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## **Chapter6 Specification**

This chapter will introduce the rated voltage, current, power and many other main parameters of IT5101 series.

6.1 Main technical parameters

Mo	odel		IT5101				
		Measu	rement Ra	inge			
	Range	-6V~+6V		-60V~+60\	/	-300~+300V	
Voltage	Resolution	10uV		0.1mV		1mV	
	Accuracy	±(0.01%+0.01%FS)					
	Temperature Coefficient						
	Range	3mΩ		Resolution		0.1 uΩ	
	Range	30mΩ		Resolution		1 uΩ	
	Range	300mΩ	!	Resolution		10uΩ	
	Range	3Ω		Resolution		0.1 mΩ	
	Range	30Ω		Resolution		1 mΩ	
Resistance	Range	300Ω		Resolution		10 mΩ	
	Range	3000Ω		Resolution		0.1Ω	
	Accuracy	±(0.4%+0.05%FS)			-S) (3mΩ)		
	Temperature	±(0.04%+0.005%FS)/					
	Coefficient			%+0.01%FS)/°	C (3mΩ)		
		-	ecifications				
	sample		R&V (ms)			R/V (ms)	
	EX.FAST(50Hz)		8			4	
	FAST(60Hz)		24			12	
Sample Time	MEDIUM(50Hz)		80			40	
	MEDIUM(60Hz)		68			34	
	SLOW(50Hz)		200			100	
	SLOW(60Hz)		200			100	
	* Allowable error is ±10 ms in "SLOW" status and ±2 ms in other modes.						
Response Time	10ms (Response time is the value obtained when pure resistance is measured, and is only for reference may be undulation due to different DUTs)						
Input Resistance	>=1MΩ						
Input Rating	DC±300V						
Channel	1ch						
Interface	GPIB,USB,LAN						
•	300Ω/3000Ω about 4V peak						
voltage			AC100V~ AC120V:1.6AT				
voltage Fuse		Λ.					
voltage Fuse specification			C220V~ AC2	40V:1.25AT			
voltage Fuse specification Working			C220V~ AC2		ensation)		
Fuse specification		0°C~40°C U	C220V~ AC2 nder 80%RH	40V:1.25AT			



( mm)	
Weight( net)	2.4KG

Model		IT5101E					
Measurement Range							
Voltage	Range	-6V~+6V			-60V~+60V		-300~+300V
	Resolution	10uV	0.1mV			1mV	
	Accuracy	±(0.01%+0.01%FS)					
	Temperature Coefficient	±(0.001%+0.001%FS)/°C					
Resistance	Range	300m		Ω Resolution			10υΩ
	Range		3Ω	Resolution			0.1 mΩ
	Accuracy	±(0.4%+0.05%FS) ±(0.4%+0.1%FS) (3mΩ)					
	Temperature Coefficient	±(0.04%+0.005%FS)/°C ±(0.04%+0.01%FS)/°C (3mΩ)					
		Spe	cifica	ations			
	sam	ple	R&V (ms)		(ms)		R/V (ms)
	EX.FAST	(50Hz)		8			4
	FAST(60Hz)		24			12	
Sample Time	MEDIUM(50Hz)		80			40	
	MEDIUM(60Hz)		68			34	
	SLOW(50Hz)		200			100	
	SLOW(	60Hz)		20	0		100
	* Allowable error is ±10 ms in "SLOW" status and ±2 ms in other modes.						
Response Time	10ms (Response time is the value obtained when pure resistance is measured, and is only for reference.  It may be undulation due to different DUTs)						
Input Resistance	>=1MΩ						
Input Rating	DC±300V						
Channel	1ch						
Interface	GPIB,USB,LAN						
Open circuit	0.003Ω/0.03Ω/0.3Ω/3Ω/30Ω about 15V peak						
voltage	300Ω/3000Ω about 4V peak						
Fuse specification	AC100V~ AC120V:1.6AT AC220V~ AC240V:1.25AT						
Working temperature	0°C~40°C Under 80%RH (non-condensation)						
Storage temperature	-10℃~50℃ Under 80%RH (non-condensation)						
Dimension ( mm)	384*230*105 (mm)						
Weight( net)	2.4KG						

Model		IT5101H				
Measurement Range						
	Range	-10V~+10V	-100V~+100V	-1000~+1000V		
Voltage	Resolution	10uV	0.1mV	1mV		
	Accuracy	±(0.01%+0.01%FS)				



	Tomporative							
	Temperature Coefficient	±(0.001%+0.001%FS)/°C						
Resistance	Range	3mΩ		Resolution	0.1 uΩ			
	Range	30mΩ		Resolution	1 uΩ			
	Range	300mΩ		Resolution	10uΩ			
	Range	3Ω		Resolution	0.1 mΩ			
	Range	30Ω		Resolution	1 mΩ			
	Range	300Ω		Resolution	10 mΩ			
	Range	3000Ω		Resolution	0.1Ω			
	Accuracy	±(0.4%+0.05%FS) ±(0.4%+0.1%FS) (3mΩ)						
	Temperature	±(0.04%+0.005%FS)/°C						
	Coefficient ±(0			%+0.01%FS)/°C	(3mΩ)			
Specifications								
	san	nple	R&V	' (ms)	R/V (ms)			
	EX.FAST(50Hz)			8	4			
	FAST(60Hz)		2	24	12			
Sample Time	MEDIUM(50Hz)		80		40			
Sample Time	MEDIUM(60Hz)		68		34			
	SLOW(50Hz)		2	00	100			
		(60Hz)	200		100			
	* Allowable e	rror is ±10 ms i			ms in other modes.			
Response Time	10ms (Response time is the value obtained when pure resistance is measured, and is only for reference.  It may be undulation due to different DUTs)							
Input Resistance	>=1MΩ							
Input Rating	DC±1000V							
Channel	1ch							
Interface	GPIB,USB,LAN							
Open circuit	0.003 Ω /0.03 Ω /0.3 Ω /3 Ω /30 Ω about 15V peak							
voltage	300Ω/3000Ω about 4V peak							
Fuse	AC100V~ AC120V:1.6AT							
specification	AC220V~ AC240V:1.25AT							
Working temperature	0°C~40°C Under 80%RH (non-condensation)							
Storage temperature	-10°C~50°C Under 80%RH (non-condensation)							
Dimension ( mm)	384*230*105 (mm)							
Weight( net)	2.4KG							
5 ( 7	1							

The above specifications may be subject to change without prior notice.

When the current in the working cicuit which is connected to the battery changes quickly may affact the measurement acscuarcy!

- 1. In Med, add  $\pm 0.01\%FS$ ; in Fast, add  $\pm 0.02\%FS$ ; in Ex\_fast, add  $\pm 0.03\%FS$ .
- 2. In Med, add  $\pm 0.1\%$ FS; in Fast, add  $\pm 0.2\%$ FS; in Ex\_fast, add  $\pm 0.5\%$ FS (3m $\Omega$  range).
- 3. The above data are applicable for >5%FS working conditions.

## 6.2 Supplemental characteristics

Recommended calibration frequency:

once a year



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