

ABB BALDOR RELIANCE III

Customer information packet

SPM4114TS

50HP, 3540RPM, 3PH, 60HZ, 326TS, 1256M, TEFC, F

Class - CLI GP A,B,C,D; CLII GP F,G

Division - Division II

Specifications

Enclosure	TEFC
Frame	326TS
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	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 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	56.000 A @ 460.0 V 124.000 A @ 208.0 V 112.000 A @ 230.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK

Part Detail

Revision	D
Type	AC
Mech. spec.	12T115
Base	
Status	PRD/A
Elec. spec.	12WGZ343
Layout	12LYT115
Eff. date	04-17-2026
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	10-02-2023

Front Shaft Indicator	None
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	56.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	4500 rpm
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1256M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	29.21 IN
Power Factor	89
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3540 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 #	SPM4114TS										SER #											CC	010A	WGT	587	LBS													
SPEC	12T115Z343										FRAME	326TS										ENCL	TEFC	IP	55														
RATING	40C AMB-CONT																				NEMA NOM. EFF		94.1																
HP	50										VOLTS	230/460																											
AMPS	112/56										RPM	3540										HZ	60																
PH	3	CL	F	CODE	H	DES	B	PF	89	%	SER.F.		1.15	SF AMP	128/64																								
DE BRG	6312					ODE BRG					6312					LUBE	POLYREX EM																						
INV TYPE:		VPWM		SL HZ		1		CHP		60		TO		75		1.3:1																							
WK2	4.38		LBFT2		MAX RPM		4500		CT		6		TO		60		10:1																						
MAG CUR		33.2/16.6										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 # 101346

Typical performance - not guaranteed values

Winding: 12WGZ343-R001			Type: 1256M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)		50		Full Load Torque		74.1 LB-FT
Volts		230/460		Start Configuration		direct on line
Full Load Amps		112/56		Breakdown Torque		292 LB-FT
R.P.M.		3540		Pull-up Torque		97.3 LB-FT
Hz	60	Phase	3	Locked-rotor Torque		134 LB-FT
NEMA Design Code		B	KVA Code	Starting Current		403 A
Service Factor (S.F.)		1.15		No-load Current		16.6 A
NEMA Nom. Eff.		94.1	Power Factor	Line-line Res. @ 25°C		0.11 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		78°C
S.F. Amps		128/64		Temp. Rise @ S.F. Load		96°C
				Locked-rotor Power Factor		20.2
				Rotor inertia		4.38 lb-ft²

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	60	80	87	89	90	91	90
Efficiency	90.3	93.6	94.3	94.2	93.5	92.8	93.8
Speed	3585	3574	3562	3550	3539	3527	3543
Line amperes	21.6	31.3	42.9	55.7	69.3	82.9	63.9

