

ABB BALDOR RELIANCE III

Customer information packet

ECP84106T-4

20HP, 3510RPM, 3PH, 60HZ, 256T, 0954M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

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. @ 25°C		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

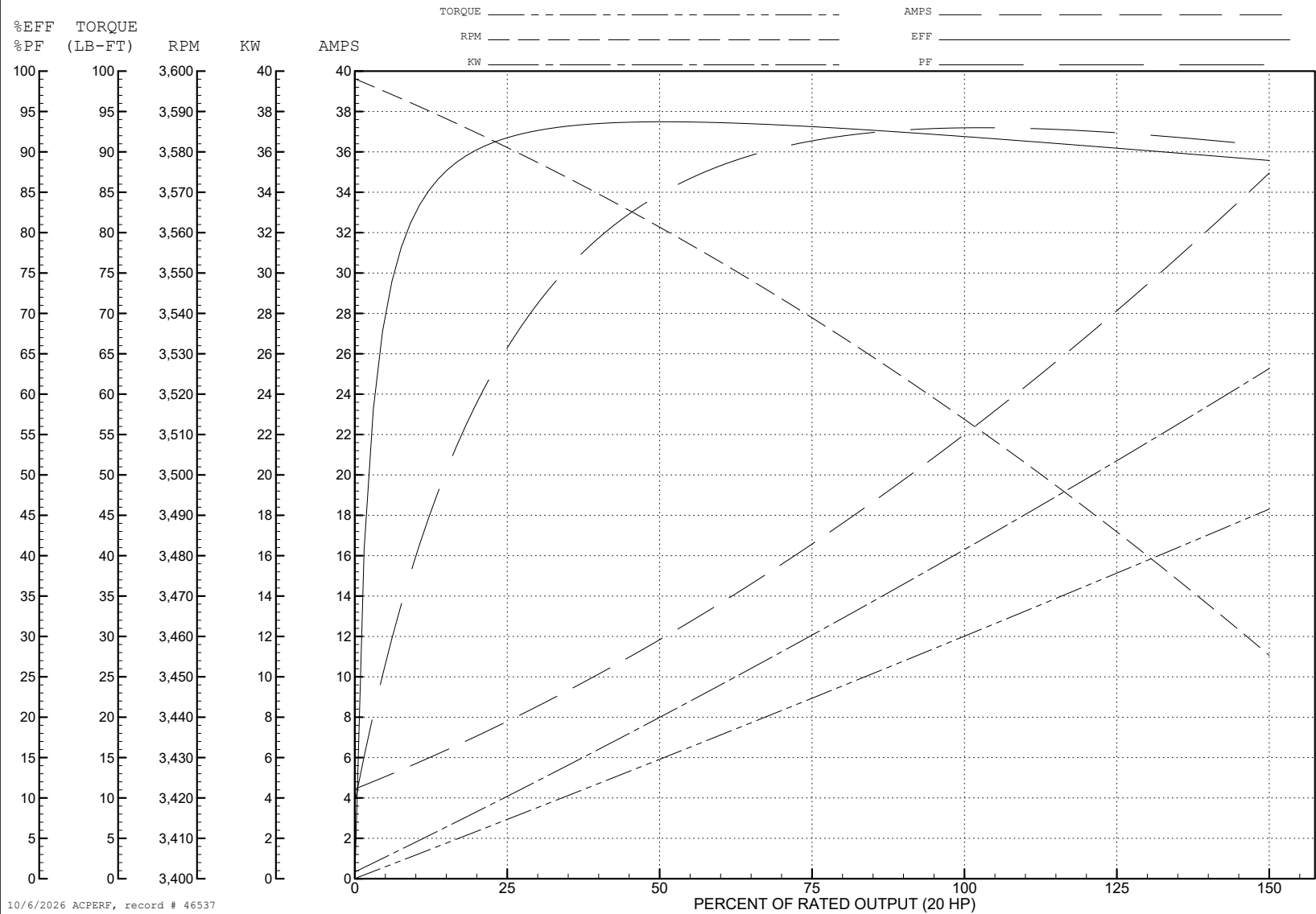
ABB Motors and Mechanical Inc.

