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# Customer information packet

## ECP4112T-4

20HP, 880RPM, 3PH, 60HZ, 324T, 1256M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

## Specifications

Enclosure	TEFC
Frame	324T
Frame Material	Iron
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	900 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
XP Class and Group	CLI GP A,B,C,D
XP Division	Division II
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	6
Current @ Voltage	30.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	90.2 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

## Part detail

Revision	B
Type	AC
Mech. spec.	12F904
Base	
Status	PRD/A
Elec. spec.	12WGZ305
Layout	12LYF904
Eff. date	08-01-2023
CD Diagram	CD0006
Poles	08
Leads	3#10 Y
Proprietary	False
Created date	04-18-2023

High Voltage Full Load Amps	30.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	1350 rpm
Motor Lead Quantity/Wire Size	3 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1256M
Mounting Arrangement	F1
Number of Poles	8
Overall Length	30.66 IN
Power Factor	68
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	2.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	880 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
XP Temp Code	T3

**Nameplate**

**NP3241**

<b>CAT.NO.</b>	ECP4112T-4	<b>P/N</b>		<b>ENCLOSURE</b>	TEFC
<b>SPEC.</b>	12F904Z305	<b>CC</b>	010A	<b>FRAME</b>	324T
<b>HP</b>	20	<b>CLASS</b>	F	<b>HZ</b>	60
<b>RPM</b>	880	<b>RPM MAX</b>	1350	<b>PH</b>	3
<b>VOLT</b>	460	<b>MOTOR WEIGHT</b>		<b>KVA-CODE</b>	G
<b>AMP</b>	30	<b>SER.F.</b>	1.15	<b>PF</b>	68
<b>RATING</b>	40C AMB-CONT	<b>NEMA-NOM-EFF</b>	90.2	<b>ODE BRG</b>	6312
				<b>DE BRG</b>	6312
				<b>GREASE</b>	POLYREX EM
				<b>INV.TYPE</b>	PWM
<b>TEMP CODE</b>	T3	<b>INVERTER-TEMP-CODE</b>	200		
<b>TEMP =</b>	200	<b>C HP FR</b>	60	<b>C HP TO</b>	90
<b>CT HZ FROM</b>	6	<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>	3
				<b>VT HZ TO</b>	60

**AC Induction Motor Performance Data**

Record # 93210

Typical performance - not guaranteed values

<b>Winding: 12WGZ305-R001</b>		<b>Type: 1256M</b>		<b>Enclosure: TEFC</b>	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: Single Voltage Motor</b>		
<b>Rated Output (HP)</b>	20	<b>Full Load Torque</b>	118 LB-FT		
<b>Volts</b>	460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	30	<b>Breakdown Torque</b>	280 LB-FT		
<b>R.P.M.</b>	880	<b>Pull-up Torque</b>	156 LB-FT		
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	165 LB-FT
<b>NEMA Design Code</b>	B	<b>KVA Code</b>	G	<b>Starting Current</b>	141 A
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	17.47 A		
<b>NEMA Nom. Eff.</b>	90.2	<b>Power Factor</b>	68	<b>Line-line Res. @ 25°C</b>	0.372 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	56°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	68°C	
			<b>Locked-rotor Power Factor</b>	34.1	
			<b>Rotor inertia</b>	7.46 lb-ft <sup>2</sup>	

**Load Characteristics 460 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>	30	49	61	68	71	73	68
<b>Efficiency</b>	85.2	90.3	91.2	90.8	90.1	88.7	90.4
<b>Speed</b>	894	890	885	881	875	868	878
<b>Line amperes</b>	18.33	20.95	25.08	30.16	36.37	43.44	34.9

