ABB BALDOR RELIANCE

Customer information packet

ECP84106T-4

20HP, 3510RPM, 3PH, 60HZ, 256T, 0954M, 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	460.0 V @ 60 HZ
Agency Approvals	CSA EEV
	NEMA PREMIUM
	NEMA_PREMIUM
	UR
	CCSA US
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	22.000 A @ 460.0 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
Front Face Code	Standard

Part Detail

Revision	AK
Type	AC
Mech. spec.	09G557
Base	
Status	PRD/A
Elec. spec.	09WGT034
Layout	09LYG557
Eff. date	09-29-2025
CD Diagram	CD0006
Poles	02
Leads	3#12
Proprietary	False
Created date	01-07-2014

Front Shaft Indicator	None
Haz Area Temp Code	T3
Heater Indicator	No Heater
High Voltage Full Load Amps	22.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 12 AWG
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 End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
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-4			**P/N**				**ENCLOSURE**	TEFC			
SPEC.	09G557T034		**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	460			**KVA-CODE**	G			**O.D.E. BRG.**	45BC03X30X			
AMP	22			**MOTOR WEIGHT**	305	**GREASE**	POLYREX EM					
RATING	40C AMB-CONT			**MAX. KVAR**	2	**BLANK**						
NEMA-NOM-EFF	91	**# OF ROTOR BARS**	28	**SER.F.**	1.15	**IP**	56					
G.MIN.EFF	89.5	**# 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 # 46537
Typical performance - not guaranteed values

Winding: 09WGT034-R003	**Type:** 0954M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			20	**Full Load Torque**	30.1 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			22	**Breakdown Torque**	101 LB-FT
R.P.M.			3510	**Pull-up Torque**	33.7 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	43.9 LB-FT
NEMA Design Code	B	**KVA Code**	G	**Starting Current**	145 A
Service Factor (S.F.)			1.15	**No-load Current**	4.81 A
NEMA Nom. Eff.	91	**Power Factor**	91	**Line-line Res. @ 25ºC**	0.45009 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	68°C
S.F. Amps				**Temp. Rise @ S.F. Load**	87°C
				Locked-rotor Power Factor	27
				Rotor inertia	1.38 LB-FT2

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	72	87	91	91	92	92	92
Efficiency	91.4	93.3	93	92	90.6	88.9	91.2
Speed	3579.7	3560.2	3538.1	3514.3	3486.6	3454.4	3498
Line amperes	7.42	11.8	16.7	22.4	28.4	34.7	26

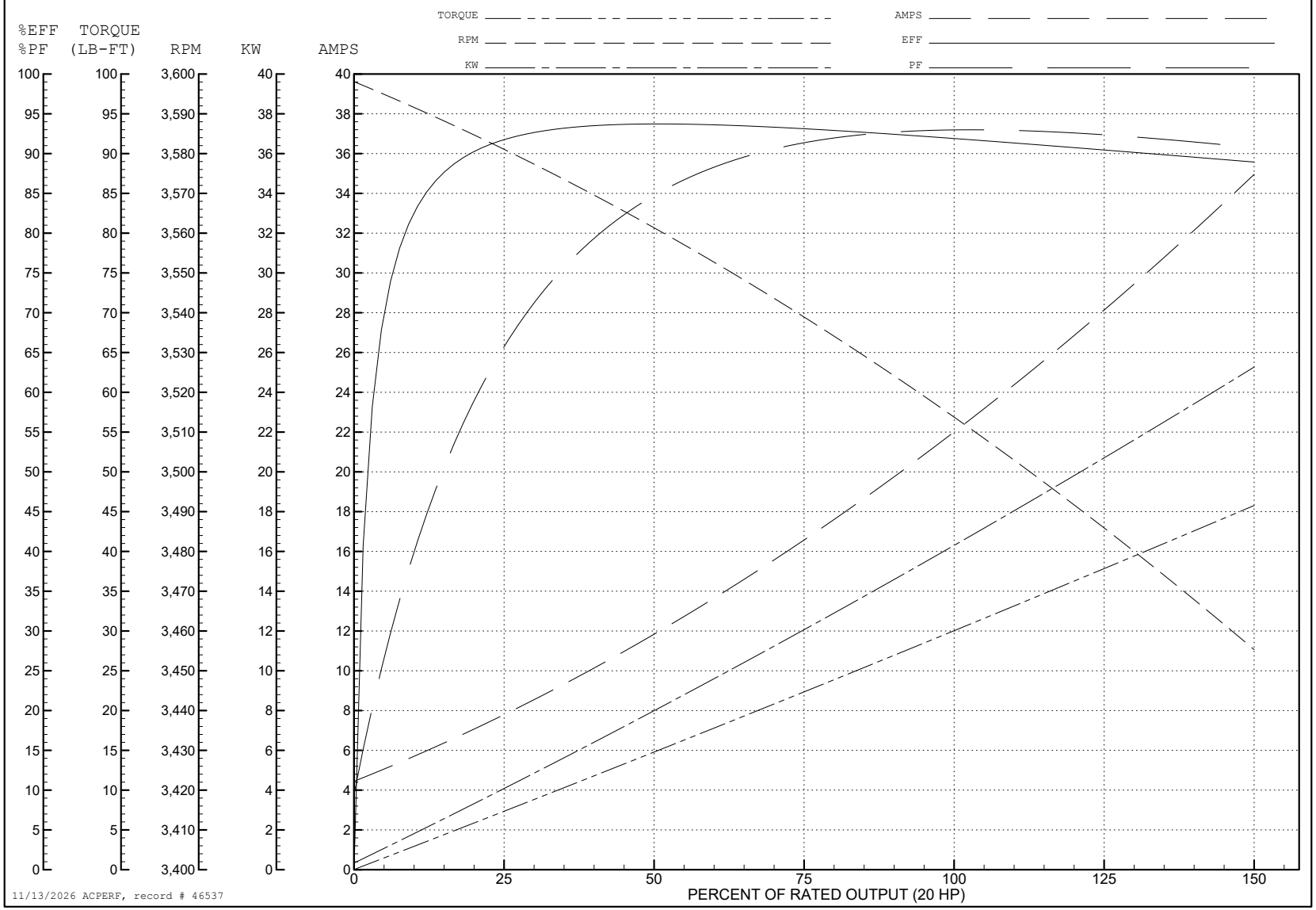
ABB Motors and Mechanical Inc.

