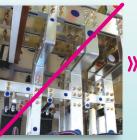


CLAMP ON POWER LOGGER PW3365



Eliminate the risk of short-circuits and electrical accidents







The world's first instrument to offer no-metal-contact power measurement

Free from the risk of short-circuit accidents since no metal comes into contact with energized parts, the Clamp On Power Logger PW3365-20 can measure voltage, current, and power right on the cable, letting you safely test in locations that were dangerous or even impossible in the past.





*For Voltage Sensor PW9020

Safe, Easy, Voltage Measurement

The PW3365-20's dedicated voltage sensor delivers the world's first no-metal-contact measurement.

Free yourself from the risk of short-circuits by measuring right on the cable sheath without ever needing to touch metal to energized parts

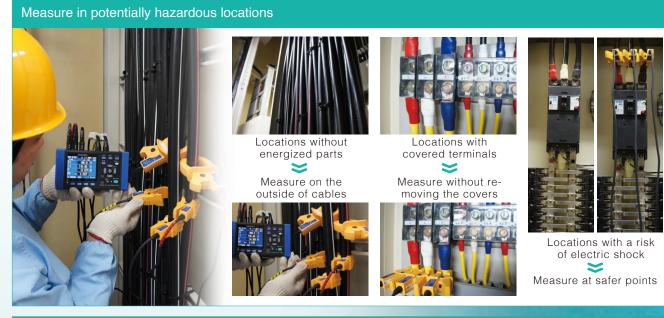




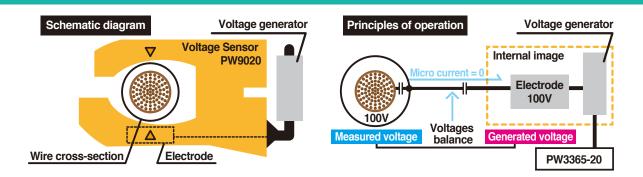
Freely clip either horizontally or vertically



Measure both thick and thin cables



How is voltage measured without any metallic contact?



Inside the PW9020 is an electrode (a metal plate). When there is a potential difference between this electrode and the measured line, a minute current flows as a result. By detecting this minute current and generating a voltage such that the current declines to zero, it is possible to accurately measure the voltage without being affected by the outer diameter of the measured cable or its insulation.



Enlarged view of clamp



Actual maximum size : φ 30 mm Actual minimum size : φ 6 mm

Compatible conductor diameters

SAFETY VOLTAGE SENSOR PW9020 Specifications				
Compatible conductor types	Insulated wires*1 In door PVC or metal parts			
Compatible conductor diam- eters	Finished outer diameter ø6mm to ø30mm			
Effective measurement range	90 V rms to 520 V rms			
Accuracy	$\pm 1.5\%$ rdg. ± 0.8 V (combined accuracy with PW3365-20)*2			
Effect of phase	Accuracy combined with the PW3365-20 is within $\pm 1.3\%$ (at 50 Hz/60 Hz, f.s. input)			
Maximum rated voltage to earth	CATIV 300V / CATIII 600V			
Cord length	3m (9.84 ft)			
Mass	Approx. 220g (7.8 oz)			
Operating temperature and humidity	0°C to 50°C(32°F to122°F), 80% RH or less (no condensation)			
Storage temperature and humidity	-10°C to 60°C (14°F to 122°F), 80% RH or less (no condensation)			
Dielectric strength	7.06k Vrms AC			
Applicable standards	Safety: EN61010, EMC: EN61326			



includes relay box on cord



Soil, residue, or moisture on the insulated wires may result in lower voltage and power values than their true values. Use a dry cloth to remove before measuring.

*1: Shielded wires cannot be measured. The product may not be able to accurately measure multi-core cables or cables that have thick insulation.

 measure multi-core cables or cables that have thick instruction.
 *2: For frequencies of 45 Hz to 66 Hz. Effects of humidity. Add the following to the combined accuracy (for voltage, power, and phase) with the PW3365-20 Accuracy within ±1%, f.s., phase within ±1°, measuring an insulated wire at a humidity of 70% to 80% RH Effects of adjacent wires: Add the following to the combined accuracy (for voltage and power) with the PW3365-20 Within ±1%, f.s., while a wire with a phase difference of 400 V is in contact with the grip

GE

Review Results

At the Worksite

Display measured values as a graph and evaluate results at a glance

Measured values can be displayed as a graph, which is convenient when using the instrument in power management applications. Since you can statistically review not only the measured value at that moment, but also measured values that have been recorded, it's easy to check values on the spot.

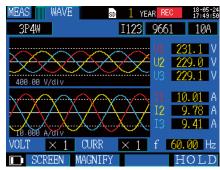
Parameter List and Waveform Displays

Select a display with the screen selection button

Review a list of principal test parameters, including voltage, current, power, frequency, and energy

Select the WAVE display to check voltage and current waveforms.

MEAS LIST	SD 1 YEAR REC 18-05-24	MEAS
3P4W	I123 9661 10A	ЗF
U1 230.0 V	I1 10.008 A	
U2 229.0 V	I2 9.780 A	X
U3 230.3 V	I3 <u>9.406</u> A	
f 60.00 Hz		400
P 6.485kW	WP+ 6.6776kWh	Ì.
S 6.707kVA	ELAPSED 0001:01:51	
Q LAG 1.710kvar		Y0.
PF LAG 0.967		VOLT
SCREEN	HOLD	



Waveform display screen



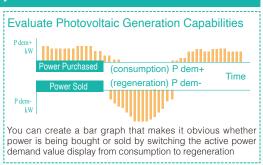
Demand Graph Display

List display screen

Display demand value trends

It's easy to check the maximum demand value and the time at which it occurred

Particularly useful in power management applications



Bar graph of values measured over a period of 24 hours at a 30-minute interval

MEAS TREND

9661 100A 1P3W I12 Ρ 8.1k MIN 7.4k8.9k AVG. (+) 12k 5 13-05-10 08:20:40 TREND sh 1 YEAR REC I12 966 100A Ρ 8.4k 7.6k 9 3k AVG (+) 12k Re 3-05-09 15:15:00 SCREEN CUI RSOR HOLD

1 YEAR

13-05-10 08:20:40

Trend Graph Display

Example

8.4k

* Except for demand

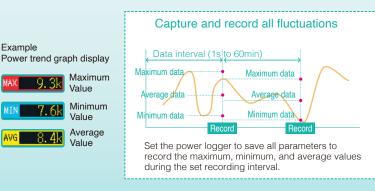
Choose one measured parameter

to create a time-series display as a graph

Monitor power variations to check for connections between equipment operating status and power consumption.

Display the maximum, minimum, and average values at the cursor position

Identify these parameters right on the time-axis graph display



Graph of values measured over a period 24 hours at 5-minute intervals

Configure Settings with Quick Set

Graphical, easy-to-understand guidance for connection procedures

Quick Setup guides you through the process of setting up the instrument for measurement, right up to starting measurement, on the screen to simplify set work. Since any mistaken connections will trigger a FAIL message, the feature also helps prevent measurement mistakes. If you receive a FAIL result, the instrument will also indicate the location of the problem.

Miswiring Example (Clamp Orientation)

Neither power nor power factor can be measured accurately with the clamp in the wrong orientation.



The I vector's phase direction is

I123 9661 50A

VOLT INPU

HASE DIF

PHASE DIF

PHASE DIF PF(DPF)

TEM HOL

within the determination area

P: 17.8 kW

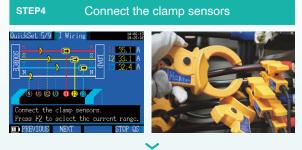
The I vector's phase direction is opposite the determination area.



P: 6.2 kW Power displayed value is too low

CURR PHASE Red means : FAIL VOLT PHASE Green means : PASS





 STEP5
 Select the current range

 STEP6
 Check wire connection status

 PHASE DIF
 PHASE DIF

 PHASE DIF
 Sarow of clamp sensor pointed to the load?

 CHECK appears if curr, phase is wiring condition.
 Sarow of clamp sensor pointed to the load?

 NDT : V. Hit EOC to close.
 NDT : V. Hit EOC to close.

 NDT : V. Hit EOC to close.
 NDT : V. Hit EOC to close.

If you receive a FAIL result

Highlight the FAIL message with the cursor and press ENTER to view information about where the connection needs to be corrected.

