

ABB BALDOR RELIANCE III

Customer information packet

ECP83580T-4

1HP, 3450RPM, 3PH, 60HZ, 143T, 0514M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	143T
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	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 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	1.8
Current @ Voltage	1.650 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	77.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Enclosure Modification	841
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

Part Detail

Revision	Q
Type	AC
Mech. spec.	05E811
Base	
Status	PRD/A
Elec. spec.	05WGX522
Layout	05LYE811
Eff. date	10-01-2025
CD Diagram	CD0006
Poles	02
Leads	3#18
Proprietary	False
Created date	07-15-2019

Haz Area Temp Code	T4
Heater Indicator	No Heater
High Voltage Full Load Amps	1.7 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	L
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5400 rpm
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0514M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	12.87 IN
Power Factor	78
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
RoHS Status	ROHS COMPLIANT
Service Factor	1.25
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3500 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

NP4328									
CAT.NO.	ECP83580T-4								
SPEC.	05E811X522G1								
HP	1 TE				IP	56			
VOLTS	460								
AMPS	1.65								
R.P.M.	3500								
FRAME	143T		HZ		60		PH	3	
SER.F.	1.25	CODE	L	DES.	B	CLASS		F	
RATING	40C AMB-CONT								
SN									
DE	6205		ODE		6205				
NEMA NOM. EFF.	77		P.F.		78				
GUAR. MIN. EFF.	74		CC		010A				
T. CODE	T4		TEMP=		135				

NP3186									
SPEC.	05E811X522G1								
ABMA DE BRG	25BC02X30X								
ABMA ODE BRG	25BC02X30X								
GREASE	POLYREX EM								
MOTOR WEIGHT	60	ROTOR BARS		20	STATOR BARS		24		
MAX. R.P.M.	5400	MAX. KVAR		0.41					
	SFA 1.88								
INV.TYPE	PWM								
T=	135								
CHP	60	TO	90						
CT	1.8	TO	60						
VT	0-	TO	60						
HTR-VOLTS	N/A	HTR-AMPS		N/A					
HTR-WATTS	N/A	MAX. SPACE HEATER TEMP.							N/A

AC Induction Motor Performance Data

Record # 84212

Typical performance - not guaranteed values

Winding: 05WGX522-R001			Type: 0514M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: Single Voltage Motor					
Rated Output (HP)		1	Full Load Torque		1.51 LB-FT			
Volts		460	Start Configuration		direct on line			
Full Load Amps		1.5	Breakdown Torque		6.77 LB-FT			
R.P.M.		3450	Pull-up Torque		3.58 LB-FT			
Hz		60	Phase		3	Locked-rotor Torque	5.13 LB-FT	
NEMA Design Code		B	KVA Code		L	Starting Current		11.5 A
Service Factor (S.F.)		1.25				No-load Current		0.922 A
NEMA Nom. Eff.		81.5	Power Factor		78	Line-line Res. @ 25°C		18.77 Ω
Rating - Duty		40C	AMB-CONT			Temp. Rise @ Rated Load		37°C
S.F. Amps		1.8				Temp. Rise @ S.F. Load		46°C
						Locked-rotor Power Factor		66.3

Load Characteristics 460 V, 60 Hz, 1 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	38	57	69	78	83	86	83
Efficiency	65.3	76.8	80.7	81.9	81.8	80.8	81.8
Speed	3569.6	3544.6	3516.9	3488.1	3456.3	3421.1	3456
Line amperes	0.973	1.09	1.26	1.48	1.73	2.03	1.73

