

**BALDOR • RELIANCE**

---

# Customer information packet

## ECP4102T-5

20HP, 1180RPM, 3PH, 60HZ, 286T, 1062M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.

12/4/2024 6:37:20 AM

## 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	575.0 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	1.0
Current @ Voltage	20.600 A @ 575.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

## Part detail

Revision	AG
Type	AC
Mech. spec.	10H292
Base	
Status	PRD/A
Elec. spec.	10WGY161
Layout	10LYH292
Eff. date	11-19-2024
CD Diagram	CD0006
Poles	06
Leads	3#10
Proprietary	False
Created date	01-09-2013

Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	20.6 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	1062M
Mounting Arrangement	F1
Number of Poles	6
Overall Length	28.00 IN
Power Factor	78
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
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

<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

**NP3241**

<b>CAT.NO.</b>	ECP4102T-5	<b>P/N</b>		<b>ENCLOSURE</b>	TEFC
<b>SPEC.</b>	10H292Y161G1	<b>CC</b>	010A	<b>FRAME</b>	286T
<b>HP</b>	20	<b>CLASS</b>	F	<b>HZ</b>	60
<b>RPM</b>	1180	<b>RPM MAX</b>	1800	<b>PH</b>	3
<b>VOLT</b>	575	<b>MOTOR WEIGHT</b>	478	<b>KVA-CODE</b>	H
<b>AMP</b>	20.6	<b>SER.F.</b>	1.15	<b>PF</b>	78
<b>RATING</b>	40C AMB-CONT	<b>NEMA-NOM-EFF</b>	93	<b>ODE BRG</b>	6311
				<b>DE BRG</b>	6311
				<b>GREASE</b>	POLYREX EM
				<b>INV.TYPE</b>	PWM
<b>TEMP CODE</b>	T3C	<b>INVERTER-TEMP-CODE</b>	180		
<b>TEMP =</b>	160	<b>C HP FR</b>	60	<b>C HP TO</b>	90
<b>CT HZ FROM</b>	1.0	<b>CT HZ TO</b>	60		
<b>HTR-VOLTS</b>		<b>HTR-AMPS</b>		<b>HTR-WATTS</b>	
				<b>MAX. SPACE HEATER TEMP.</b>	
				<b>VT HZ FROM</b>	0
				<b>VT HZ TO</b>	60

**AC Induction Motor Performance Data**

Record # 47253

Typical performance - not guaranteed values

<b>Winding: 10WGY161-R004</b>		<b>Type: 1062M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>575 V, 60 Hz: Single Voltage Motor</b>		
<b>Rated Output (HP)</b>	20	<b>Full Load Torque</b>	89 LB-FT		
<b>Volts</b>	575	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	20.6	<b>Breakdown Torque</b>	281 LB-FT		
<b>R.P.M.</b>	1180	<b>Pull-up Torque</b>	110 LB-FT		
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	156 LB-FT
<b>NEMA Design Code</b>	A	<b>KVA Code</b>	H	<b>Starting Current</b>	135 A
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	9.64 A		
<b>NEMA Nom. Eff.</b>	93	<b>Power Factor</b>	78	<b>Line-line Res. @ 25°C</b>	0.593 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	48°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	58°C	
			<b>Rotor inertia</b>	7.59 LB-FT <sup>2</sup>	

**Load Characteristics 575 V, 60 Hz, 20 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	40	62	73	78	80	81	79
<b>Efficiency</b>	87.4	92.1	93.2	93.2	92.4	92	92.7
<b>Speed</b>	1195	1191	1187	1183	1178	1173	1180
<b>Line amperes</b>	10.7	13.4	16.7	20.6	25.1	30.2	23.3

