

ABB BALDOR RELIANCE III

Customer information packet

ECP84109T-5

40HP, 3530RPM, 3PH, 60HZ, 324TS, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	324TS
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	40.000 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	35.000 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	841
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3

Part Detail

Revision	H
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	12WGY682
Layout	12LYF808
Eff. date	11-03-2025
CD Diagram	CD0006
Poles	02
Leads	3#10
Proprietary	False
Created date	12-12-2018

Heater Indicator	No Heater
High Voltage Full Load Amps	35.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	IP56
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Termination	Ring Terminals
Motor Standards	NEMA
Motor Type	1256M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	29.24 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	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	3530 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.	ECP84109T-5			P/N				ENCLOSURE	TEFC					
SPEC.	12-0000-0370			CC	010A	FRAME	324TS	S/N						
HP	40			CLASS	F	HZ	60	ODE BRG	6312	DE BRG	6312			
RPM	3530	RPM MAX	5400	PH	3	DES	B	D.E. BRG.	60BC03X30X					
VOLT	575			KVA-CODE	F		O.D.E. BRG.		60BC03X30X					
AMP	35			MOTOR WEIGHT			624	GREASE	POLYREX EM					
RATING	40C AMB-CONT			MAX. KVAR			4	BLANK						
NEMA-NOM-EFF	92.4	# OF ROTOR BARS			28	SER.F.	1.15	IP	56					
G.MIN.EFF	91	# 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	3	VT HZ TO	60

AC Induction Motor Performance Data

Record # 47229

Typical performance - not guaranteed values

Winding: 12WGY682-R001			Type: 1256M		Enclosure: TEFC		
Nameplate Data			575 V, 60 Hz: Single Voltage Motor				
Rated Output (HP)		40	Full Load Torque		59.4 LB-FT		
Volts		575	Start Configuration		direct on line		
Full Load Amps		35	Breakdown Torque		173 LB-FT		
R.P.M.		3530	Pull-up Torque		60.3 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		78.3 LB-FT	
NEMA Design Code		B	KVA Code	F	Starting Current		224 A
Service Factor (S.F.)		1.15	No-load Current		7.75 A		
NEMA Nom. Eff.		92.4	Power Factor	91	Line-line Res. @ 25°C		0.229 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		64°C
S.F. Amps		41	Temp. Rise @ S.F. Load		79°C		
			Locked-rotor Power Factor		20.5		
			Rotor inertia		4.38 lb-ft²		

Load Characteristics 575 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	72	86	90	91	91	90	91
Efficiency	89.7	92.7	93.1	92.8	92.1	91.1	92.4
Speed	3583	3568	3553	3537	3518	3497	3526
Line amperes	11.9	18.9	26.7	35.3	44.8	54.7	41

