ABB BALDOR RELIANCE

Customer information packet

SPM4109TS

40HP, 3530RPM, 3PH, 60HZ, 324TS, 1064M, TEFC, F
Class - CLI GP A,B,C,D; CLII GP F,G
Division - Division II

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Specifications

Enclosure	TEFC
Frame	324TS
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D; CLII GP F,G
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	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CSA
	CURUSEEV
	NEMA PREMIUM
	NEMA_PREMIUM
	WEEE
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
Current @ Voltage	90.000 A @ 230.0 V
	45.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None

Part Detail

Revision	E
Type	AC
Mech. spec.	10T013
Base	
Status	PRD/A
Elec. spec.	10WGX658
Layout	10LYT013
Eff. date	04-17-2026
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	10-03-2023

Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	45.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	4800 rpm
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1064M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	29.13 IN
Power Factor	91
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
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

NP4439B05C23L

CAT #	SPM4109TS	**SER #**		**CC**	010A	**WGT**	451	**LBS**			
SPEC	10T013X658	**FRAME**	324TS	**ENCL**	TEFC	**IP**	55				
RATING	40C AMB-CONT	**NEMA NOM. EFF**	93.6								
HP	40	**VOLTS**	230/460								
AMPS	90/45	**RPM**	3530	**HZ**	60						
PH	3	**CL**	F	**CODE**	G	**DES**	A	**PF**	91	**%**	**SER.F.**	1.15	**SF AMP**	
DE BRG	6311	**ODE BRG**	6311	**LUBE**	POLYREX EM						
INV TYPE:	**VPWM**	**SL HZ**	1.2	**CHP**	60	**TO**	80	1.3:1			
WK2	2.75	**LBFT2**	**MAX RPM**	4800	**CT**	6	**TO**	60	10:1		
MAG CUR	24/12	**VT**	3	**TO**	60	20:1					

MEETS INTENT OF IEEE-45 **FOR WEATHER PROTECTION**

CL I DIV 2 GRPS A,B,C,D **TEMP CODE** T3C **CL I INV TEMP CODE** T3 **TEMP=** 200 **C**

CL I ZONE 2 GRPS **IIA,IIB,IIC** **TEMP =** 160 **C** **CL II INV TEMP CODE** T3 **TEMP =** 200 **C**

CL II DIV 2 GRPS F&G **TEMP CODE** T3C **1.0 SF ON PWM INVERTER** **POWER**

CL II ZONE 22 GRPS IIIB **TEMP=** 160 **C**

YR

AC Induction Motor Performance Data
Record # 2771
Typical performance - not guaranteed values

Winding: 10WGX658-R001	**Type:** 1064M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			40	**Full Load Torque**	59.9 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			90/45	**Breakdown Torque**	343 LB-FT
R.P.M.			3530	**Pull-up Torque**	98 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	129 LB-FT
NEMA Design Code	A	**KVA Code**	G	**Starting Current**	292 A
Service Factor (S.F.)			1.15	**No-load Current**	11.9 A
NEMA Nom. Eff.	93.6	**Power Factor**	91	**Line-line Res. @ 25ºC**	0.139 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	79°C
S.F. Amps				**Temp. Rise @ S.F. Load**	96°C
				Locked-rotor Power Factor	22
				Rotor inertia	2.75 LB-FT2

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	64	83	89	91	91	92	91
Efficiency	90.4	93.5	93.9	93.6	92.9	92.1	93.2
Speed	3585	3569	3551	3533	3515	3495	3522
Line amperes	16	24.6	34.3	45	55.8	67	51.48