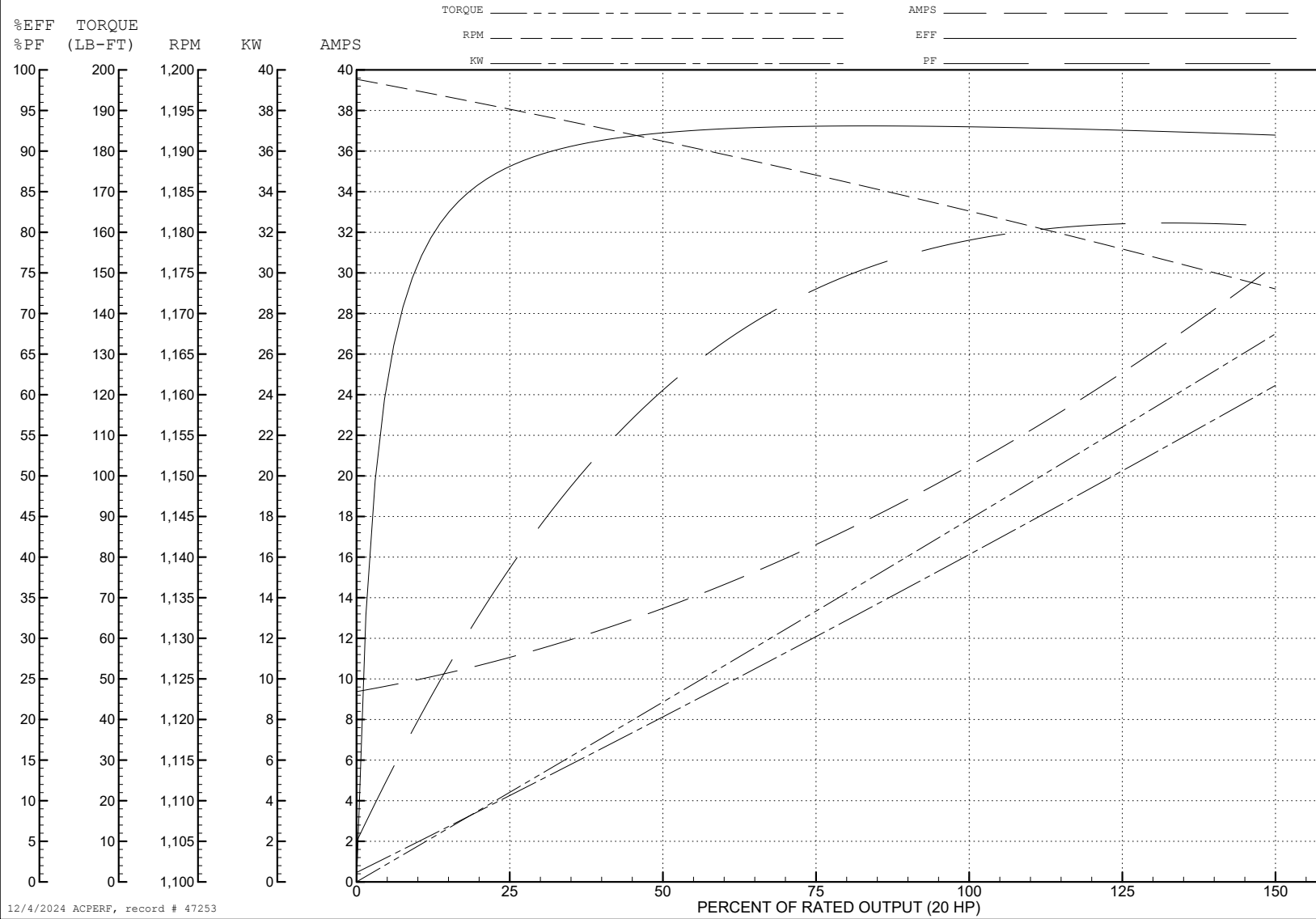
ABB Motors and Mechanical Inc.