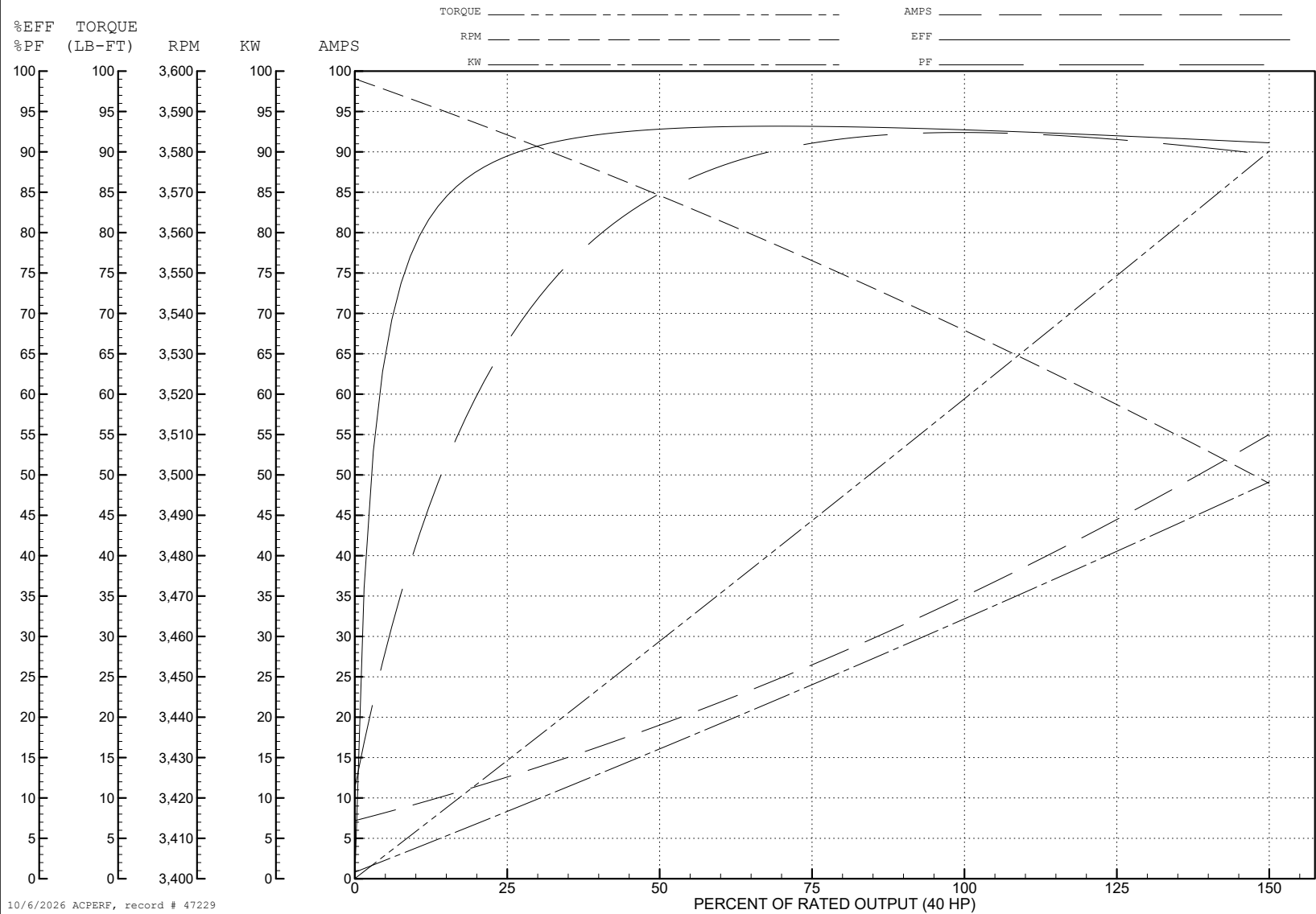
ABB Motors and Mechanical Inc.