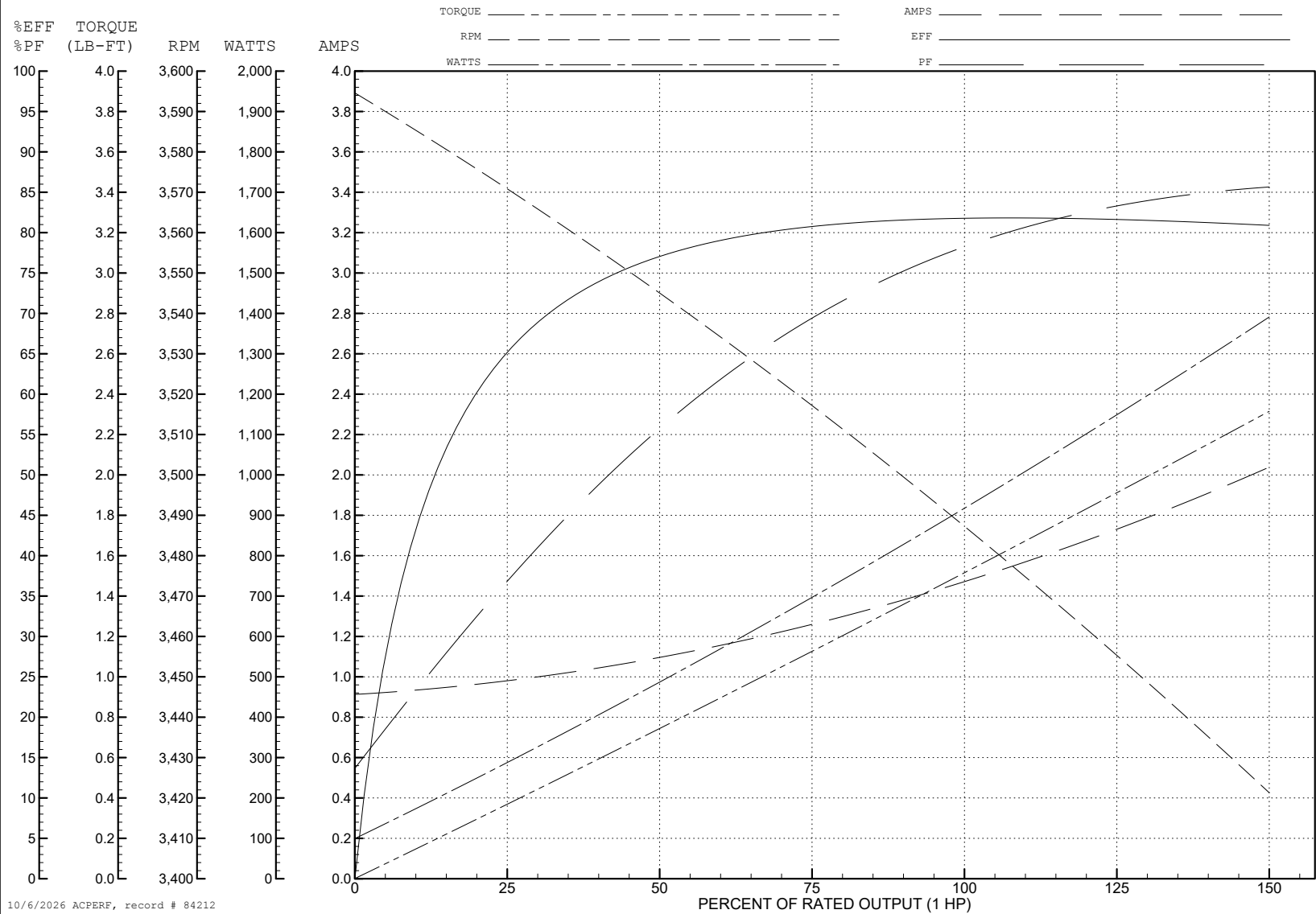
ABB Motors and Mechanical Inc.

