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# Customer information packet

## ECP84106T-5

20HP, 3510RPM, 3PH, 60HZ, 256T, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

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## 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	575.0 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	6
Current @ Voltage	17.900 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	841
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3

## Part detail

Revision	N
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	09WGT123
Layout	09LYJ286
Eff. date	11-14-2023
CD Diagram	CD0006
Poles	02
Leads	3#12
Proprietary	False
Created date	11-27-2018

Heater Indicator	No Heater
High Voltage Full Load Amps	17.9 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	IP56
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	0954M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	24.78 IN
Power Factor	91
Product Family	Chem Process S/P 32-8 IEEE 841
Pulley Face Code	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	3510 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**

**NP4332**

<b>STK.NO.</b>	ECP84106T-5	<b>P/N</b>		<b>ENCLOSURE</b>	TEFC
<b>SPEC.</b>	09-0000-0867	<b>CC</b>	010A	<b>FRAME</b>	256T
<b>HP</b>	20	<b>CLASS</b>	F	<b>HZ</b>	60
<b>RPM</b>	3510	<b>RPM MAX</b>	5400	<b>ODE BRG</b>	6309
<b>VOLT</b>	575	<b>PH</b>	3	<b>DE BRG</b>	6309
<b>AMP</b>	17.9	<b>DES</b>	B	<b>D.E. BRG.</b>	45BC03X30X
<b>RATING</b>	40C AMB-CONT	<b>PH</b>	3	<b>D.E. BRG.</b>	45BC03X30X
<b>NEMA-NOM-EFF</b>	91	<b>KVA-CODE</b>	G	<b>O.D.E. BRG.</b>	45BC03X30X
<b>G.MIN.EFF</b>	90.2	<b>MOTOR WEIGHT</b>	324	<b>GREASE</b>	POLYREX EM
<b>TEMP CODE</b>	T3	<b>MAX. KVAR</b>	2.1	<b>BLANK</b>	
<b>TEMP =</b>	200	<b># OF ROTOR BARS</b>	28	<b>SER.F.</b>	1.15
<b>CT HZ FROM</b>	6	<b># OF STATOR SLOTS</b>	36	<b>IP</b>	56
<b>HTR-VOLTS</b>		<b>PF</b>	91	<b>INV.TYPE</b>	PWM
<b>HTR-AMPS</b>		<b>INVERTER-TEMP-CODE</b>	200		
<b>HTR-WATTS</b>		<b>C HP FR</b>	60	<b>C HP TO</b>	90
<b>MAX. SPACE HEATER TEMP.</b>		<b>CT HZ TO</b>	60		
<b>VT HZ FROM</b>	0-			<b>VT HZ TO</b>	60

**AC Induction Motor Performance Data**

Record # 47326

Typical performance - not guaranteed values

Winding: 09WGT123-R001		Type: 0954M		Enclosure: TEFC	
<b>Nameplate Data</b>			<b>575 V, 60 Hz: Single Voltage Motor</b>		
Rated Output (HP)	20	Full Load Torque	30.1 LB-FT		
Volts	575	Start Configuration	direct on line		
Full Load Amps	17.9	Breakdown Torque	99 LB-FT		
R.P.M.	3510	Pull-up Torque	33 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque	43 LB-FT
NEMA Design Code	B	KVA Code	G	Starting Current	113 A
Service Factor (S.F.)	1.15	No-load Current	3.75 A		
NEMA Nom. Eff.	91	Power Factor	91	Line-line Res. @ 25°C	0.683 Ω
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	68°C	
S.F. Amps			Temp. Rise @ S.F. Load	86°C	
			Locked-rotor Power Factor	26.7	
			Rotor inertia	1.38 lb-ft <sup>2</sup>	

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

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	73	87	91	91	92	91	93
Efficiency	91.4	93.4	93	92.1	90.6	88.8	91.6
Speed	3579	3559	3537	3513	3484	3451	3520
Line amperes	5.87	9.39	13.3	17.9	22.7	27.8	20.3