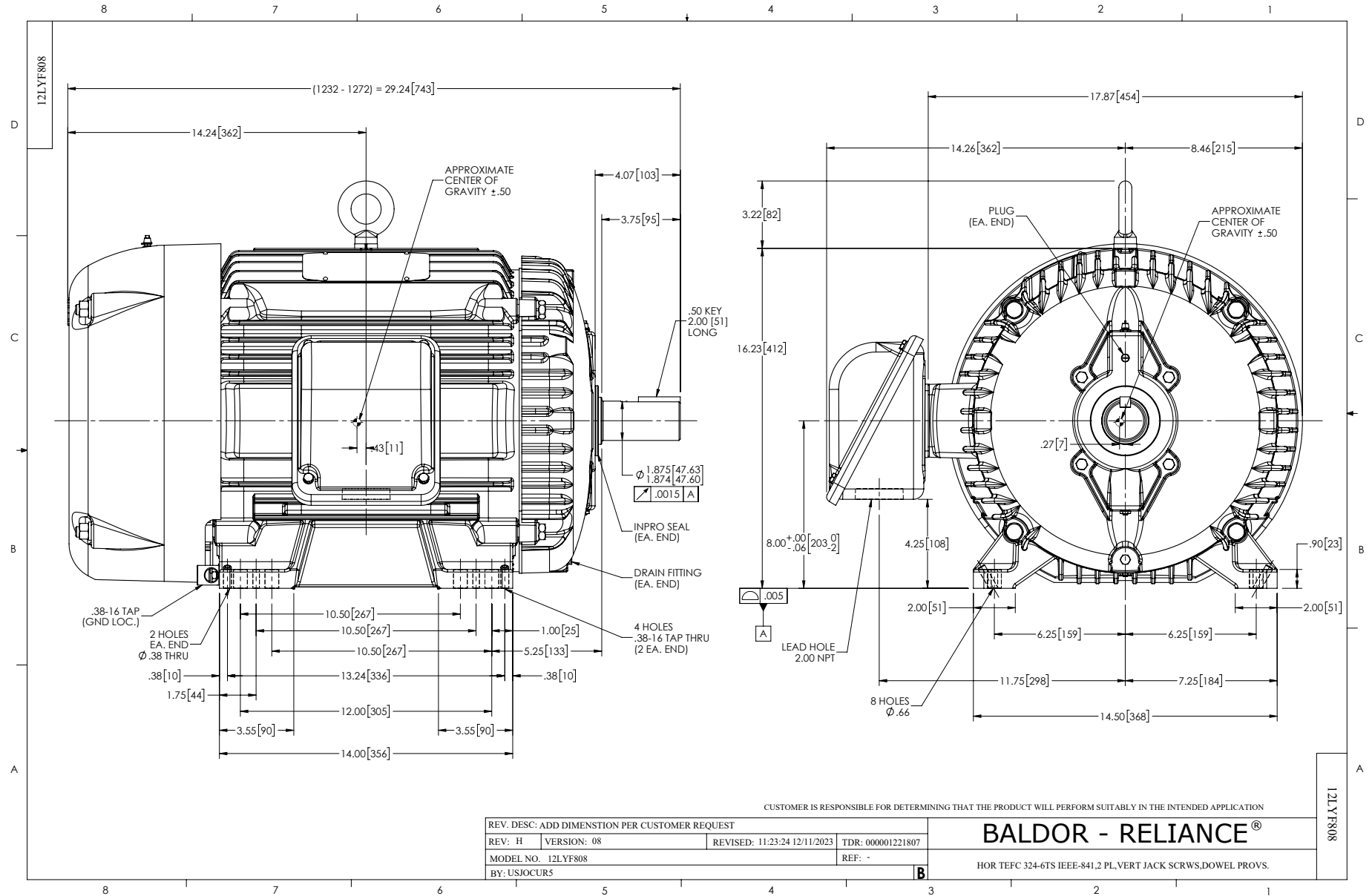
WINDING # 12WGY682

Typical performance - not guaranteed values.

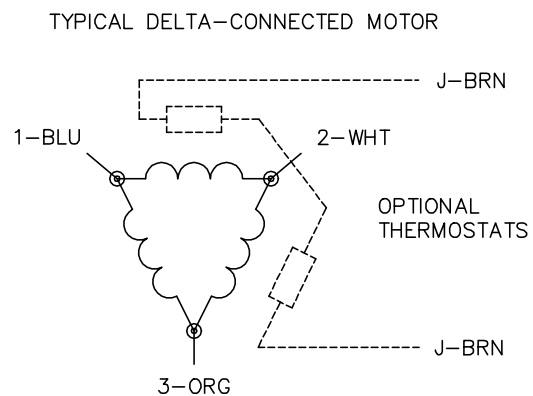
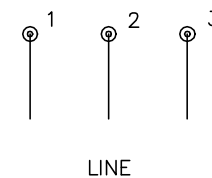
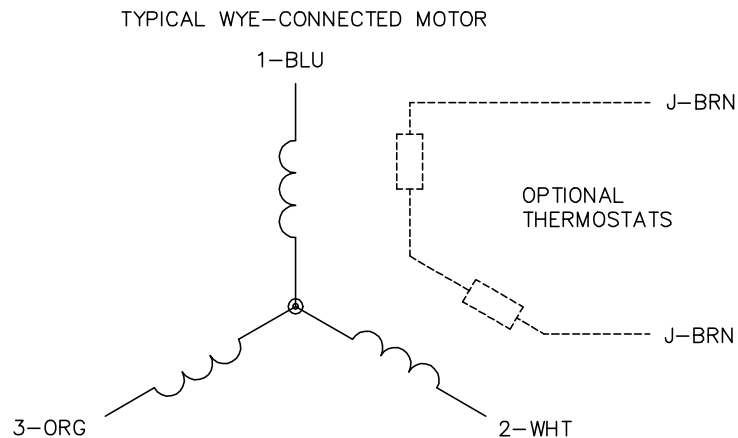
40 HP 3 PH 60 HZ 3530 RPM 575 V 1256M

TORQUES (LB-FT): PO=173 PU=60.3 LR=78.3 LRA=224





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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