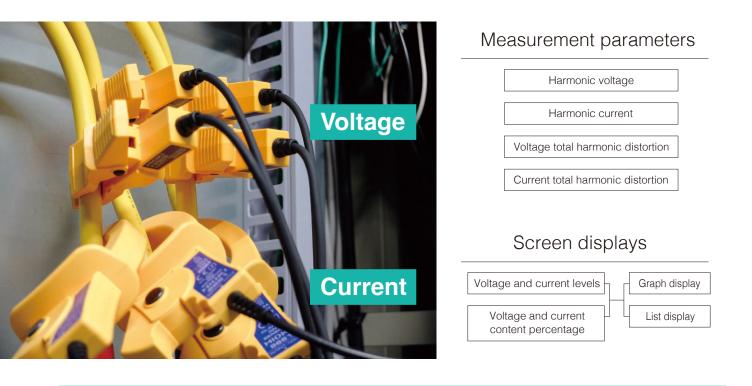
Measurement

Safely and Easily

Measure Harmonic

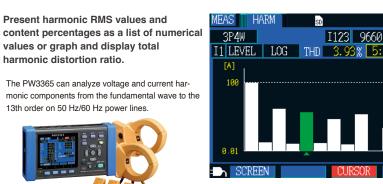
Measure harmonics with no-metal-contact voltage measurement technology

This useful feature has come to the PW3365, enabling the instrument to measure voltage and current harmonics in addition to power. Hioki's no-metal-contact voltage measurement technology lets you safely and easily measure THD and the dominant 5th- and 7th-order harmonics.



Harmonic Display

Display harmonics up to the 13th order



Harmonic Graph Display

HOI

MEAS	SD	1 YE	AR REC	18-05-24 16:15:00
3P4W	VT	I123	9667	50A
U1 LEVEL	THD	3.33	%	[V]
1 230.1	6	0.3	11	3.1
2 0.7	7	2.6	12	0.4
3 2.6	8	0.3	13	2.1
4 0.1	9	1.3		
5 5.5	10	0.2		
SCREEN			Η	OLD

Harmonic Value List Display

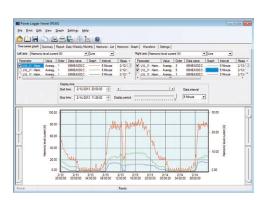
You can save maximum, average, and minimum values in binary format for each time interval to the instrument's SD card.

The Power Logger Viewer SF1001 is required in order to display data on a computer.



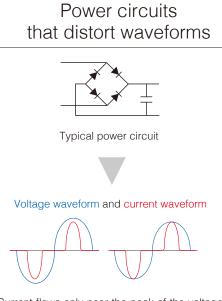
Time-series display of harmonics

Select the fundamental wave, 3rd order, or 5th order for current harmonics to display a time-series graph.



What causes harmonics?

Many electric devices incorporate power circuits with capacitor input. Such devices have rectification circuits to convert the AC power supply to DC power, and distortion in the resulting voltage and current waveforms causes harmonics.

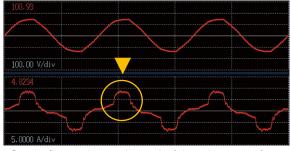


Current flows only near the peak of the voltage waveform, resulting in a voltage drop that flattens the peak portion of the voltage waveform.

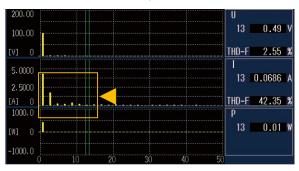


Analysis points

Waveform as measured by an instrument designed for observing harmonics

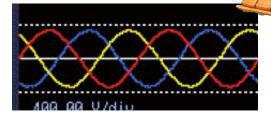


Current flows only near the peak of the voltage waveform



THD and dominant orders

Waveform as measured by the PW3365



The PW3365 displays content percentages for each harmonic voltage order as well as the voltage total harmonic distortion (THD).

MEAS HARM	SD	18-00 10:57	
3P4W	I123	<u>96</u> 94 5/	4
U1 %ofFND	THD 2.57	% [%]	
1 100.00	6 0.11	11 0.71	
2 0.23	7 0.90	12 0.18	3
3 0.28	8 0.11	13 0.5 6	5
4 0.05	9 0.19		
5 2.17	10 0.08		
SCREEN		HOL	D

The instrument is especially useful for measuring the dominant 5th and 7th orders.

Convenient Functions For the Worksite

More Uses for the PW3365-20

The Hioki PW3365-20 is not just a power logger. Added-value features and functions let you meet many other electrical testing applications.

Leakage Current Measurement

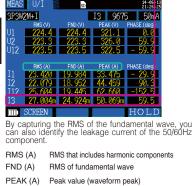




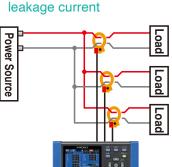
With the ability to calculate and process data every 200ms, you can

do simple checks of intermittent leakage current. Choose from aver-

age, maximum and/or minimum value of the measured interval



Leakage current results



Requires optional clamp-on leak sensor

Measure 3 channels of

Control and Monitor from a Remote Location

Use a LAN cable to connect the PW3365-20 to a personal computer for real-time remote monitoring and measurement display on a web browser.

Files recorded in the Clamp On Power Logger's internal memory or SD card are accessible via a LAN or USB connection, and are downloadable using the free PW3365-20 Setup and Download Software



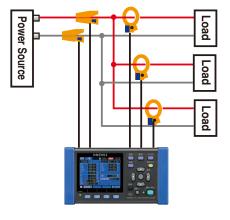
in the browser.

adjustments virtually by clicking the buttons and entering new information.

Simultaneous Measurements

Other Convenient Features

Measure three single-phase, 2-wire circuits in the same system at the same time.



Compact, lightweight Small form factor lets you set the power logger even inside cramped cubicles

Key lock function Lock the buttons to prevent erroneous operation



Battery power Power the instrument for about three hours with batteries if the power goes out

Display hold Freeze the displayed value for easier reading



Outage recovery Resume recording automatically following recovery from a power outage

Save & Analyze

Measurement Results on PC

Easily download and interpret data on a PC

Download the measurement results to a computer via the power logger's LAN or USB interface or its SD card. Simultaneously monitor all data in real-time, control your device and download the recorded data remotely with GENNECT One software. For more detailed analysis, Hioki's optional SF1001 application software is recommended

Storage media for data

SD card 2GB

Stores up to one year's data that is acquired at one minute intervals. Performance cannot be guaranteed on storage media other than SD cards sold by Hioki

Loading data

SD card 2GB LAN interface **USB** interface



Available Recording Time

	Save	Time		Save Time		
Interval time	Saving of harmonic data: OFF ON		Saving of harmonic data: OFF	Saving of harmonic data: ON		
1 seconds	14 days	2 days	30 seconds	1 year	79 days	
2 seconds	29 days	5 days	1 minutes	1 year	158 days	
5 seconds	73 days	13 days	2 minutes	1 year	316 days	
10 seconds	146 days	26 days	5 minutes	1 year	1 year	
15 seconds	219 days	39 days	More than 10 minites	1 year	1 year	

[Save conditions for above figures]

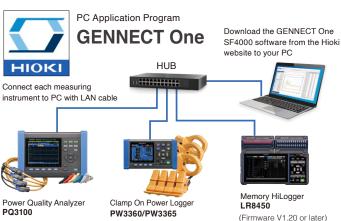
Measurement target : 3P4W

: Z4001 2-GB SD card Storage media

Saved parameters : All data: average, maximum, and minimum values Screen copy saving : OFF Waveform save : OFF

In all cases, the maximum single file size for measurement data is about 200 MB When this is exceeded, a new file is created and saving continues. The maximum recording period is one year

GENNECT One SF4000 (available as a free download from the HIOKI website)



Remote control (HTTP)

Control and configure LAN-connected measuring instruments in remote locations from a computer

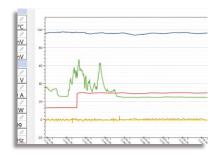
The application displays a virtual instrument and allows you to control it directly with the mouse



You can also easily change instrument settings and control the instrument, for example to start and stop measurement

Real-time measurement (logging)

-Regularly (as quickly as once every second) collect measurement data from up to 30 LAN-connected measuring instruments and display it on a computer. -Simultaneously capture power data from a power meter and temperature or flow rate data from a data logger.



Automatic file transfer (FTP)

Automatically transfer measurement files from LAN-connected instruments to a computer

This function lets you acquire data in real time on a PC, including data created when the instrument's trigger is activated and measurement files that are automatically generated on a daily basis. Example uses include capturing abnormal phenomena with an instrument installed in the field and automatically acquiring daily power consumption data on a PC.



SF4000

Downloading GENNECT One SF4000 (for Windows)

HIOKI website > Search

Model No. (Order code)

Search

Enter the model number in the search field to download the software to get started!