WINDING # 10WGY161

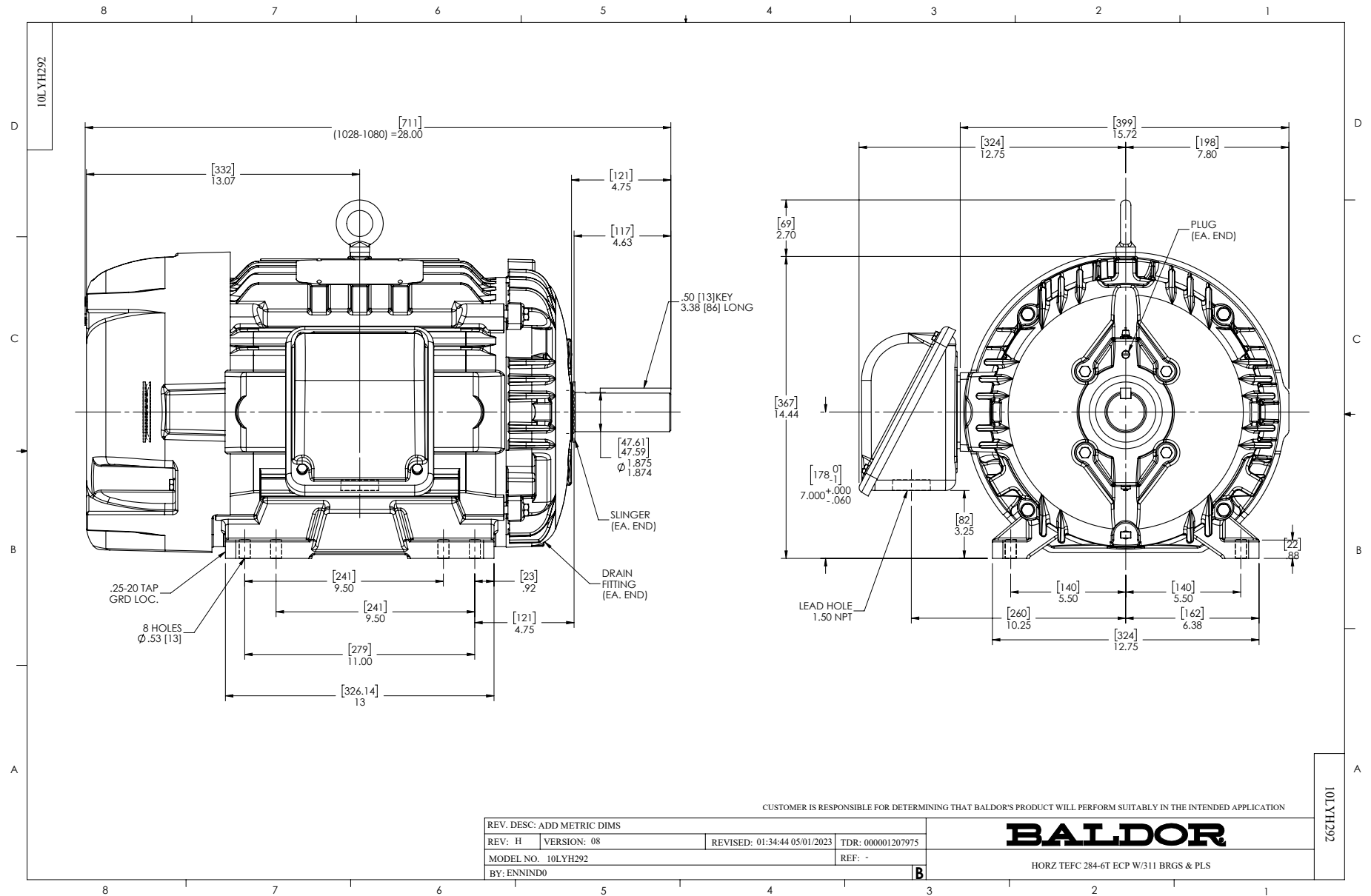
20 HP 3 PH 60 HZ 1180 RPM 575 V 1062M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=281 PU=110 LR=156 LRA=135



12/4/2024 ACPERF, record # 47253





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

SH 1 of 1