ABB BALDOR RELIANCE

Customer information packet

ECP84106T-5

20HP, 3510RPM, 3PH, 60HZ, 256T, 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.
11/18/2026 12:46:32 PM

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
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	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

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

AC Induction Motor Performance Data
Record # 47326
Typical performance - not guaranteed values

Winding: 09WGT123-R001	**Type:** 0954M	**Enclosure:** TEFC

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
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. @ 25ºC**	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-ft²

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

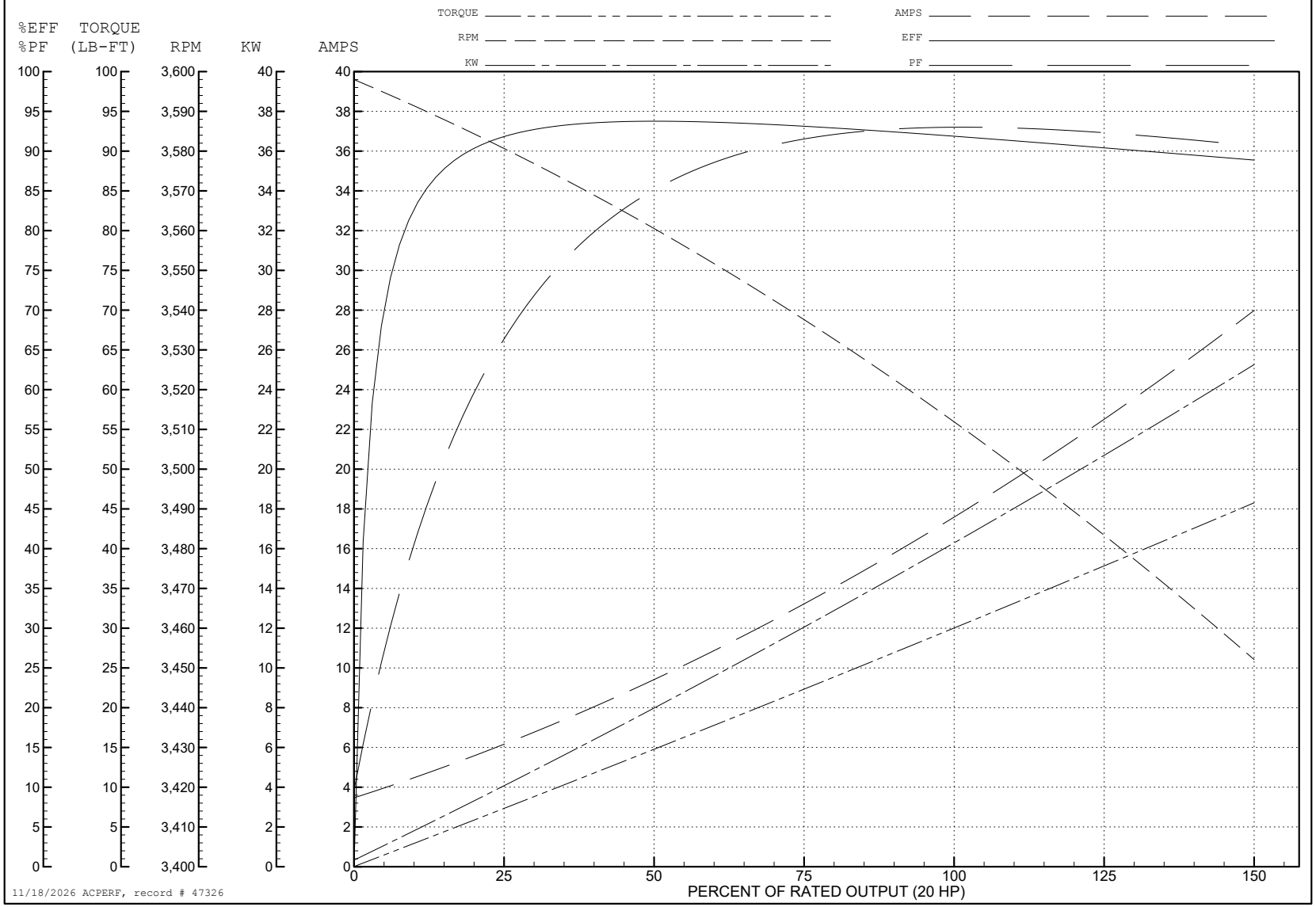
ABB Motors and Mechanical Inc.