Save & Analyze

Measurement Results on PC

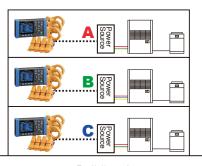
Use Hioki's Power Logger Viewer to gather, view, and compare data

Assessing the status quo is the first step in saving energy. Ascertain trends by simultaneously measuring the energy needed to maintain environmental conditions and the energy needed for production by using as many individual instruments as possible throughout plants and on individual department floors. Hioki's Power Logger Viewer SF1001 lets you download data saved at sites in the field to instruments' SD cards and internal memory to a computer to display, tabulate, analyze, and incorporate it into printed reports.

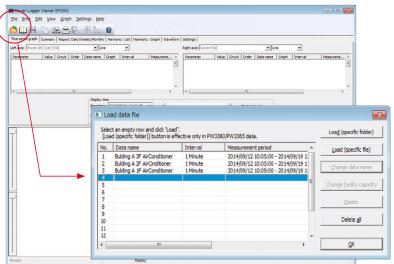
Collect data that reflects changes in multiple locations and compare to gain an understanding of the big picture

Example data use case 1

Simultaneously measure and record loads using three PW3365s.



Building A



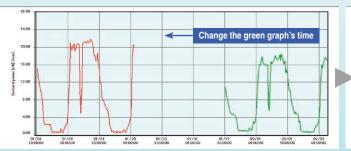
You can load data from multiple instruments.



Group power consumption data for multiple locations together and display on a single graph so that you can readily identify the times and locations that are characterized by high power consumption.

Example data use case 2

Display data for measurements made at different times on a single graph



Functionality for changing the date associated with a set of data lets you change the time of data to facilitate comparison so that you can identify the benefits of energy-saving measures at a glance.

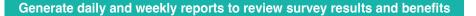


Display easy-to-understand time-series graphs

Choose a line graph or bar graph depending on your purpose.

Consolidate data

Consolidate up to 16 sets of data into a single file so that it can be loaded more guickly.



aily									
port 💻	Time	Pdem+[kW]	WP+[kWh]	U1[V]	U2[V]	U12[V]	[11[A]	12[A]	112[A]
3	00:30:00 01:00:00	3.955	50.9694 51.0219	206.08 207.13	207.43 208.41	205.63		16.392	14.989
	01:30:00	4.152	53.0977	207.66	209.02	207.31	14.521	16.854	15.530
	02:00:00 02:30:00	2.826	54.5106 54.5443	207.34 207.71	208.67 208.94	206.98		11.834 0.137	10.995
	03:00:00	4.527	56.8079	207.45	208.59	206.94	15.917	18.247	17.028
	03:30:00 04:00:00	2.044	57.8296 58.0617	208.10 208.12	209.22 209.24	207.55	7.256 5 1.701	8.296	7.837
	04:30:00	4.598	60.3609	208.28	209.43	207.88	16.181	18.551	17.252
	05:00:00	1.683	61.2024	208.08	209.27	207.84	6.100	7.058	6.639
	05:30:00 06:00:00	0.560	61.4823 63.7441	207.99 207.63	209.11 208.80	207.83		2.184	2.164 16.703
	06:30:00	1.032	64.2603	207.13	208.37	207.28	3.935	4.402	4.075
	07:00:00	1.715 4.069	65.1179 67.1522	206.57 206.63	207.85 207.96	206.88	6 6.280 7 14.970	6.828 16.860	6.243 15.109
	07:30:00	0.298	67.3012	208.16	209.63	208.59	1,188	1,219	1.225
	08:30:00	3.202	68.9023	206.53	208.05	206.85	5 11.594	12.891	11.577
	09:00:00	3.419	70.6120	206.16	207.85	206.35		14.411 8.961	12.950
	10:00:00	2.057	72.6220	204.93	206.69	204.97	7.643	9.309	8.484
	10:30:00	2.405	73.8247	205.46	207.14	205.47		10.504	9.611 14.413
	11:00:00 11:30:00	3.581	75.7616	204.94 204.77	206.63 206.58	204.95	5 13.900 1 12.952	15.829	14.413
	12:00:00	3.750	79.4268	204.64	206.45	204.72	13.459	15.426	13.949
	12:30:00	4.047	81.4501 82.9345	205.12 204.58	206.82 206.26	205.17	7 14.471 0 10.729	16.392	14.845
	13:30:00	2.969 2.376	84.1226	205.92	207.68	206.00	8.659	10.316	9.415
	14:00:00	4.661	86.4528	206.03	207.79	206.09	15.953	18.397	16.378
	14:30:00 15:00:00	5.327	89.1163 89.8750	205.78 205.98	207.55 207.69	205.81 205.95	1 18.356 5 5.365	20.610 5.959	18.650 5.562
	15:30:00	4.039	91.8942	207.02	208.68	207.02	13.800	15.454	13.950
	16:00:00	4.528	94.1581	206.70 206.69	208.40	206.70 206.71	15.909	17.784	16.257 12.920
	16:30:00 17:00:00	3.462	95.8890 97.0821	206.95	208.41 208.70	206.7	1 12.381 8 8.733	14.159 10.319	9.363
	17:30:00	3.426	98,7950	207.32	209.16	207.48	12.224	14.203	12.798
	18:00:00	3.514 3.490	100.5520	206.81 207,17	208.58 208.94	206.88	8 12.589 5 12.372	14.621 14.590	13.204
	19:00:00	3.478	104.0360	207.31	208.04	207.33	12.372	14.618	13.200
	19:30:00	3.447	105.7600	207.55	209.28	207.48		14.473	13.099
	20:00:00	2.124	106.8210	206.80 205.76	208.49 207.38	206.76 205.71	5 7.650 6.045	9.092	8.193
	21:00:00	4.295	109.8340	206.22	207.81	206.20	15.284	17.667	6.149 15.799
	21:30:00	2.556	111.1120	206.03	207.60	206.04	9.373	11.393	10.163
	22:00:00 22:30:00	1.894	112.0590 113.0090	207.52 205.77	209.03 207.28	207.43	8 7.043 7.143	8.827	7.919
	23:00:00	2.642	114.3300	206.72	208.22	206.61	9.678	11.767	10.513
	23:30:00	2.886	115.7730	206.99	208.42	206.78	10.524	12.691	11.420
	24.00.00	2.001	117.2040	207.62	205.10	207.34	10.205	12.040	11.429
age		2.842		206.65	208.18	206.55		11.785	10.724
mum demand of maximum deman	d .	5.327 2014/09/13	117.2040 2014/09/13	208.28	209.63 2014/09/13	208.59	8 18.356 8 2014/09/13	20.610 2014/09/13	18.650 2014/09/13
		14:30:00	24:00:00	04:30:00	08:00:00	08:00:00		14:30:00	14:30:00
I factor and factor	[5]	53.35 53.27							
ty capacity	[%] [kW]	10.000							
2014/09/16 2014/09/16 2014/09/17	Time 00:00:00 - 2 00:00:00 - 2 00:00:00 - 2 00:00:00 - 2 00:00:00 - 2	4:00:00 4:00:00 4:00:00	2.842 117. 2.956 188. 3.017 260. 3.724 349.	U1[V] 2040 206.65 1510 206.56 5560 206.28 9250 206.21 7440 206.27	U2[V] 208.1 207.5 207.5 207.6 207.6	8 20	11[A] 5.59 10.182 5.57 10.778 5.25 10.978 5.85 12.041 5.92 10.600	12[A] 11.785 12.501 12.828 14.207 12.411	112[A] 10.724 11.240 11.609 13.299 11.491
2014/09/18	00:00:00 - 2	4:00:00	3.076 423. 2.663 487.	6580 206.70	207.9	6 20	6.40 9.213	10.720	9.882
2014/09/19	00.00.00 - 2	4:00:00	1.281 518	3920 207.01	208.2	1 20	8.76 8.369	9.679	8.890
age			2.990	206.49	207.8	8 20	6.30 10.445	12.183	11.169
mum demand			5.667 518	3920 208.60	209.7	4 20	8.69 19.902	22.177	19.715 2014/09/14
of maximum demand			30:00 13:	9/19 2014/09/14 00:00 04:30:00	2014/09/1 04:30:0	4 2014/09 0 08:0	/14 2014/09/14 0:00 12:30:00	2014/09/14 12:30:00	2014/09/14 12:30:00
factor	[5]		52.75 56.67						
nd factor ty capacity	[5] [5] [kW]	1	56.67						
					-				
				Date	Ti	me	Pdem+[kW]	WP	+[kWh]
			L						
			Average Maximum	domand					518.3920
			Time of n	naximum demand	'		2014/09		2014/09/19
						-	12:3		13:00:00
			Load fact	or		%]		2.75	·
			Demand f	actor	0	%]	5	6.67	
			Facility c			w]		.000	

ample data format

ose from four display formats

Form	Display data for a user-specified inter- val as a summary form.
Daily report	Tabulate data by demand time and display a form summarizing a one-day period.
Weekly report	Tabulate data by day and display a form summarizing a one-week period.
Monthly report	Tabulate data by day and display a form summarizing a one-month period.
	verage and maximum values as ne time at which the maximum curred

kimum values for daily, weekly, and monthly rts indicate maximum values as tabulated by and time.)

n demand power is selected, the following tities are calculated:

ad rate and demand rate

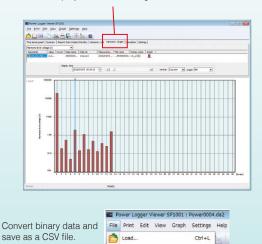
F [kWh]: Active energy

e energy (consumption) from the start of recording

Pdem+ [kW]: Active power demand value

Average active power value (consumption) for each interval

Display harmonics and waveform data, convert to CSV format, and save screenshots



Open combined file...

