMA NOM. EFF	
60		460			23			3540		20		J		1.15		A		89 %		92.4 %	
																		% %			
PH		3	CL		F	MAX RPM		5400	MAX CORR KVAR			USABLE AT 208V					N/A				
IP55				FR		256T		ENCL		TEFC		DE BRG		6309		ODE BRG		6309			
GREASE		POLYREX EM											MTR WT		328		LBS				
USABLE AT		50HZ 15HP 380V 21A																			
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	6-60		HZ		10:1		VT	3-60		HZ		20:1	
SPACE HEATER LEADS H1-H2:								TIE LIKE NUMBERS				TOGETHER									
V				A				W				MAX SPACE HEATER TEMP									

Parts List

Part number	Description	Quantity
SA202240	SA 09J371Y640G1	1.000 ea
RA189522	RA 09J371Y640G1	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
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
NP3995ABBL	SS SUPER-E SD XEX CLI DIV2 UR CSA-C-US E	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LD7020E03	LEAD SET, 10AWG, 3 LEAD, 20" LONG LEADS	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
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
37FN3002C02	EXFN, PLASTIC, 6.00 OD, 1.503 ID	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	WILKOFAST, 778.50, RELIANCE BLUE-GREEN 8	0.050 ga
40PA1005	PACKAGING GROUP, 09 STD	1.000 ea

Accessories

Part number	Description	Multiplier
09-1309	C FACE KIT	A8

AC Induction Motor Performance Data

Record # 47269

Typical performance - not guaranteed values

Winding: 09WGY640-R019			Type: 0944M		Enclosure: TEFC		
Nameplate Data			460 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		20	Full Load Torque		29.7 LB-FT		
Volts		460	Start Configuration		direct on line		
Full Load Amps		23	Breakdown Torque		159 LB-FT		
R.P.M.		3540	Pull-up Torque		51 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		74 LB-FT	
NEMA Design Code		A	KVA Code	J	Starting Current		201 A
Service Factor (S.F.)		1.15	No-load Current		8.4 A		
NEMA Nom. Eff.		92.4	Power Factor	89	Line-line Res. @ 25°C		0.313 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		62°C
S.F. Amps			Temp. Rise @ S.F. Load		75°C		
			Locked-rotor Power Factor		28		
			Rotor inertia		1.12 lb-ft²		

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	56	75	86	89	91	91	90
Efficiency	85.5	91.1	92.3	92.4	92	91.2	92.2
Speed	3585	3570	3557	3542	3527	3510	3533
Line amperes	10	13.8	17.8	22.9	28	33.5	26

