

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								

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		Locked-rotor Torque		43 LB-FT	
NEMA Design Code		B KVA Code		Starting Current		116 A	
Service Factor (S.F.)		1.15		No-load Current		3.75 A	
NEMA Nom. Eff.		91 Power Factor		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

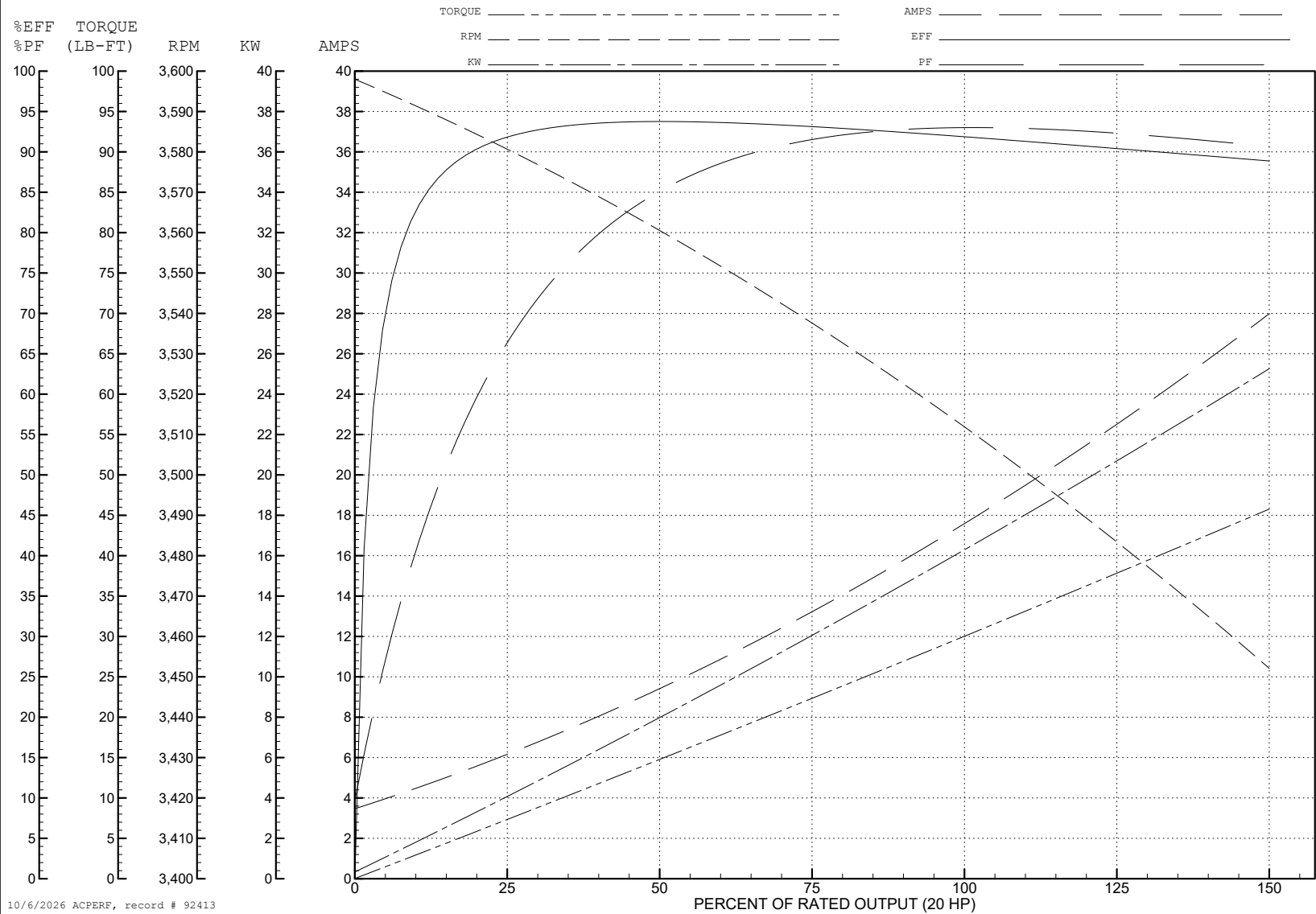
ABB Motors and Mechanical Inc.