Save to combined file

Save csv file ...

Save the combined file as.

1 C:¥Users¥...¥Power0004.da2

Binary format

·Harmonic data

•Waveform data

Ctrl+0

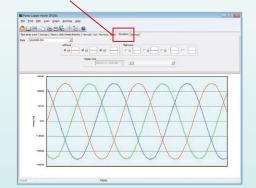
Ctrl+S

CSV

format

Configure the PW3365's recording settings to save harmonic play them using the SF1001. data and display harmonics using the SF1001.

Configure the PW3365's settings to save waveforms and dis-





PW3365-20 Specifications

Measurem	ent					
Number of inpu	t channels	Voltage: 3 channels / Current: 3 channels				
Measurement targets (50/60Hz)Single-phase 2-wire (1P2W, 1P2W × 2 circuits, 1P2W × 3 circuits) Single-phase 3-wire (1P3W, 1P3W+I, 1P3W1U, 1P3W1U+I) Three-phase 3-wire (3P3W2M, 3P3W2M+I, 3P3W3M/Y-wiring only) Three-phase 4-wire (3P4W), Current only: 1 to 3 channels						
Simultaneous power/current measurement modes		1P3W+I : 1 power circuit and 1 current channel 3P3W2M+I : 1 power circuit and 1 current channel				
Voltage		RMS value, fundamental wave value, waveform peak (absolute value), fundamental wave phase angle, frequency (U1)				
	Current	RMS value, fundamental wave value, waveform peak (absolute value), fundamental wave phase angle				
Measurement	Power	Active power, reactive power, apparent power, power factor, (with lag/lead display) or displacement power factor (with lag/lead display), active energy (consumption, regeneration, regeneration), reactive energy(lag, lead) Energy cost display (per-kWh price × power consumption)				
items	Demand	Active power demand value (lag, lead), active power demand quantity (consumption, regeneration), reactive power demand quantity (lag, lead), power factor demand value				
	Harmonics	Harmonic voltage, harmonic current, voltage total harmonic distortion (THD-F or THD-R), current total harmonic distortion (THD-F or	TDH-R)			
Voltage range		Display range: 5 V to 520 V (less than 5 V displays as 0 V) (harmonic voltage value of 0 indicated for all orders when voltage RMS value	e is 0)			
Voltage range		Effective measurement range: 90 V rms to 520 V rms, peak: ±750 V peak [OVER] indicates over-range warning				
		CLAMP ON SENSOR 9660 : 5/10/50/100 A				
		CLAMP ON SENSOR 9661 : 5/10/50/100/500 A				
		CLAMP ON SENSOR 9669 : 100/200/1 kA				
	Load	CLAMP ON SENSOR 9694 : 500 m/1/5/10/50 A				
	current	CLAMP ON SENSOR 9695-02 : 500 m/1/5/10/50 A				
		CLAMP ON SENSOR 9695-03 : 5/10/50/100 A				
Current ranges		AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 : 50/100/500 A (500A range)				
		AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 : 500/1 k/5 k A (5000A range)				
	Leakage	LEAK CLAMP ON SENSOR 9675 : 50 m/100 m/500 m/1/5 A				
	current	LEAK CLAMP ON SENSOR 9657-10 : 50 m/100 m/500 m/1/5 A				
		Total display range: Within 0.4 to 130% of the range (zero is suppressed for less than 0.4%) harmonic current value of 0 indicated for all orders when current RMS value is 0)				
		Effective measurement range: Within 5 to 110% of the range [OVER] indicates over-range warning				
		200.00 W to 6.0000 MW Depends on voltage/current combination and measured line type (see Measurement Range Configuration Tables)				
Power ranges		For a lisplay range: Within 0 to 130% of the range ("0W" display indicates zero rms voltage and/or current)				
		Effective measurement area: Within 5 to 130% of the range				
Measurement accuracy Voltage : ±1.5% rdg. ±0.8 V (combined accuracy with PW3365-20 + PW9020) Current : ±0.3% rdg. ±0.1% f.s. + clamp sensor accuracy		Voltage : ±1.5% rdg. ±0.8 V (combined accuracy with PW3365-20 + PW9020)				
Calculations		RMS calculation/ fundamental wave calculation				
VT ratio settings		Any 0.01 to 9999.99 Selections 1/60/100/200/300/600/700/1000/2000/2500/5000				
CT ratio settings		Any 0.01 to 9999.99 Selections 1/40/60/80/120/160/200/240/300/400/600/800/1200				
Input methods		Voltage: Isolated inputs using Voltage Sensor PW9020 Current: Isolated input using a clamp-on sensor				
Display update	rate	Approx. 0.5 sec (except when accessing SD card or internal memory, or during LAN/USB communication)				
Measurement method Digital sampling and zero cross synchronization calculation method Sampling: 10.24 kHz (2048 points) Calculation processing 50 Hz: Continuous, gapless measurement at 10 cycles 60 Hz: Continuous, gapless measurement at 12 cycles						

 $^{\ast 1} For individual clamp sensors' accuracy and combined accuracy figures, see pages 14 and 15.$

Harmonic Specifi	Harmonic Specifications		
Standard	IEC 61000-4-7:2002 (but without harmonics for intermediate orders)		
Window width	50 Hz: 10 cycles; 60 Hz: 12 cycles (with interpolation)		
Analyzed orders	Up to 13th order		
Analysis parameters	Harmonic levels: Voltage and current harmonic level for each order (With 3P3W2M connection, U12 and I12, which are calculated as part of third channel computations, are not displayed.) Harmonic content percentages: Voltage and current content percentages for each order; total harmonic distortion: voltage and current (THD-F or THD-R)		
Measurement accuracy	Harmonic level Voltage PW3365 alone: ±5% rdg. ±0.2% f.s. Combined accuracy for PW3365 and PW9020: ±30% rdg. ±3% f.s. (input for each order up to 5% of the fundamental wave, THD-F up to 10%) Current ±5% rdg. ±0.2% f.s. + sensor accuracy Total harmonic distortion: Accuracy not defined		

Screen Display				
List	Voltage, current, frequency, active/apparent/reactive power power factor, integrated power use, elapsed time			
U/I	RMS value, fundamental wave value, waveform peak, phase angle			
Power	Per-channel and total active power, apparent power, reactive power, power factor			
Integ	Active energy, reactiv energy, recording start time recording stop time, elapsed time, energy cost			
Demand	Active power demand value, reactive power demand value power factor demand value			
Waveform	Displays voltage and current waveform			
Zoom	Enlarged view of 4 user-selected parameters			
Trend	For one selected measurement item (not including harmonics other than demand and THD) displays maximum, average and minimum values			
Harmonics	Displays voltage and current levels and content percentages as a graph or list			

Recording	
Save destination	SD Card, internal memory (capacity: approx. 320 KB)
Save interval time	1/2/5/10/15/30 seconds, 1/2/5/10/15/20/30/60 minutes Available storage time is displayed on the PW3365-20's setting screen
Save items	Measurement save : Average only/all (without harmonics) Average only/all (with harmonics) Screen save : Saves the displayed screen as a BMP at a fixed interval* ¹ Waveform save : Stores binary waveform data* ²
Recording start methods	Interval time, manual, or at specified time, repeat
Recording stop methods	Manual, or at specified time (up to one year), timer

*1 The minimum interval time for saving screen copies is 5 min. If the setting is less than 5 min., screen copies will be saved every 5 min.

