



Customer information packet

ECP4102T-4

20HP, 1180RPM, 3PH, 60HZ, 286T, 1054M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	286T
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CL I 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	1200 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
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	1.0
Current @ Voltage	27.000 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
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part detail

Revision	K
Type	AC
Mech. spec.	10H292
Base	
Status	PRD/A
Elec. spec.	10WGY837
Layout	10LYH292
Eff. date	11-19-2024
CD Diagram	CD0006
Poles	06
Leads	3#10
Proprietary	False
Created date	08-11-2017

Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	27.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1800 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1054M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	28.00 IN
Power Factor	77
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	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1180 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

NP3241

CAT.NO.	ECP4102T-4	P/N		ENCLOSURE	TEFC
SPEC.	10H292Y837G2	CC	010A	FRAME	286T
HP	20	CLASS	F	HZ	60
RPM	1180	RPM MAX	1800	PH	3
VOLT	460	MOTOR WEIGHT	450	KVA-CODE	H
AMP	27	SER.F.	1.15	PF	77
RATING	40C AMB-CONT	NEMA-NOM-EFF	91.7	ODE BRG	6311
				DE BRG	6311
				GREASE	POLYREX EM
				INV.TYPE	PWM
TEMP CODE	T3C	INVERTER-TEMP-CODE	180		
TEMP =	160	C HP FR	60	C HP TO	90
CT HZ FROM	1.0	CT HZ TO	60		
HTR-VOLTS		HTR-AMPS		HTR-WATTS	
				MAX. SPACE HEATER TEMP.	
				VT HZ FROM	0
				VT HZ TO	60

Accessories

Part number	Description	Multiplier
10-1305	C FACE KIT	A8

AC Induction Motor Performance Data

Record # 66237

Typical performance - not guaranteed values

Winding: 10WGY837-R016		Type: 1054M		Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: Single Voltage Motor		
Rated Output (HP)	20	Full Load Torque	90.1 LB-FT		
Volts	460	Start Configuration	direct on line		
Full Load Amps	27	Breakdown Torque	276 LB-FT		
R.P.M.	1180	Pull-up Torque	115 LB-FT		
Hz	60 Phase	3	Locked-rotor Torque	166 LB-FT	
NEMA Design Code	A	KVA Code	H	Starting Current	165 A
Service Factor (S.F.)	1.15		No-load Current	13.1 A	
NEMA Nom. Eff.	91.7	Power Factor	77	Line-line Res. @ 25°C	0.425 Ω
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	65°C	
S.F. Amps			Temp. Rise @ S.F. Load	78°C	
			Locked-rotor Power Factor	31.8	
			Rotor inertia	6.61 LB-FT ²	

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	39	60	71	77	79	80	78
Efficiency	84.1	89.6	91.1	91.7	90.2	89.7	90.8
Speed	1195	1190	1184	1178	1171	1164	1174
Line amperes	14.3	17.5	21.9	26.9	32.7	39.3	30.4

