



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
Auxillary Box	No Auxillary Box
Auxillary 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	CD0006
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						

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-ft ²			

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

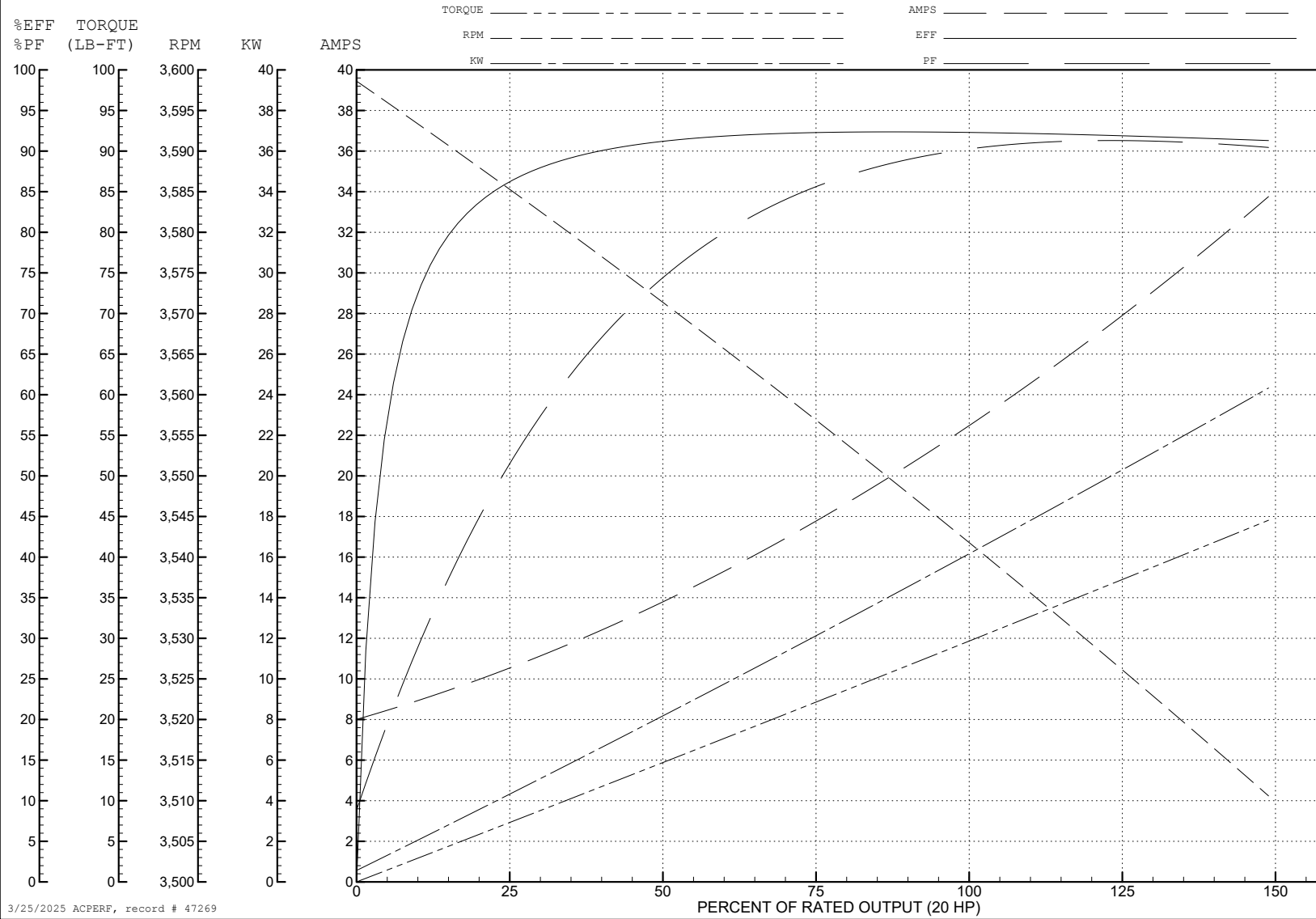
ABB Motors and Mechanical Inc.