 *2 With shortest interval of 1 minute. When set to less than 1 minute, waveforms are saved once every minute

External Interfaces		
SD card	Settings data, measurement data, screen data, waveform data	
LAN	100BASE-TX IEEE802.3 Compliance - HTTP server function, FTP server function	
USB	USB Ver 2.0, Windows 10 (32/64bit)/Windows 8 (32/64bit)/ Windows 7 (32/64bit) - When connected to a computer, the SD Card and internal memory are recognized as removable storage devices.	

General	
Product guarantee	3 year
	3.5 inch TFT color LCD (320 × 240 pixel)
Display	Japanese, English, Chinese, Korean, German, Italian, French, Spanish, Turkish Backlight auto-off function (after 2 minutes) When AUTO OFF is active, the Power LED blinks
Operating environment	Indoors, Pollution degree 2, altitude up to 2000 m (6562-ft.)
Operating temperature and humidity (no condensation)	-10°C to 50°C (14°F to 122°F), 80% RH or less During battery operation: 0°C to 40°C (32°F to 104°F), 80% RH or less During battery charging: 10°C to 40°C (50°F to 104°F), 80% RH or less
Storage temperature and humidity (no condensation)	0°C to 60°C (32°F to 140°F), 80% RH or less However, the battery's storage temperature range is -10°C to 30°C (14°F to 86°F)
Maximum rated voltage between terminals	Voltage input section : 1.7 VAC, 2.4 Vpeak Current input section : 1.7 VAC, 2.4 Vpeak
Maximum rated voltage to earth	Voltage input section: 600V Measurement Category III 300V Measurement Category IV Current input section: Depends on clamp sensor in use.
Dielectric strength	7.06 kVrms AC
Applicable standards	Safety: EN61010, EMC: EN61326
Power supply	 (1) Z1008 AC Adapter : 100 V AC to 240 V AC Maximum rated power : 45 VA (including AC adapter) (2) Model 9459 Battery Pack : Ni-MH DC7.2 V 2700 mAh Continuous battery operation time Approx. 3 hr. Maximum rated power : 5 VA
Charge function	Charge time: Max. 6 hr. 10 min. (reference value at 23°C) Charges the battery regardless of whether the instrument is on or off
Backup battery life	Clock and settings (Lithium battery), Approx. 10 years @23°C (@73.4°F)
Dimensions	Approx. 180W(7.09") × 100H(3.94") × 48D (1.89") mm (without PW9002)
Dimensions	Approx. 180W(7.09") × 100H(3.94") × 68D (2.68") mm (with PW9002)
Mass	Approx. 540g (19 oz) (without PW9002), Approx. 820g (28.9 oz) (with PW9002)
Accessories	SAFETY VOLTAGE SENSOR PW9020 (4) AC ADAPTER Z1008 (1) USB cable (1) Instruction manual (1) Measurement guide (1) Red, yellow, blue and white color clips (4 each) Spiral tubes (10)

POWER LOGGER VIEWER SF1001 Specifications

Functions			Preview and print content shown on the trend graph, report, harmonic graph and settings displays.	
	Display items Voltage, current, active power, reactive power, apparent power,		Comment entry (Text comments can be entered in any printout)	
	power factor, frequency, integrated active power, integrated reactive power, demand volume, demand value, voltage dis-	Print function	Header/Footer settings: Sets the header and footer for each printout	
Trend graph display function	equilibrium factor		Printing support Any color or monochrome printing supported by the operating system	
	Stacked bar graph display : Up to 16 types of data series		Print (static) contents over a specific time period	
	Cursor measurements		Output contents: Standard or selected output items	
	Measurement values can be displayed by the cursor	Report printing	1 1	
	Displayed items are the same as for the trend Graph Display		Available output items: Trend graph, summary, daily report, waveform	
			Report creation method: Standard print	
Cummon dia	Daily, weekly and monthly report displays: Accumulates and dis- plays daily, weekly and monthly reports over specified period.		Report output settings: Save/load report output settings	
Summary dis- play function	Load factor calculation display: Calculates and displays load factor and demand factor results with daily, weekly and monthly reports	General Sp	ecifications	
	and demand factor results with daily, weekly and monthly reports	Supported models	PW3365-20 / PW3360-20 / PW3360-21	
	Time span aggregation: Aggregates data into up to four speci-	Supported models	LR5000 series ; Data previously loaded by the LR5000 Utility (.hrp2 format) using a PC	
	fied time spans	Supported	Windows 10 (32/64bit)	
Waveform display	Displays waveform data at specified date and time	computer	Windows 8 (32/64bit)	
Copy function	Captures any display image to the clipboard	operating systems	Windows 7 SP1 or later (32/64bit)	

Current CLAMP

CE	CE	CE	CE	Not CE Marked	Not CE Marked
CLAMP ON SENSOR 9694	CLAMP ON SENSOR 9660	CLAMP ON SENSOR 9661	CLAMP ON SENSOR 9669	CLAMP ON SENSOR 9695-02	CLAMP ON SENSOR 9695-03
Cord length 3 m (9.84ft)	Cord length 3 m (9.84ft)	Cord length 3 m (9.84ft)	Cord length 3 m (9.84ft)	Connect with the 9695-02/-03, Output BNC terminal Cord length: 3 m (9.84ft)	CONNECTION CORD 9219
Measurable conductor φ15 mm (0.59")	diameter φ15 mm (0.59")	φ46 mm (0.81")	φ55 mm (2.17") 80 (3.15")×20 (0.79") mm	φ15 mm (0.59")	φ15 mm (0.59")
Primary current rating 5 A AC	100 A AC	500 A AC	1000 A AC	50 A AC	100 A AC
Accuracy Amplitude (45 ±0.3% rdg.±0.02% f.s. Within ±2°	5 to 66 Hz) / Phase (45 Hz ±0.3% rdg.±0.02% f.s. Within ±1°	to 5 kHz) ±0.3% rdg.±0.01% f.s. Within ±0.5°	±1.0% rdg.±0.01% f.s. Within ±1°	±0.3% rdg.±0.02% f.s. Within ±2°	±0.3% rdg.±0.02% f.s. Within ±1°
Frequency characteristic Within ±1.0%	c 40Hz to 5kHz Within ±1.0%	Within ±1.0%	Within ±2.0%	Within ±1.0%	Within ±1.0%
Effect of external mag	netic field with a magnetic	field of 400 A/ m AC			
Equivalent to 0.1 A or less	Equivalent to 0.1 A or less	Equivalent to 0.1 A or less	Equivalent to 1 A or less	Equivalent to 0.1 A or less	Equivalent to 0.1 A or less
Effect of conductor pos Within ±0.5%	sition Within ±0.5%	Within ±0.5%	Within ±1.5%	Within ±0.5%	Within ±0.5%
Maximum rated voltage	e to earth				
CAT III 300 V rms	CAT III 300 V rms	CAT III 600 V rms	CAT III 600 V rms	CAT III 300 V rms	CAT III 300 V rms
Maximum input 45-66 F 50 A continuous	Hz 130 A continuous	550 A continuous	1000 A continuous	60 A continuous	130 A continuous
Dimensions / Mass 46W × 135H × 21D mm / 230 g (1.81") × (5.31") × (0.83") / (8.1 oz)	46W × 135H × 21D mm / 230 g (1.81") × (5.31") × (0.83") / (8.1 oz)	77W × 151H × 42D mm / 380 g (3.03") × (5.94") × (1.65") / (13.4 oz)	99.5W×188H×42D mm/ 590 g (3.92")×(7.40")×(1.65") / (20.8 oz)	50.5W×58H×18.7D mm / 50 g (2.28")×(2.28")× (0.74") / (1.8 oz)	50.5W×58H×18.7D mm / 50 g (2.28")×(2.28")×(0.74") / (1.8 oz)

Measurable conductor diameter Primary current rating

Frequency 40 - 5kHz

Maximum input 45-66Hz Dimensions / Mass

Effect of external magnetic field Effect of conductor position

Measurable conductor

Notes

Accuracy



CT9667-01 CT9667-02 CT9667-03 AC FLEXIBLE CURRENT SENSOR

Cord length : Sensor - circuit: 2 m (6.56ft) , Circuit - connector: 1 m (3.28ft)

Measurable conductor diameter	CT9667-01 : ϕ 100 mm, CT9667-02 : ϕ 180 mm CT9667-03 : ϕ 254 mm
Primary current rating	AC500 A/ AC5000 A (Switchable)
Accuracy 45-66Hz	$\pm 2.0\%$ rdg \pm 0.3% f.s. / Within $\pm 1^\circ$
Frequency 10-20kHz	Within ± 3 dB
Effect of external magnetic field	2.4% f.s. or less
Effect of conductor position	Within ± 3%
Maximum rated voltage to earth	CAT III 1000 V ms / CAT IV 600 V ms
Maximum input 45-66Hz	10000 A continuous
Dimensions / Mass	Circuit box: 35W×120.5H×34D CT9667-01, -02 : 280 g, CT9667-03 : 470 g
Power supply	LR06 alkaline battery × 2 or AC ADAPTER 9445-02/9445-03 (optional)



