ABB BALDOR RELIANCE

Customer information packet

ECP4106T

20HP, 3540RPM, 3PH, 60HZ, 256T, 0944M, TEFC, F1
Class - CLI GP A,B,C,D
Division - Division II

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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
	230.0 V @ 60 HZ
Agency Approvals	CCSA US
	CSA EEV
	NEMA PREMIUM
	NEMA_PREMIUM
	UR
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	48.000 A @ 208.0 V
	44.000 A @ 230.0 V
	22.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated

Part Detail

Revision	AX
Type	AC
Mech. spec.	09J371
Base	
Status	PRD/A
Elec. spec.	09WGY799
Layout	09LYJ371
Eff. date	09-12-2024
CD Diagram	CD0180
Poles	02
Leads	9#12
Proprietary	False
Created date	08-29-2010

Enclosure Modification	Severe Duty Features
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	22.0 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	9 @ 12 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	92
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

NP3995ABEL

CAT #	ECP4106T			**SER**				**CC**	010A										
SPEC	09J371Y799G1			**RATING**	40C AMB-CONT														
HZ	**VOLTS**			**AMPS**			**RPM**	**HP**	**CODE**		**SF**	**DES**	**PF**		**NEMA NOM. EFF**				
60	230/460			44/22			3540	20	J		1.15	A	92	%	91.7	%			
														%		%			
PH	3	**CL**	F	**MAX RPM**	5400		**MAX CORR KVAR**	6.61			**USABLE AT 208V**		N/A						
IP55		**FR**	256T		**ENCL**	TEFC		**DE BRG**	6309			**ODE BRG**	6309						
GREASE	POLYREX EM										**MTR WT**	331	**LBS**						
USABLE AT	50HZ 15HP 190/380V 40.8/20.4A										SF1.0								
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**												

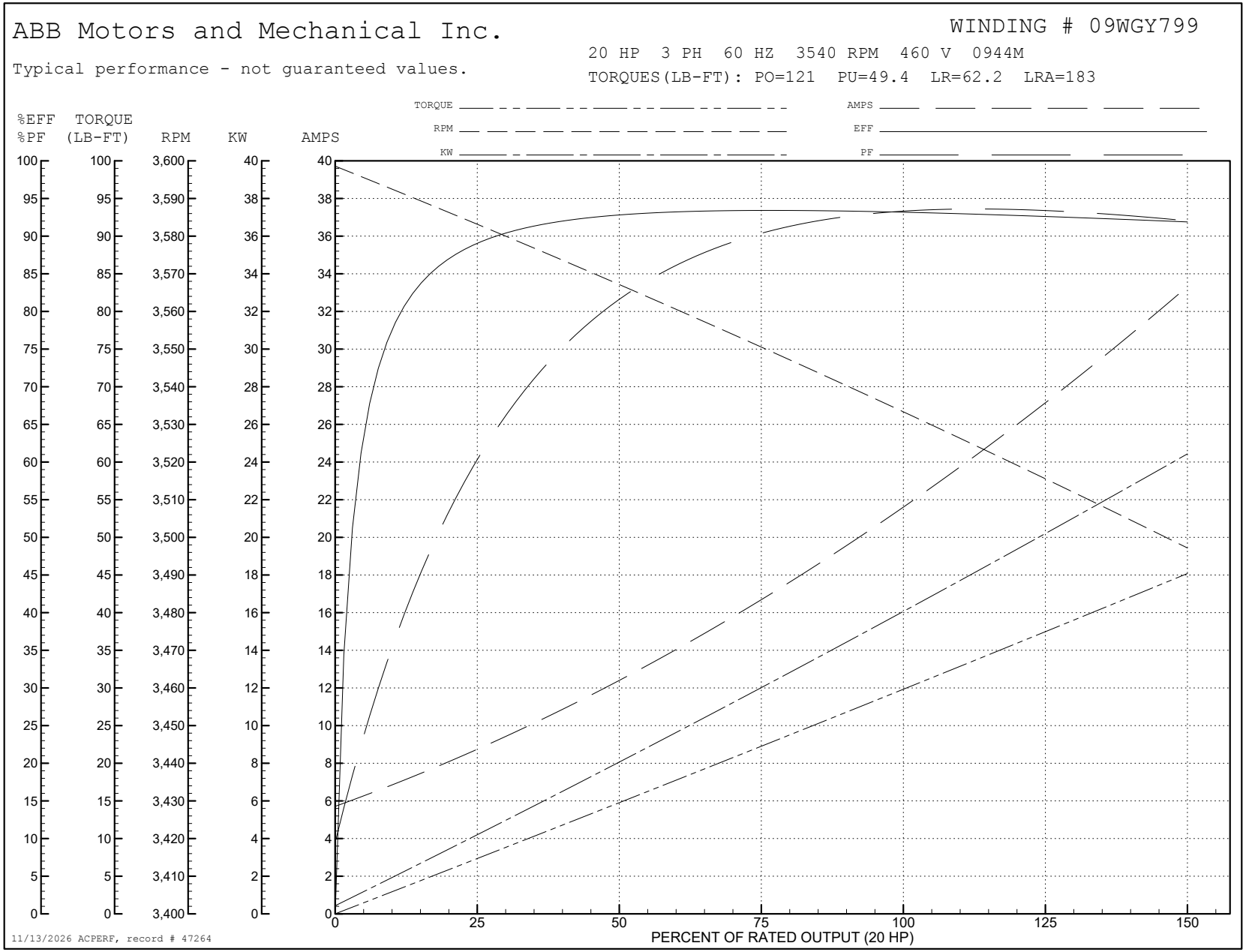
AC Induction Motor Performance Data
Record # 47264
Typical performance - not guaranteed values