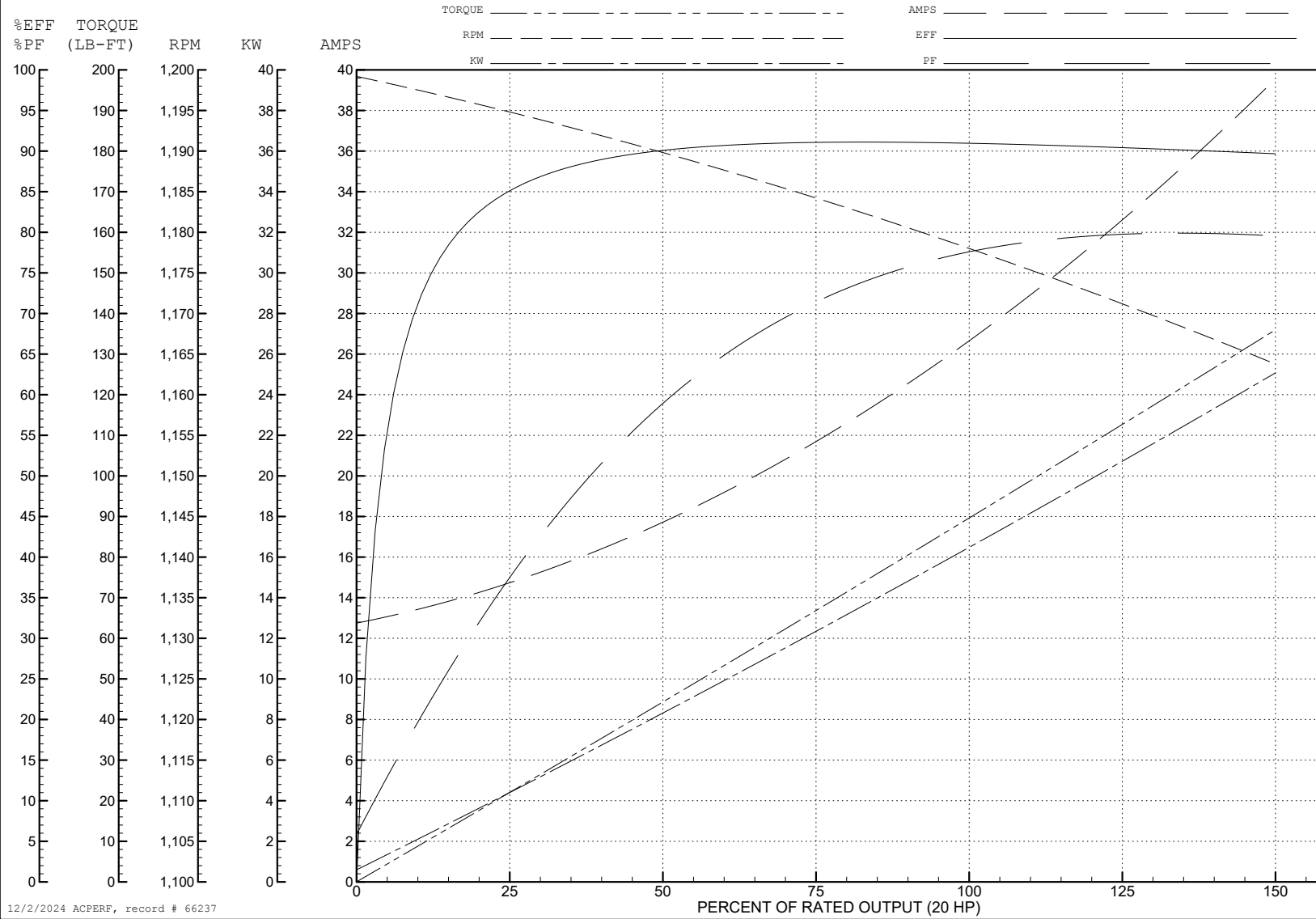
ABB Motors and Mechanical Inc.