CLAMP ON LEAK SENSOR 9657-10 Leakage Current Measurement Only Cord length : 3 m (9.84ft)

φ40 mm	
AC 10 A*	£
±1.0% rdg ±0	0.05% f.s. / Within ±3°
Within ± :	5%
7.5 mA m	ax.
Within ±0).1%
Insulated c	conductor
30A conti	nuous
74W× 145I	H × 42D / 380g
	ower measurements
*Maximum A PW3365-20 is	C measurement range with 5 A



CLAMP ON LEAK SENSOR 9675 Leakage Current Measurement Only Cord length : 3 m (9.84ft)

φ30 mm
AC 10 A*
$\pm 1.0\%$ rdg $\pm 0.05\%$ f.s. / Within $\pm 5^\circ$
Within $\pm 5\%$
7.5 mA max.
Within ±0.1%
Insulated conductor
10A continuous
60W×112.5H × 23.6D / 160g
Not used for power measurements *Maximum AC measurement range with

PW3365-20 is 5 A

Measurement Range Configurations

CLAMP ON SENSOR 9694 / 9695-02 *1 Voltage Connection Current 1P2W 200.00 W 400.00 W 2.0000 kW 4.0000 kW 20.000 kW 400.0V 1P2W 200.00 W 400.00 W 2.0000 kW 4.0000 kW 20.000 kW 400.0V 1P2W 200.00 W 400.00 W 800.00 W 4.0000 kW 8.0000 kW 40.000 kW 400.0V 1P2W 600.00 W 1.2000 kW 6.0000 kW 12.000 kW 60.000 kW Voltage Connection 5.0000 A 10.000 A 50.000 A 100.00 A 50.000 A Voltage Connection 5.0000 A 10.000 A 50.000 A 100.00 A 50.000 A 1P3W 4.0000 kW 8.0000 kW 20.000 kW 20.000 kW 20.00 kW 20.00 kW 1P3W1U 4.0000 kW 8.0000 kW 80.000 kW 80.000 kW 20.00 kW 400.0V 1P3W1U 4.0000 kW 80.000 kW 10.000 A 1.0000 kA 1P3W1U 80.000 kW 120.00 kW 80.000 kW				-						
Voltage Connection 500.00 mA 1.000 A 5.0000 A 10.000 A 50.000 A 400.0 V 1P2W 200.00 W 400.00 W 2.0000 kW 4.0000 kW 20.000 kW 400.0 V 1P3W1U 3P3W3M 400.00 W 800.00 W 4.0000 kW 8.0000 kW 40.000 kW 3P4W 600.00 W 1.2000 kW 6.0000 kW 12.000 kW 60.000 kW 60.000 kW Voltage Connection 5.0000 A 10.000 A 50.000 A 100.00 A 50.000 A 400.0 V 1P3W1U 3P3W2M 4.0000 kW 4.0000 kW 20.000 kW 40.000 kW 20.000 kW 400.0 V 1P3W1U 3P3W2M 4.0000 kW 8.0000 kW 40.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W1U 3P3W2M 40.000 kW 12.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W1U 3P3W2M 80.000 kW 12.000 kW 80.000 kW 10000 kA 400.0 V 1P3W1U 3P3W2M 80.000 kW 160.00 kW 1.0000 kA 1.0000 kA 400.0 V 1P3W1U 3P3W2M <td>CLAMF</td> <td>PON SENS</td> <td>SOR 9694</td> <td>/ 9695</td> <td>5-C</td> <td>2 *1</td> <td></td> <td></td> <td></td>	CLAMF	PON SENS	SOR 9694	/ 9695	5-C	2 *1				
S00.00 mA 1.000 A 5.000 A 10.000 A 5.0000 A 400.0V 1P2W 200.00 W 400.00 W 2.0000 kW 4.0000 kW 20000 kW 400.0V 1P3W1U 3P3W2M 400.00 W 800.00 W 4.0000 kW 8.0000 kW 40.000 kW 3P3W2M 400.00 W 1.2000 kW 6.0000 kW 12.000 kW 60.000 kW 3P3W2M 600.00 W 1.2000 kW 6.0000 kW 12.000 kW 60.000 kW CLAMP ON SENSOR 9660 / 9695-03 / 9661*2 Urrent 9661 only 9661 only 400.0V 1P2W 2.0000 kW 4.0000 kW 20.000 kW 20.000 kW 20.000 kW 400.0V 1P3W1U 3P3W2M 4.0000 kW 8.0000 kW 40.000 kW 80.000 kW 400.00 kW 400.0V 1P3W1U 3P3W2M 4.0000 kW 12.000 kW 80.000 kW 400.00 kW 400.0V 1P3W1U 3P3W2M 80.000 kW 12.000 kW 400.00 kW 400.00 kW 400.0V 1P3W 80.000 kW 160.00 kW 1.0000 kA 5.0000 kA 400.0V	Voltage	Connection				Current				
1 1	vollage	CONNECTION	500.00 mA	1.0000	A	5.0000 A	10	.000 A	50.000 A	
400.0 V 1P3W1U 3P3W2M 3P3W3M 400.00 W 800.00 W 4.0000 kW 8.0000 kW 40.000 kW 3P4W 600.00 W 1.200 kW 6.0000 kW 12.000 kW 60.000 kW CLAMP ON SENSOR 9660 / 9695-03 / 9661*2 Voltage Connection Current 9661 only Voltage Connection 5.000 A 10.000 A 50.000 A 100.00 A 50.000 A 400.0 V 1P2W 2.0000 kW 4.0000 kW 80.000 kW 20.000 kW 20.000 kW 20.000 kW 400.0 V 1P3W1U 3P3W2M 3P3W3M 4.0000 kW 8.0000 kW 40.000 kW 80.000 kW 40.000 kW 400.0 V 1P3W1U 3P3W2M 3P3W3M 4.0000 kW 8.0000 kW 80.000 kW 400.00 kW 400.0 V 1P3W1U 3P3W2M 3P3W3M 80.000 kW 120.00 kW 80.000 kW 800.00 kW 400.0 V 1P3W1U 3P3W3M 80.000 kW 120.00 kW 240.00 kW 1.2000 MW 400.0 V 1P3W1U 3P3W3M 80.000 kW 240.00 kW 2.0000 kW 2.0000 kW 400.0 V 1P3W1U 3P3W3M 80.0		1P2W	200.00 W	400.00 \	W	2.0000 kW	4.0	000 kW	20.000 kW	
CLAMP ON SENSOR 9660 / 9695-03 / 9661*2 Voltage Connection Current 9661 only 1P2W 2.0000 kW 4.0000 kW 20.000 kW 40000 kW 20.000 kW 400.00 kW 20.000 kW 400.00 kW 20.000 kW 400.00 kW 400.00 kW 80.000 kW 400.00 kW 60.000 kW 400.00 kW 60.000 kW 400.00 kW 60.000 kW 400.00 k	400.0 V	1P3W1U 3P3W2M	400.00 W	800.00 \	W	4.0000 kW	8.0	000 kW	40.000 kW	
Voltage Connection Current 9661 only 5.000 A 10.000 A 50.000 A 100.00 A 500.00 A 400.0 V 1P2W 2.0000 kW 4.0000 kW 20.000 kW 40.000 kW 20.000 kW 400.00 kW 3P3W3M 4.0000 kW 8.0000 kW 40.000 kW 80.000 kW 400.00 kW 400.00 kW 3P3W3M 6.0000 kW 12.000 kW 60.000 kW 120.00 kW 600.00 kW 600.00 kW Current Voltage Connection 100.00 A 2200.00 A 1.0000 kA 400.0 V 1P3W1U 80.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W1U 80.000 kW 160.00 kW 800.00 kW 400.0 V 1P3W1U 80.000 kW 160.00 kW 1.2000 MW Current 193W1U 39.000 kW 240.00 kW 1.2000 MW Current 193W1U 39.000 kW 400.00 kW 2.0000 MW 400.0 V 1P3W1U 39.000 kW 400.00 kW		3P4W	600.00 W	1.2000 k	W	6.0000 kW	12.	000 kW	60.000 kW	
Voltage Connection Current 9661 only 5.000 A 10.000 A 50.000 A 100.00 A 500.00 A 400.0 V 1P2W 2.0000 kW 4.0000 kW 20.000 kW 40.000 kW 20.000 kW 400.00 kW 3P3W3M 4.0000 kW 8.0000 kW 40.000 kW 80.000 kW 400.00 kW 400.00 kW 3P3W3M 6.0000 kW 12.000 kW 60.000 kW 120.00 kW 600.00 kW 600.00 kW Current Voltage Connection 100.00 A 2200.00 A 1.0000 kA 400.0 V 1P3W1U 80.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W1U 80.000 kW 160.00 kW 800.00 kW 400.0 V 1P3W1U 80.000 kW 160.00 kW 1.2000 MW Current 193W1U 39.000 kW 240.00 kW 1.2000 MW Current 193W1U 39.000 kW 400.00 kW 2.0000 MW 400.0 V 1P3W1U 39.000 kW 400.00 kW	CLAME	ON SENS	SOR 9660	/ 9695-0)3.	/ 9661*2				
Voltage Connection 5.0000 A 10.000 A 50.000 A 100.00 A 500.00 A 400.0 V 1P2W 2.0000 kW 4.0000 kW 20.000 kW 40.000 kW 20.000 kW 400.00 kW 400.00 kW 20.000 kW 400.00 kW									9661 only	
400.0 V 1P3W 1P3W1U 3P3W2M 3P3W3M 4.0000 kW 8.0000 kW 40.000 kW 80.000 kW 400.00 kW 3P4W 6.0000 kW 12.000 kW 60.000 kW 120.00 kW 600.00 kW CLAMP ON SENSOR 9669 Current Current 0000 kW 80.000 kW 400.00 kW Voltage Connection 100.00 A 200.00 A 1.0000 kA 1P3W 400.00 kW 80.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W1U 3P3W2M 3P3W3M 80.000 kW 160.00 kW 800.00 kW 400.0 V 1P3W1U 3P3W2M 3P3W3M 80.000 kW 240.00 kW 1.2000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (5 kA) Current 500.00 kA 500.00 kW 400.0 V 1P3W 1P3W1U 3P3W2M 3P4W 400.0 kW 800.00 kW 4.0000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (500 A) 100.00 kW 800.00 kW 4.0000 MW 400.0 V 1P3W1U 3P3W2M 3P4W 400.00 kW 800.00 kW 4.0000 kW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (500 A) 500.00 A 100.00 A 500.00 A <td>Voltage</td> <td>Connection</td> <td>5.0000 A</td> <td></td> <td></td> <td></td> <td>10</td> <td>0.00 A</td> <td>i i</td>	Voltage	Connection	5.0000 A				10	0.00 A	i i	
		1P2W	2.0000 kW	4.0000 k	W	20.000 kW	40.	000 kW	200.00 kW	
CLAMP ON SENSOR 9669 Voltage Connection Current 100.00 A 200.00 A 1.0000 kA 400.0 V 1P3W 40.000 kW 80.000 kW 400.00 kW 1P3W1U 3P3W2M 80.000 kW 160.00 kW 800.00 kW 3P3W2M 3P3W3M 120.00 kW 240.00 kW 1.2000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (5 kA) Current 500.00 kA 5.0000 kA Voltage Connection 500.00 A 1.0000 kA 5.0000 kA 400.0 V 1P2W 200.00 kW 400.00 kW 2.0000 MW 400.0 V 1P3W1U 400.00 kW 800.00 kW 4.0000 MW 400.0 V 1P3W1U 400.00 kW 800.00 kW 4.0000 MW 400.0 V 1P3W1U 400.00 kW 800.00 kW 4.0000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (500 A) Current Current Yoltage Connection 50.00 A 100.00 A 500.00 A 400.0 V 1P3W1U 40.000 kW 80.000 kW 200.00 kW <	400.0 V	1P3W1U 3P3W2M	4.0000 kW	8.0000 k	W	40.000 kW	80.	000 kW	400.00 kW	