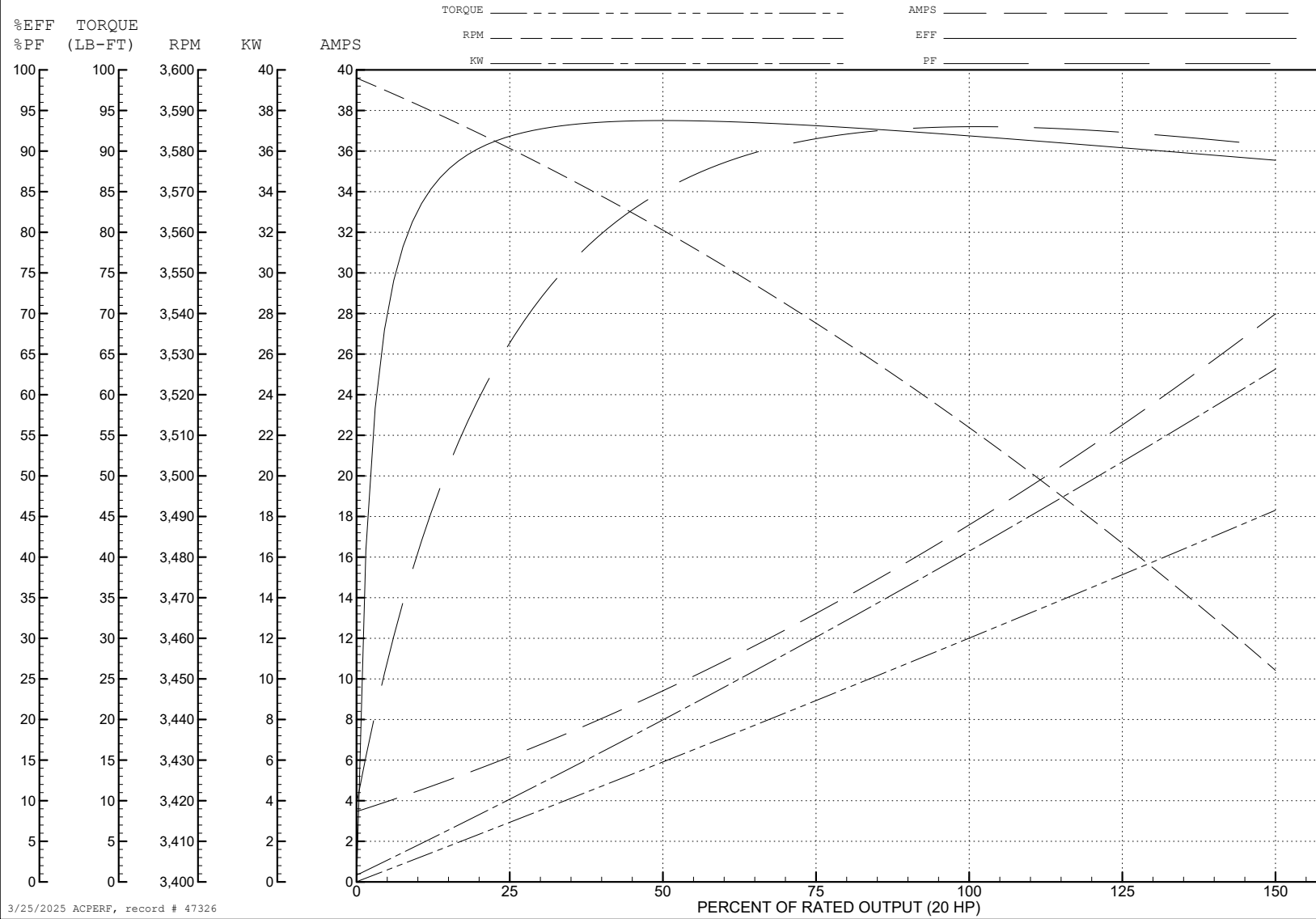
ABB Motors and Mechanical Inc.