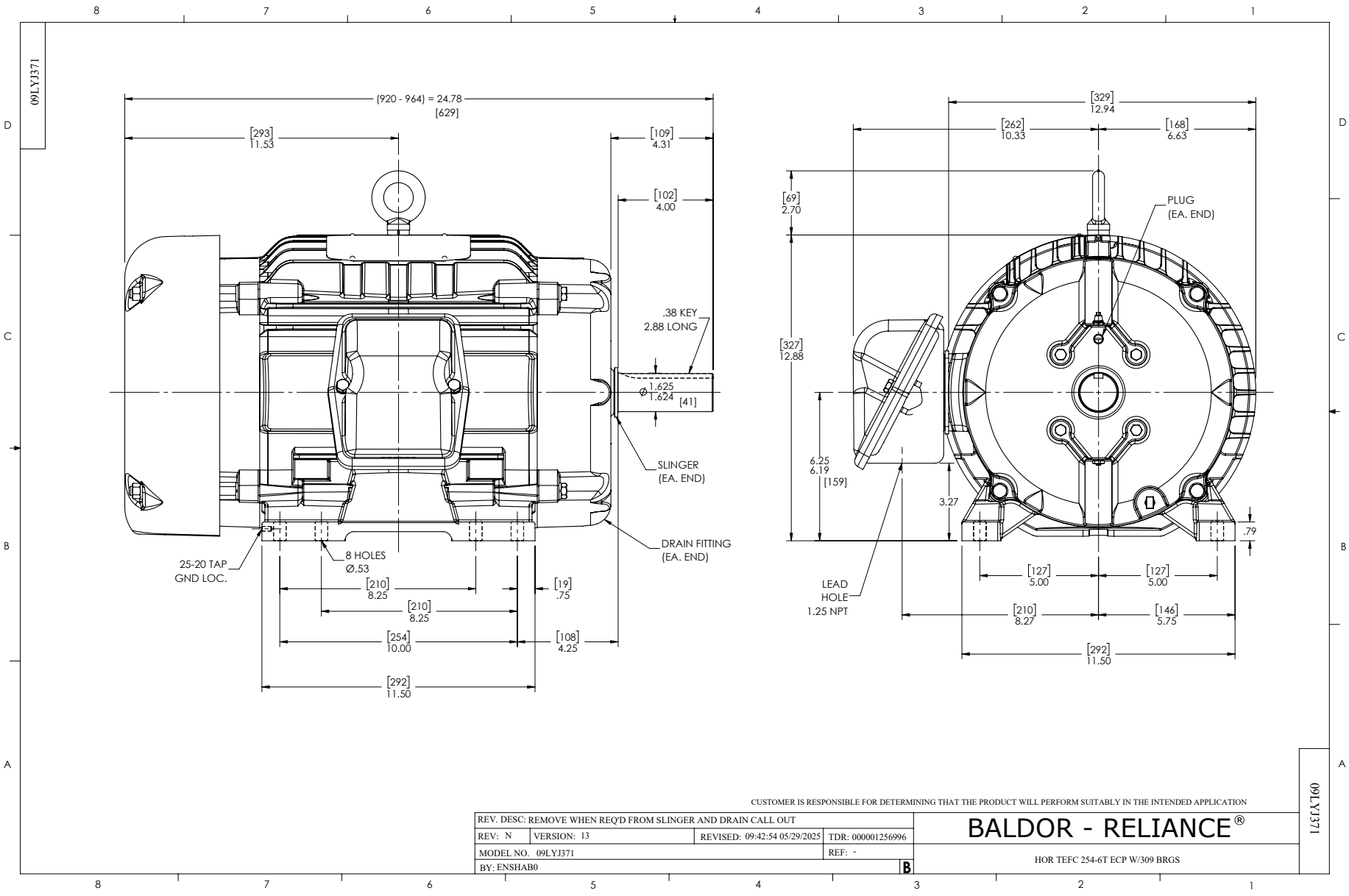
Winding: 09WGY799-R020	**Type:** 0944M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			20	**Full Load Torque**	29.76 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			44/22	**Breakdown Torque**	121 LB-FT
R.P.M.			3540	**Pull-up Torque**	49.4 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	62.2 LB-FT
NEMA Design Code	A	**KVA Code**	J	**Starting Current**	183 A
Service Factor (S.F.)			1.15	**No-load Current**	6.12 A
NEMA Nom. Eff.	91.7	**Power Factor**	92	**Line-line Res. @ 25ºC**	0.377 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	62°C
S.F. Amps				**Temp. Rise @ S.F. Load**	76°C
				Locked-rotor Power Factor	27.8
				Rotor inertia	1.12 LB-FT2