Voltage Connection 100.00 A 200.00 A 1.0000 kA 400.0 V 1P2W 40.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W U 80.000 kW 160.00 kW 800.000 kW 3P3W2M 3P3W2M 80.000 kW 160.00 kW 800.00 kW 3P3W2M 3P3W3M 120.00 kW 240.00 kW 1.2000 MW Current 3P4W 120.00 kW 240.00 kW 1.2000 MW Current 500.00 A 1.0000 kA 5.0000 kA 400.0 V 1P3W 200.00 kW 400.00 kW 2.0000 MW 400.0 V 1P3W 400.00 kW 800.00 kW 4.0000 MW 400.0 V 1P3W 400.00 kW 800.00 kW 4.0000 MW 3P3W3M 600.00 kW 1.2000 MW 6.0000 MW 400.0 V 1P3W 400.00 kW 800.00 kW 200.00 kW 400.0 V 1P2W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W 20.000 kW 400.000 kW <td></td> <td>3P4W</td> <td>6.0000 kW</td> <td>12.000 k</td> <td>W</td> <td>60.000 kW</td> <td>120</td> <td>0.00 kW</td> <td>600.00 kW</td>		3P4W	6.0000 kW	12.000 k	W	60.000 kW	120	0.00 kW	600.00 kW	
Voltage Connection 100.00 A 200.00 A 1.0000 kA 400.0 V 1P2W 40.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W 1 80.000 kW 160.00 kW 800.00 kW 3P3W2M 3P3W2M 80.000 kW 160.00 kW 800.00 kW 3P3W2M 3P3W3M 120.00 kW 240.00 kW 1.2000 MW Current 3P4W 120.00 kW 240.00 kW 1.2000 MW Current 500.00 A 1.0000 kA 5.0000 kA 400.0 V 1P3W 200.00 kW 400.00 kW 2.0000 MW 400.0 V 1P3W 400.00 kW 800.00 kW 4.0000 MW 400.0 V 1P3W 400.00 kW 800.00 kW 4.0000 MW 3P3W3M 1P3W 400.00 kW 800.00 kW 200.00 kW 400.0 V 1P2W 20.000 kW 1.0000 A 500.00 A 400.0 V 1P2W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W 40.000 kW	CLAME	ON <u>SENS</u>	SOR <u>9669</u>							
Image: Constraint of the second sec						Current				
400.0 V 1P3W 1P3W1U 3P3W2M 3P3W2M 80.000 kW 160.00 kW 800.00 kW 3P3W3M 120.00 kW 160.00 kW 800.00 kW 3P4W 120.00 kW 240.00 kW 1.2000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (5 kA) Current Voltage Connection 500.00 A 1.0000 kA 5.0000 kA 400.0 V 1P3W 200.00 kW 400.00 kW 800.00 kW 2.0000 MW 400.0 V 1P3W 400.00 kW 800.00 kW 4.0000 MW 400.0 V 1P3W 400.00 kW 800.00 kW 4.0000 MW 3P3W3M 600.00 kW 1.2000 MW 6.0000 MW 400.0 V 1P3W 400.00 kW 1.2000 MW 6.0000 MW 400.0 V 1P3W 20.000 kW 100.00 A 500.00 A 400.0 V 1P3W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W 40.000 kW 80.000 kW 400.00 kW 3P3W3M 40.000 kW 80.000 kW 400.00 kW 3P3W3M 60.000 kW	voitage	Connection	100.00	A		200.00 A		1.0	000 kA	
400.0 V 1P3W1U 3P3W2M 3P3W2M 3P3W3M 80.000 kW 160.00 kW 800.00 kW 3P3W3M 3P4W 120.00 kW 240.00 kW 1.2000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (5 kA) Voltage Connection Current 1P2W 200.00 kW 400.00 kW 2.0000 MW 400.0 V 1P3W 1P3W1U 3P3W2M 3P3W2M 3P3W3M 400.00 kW 800.00 kW 4.0000 MW 400.0 V 1P3W 400.00 kW 800.00 kW 2.0000 MW 400.0 V 1P3W 400.00 kW 1.2000 MW 6.0000 MW 400.0 V 1P3W 400.00 kW 1.2000 MW 6.0000 MW 400.00 kW 20.000 kW 1.2000 MW 200.00 kW 400.00 kW 100.00 A 500.00 A 1P3W 20.000 kW 40.000 kW 200.00 kW 400.00 kW 3P3W2M 40.000 kW 80.000 kW 400.00 kW 400.00 kW 3P3W3M 40.000 kW 80.000 kW 400.00 kW		1P2W	40.000	kW		80.000 kW	400).00 kW		
3P4W 120.00 kW 240.00 kW 1.2000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (5 kA) Voltage Connection S00.00 A 1.0000 kA 5.0000 kA 400.0 V 1P2W 200.00 kW 400.00 kW 2.0000 MW 2.0000 MW 400.0 V 1P3W 400.00 kW 800.00 kW 4.0000 MW 3P3W2M 3P3W2M 400.00 kW 800.00 kW 4.0000 MW 3P3W3M Current 500.00 A 500.00 A 4.0000 MW 400.0 V 1P3W1U 400.00 kW 1.2000 MW 6.0000 MW 400.0 V 1P3W1U 400.00 kW 1.2000 MW 6.0000 MW Current Voltage Connection 50.00 A 100.00 A 500.00 A 400.0 V 1P3W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W1U 40.000 kW 80.000 kW 400.00 kW 3P3W3M 40.000 kW 80.000 kW 400.00 kW 3P3W3M 40.000 kW 120.00 kW 600.00 kW <td>400.0 V</td> <td>1P3W1U 3P3W2M</td> <td colspan="2">80.000 kW</td> <td></td> <td colspan="2">160.00 kW</td> <td>800</td> <td colspan="2">800.00 kW</td>	400.0 V	1P3W1U 3P3W2M	80.000 kW			160.00 kW		800	800.00 kW	
Voltage Connection Current 1P2W 200.00 kW 400.00 kW 2.0000 MW 400.0 V 1P2W 200.00 kW 400.00 kW 2.0000 MW 400.0 V 1P3W 1P3W1U 3P3W2M 3P3W3M 400.00 kW 800.00 kW 4.0000 MW 3P3W2M 3P3W3M 400.00 kW 1.2000 MW 6.0000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (500 A) Current Voltage Connection 50.00 A 100.00 A 500.00 A Voltage 1P2W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W 1P3W1 3P3W2M 3P3W3M 40.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W3 3P3W3M 40.000 kW 80.000 kW 400.00 kW			120.00	120.00 kW 240.00 kW 1		1.20	WM 000			
Voltage Connection Current 1P2W 200.00 kW 400.00 kW 2.0000 MW 400.0 V 1P2W 200.00 kW 400.00 kW 2.0000 MW 400.0 V 1P3W 1P3W1U 3P3W2M 3P3W3M 400.00 kW 800.00 kW 4.0000 MW 3P3W2M 3P3W3M 400.00 kW 1.2000 MW 6.0000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (500 A) Current Voltage Connection 50.00 A 100.00 A 500.00 A Voltage 1P2W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W 1P3W1U 3P3W2M 3P3W3M 40.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W3 3P3W3M 40.000 kW 80.000 kW 400.00 kW						T0667 01	02	02 (5		
Voltage Connection 500.00 A 1.0000 kA 5.0000 kA 400.0 V 1P2W 200.00 kW 400.00 kW 2.0000 MW 400.0 V 1P3W 1P3W1U 3P3W2M 3P3W2M 400.00 kW 800.00 kW 4.0000 MW 3P3W2M 400.00 kW 1.2000 MW 6.0000 MW Current Current Voltage Connection 50.00 A 100.00 A 500.00 A Voltage Connection 50.00 A 100.00 A 500.00 A 400.0 V 1P3W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W 40.000 kW 80.000 kW 400.00 kW 400.0 V 1P3W 40.000 kW 80.000 kW 400.00 kW	AU FLI						-02	, -03 (5	(KA)	
400.0 V 1P3W 1P3W1U 3P3W2M 3P3W2M 3P3W3M 400.00 kW 800.00 kW 4.0000 MW 3P4W 600.00 kW 1.2000 MW 6.0000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (500 A) Voltage Connection 50.00 A 100.00 A 500.00 A 1P3W 20.000 kW 40.000 kW 400.00 kW 200.00 kW 400.0 V 1P3W 1P3W1 3P3W2M 3P3W3M 40.000 kW 80.000 kW 400.00 kW 3P4W 60.000 kW 120.00 kW 600.00 kW	Voltage	Connection	500.00) A C				5.0	000 kA	
400.0 V 1P3W1U 3P3W2M 3P3W3M 400.00 kW 800.00 kW 4.0000 MW 3P3W3M 600.00 kW 1.2000 MW 6.0000 MW AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (500 A) Current Voltage Connection 50.00 A 100.00 kW 200.00 kW 400.0 V 1P2W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W1U 3P3W2M 3P3W3M 40.000 kW 80.000 kW 400.00 kW 3P4W 60.000 kW 120.00 kW 600.00 kW		1P2W	200.00	kW		400.00 kW				
AC FLEXIBLE CURRENT SENSOR CT9667-01, -02, -03 (500 A) Voltage Connection Current 50.00 A 100.00 A 500.00 A 400.0 V 1P3W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W1U 3P3W2M 3P3W3M 40.000 kW 80.000 kW 400.00 kW 3P4W 60.000 kW 120.00 kW 600.000 kW	400.0 V	1P3W1U 3P3W2M				800.00 kW		4.0	000 MW	
Voltage Connection Current 50.00 A 100.00 A 500.00 A 1P2W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W 1P3W1U 3P3W2M 3P3W3M 40.000 kW 80.000 kW 400.00 kW 3P4W 60.000 kW 120.00 kW 600.00 kW		3P4W	600.00	kW		1.2000 MW		6.0	000 MW	
Voltage Connection 50.00 A 100.00 A 500.00 A 400.0 V 1P3W 20.000 kW 40.000 kW 200.00 kW 400.0 V 1P3W1U 3P3W2M 3P3W3M 40.000 kW 80.000 kW 400.00 kW 3P4W 60.000 kW 120.00 kW 600.00 kW	AC FL	EXIBLE CL	JRRENT S	ENSOR	C	T966 <u>7-01</u> ,	-02	, -03 (5	00 A)	
400.0 V 1P3W 1P3W1U 3P3W2M 3P3W3M 40.000 kW 80.000 kW 400.00 kW 3P4W 60.000 kW 120.00 kW 600.00 kW	Voltage	Connection	50.00	A				50	0.00 A	
400.0 V 1P3W1U 3P3W2M 3P3W3M 40.000 kW 80.000 kW 400.00 kW 3P3W3M 3P4W 60.000 kW 120.00 kW 600.00 kW		1P2W	20.000	kW		40.000 kW		200	0.00 kW	
	400.0 V	1P3W1U 3P3W2M	40.000	kW		80.000 kW		400).00 kW	
Look ourront: CLAMP ON LEAK SENSOR 0657-40-0675		3P4W	60.000	kW		120.00 kW		600).00 kW	
	Lasher									
Range 50.000 mA/ 100.00 mA/ 500.00 mA/ 1.0000 A/ 5.0000 A	Kande	⊔ 50.000 m	1A/ 100.00) ma/ 50	J().	UU MA/ 1.(JUU)	J A/ 5.0	JUUD A	

