ABB BALDOR RELIANCE

Customer information packet

ECP4102T-4

20HP, 1180RPM, 3PH, 60HZ, 286T, 1054M, TEFC, F1
Class - CLI GP A,B,C,D
Division - Division II

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Specifications

Enclosure	TEFC
Frame	286T
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	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
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	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	L
Type	AC
Mech. spec.	10H292
Base	
Status	PRD/A
Elec. spec.	10WGY837
Layout	10LYH292
Eff. date	09-29-2025
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			**S/N**					
HP	20			**CLASS**	F	**HZ**	60	**DES**	A				
RPM	1180			**RPM MAX**	1800			**PH**	3	**KVA-CODE**	H		
VOLT	460					**MOTOR WEIGHT**	450						
AMP	27			**SER.F.**	1.15	**PF**	77			**ODE BRG**	6311	**DE BRG**	6311
RATING	40C AMB-CONT					**NEMA-NOM-EFF**	91.7			**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**	O
VT HZ TO	60												

Accessories

Part number	Description	Multiplier
10-1305	C FACE KIT	A8

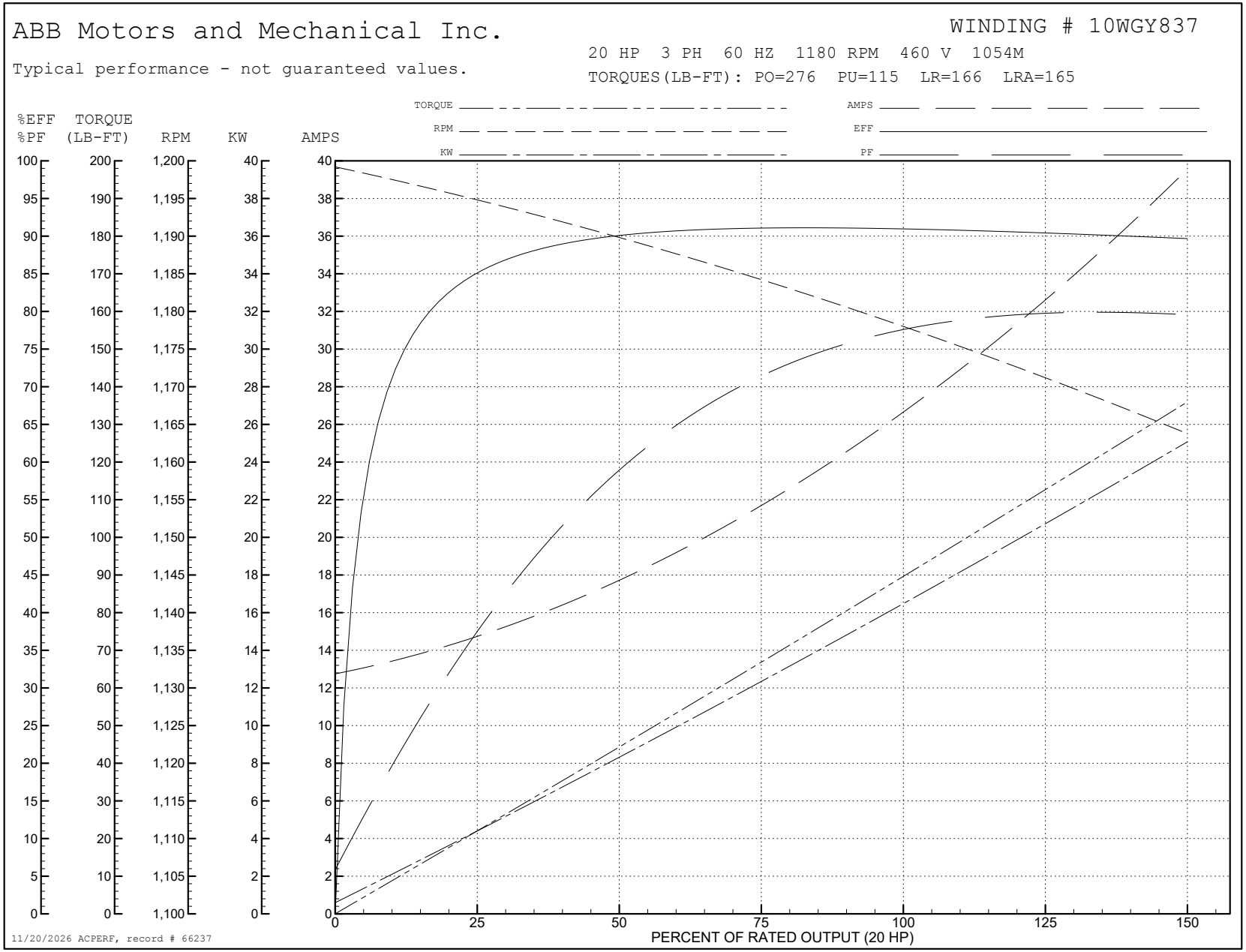
AC Induction Motor Performance Data
Record # 66237
Typical performance - not guaranteed values