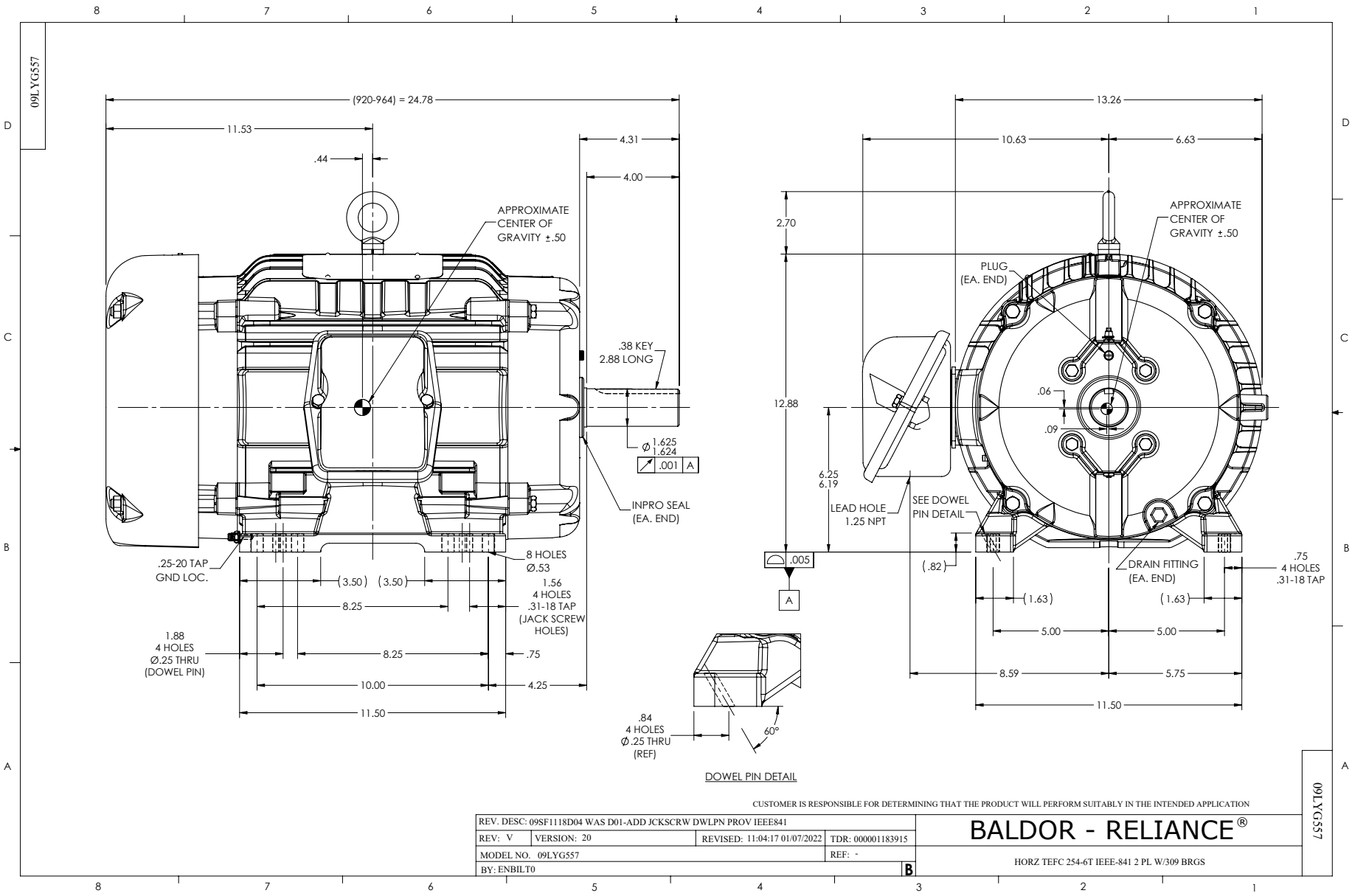
WINDING # 09WGT034

20 HP 3 PH 60 HZ 3510 RPM 460 V 0954M

Typical performance - not guaranteed values.

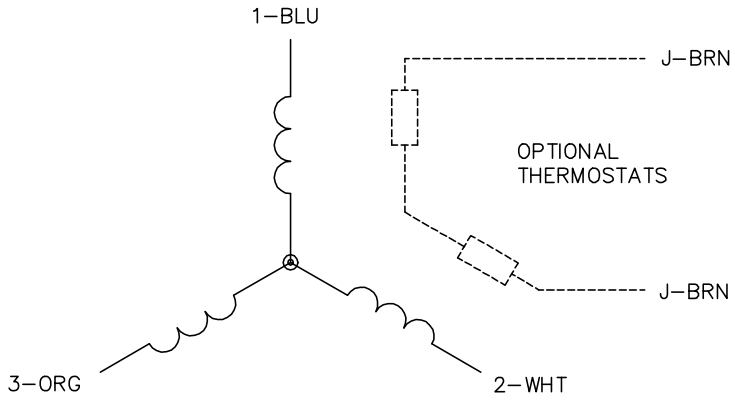
TORQUES(LB-FT): PO=101 PU=33.7 LR=43.9 LRA=145

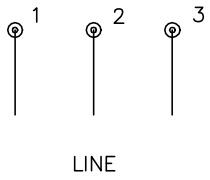



09LYG557
(920-964) = 24.78
11.53
.44
4.31
4.00
APPROXIMATE CENTER OF GRAVITY ±.50
.38 KEY 2.88 LONG
Ø 1.625 1.624
.001 A
INPRO SEAL (EA. END)
.25-20 TAP GND LOC.
8 HOLES Ø.53
(3.50) (3.50)
8.25
1.56
4 HOLES .31-18 TAP (JACK SCREW HOLES)
1.88
4 HOLES Ø.25 THRU (DOWEL PIN)
8.25
.75
10.00
4.25
11.50
.84
4 HOLES Ø .25 THRU (REF)
60°
DOWEL PIN DETAIL
13.26
10.63
6.63
2.70