WINDING # 10WGY837

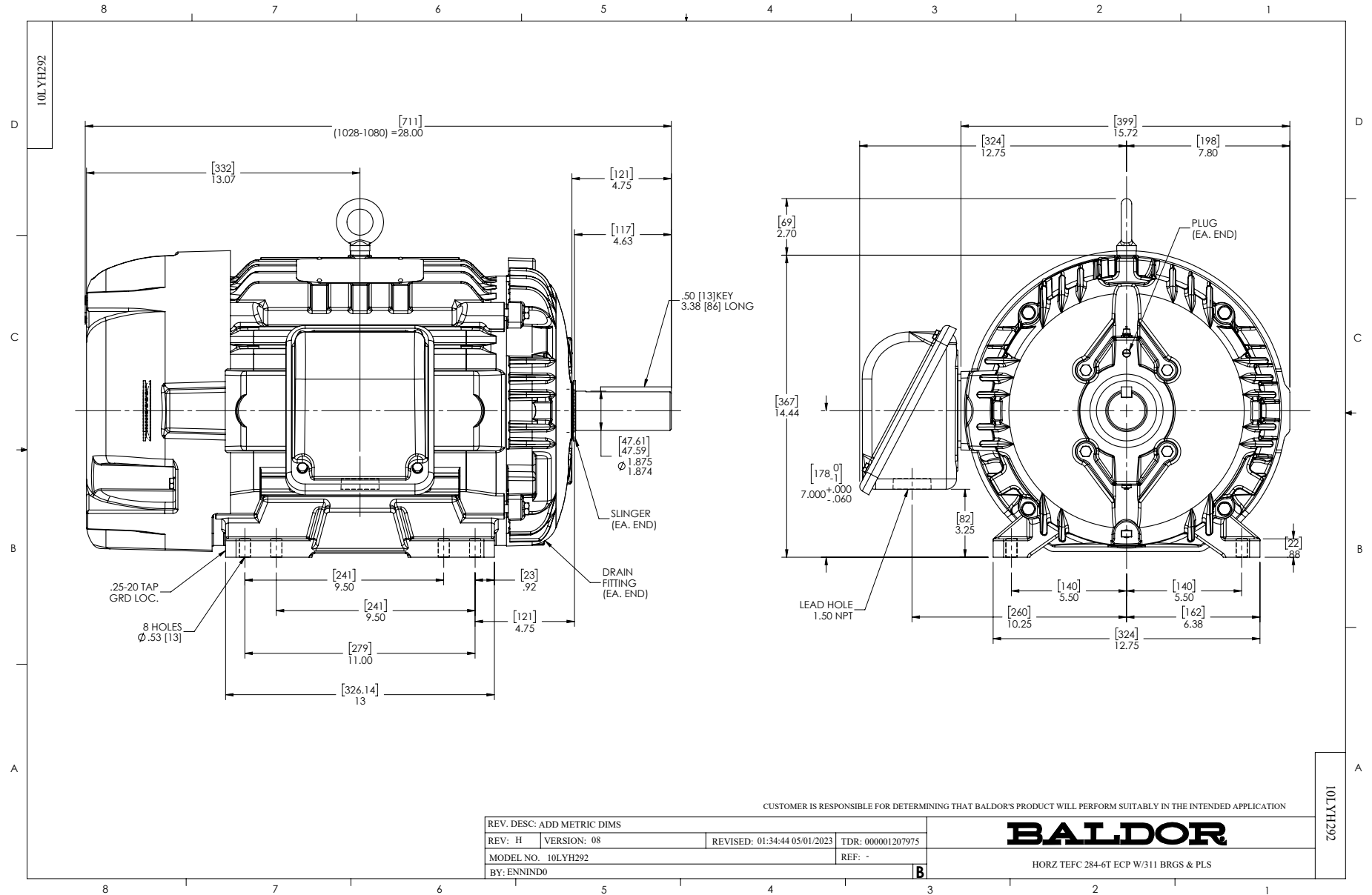
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1180 RPM 460 V 1054M

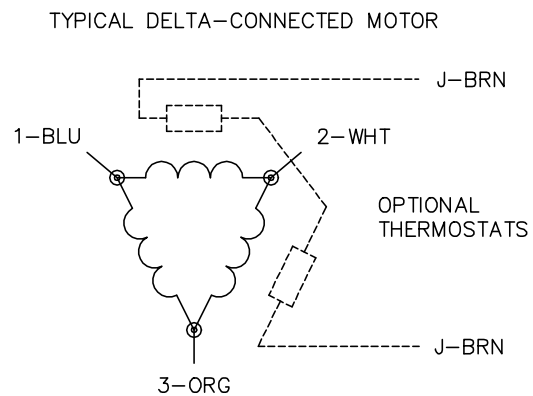
TORQUES (LB-FT): PO=276 PU=115 LR=166 LRA=165



12/2/2024 ACPERF, record # 66237



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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BALDOR - RELIANCE®

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

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