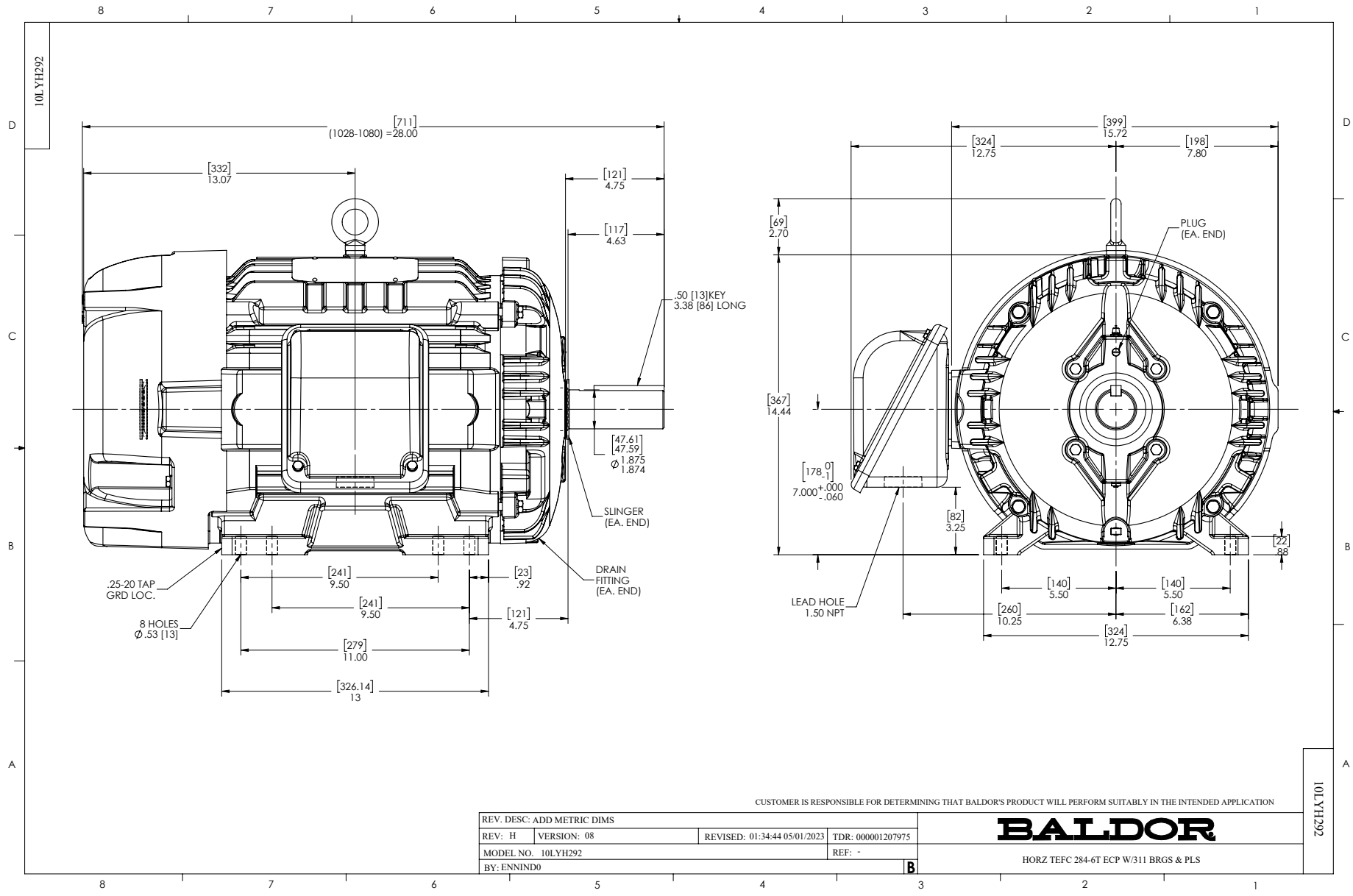
Winding: 10WGY837-R016	**Type:** 1054M	**Enclosure:** TEFC