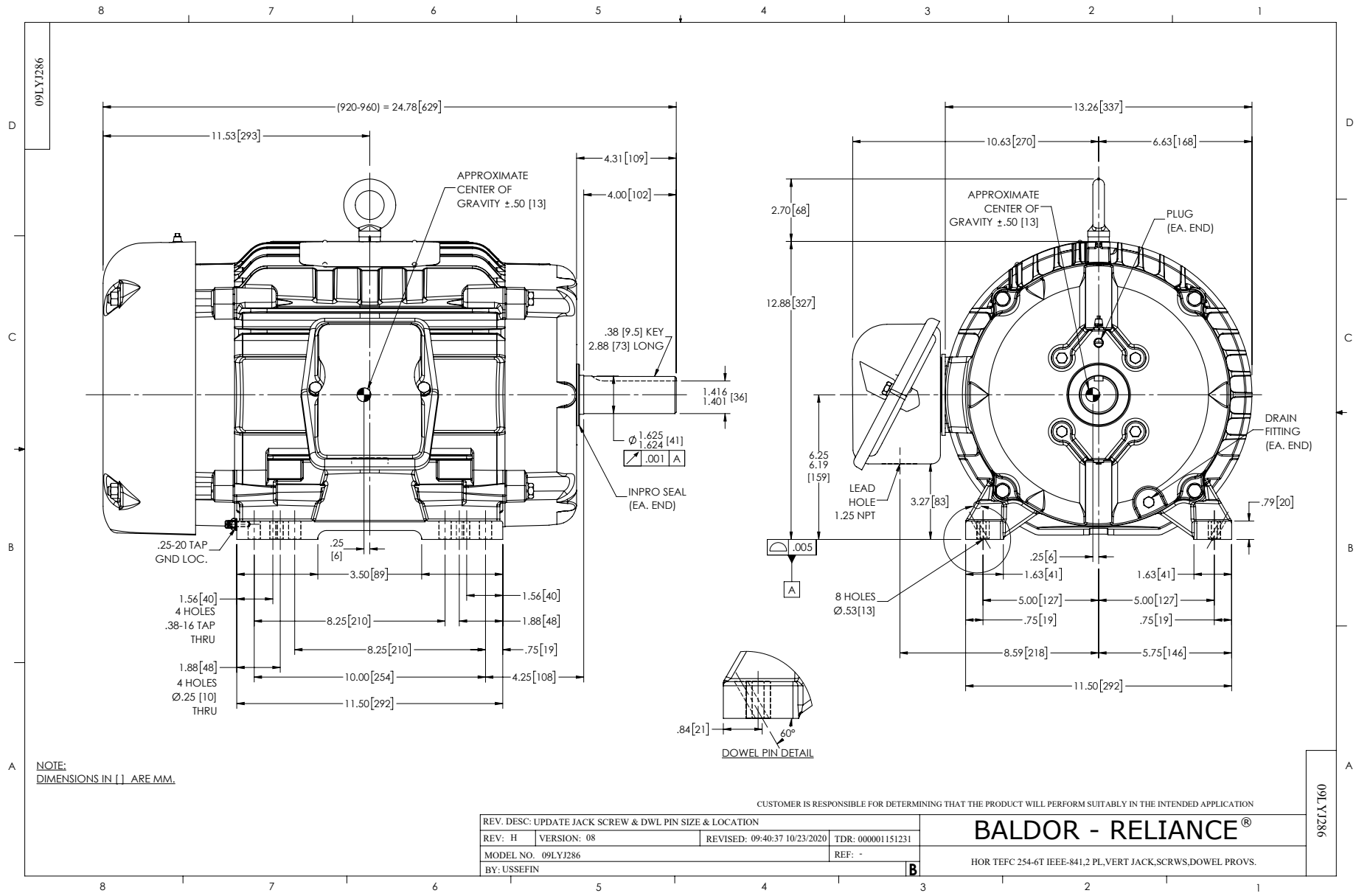
WINDING # 09WGT123

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

Typical performance - not guaranteed values.