WINDING # 09WGT123

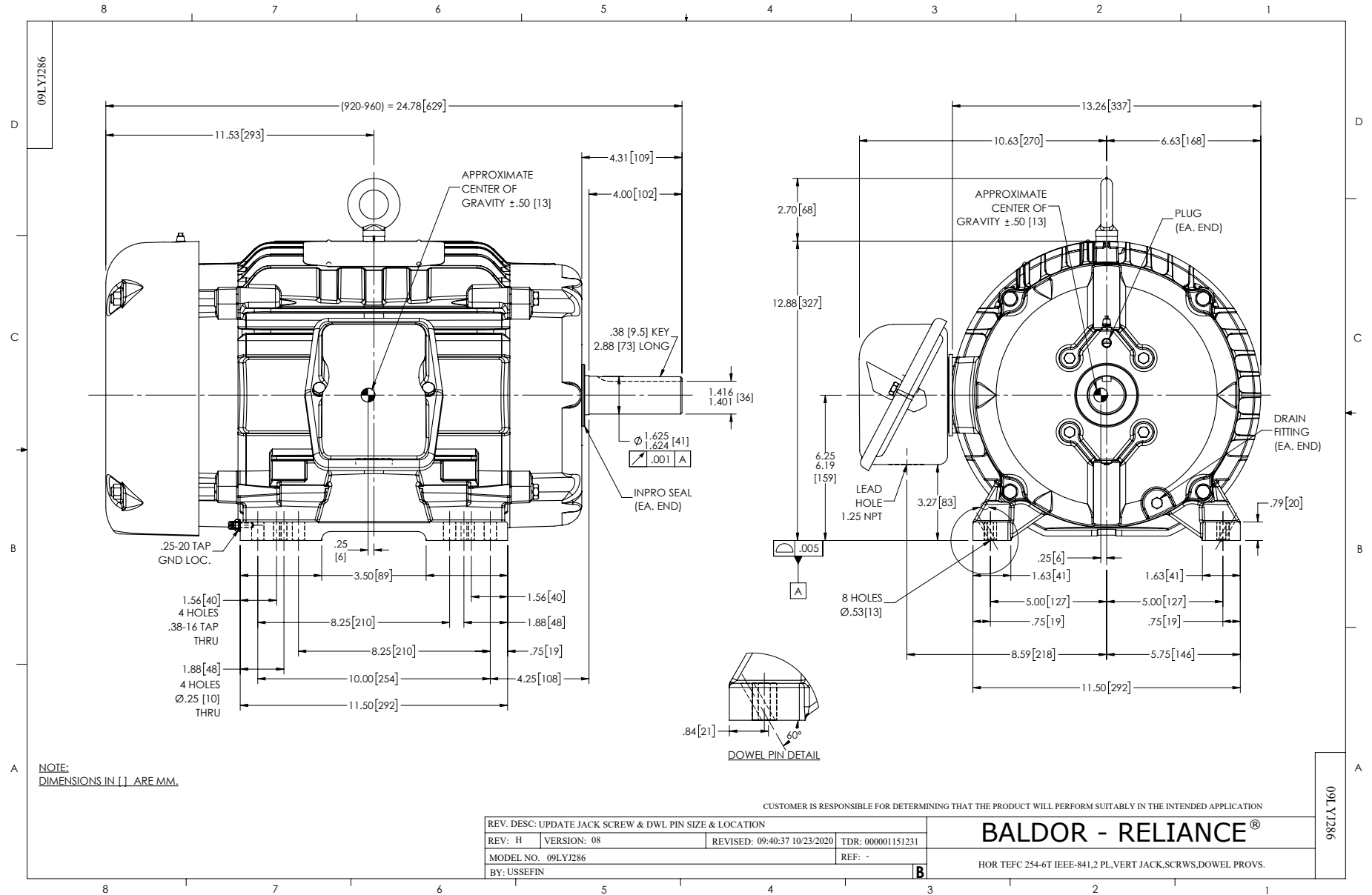
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 3510 RPM 575 V 0954M

TORQUES (LB-FT): PO=99 PU=33 LR=43 LRA=113



3/25/2025 ACPERF, record # 47326



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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