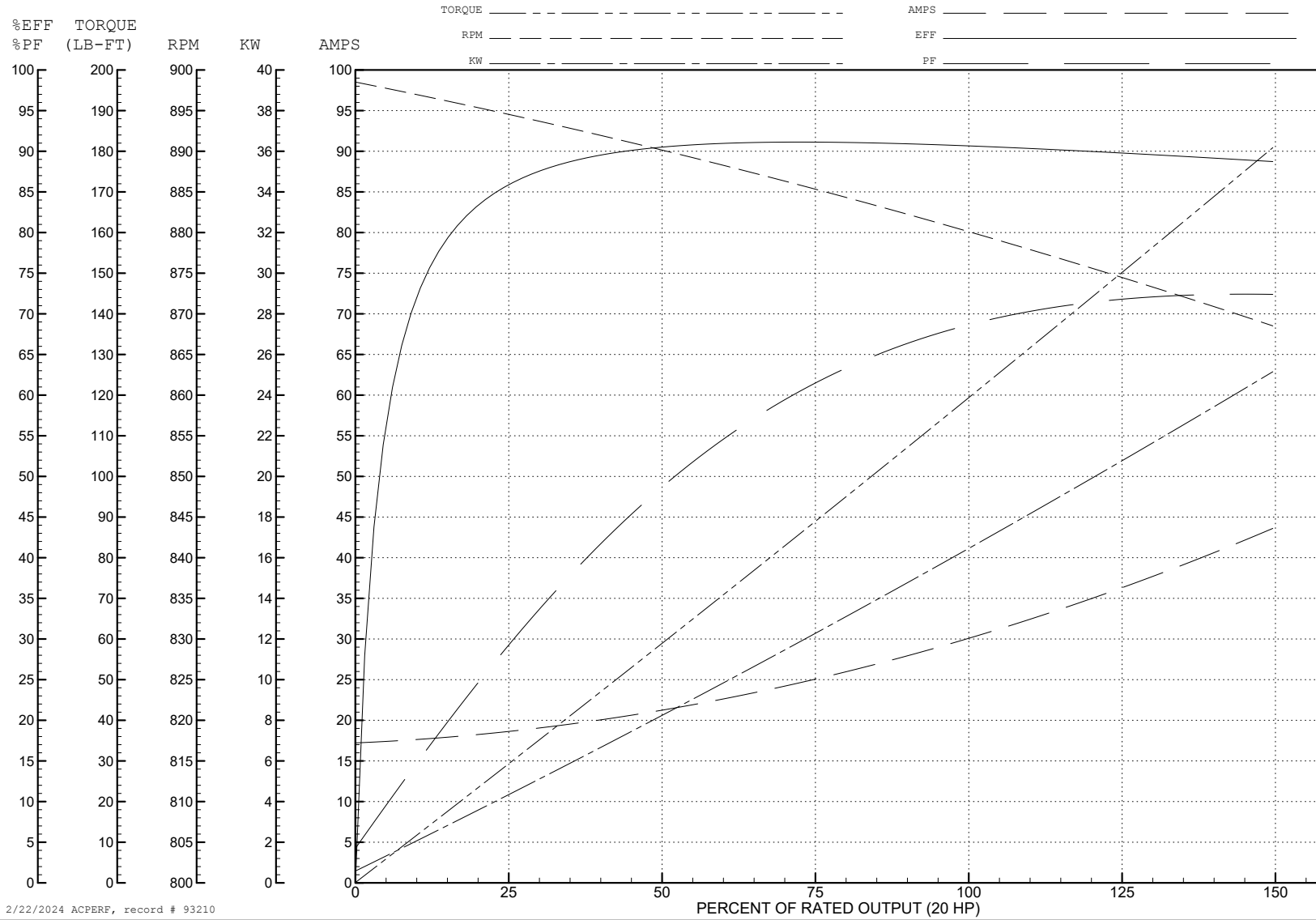
ABB Motors and Mechanical Inc.