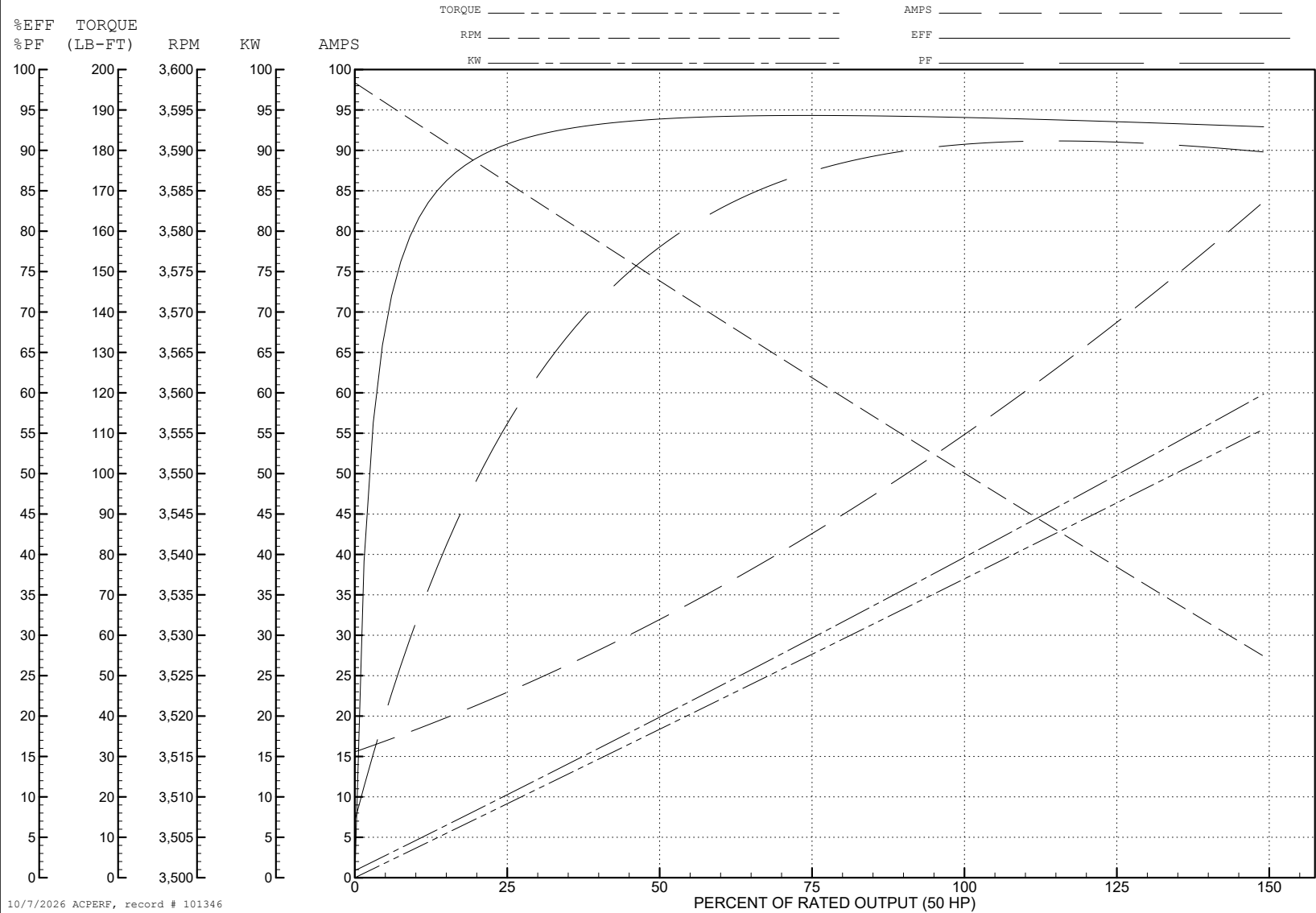
ABB Motors and Mechanical Inc.

WINDING # 12WGZ343

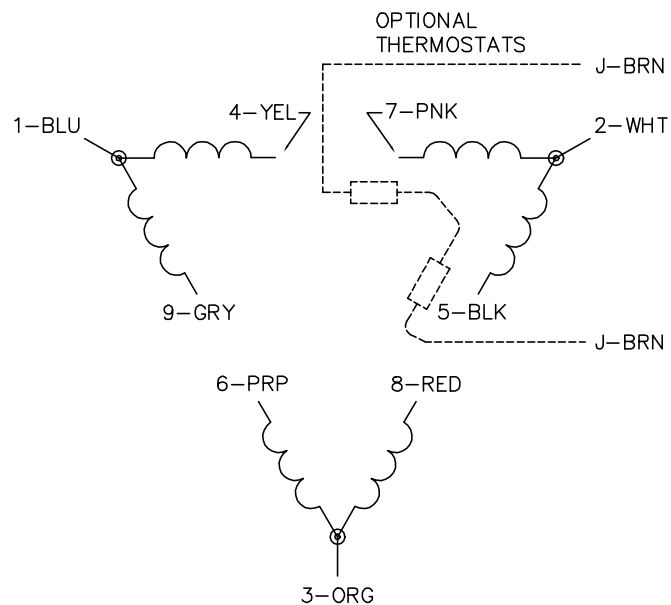
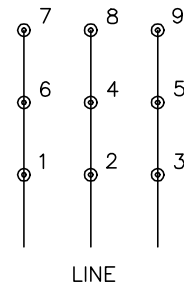
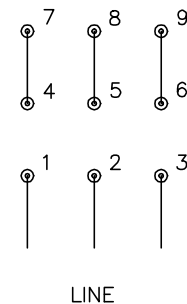
Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 3540 RPM 460 V 1256M

TORQUES (LB-FT): PO=292 PU=97.3 LR=134 LRA=403



CD0180


 LOW VOLTAGE
(2D)

 HIGH VOLTAGE
(1D)

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: ENBRIRO

MTL: -


BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1