

ABB BALDOR RELIANCE III

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

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									

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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. @ 25°C		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

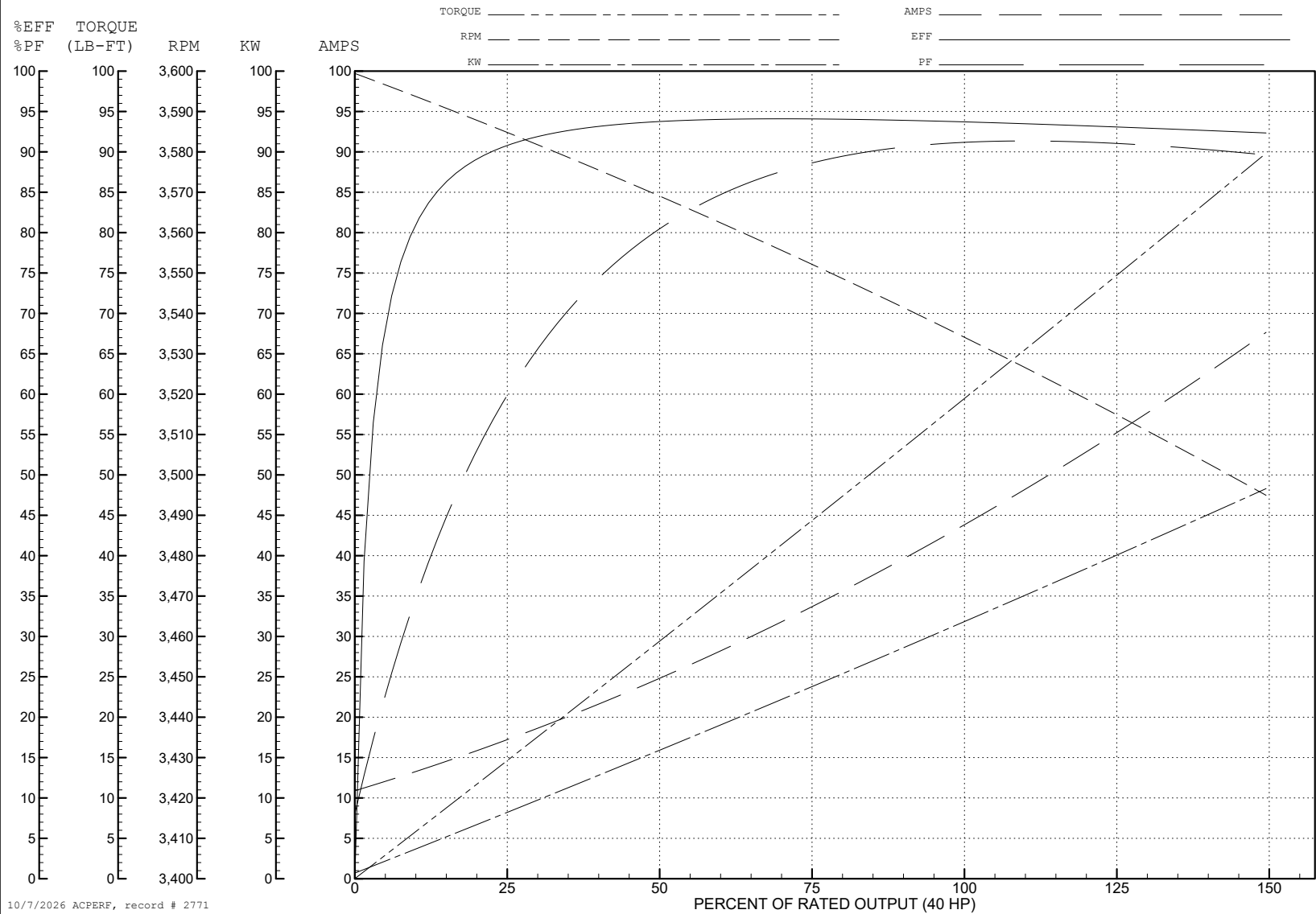
ABB Motors and Mechanical Inc.

WINDING # 10WGX658

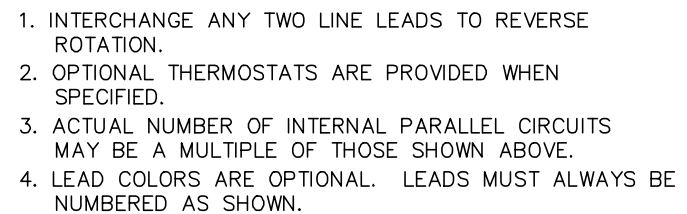
Typical performance - not guaranteed values.

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

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





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