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. @ 25ºC**	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-FT2

Load Characteristics 460 V, 60 Hz, 20 HP

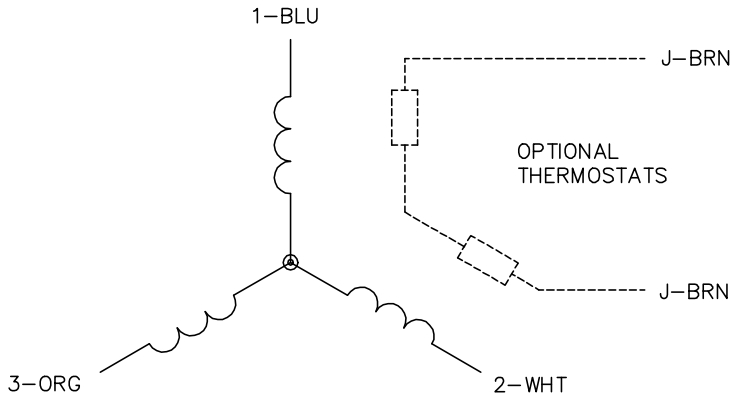
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	39	60	71	77	79	80	78
Efficiency	84.1	89.6	91.1	91.7	90.2	89.7	90.8
Speed	1195	1190	1184	1178	1171	1164	1174
Line amperes	14.3	17.5	21.9	26.9	32.7	39.3	30.4

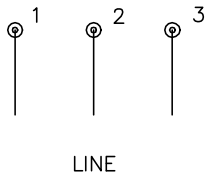

ABB Motors and Mechanical Inc.
WINDING # 10WGY837
20 HP 3 PH 60 HZ 1180 RPM 460 V 1054M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=276 PU=115 LR=166 LRA=165
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (20 HP)
11/20/2026 ACPERF, record # 66237


10LYH292
[711]
(1028-1080) =28.00
[332]
13.07
[121]
4.75
[117]
4.63
.50 [13]KEY
3.38 [86] LONG
[47.61]
[47.59]
Ø 1.875
Ø 1.874
SLINGER
(EA. END)
DRAIN
FITTING
(EA. END)
.25-20 TAP
GRD LOC.
8 HOLES
Ø .53 [13]
[241]
9.50
[23]
.92
[241]
9.50
[121]
4.75
[279]
11.00
[326.14]
13
[399]
15.72
[324]
12.75
[198]
7.80
[69]
2.70
PLUG
(EA. END)
[367]
14.44
[178.0 -1]
7.000 +.000 -.060
[82]
3.25
[22]
.88
LEAD HOLE
1.50 NPT
[140]
5.50
[140]
5.50
[260]
10.25
[162]
6.38
[324]
12.75
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: ADD METRIC DIMS
REV: H
VERSION: 08
REVISED: 01:34:44 05/01/2023
TDR: 000001207975
MODEL NO. 10LYH292
REF: -
BY: ENNIND0
B
BALDOR
HORZ TEFC 284-6T ECP W/311 BRGS & PLS
10LYH292

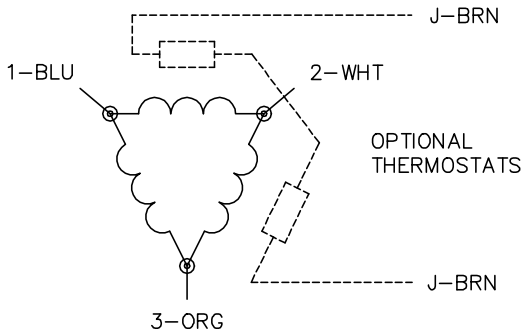
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



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			BALDOR - RELIANCE®
REV. LTR: E	VERSION: 01	TDR: 000001099922	
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0	3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED
MTL: –			SH 1 of 1