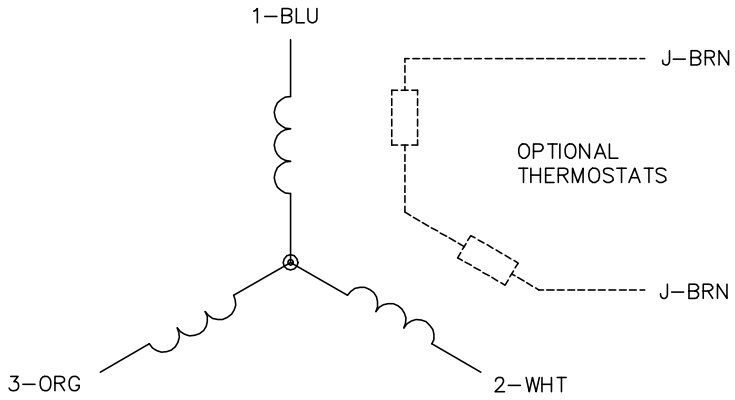
TORQUES(LB-FT): PO=99 PU=33 LR=43 LRA=113

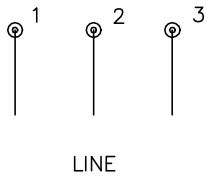



09LYJ286
(920-960) = 24.78[629]
11.53[293]
4.31[109]
4.00[102]
APPROXIMATE CENTER OF GRAVITY ±.50 [13]
.38 [9.5] KEY 2.88 [73] LONG
1.416 1.401 [36]
Ø 1.625 1.624 [41]
.001 A
INPRO SEAL (EA. END)
.25-20 TAP GND LOC.
.25 [6]
3.50[89]
1.56[40]
4 HOLES .38-16 TAP THRU
8.25[210]
1.88[48]
.75[19]
1.88[48] 4 HOLES Ø.25 [10] THRU
10.00[254]
4.25[108]
11.50[292]
13.26[337]
10.63[270]
6.63[168]
2.70[68]
12.88[327]
APPROXIMATE CENTER OF GRAVITY ±.50 [13]
PLUG (EA. END)
DRAIN FITTING (EA. END)
6.25 6.19 [159]
LEAD HOLE 1.25 NPT
3.27[83]
.79[20]
.005
A
8 HOLES Ø.53[13]
.25[6]
1.63[41]
5.00[127]
.75[19]
8.59[218]
5.75[146]
.84[21]
60°
DOWEL PIN DETAIL
NOTE:
DIMENSIONS IN [ ] ARE MM.
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE JACK SCREW & DWL PIN SIZE & LOCATION
REV: H
VERSION: 08
REVISED: 09:40:37 10/23/2020
TDR: 000001151231
MODEL NO. 09LYJ286
REF: -
BY: USSEFIN
B
BALDOR - RELIANCE®
HOR TEFC 254-6T IEEE-841,2 PL,VERT JACK,SCRWS,DOWEL PROVS.
09LYJ286

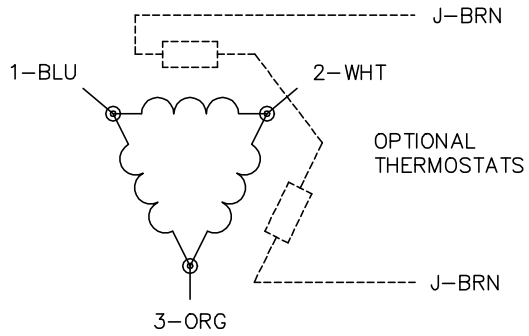
CD0006

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		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

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

SH 1 of 1