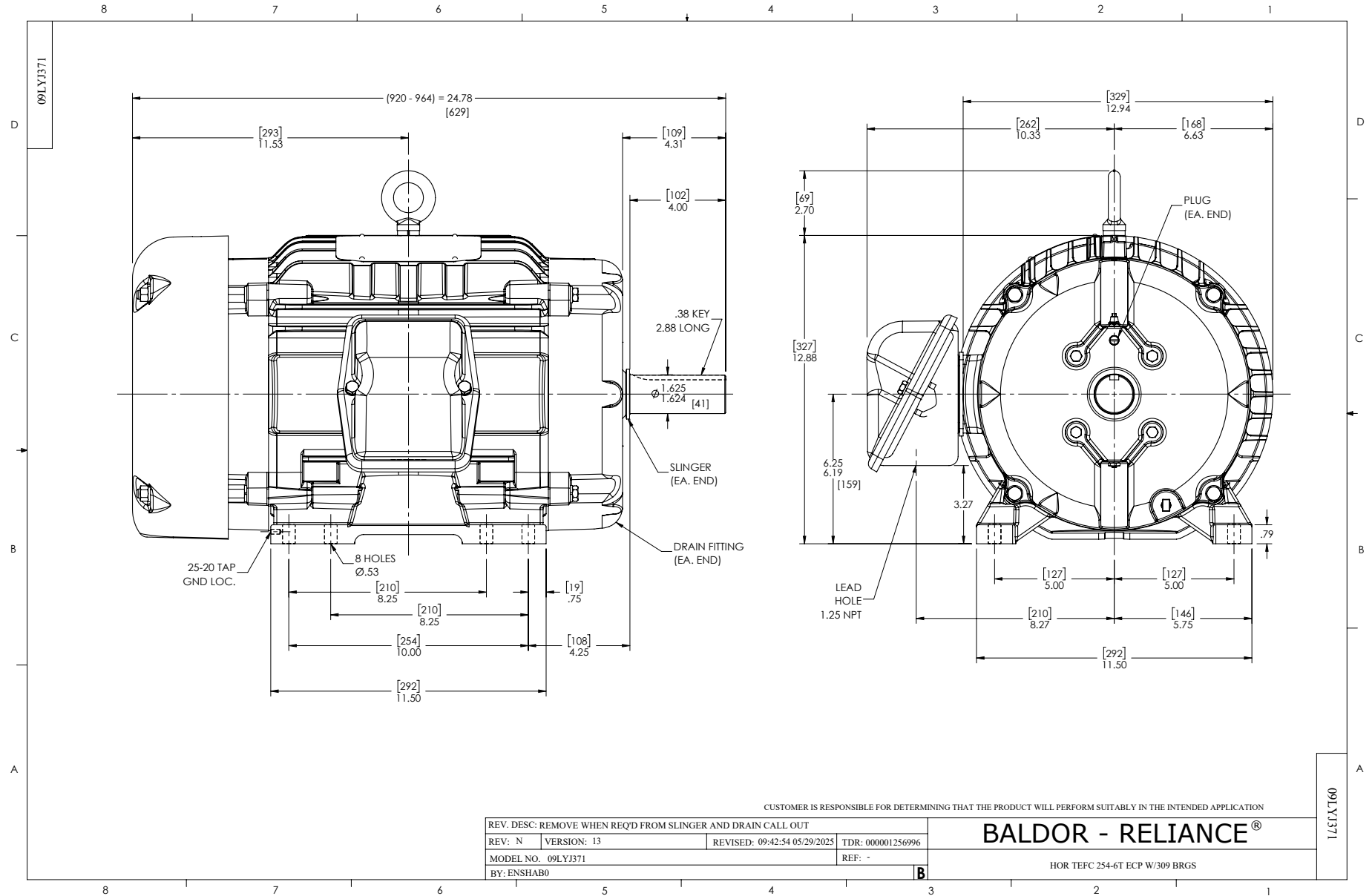
WINDING # 09WGT123

Typical performance - not guaranteed values.

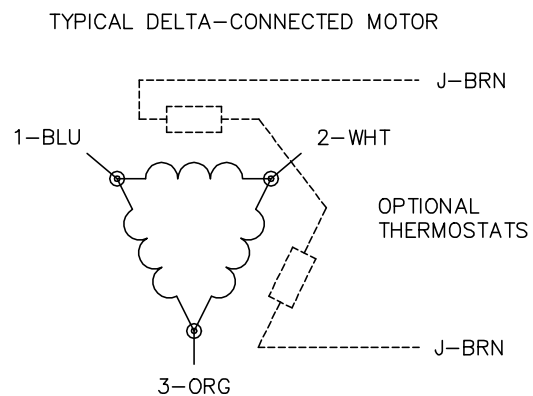
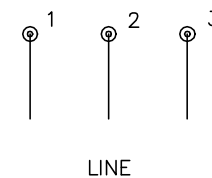
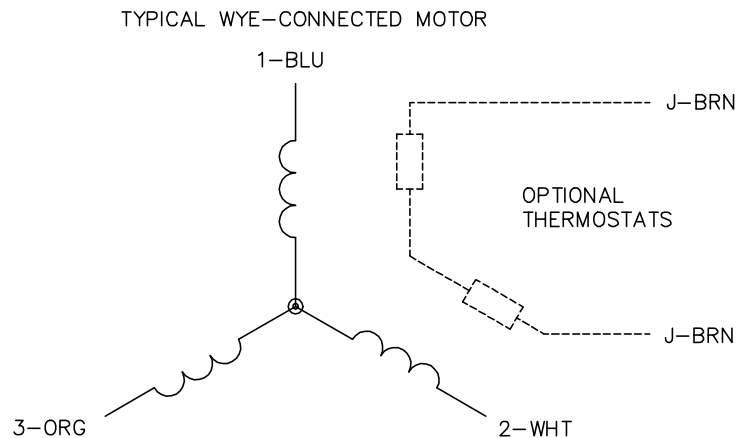
20 HP 3 PH 60 HZ 3510 RPM 575 V 0954M

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

REVISED: 10: 24: 49 02/19/2019

BY: ENBRIRO

MTL: —



BALDOR - RELIANCE®

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

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