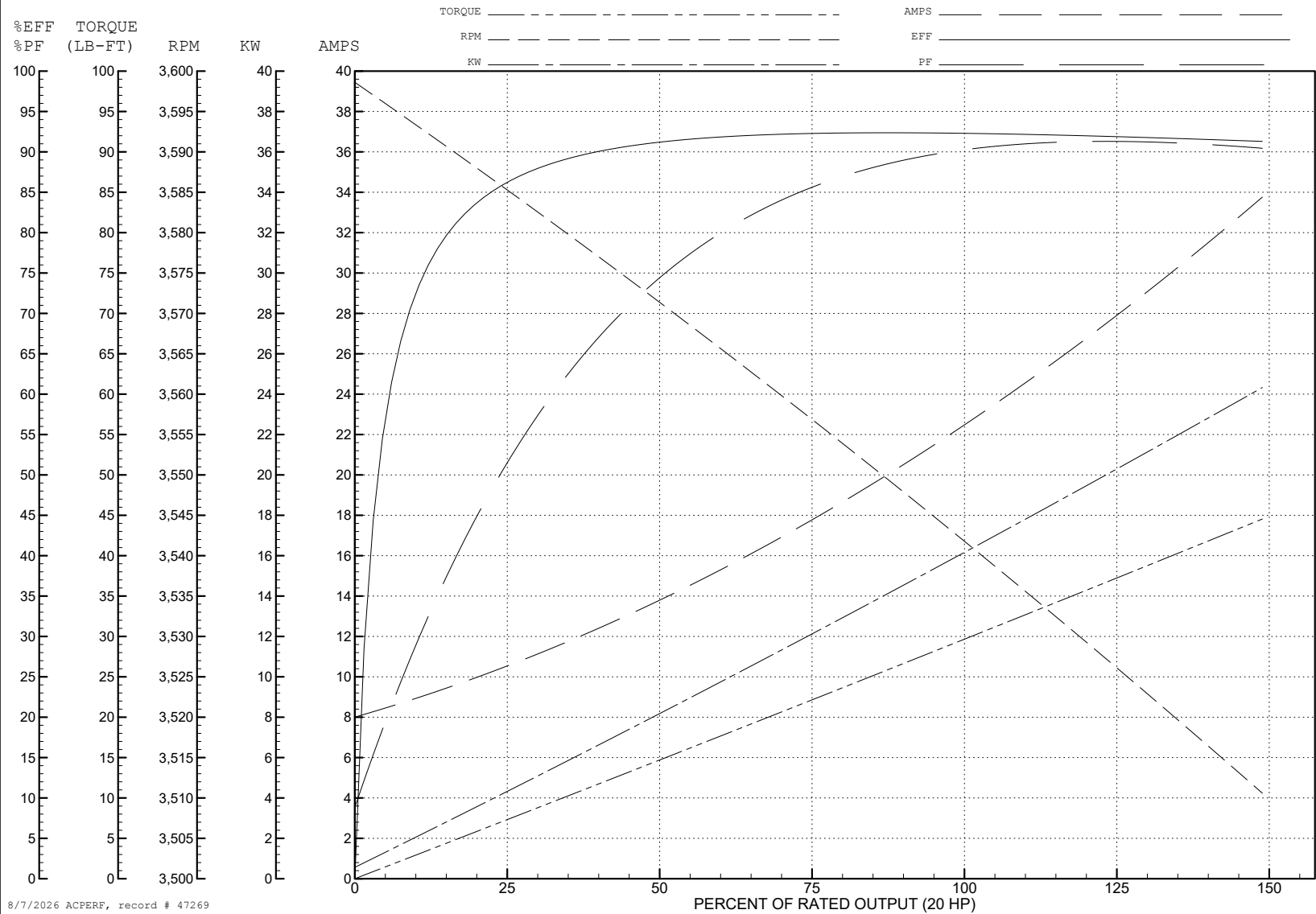
ABB Motors and Mechanical Inc.

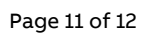
WINDING # 09WGY640

Typical performance - not guaranteed values.

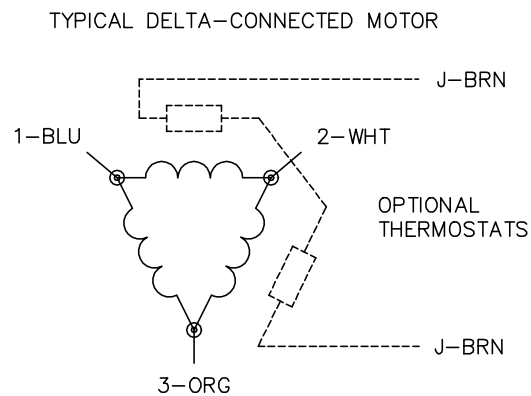
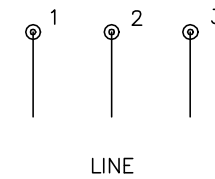
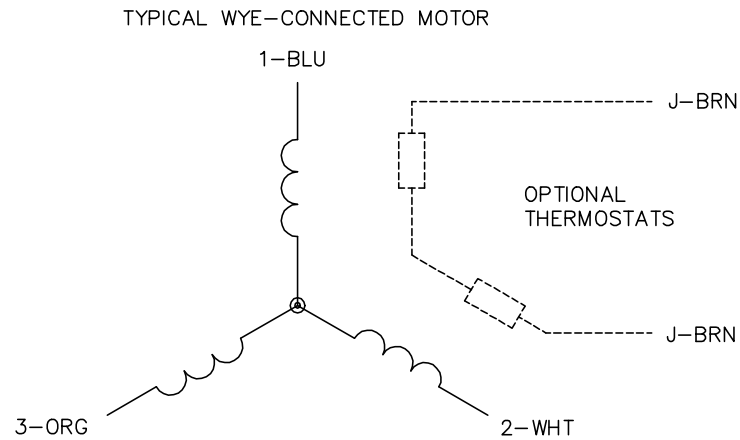
20 HP 3 PH 60 HZ 3540 RPM 460 V 0944M

TORQUES (LB-FT) : PO=159 PU=51 LR=74 LRA=201





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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