12.88
6.25
6.19
PLUG (EA. END)
APPROXIMATE CENTER OF GRAVITY ±.50
.06
.09
LEAD HOLE 1.25 NPT
SEE DOWEL PIN DETAIL
.005
A
(.82)
DRAIN FITTING (EA. END)
.75
4 HOLES .31-18 TAP
(1.63)
(1.63)
5.00
5.00
8.59
5.75
11.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: 09SF1118D04 WAS D01-ADD JCKSCRW DWLPN PROV IEEE841
REV: V
VERSION: 20
REVISED: 11:04:17 01/07/2022
TDR: 000001183915
MODEL NO. 09LYG557
REF: -
BY: ENBILT0
B
BALDOR - RELIANCE®
HORZ TEFC 254-6T IEEE-841 2 PL W/309 BRGS
09LYG557

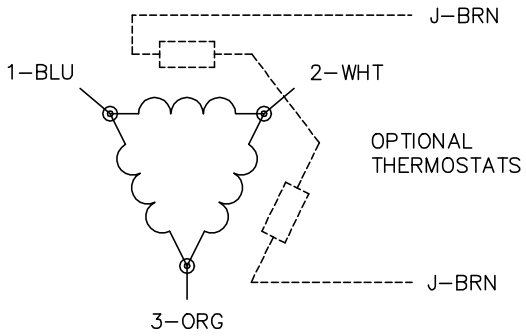
CD0006

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

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