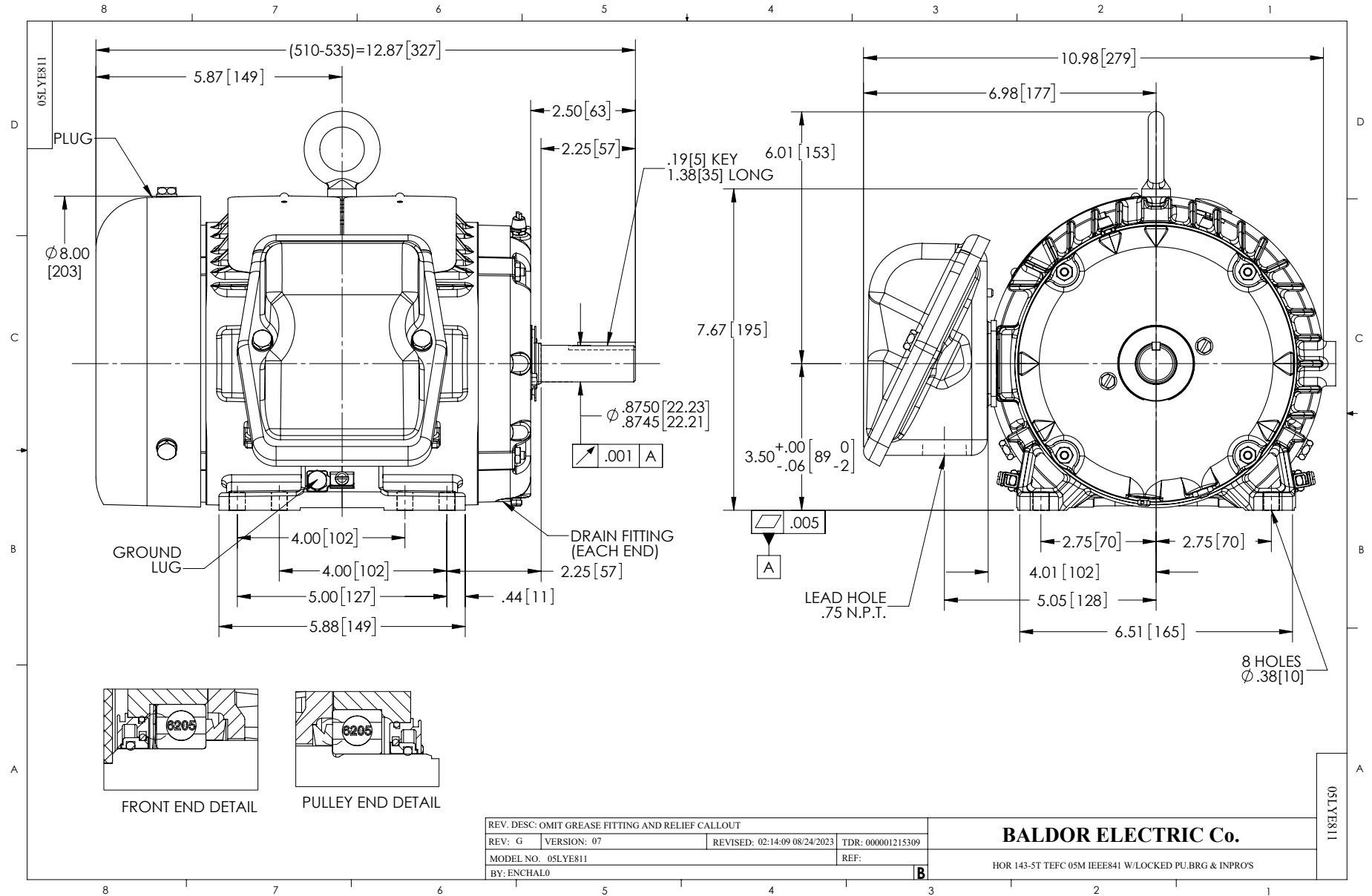
WINDING # 05WGX522

Typical performance - not guaranteed values.

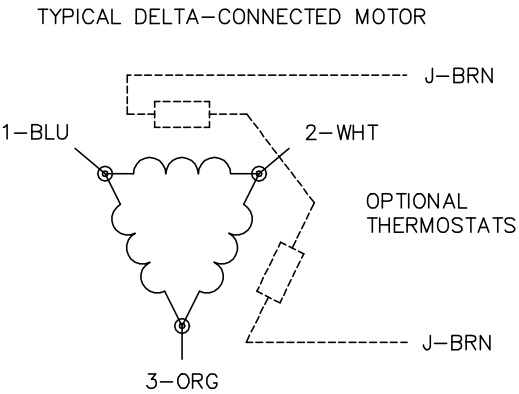
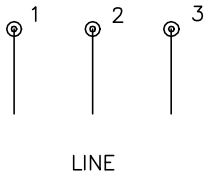
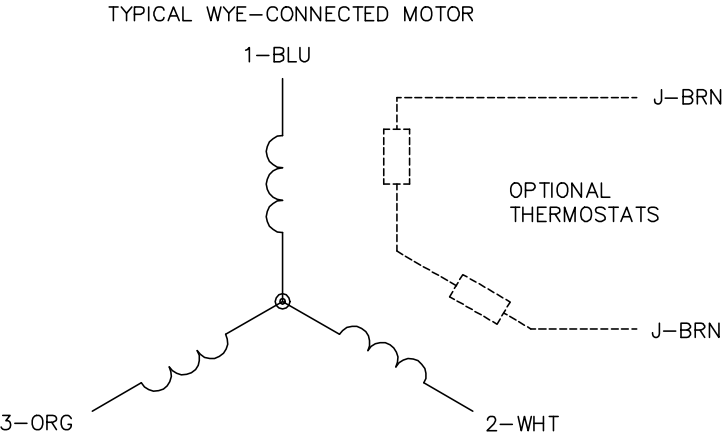
1 HP 3 PH 60 HZ 3450 RPM 460 V 0514M

TORQUES (LB-FT): PO=6.77 PU=3.58 LR=5.13 LRA=11.5





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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