

Power analyzer lineup



HIOKI

Model	PW8001+U7005 NEW	PW8001+U7001 NEW	PW6001	PW3390	
Image					
Applications	For research evaluation of SiC/GaN inverter efficiency and reactor/transformer loss	For research evaluation and shipping inspections of IGBT inverters and solar inverters	For research evaluation of SiC inverter efficiency and reactor/transformer loss	For field evaluation of IGBT inverters and solar inverters	
Measurement parameters	Measurement lines	1-phase/2-wire (1P2W) 1-phase/3-wire (1P3W) 3-phase/3-wire (3P3W2M, 3V3A, 3P3W3M) 3-phase/4-wire (3P4W)	1-phase/2-wire (1P2W) 1-phase/3-wire (1P3W) 3-phase/3-wire (3P3W2M, 3V3A, 3P3W3M) 3-phase/4-wire (3P4W)	1-phase/2-wire (1P2W) 1-phase/3-wire (1P3W) 3-phase/3-wire (3P3W2M, 3V3A, 3P3W3M) 3-phase/4-wire (3P4W)	
	Number of power measurement channels	1 to 8 channels Specify U7001 or U7005 when placing an order (Mixed available)		4 channels	
	Measurement frequency band	DC, 0.1 Hz to 5 MHz	DC, 0.1 Hz to 1 MHz	DC, 0.1 Hz to 2 MHz	DC, 0.5 Hz to 200 kHz
	Voltage, current ADC sampling frequency	15 MHz	2.5 MHz	5 MHz	500 kHz
	Voltage, current ADC resolution	18-bit	16-bit	18-bit	16-bit
	Basic accuracy for 50/60 Hz power	±(0.01% of reading + 0.02% of range)	±(0.02% of reading + 0.05% of range)	±(0.02% of reading + 0.03% of range)	±(0.04% of reading + 0.05% of range)
	Accuracy for DC power	±(0.02% of reading + 0.03% of range)	±(0.02% of reading + 0.05% of range)	±(0.02% of reading + 0.05% of range)	±(0.05% of reading + 0.07% of range)
	Accuracy for 10 kHz power	±(0.05% of reading + 0.05% of range)	±(0.2% of reading + 0.05% of range)	±(0.15% of reading + 0.1% of range)	±(0.2% of reading + 0.1% of range)
	Accuracy for 50 kHz power	±(0.15% of reading + 0.05% of range)	±(0.4% of reading + 0.1% of range)	±(0.15% of reading + 0.1% of range)	±(0.4% of reading + 0.3% of range)
	Voltage range	6 V, 15 V, 30 V, 60 V, 150 V, 300 V, 600 V, 1500 V		6 V, 15 V, 30 V, 60 V, 150 V, 300 V, 600 V, 1500 V	15 V, 30 V, 60 V, 150 V, 300 V, 600 V, 1500 V
	Current range	100 mA to 2000 A (6 ranges, based on sensor)	probe 1: 100 mA to 2000 A (6 ranges, based on sensor) probe 2: 100 mV, 200 mV, 500 mV, 1 V, 2 V, 5 V	probe 1: 100 mA to 2000 A (6 ranges, based on sensor) probe 2: 100 mV, 200 mV, 500 mV, 1 V, 2 V, 5 V	100 mA to 8000 A (6 ranges, based on sensor)
	Common-mode voltage rejection ratio	50/60 Hz: 120 dB or greater 100 kHz: 110 dB or greater	50/60 Hz: 100 dB or greater 100 kHz: 80 dB typical	50/60 Hz: 100 dB or greater 100 kHz: 80 dB or greater	50/60 Hz: 80 dB or greater
	Temperature coefficient	0.01%/°C		0.01%/°C	0.01%/°C
	Voltage input method	Photoisolated input, resistor voltage division	Isolated input, resistor voltage division	Photoisolated input, resistor voltage division	Isolated input, resistor voltage division
	Current input method	Isolated input from current sensor		Isolated input from current sensor	Isolated input from current sensor
	External current sensor input	Yes (ME15W)	Yes (ME15W, BNC)	Yes (ME15W, BNC)	Yes (ME15W)
	Power supplied to external current sensor	Yes		Yes	Yes
Data update rate	10 ms, 50 ms, 200 ms		10 ms, 50 ms, 200 ms	50 ms	
Voltage input	Maximum input voltage	1000 V	1000 V AC, 1500 V DC	1500 V	
	Maximum rated line-to-ground voltage	600 V CAT III 1000 V CAT II	600 V AC, 1000 V DC CAT III 1000 V AC, 1500 V DC CAT II	600 V CAT III 1000 V CAT II	
Analysis	Number of motor analysis channels	Maximum 4 motors ^{*1}		1 motor ^{*1}	
	Motor analysis input format	Analog DC, frequency, pulse		Analog DC, frequency, pulse	
Function	Current sensor phase shift calculation	Yes (auto)		Yes	
	Harmonics measurement	Yes (8, for each channel)		Yes (6, for each channel)	
	Maximum harmonics analysis order	500th		100th	
	Harmonics synchronization frequency range	0.1 Hz to 1.5 MHz	0.1 Hz to 1 MHz	0.1 Hz to 300 kHz	0.5 Hz to 5 kHz
	IEC harmonics measurement	Yes ^{*2}		Yes	-
	IEC flicker measurement	Yes ^{*2}		-	-
	FFT spectrum analysis	Yes ^{*2} (DC to 4 MHz)	Yes ^{*2} (DC to 1 MHz)	Yes (DC to 2 MHz)	Yes (DC to 200 kHz)
	User-defined calculations	Yes ^{*2}		Yes	-
Delta conversion	Yes (Δ-Y, Y-Δ)		Yes (Δ-Y, Y-Δ)	Yes (Δ-Y)	
D/A output	Yes ^{*1} 20ch (waveform output, analog output)		Yes ^{*1} 20ch (waveform output, analog output)	Yes ^{*1} 16ch (waveform output, analog output)	
Display	Display	10.1" WVGA TFT color LCD		9" WVGA TFT color LCD	
	Touch screen	Yes		Yes	
Interface	External storage media	USB 3.0		USB 2.0, CF card	
	LAN (100BASE-TX, 1000BASE-T)	Yes		Yes (10BASE-T and 100BASE-TX only)	
	GP-IB	Yes		-	
	RS-232C	Yes (maximum 115,200 bps)		Yes (maximum 230,400 bps)	
	External control	Yes		Yes	
	Synchronization of multiple instruments	Yes ^{*2} (up to 4 instruments)		-	Yes (up to 8 instruments)
	Optical link	Yes ^{*1,2}		Yes	-
CAN or CAN FD	Yes ^{*1,2}		-	-	
Power supply	100 V AC to 240 V AC (50/60 Hz)		100 V AC to 240 V AC (50/60 Hz)	100 V AC to 240 V AC (50/60 Hz)	
Dimensions · Weight (W×H×D)	430 mm (16.93 in.) × 221 mm (8.70 in.) × 362 mm (14.25 in.) 14 kg (493.84 oz.)		430 mm (16.93 in.) × 177 mm (6.97 in.) × 450 mm (17.72 in.) 14 kg (493.84 oz.)	340 mm (13.39 in.) × 170 mm (6.69 in.) × 156 mm (6.14 in.) 4.6 kg (162.26 oz.)	

*1: Optional *2: Release in 2022



SEPTIEMBRE 31 28022 MADRID

Tel. 913000191

www.idm-instrumentos.es

email: idm@idm-instrumentos.es