WINDING # 09WGY640

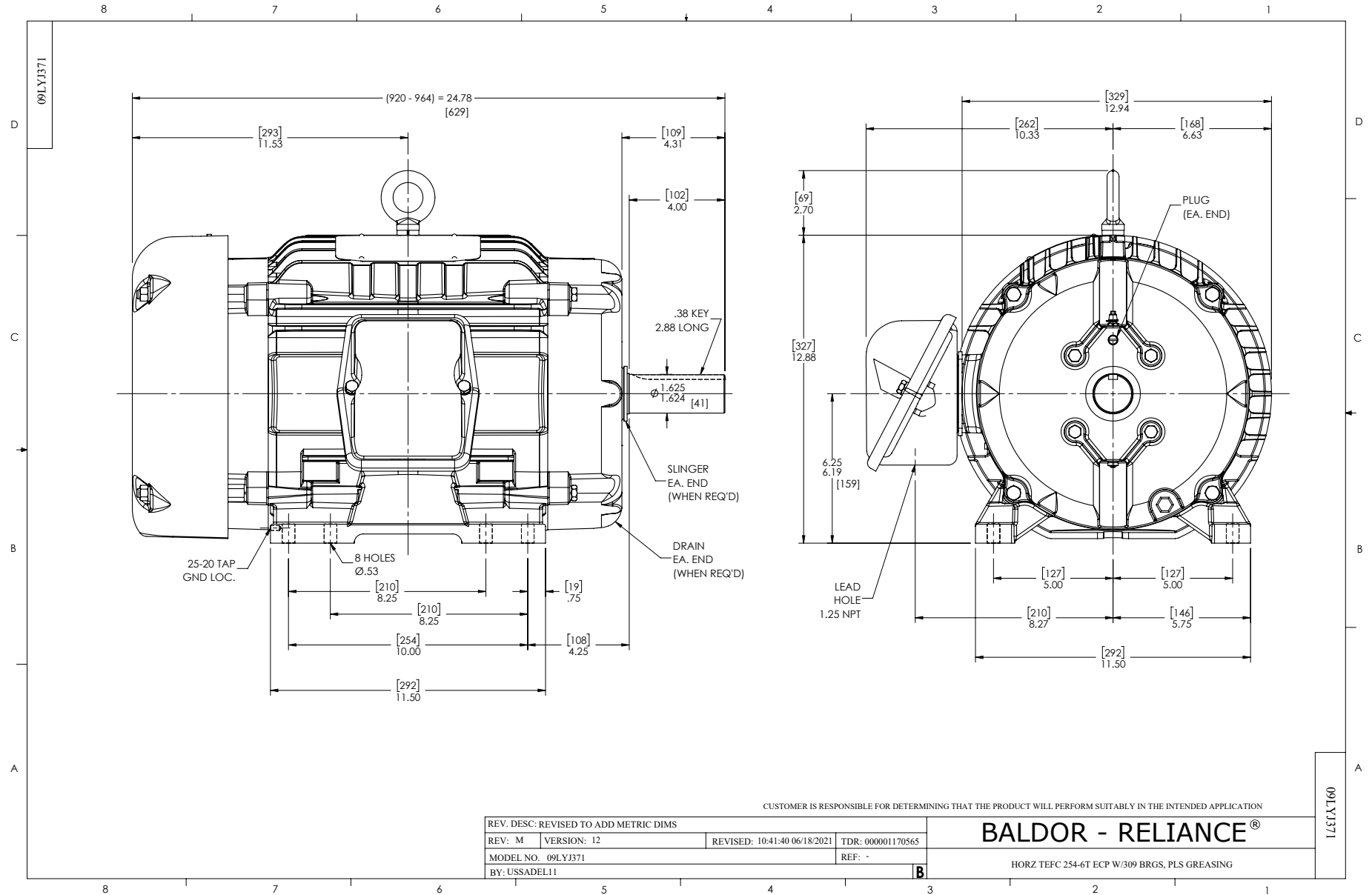
Typical performance - not guaranteed values.

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

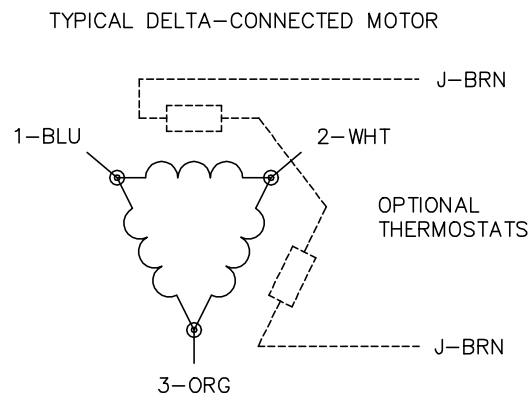
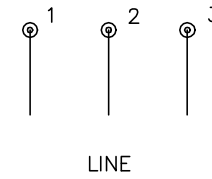
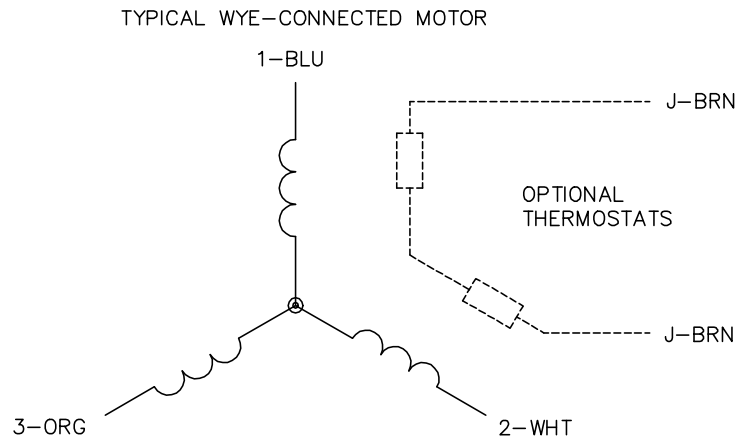
TORQUES (LB-FT): PO=159 PU=51 LR=74 LRA=201



3/25/2025 ACPERF, record # 47269



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

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

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