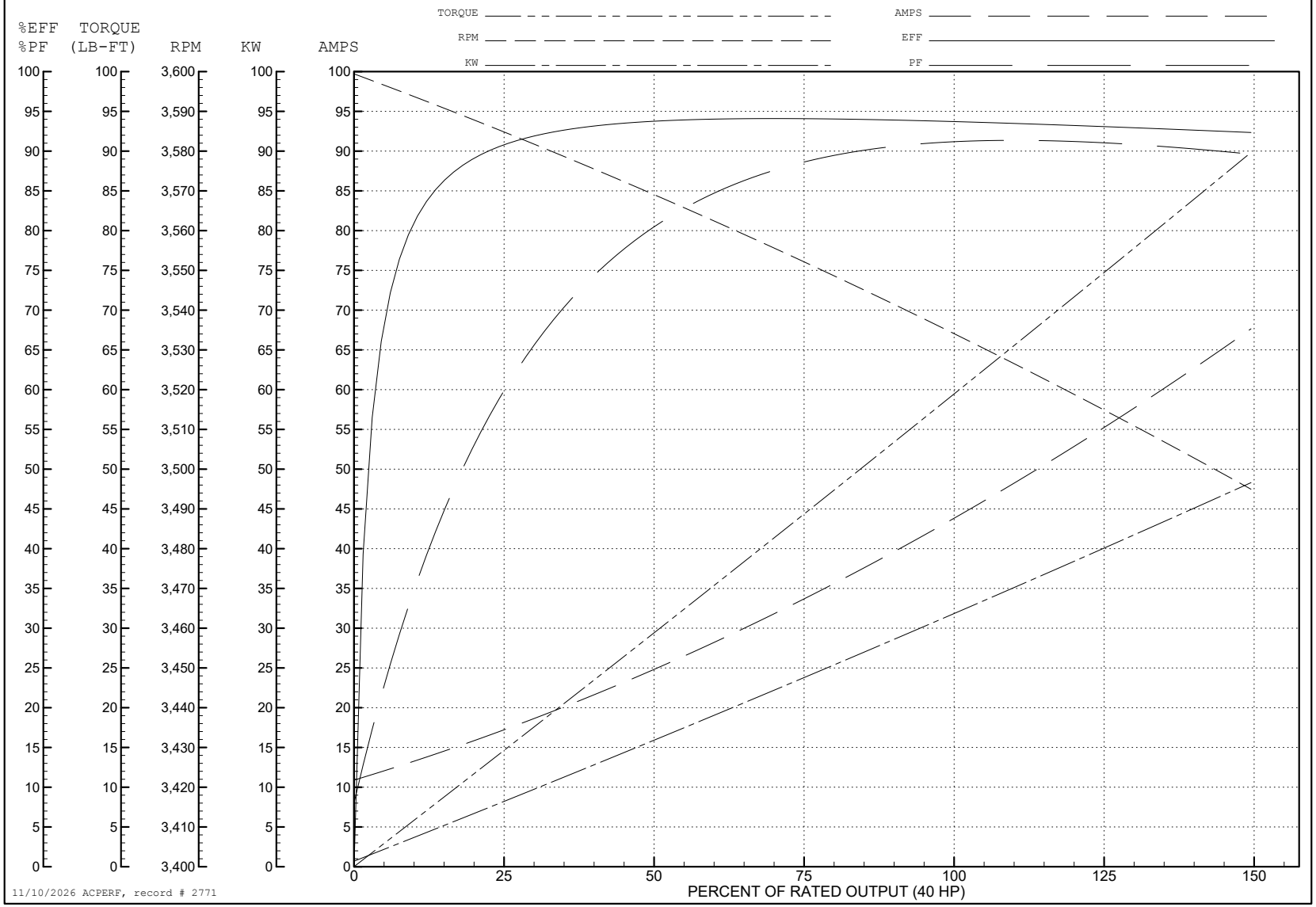
ABB Motors and Mechanical Inc.

