



ENGLISH

Datasheet

Stock No. 162-4457

RS PRO RS 157B Power Clamp meter



Feature:

- 10000 Count digital display
- Backlight, Large scale display
- Analog Bar graph
- True RMS on AC and AC+DC mode
- AC 1000 Amps capability
- AC current via flexible current probe
- AC/DC 1000 Volts capability & Auto selection
- Ohms/Continuity/Diode & Auto selection
- Frequency Counter
- Capacitance Measurement
- Power and Power factor Measurement
- Total Harmonics Distortion and Harmonics 1 to 25
- Non-Contact Voltage detection
- Phase Rotation Indication
- Inrush Current
- Visible continuity beeper
- Bluetooth connecting
- Memory Save/Load (up to 1000 memories)
- Data logger (up to 9999 records)
- Smart Data Hold
- Peak Hold
- Min/Max Hold
- Low Pass Filter
- Torch light
- Auto Power Off
- Up to 40mm dia. Conductor
- 4 feet Drop Proof
- Deluxe Carrying Case
- CAT IV 600V / CAT III 1000V Safety Standard

Specifications: (All at 23°C ±5°C, ≤80% R.H.)

DC/AC Voltage

Function	Range	Accuracy
DCV	99.99V	± (0.7% + 2d)
	999.9V	
ACV	99.99V	± (1.0% + 5d)
	999.9V	50 ~ 500Hz
LPF ACV	99.99V	50 ~ 60Hz ± (1% + 5d)
	999.9V	>60 ~ 400Hz ± (5% + 5d)

Overload Protection: 1000Vrms

AC+DC Vrms Accuracy : same as ACV spec.+ DCV spec.

AC Current

Function	Range	Accuracy
ACA	0.10A ~ 99.99A	50 ~ 60Hz ± (1.5% + 5d)
	999.9A	>60 ~ 400Hz ± (2% + 5d)
LPF ACA	0.10A ~ 99.99A	50 ~ 60Hz ± (1.5% + 5d)
	999.9A	>60 ~ 400Hz ± (5% + 5d)

Overload Protection: 1000Arms

Peak Hold (Peak MAX / Peak MIN)

Function	Range	Accuracy
ACV	140.0V	± (3.0% + 15d)
	1400V	
ACA	140.0A	± (3.0% + 15d)
	1400A	

Frequency

Function	Range	Accuracy
Frequency	20.00 ~ 99.99Hz	± (0.5% + 3d)
	20.0 ~ 999.9Hz	
	0.020 ~ 9.999kHz	

Harmonic Distortion

Total Harmonic Distortion		
Function	Range	Accuracy
ACA /ACV	99.9%	$\pm (3.0\% + 10d)$

Harmonic distortion measurement		
Harmonic order	Range	Accuracy
H01 ~ H12	99.9%	$\pm (5\% + 10d)$
H13 ~ H25		$\pm (10\% + 10d)$

Inrush Current

Function	Range	Accuracy
ACA	99.99A	$\pm (2.5\% + 0.2A)$
	999.9A	$\pm (2.5\% + 5d)$

Accuracy defined for :

Sine wave, $ACA \geq 10A_{rms}$, Freq. 50/60Hz

Integration time about 100m sec

Resistance & Continuity & Diode

Function	Range	Accuracy
Resistance	999.9 Ω	$\pm (1.0\% + 5d)$
	9.999 k Ω	
	99.99 k Ω	
Continuity	999.9 Ω	$\pm (1.0\% + 5d)$
Diode	0.40~ 0.80V	$\pm 0.1V$

Continuity check : $< 30\Omega$ Beep On.

$> 100\Omega$ Beep OFF.

Maximum open circuit voltage for diode: $\pm 1.8V$

Capacitance

Function	Range	Accuracy
Capacitance	3.999 μF	$\pm (1.9\% + 8d)$
	39.99 μF	
	399.9 μF	
	3999 μF	

Active Power (AC)

Function	Range	Accuracy
ACW	9.999 kW**	A,error × V,reading + V,error × A,reading
	99.99 kW	
	999.9 kW	

Accuracy defined for :

ACW : Sine wave , ACV \geq 10 Vrms, ACA \geq 5 Arms

Freq. 50~60Hz, PF=1.00

Power Factor


Function	Range	Accuracy
PF	-1.00 ~ 0.00 ~1.00	$\pm 5d$

Flex AC Current

Function	Range	Accuracy
ACA	300.0A / 3000A	$\pm (1\% + 5d)$ (50~500Hz)
HFR ACA	300.0A / 3000A	$\pm (1\% + 5d)$ (50~60Hz) $\pm (5\% + 5d)$ (61~400Hz)
Peak	420.0A / 4200A	$\pm (3\% + 80d)$ (50~500Hz)
Inrush	300.0A / 3000A	$\pm (2\% + 10d)$ (50/60Hz)
Frequency	99.99Hz / 999.9Hz	$\pm (0.5\% + 3d)$ (<500Hz)
THD	99.9%	$\pm (5\% + 10d)$
Harm H01~H12	99.9%	$\pm (5\% + 10d)$

The accuracy of sFlex-T is not included.

General

Sampling Rate:	3 times/sec
Overload Indication:	"OL" or "-OL"
Low Battery Indication:	
Auto Power Off:	Approx. 15 minutes after last operation
Operating Temperature:	0 °C~ 10 °C 10 °C ~ 30 °C ($\leq 80\%$ RH) 30 °C ~ 40 °C ($\leq 75\%$ RH) 40 °C ~ 50 °C ($\leq 45\%$ RH)
Storage Temperature:	-10 to 50 °C 0 to 80% RH (batteries not fitted).
Temperature Coefficient:	0.2 x (Specified accuracy) / °C, < 18°C, > 28°C .
Safety:	IEC 61010-1: CAT.IV 600V, CAT.III 1000V.
Maximum Conduct Size:	40mm dia.
Power Requirement:	1.5V AAA * 6 Alkaline batteries
Battery Life:	ALKALINE 50 hours (without Backlight).
Size:	103mm(W) x 258mm(L) x 55mm(D)
Weight:	Approx. 600g (with battery)
Accessories:	Battery (installed), Test Leads, User Manual, Carrying case.