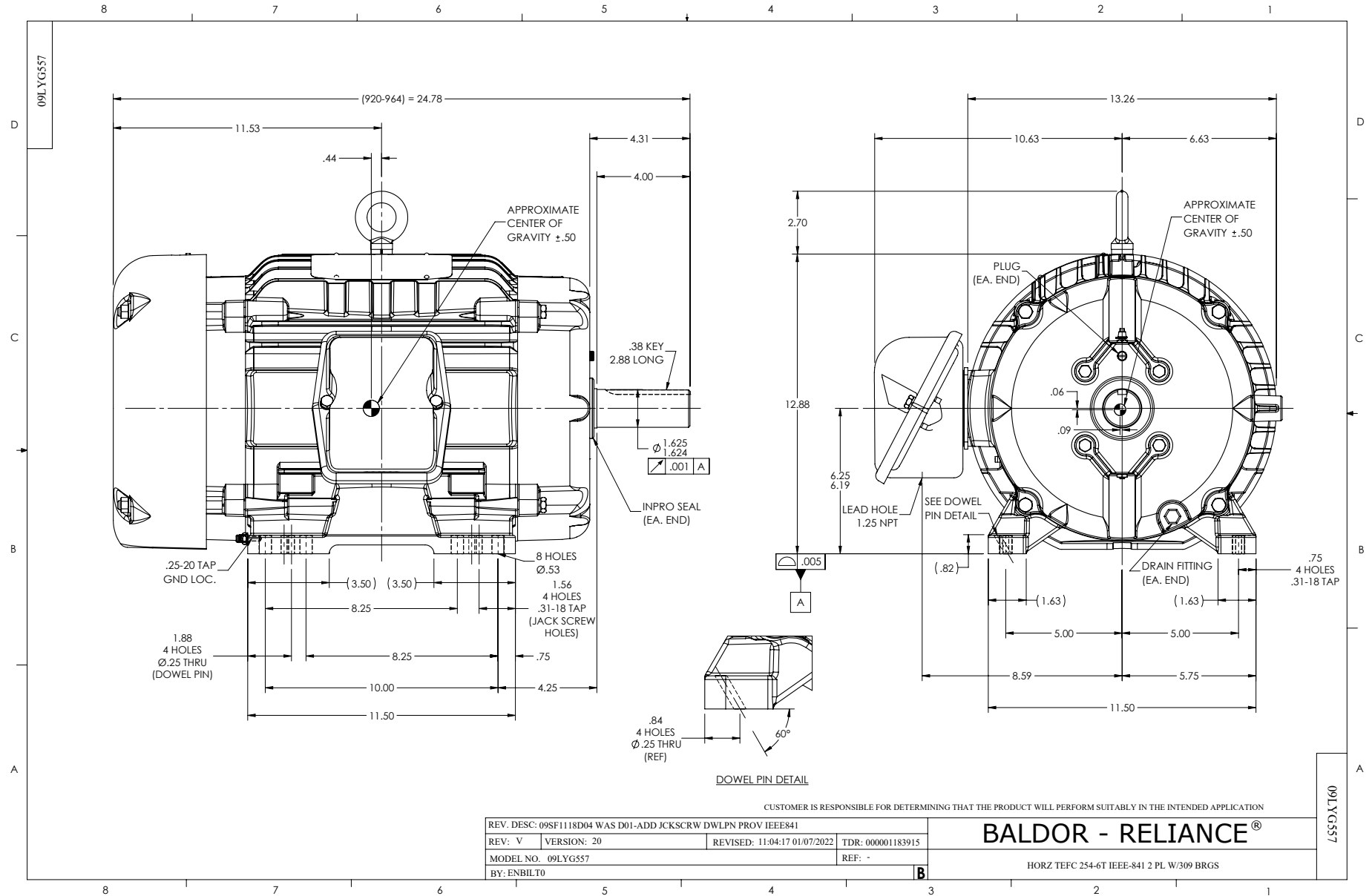
WINDING # 09WGT034

Typical performance - not guaranteed values.

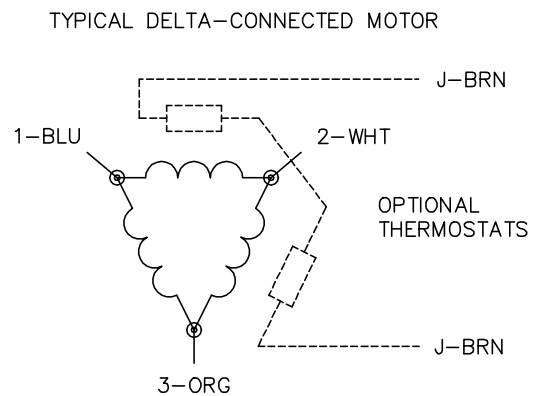
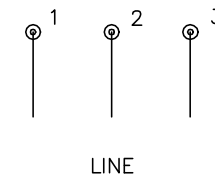
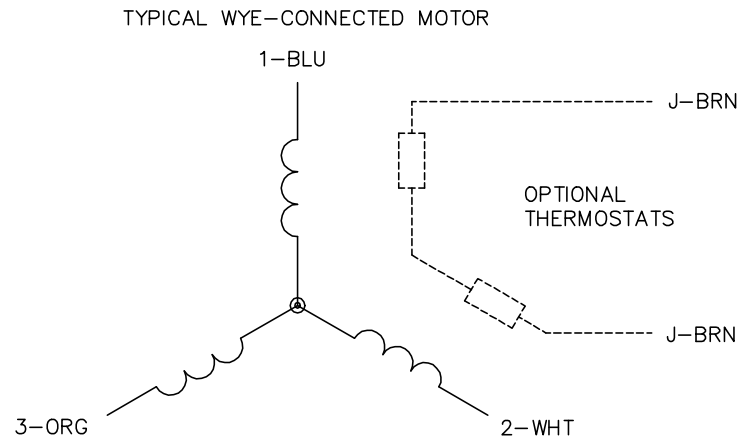
20 HP 3 PH 60 HZ 3510 RPM 460 V 0954M

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





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