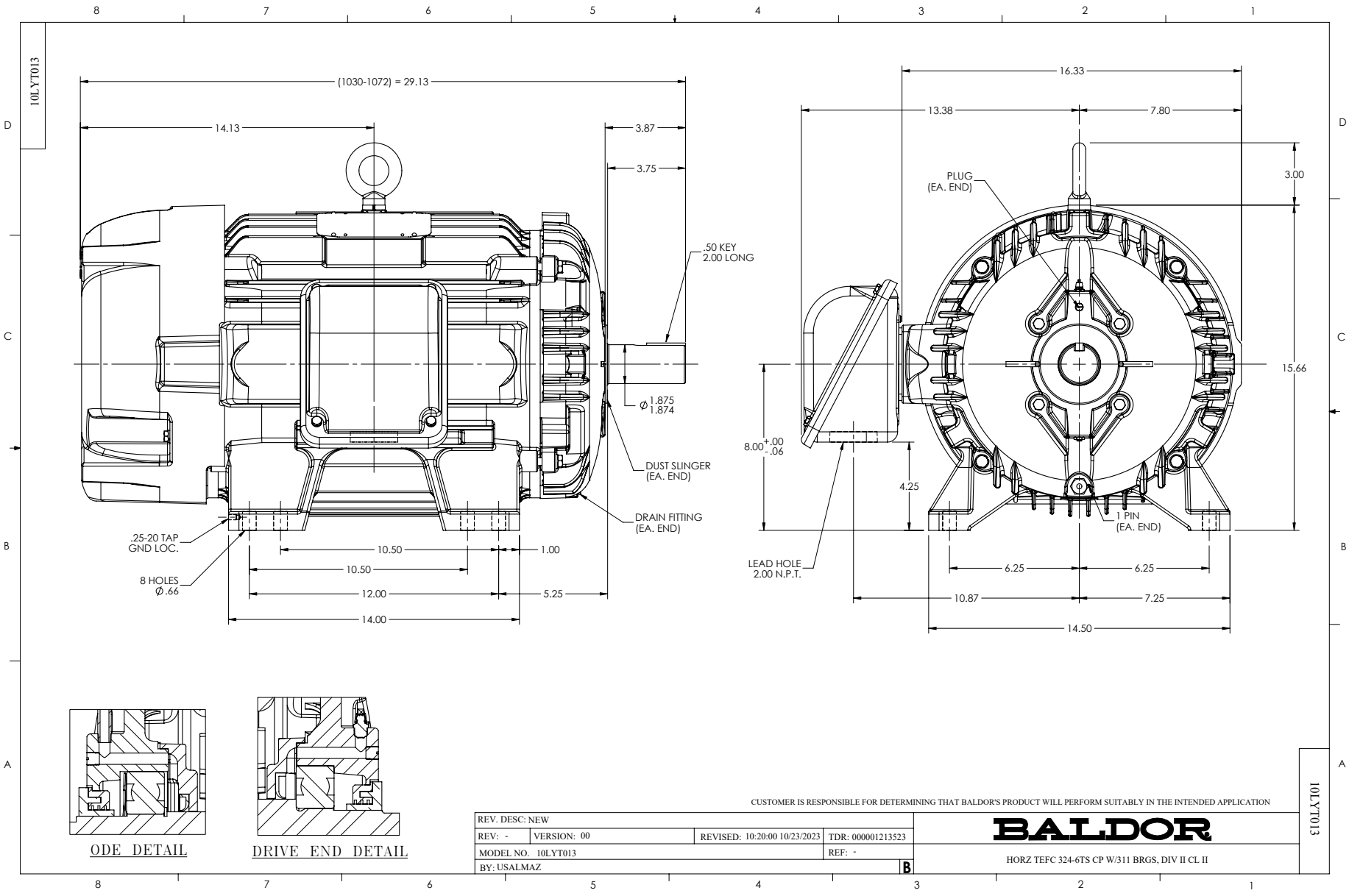
WINDING # 10WGX658

40 HP 3 PH 60 HZ 3530 RPM 460 V 1064M

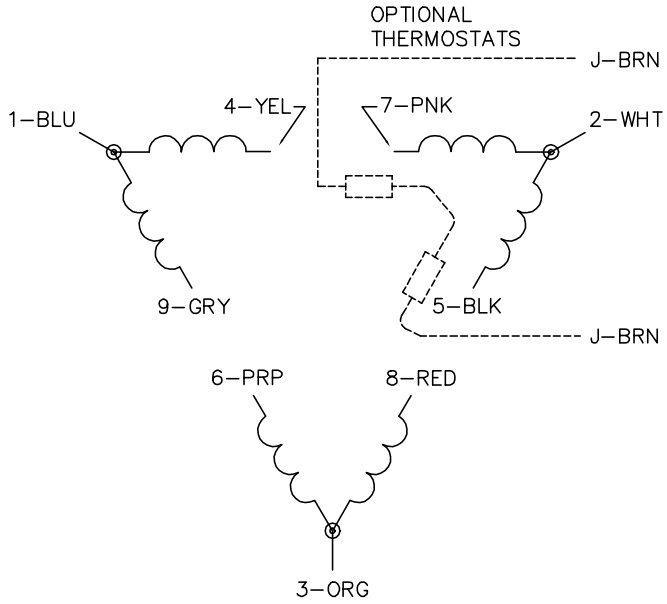
Typical performance - not guaranteed values.

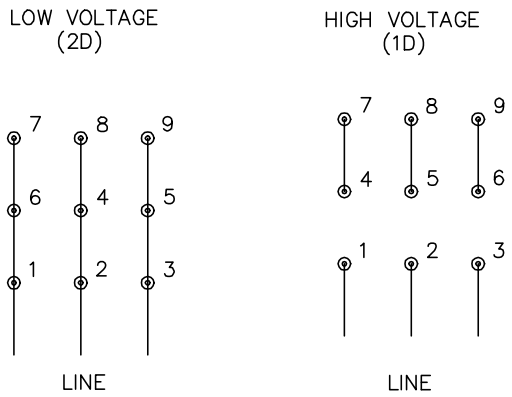
TORQUES(LB-FT): PO=343 PU=98 LR=129 LRA=292




10LYT013
(1030-1072) = 29.13
14.13
3.87
3.75
.50 KEY
2.00 LONG
Ø 1.875
1.874
DUST SLINGER
(EA. END)
DRAIN FITTING
(EA. END)
.25-20 TAP
GND LOC.
8 HOLES
Ø .66
10.50
1.00
10.50
12.00
5.25
14.00
16.33
13.38
7.80
PLUG
(EA. END)
3.00
15.66
8.00 +.00 -.06
4.25
1 PIN
(EA. END)
LEAD HOLE
2.00 N.P.T.
6.25
6.25
10.87
7.25
14.50
ODE DETAIL
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: NEW
REV: - VERSION: 00 REVISED: 10:20:00 10/23/2023 TDR: 000001213523
MODEL NO. 10LYT013 REF: -
BY: USALMAZ B
BALDOR
HORZ TEFC 324-6TS CP W/311 BRGS, DIV II CL II
10LYT013

CD0180





NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0180

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\148	REVISED: 10:25:29 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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