WINDING # 12WGZ305

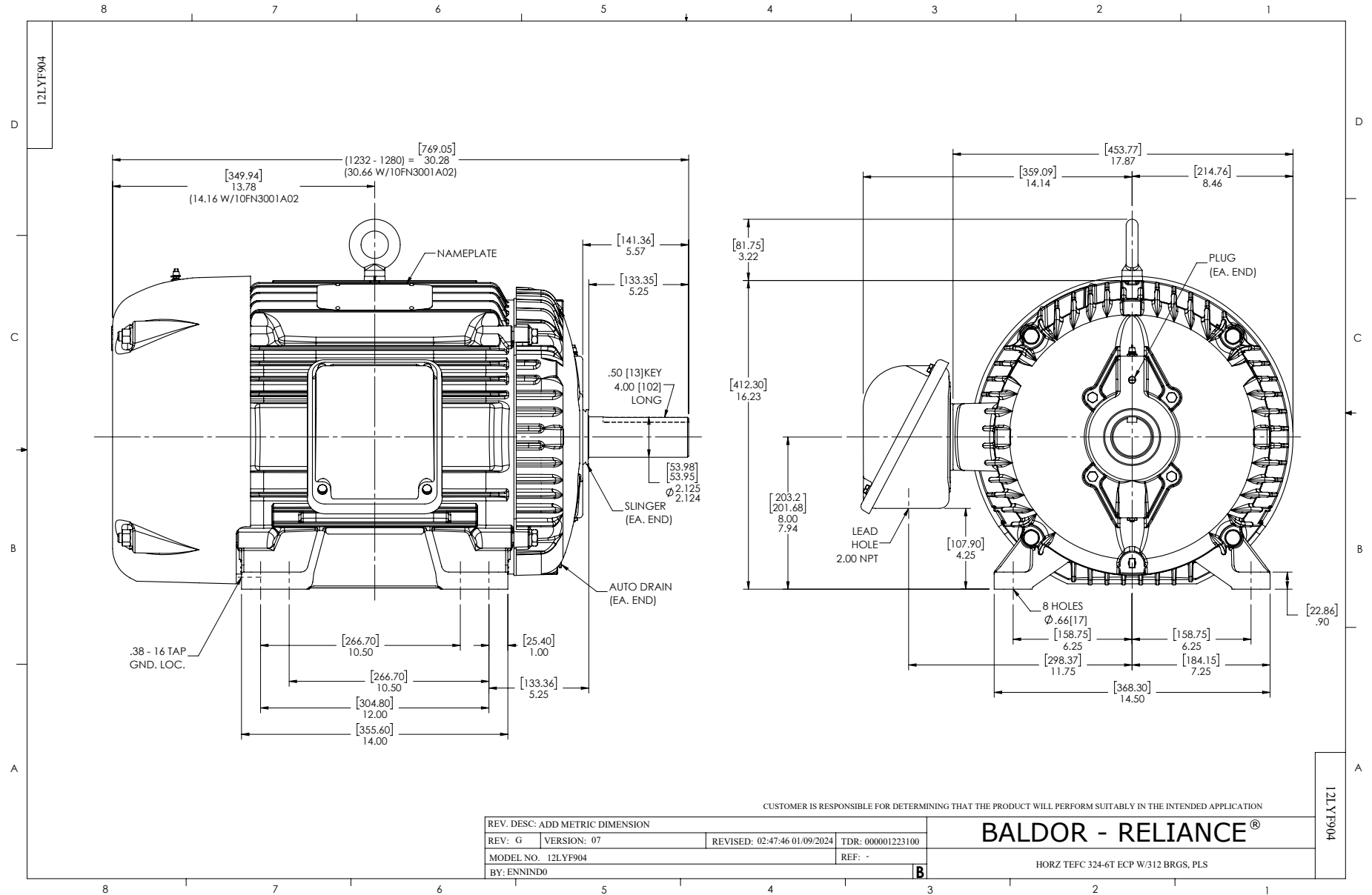
20 HP 3 PH 60 HZ 880 RPM 460 V 1256M

Typical performance - not guaranteed values.

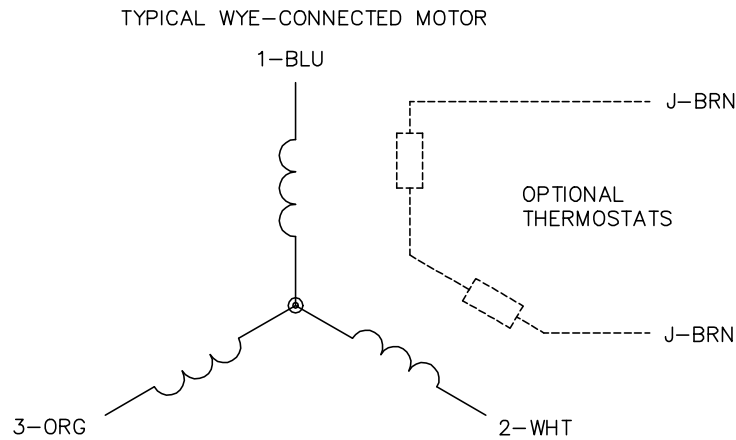
TORQUES (LB-FT): PO=280 PU=156 LR=165 LRA=141



2/22/2024 ACPERF, record # 93210



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

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