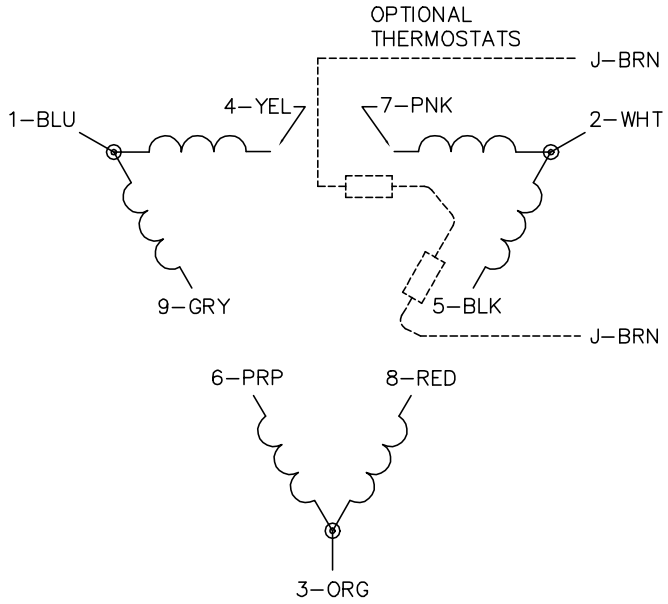
Load Characteristics 460 V, 60 Hz, 20 HP

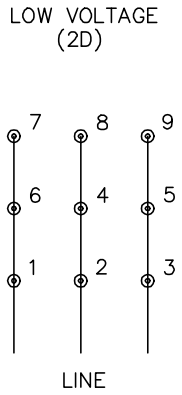
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	63	83	90	92	93	93	93
Efficiency	88.7	92.8	93.2	93.2	92.6	91.8	92.8
Speed	3583	3567	3551	3534	3516	3497	3523
Line amperes	8.14	12.12	16.69	21.89	27.18	33.06	25.1

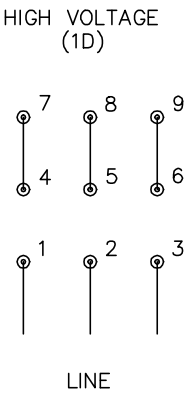

ABB Motors and Mechanical Inc.
WINDING # 09WGY799
20 HP 3 PH 60 HZ 3540 RPM 460 V 0944M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=121 PU=49.4 LR=62.2 LRA=183
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (20 HP)
11/13/2026 ACPERF, record # 47264


09LYJ371
(920 - 964) = 24.78
[629]
[293]
11.53
[109]
4.31
[102]
4.00
.38 KEY
2.88 LONG
Ø 1.625
1.624 [41]
SLINGER
(EA. END)
DRAIN FITTING
(EA. END)
25-20 TAP
GND LOC.
8 HOLES
Ø.53
[210]
8.25
[210]
8.25
[19]
.75
[254]
10.00
[108]
4.25
[292]
11.50
[329]
12.94
[262]
10.33
[168]
6.63
[69]
2.70
PLUG
(EA. END)
[327]
12.88
6.25
6.19
[159]
3.27
.79
LEAD
HOLE
1.25 NPT
[127]
5.00
[127]
5.00
[210]
8.27
[146]
5.75
[292]
11.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: REMOVE WHEN REQ'D FROM SLINGER AND DRAIN CALL OUT
REV: N
VERSION: 13
REVISED: 09:42:54 05/29/2025
TDR: 000001256996
MODEL NO. 09LYJ371
REF: -
BY: ENSHAB0
B
BALDOR - RELIANCE®
HOR TEFC 254-6T ECP W/309 BRGS
09LYJ371

CD0180







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: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1