Range 50.000 mA/ 100.00 mA/ 500.00 mA/ 1.0000 A/ 5.0000 A

Combined Accuracy PW3365-20 + PW9020 + clamp sensors

Range		9694	9695-02		
50.000 A		-	±2.3% rdg. ±0.32% f.s.		
10.000 A		-	±2.3% rdg. ±0.4% f.s.		
5.0000 A	±2.3% rdg. ±0.32% f.s.		±2.3% rdg. ±0.5% f.s.		
1.0000 A	±2.3%	% rdg. ±0.4% f.s.	±2.3% rdg. ±1.3% f.s.		
500.00 mA	±2.3%	% rdg. ±0.5% f.s.	±2.3% rdg. ±2.3% f.s.		
Demand			0004		
Range	8	660, 9695-03	9661		
500.00 A	0.00	-	±2.3% rdg. ±0.31% f.s.		
100.00 A		6 rdg. ±0.32% f.s.	±2.3% rdg. ±0.35% f.s.		
50.000 A		6 rdg. ±0.34% f.s.	±2.3% rdg. ±0.4% f.s.		
10.000 A		6 rdg. ±0.5% f.s.	±2.3% rdg. ±0.8% f.s.		
5.0000 A	±2.39	% rdg. ±0.7% f.s.	±2.3% rdg. ±1.3% f.s.		
Range		96	69		
1.0000 kA		±3% rdg.	±0.31% f.s.		
200.00 A			±0.35% f.s.		
100.00 A			±0.4% f.s.		
		3			
Range	CT9667-0	1, -02, -03 5.000kA range	CT9667-01, -02, -03 500A range		
5.0000 kA	±4%	6 rdg. ±0.6% f.s.	-		
1.0000 kA	±4%	6 rdg. ±1.8% f.s.	-		
500.00 A	±4%	6 rdg. ±3.3% f.s.	±4% rdg. ±0.6% f.s.		
100.00 A		-	±4% rdg. ±1.8% f.s.		
50.000 A		-	±4% rdg. ±3.3% f.s.		
Conditions of guaranteed a	Conditions of After 30 minute warm-u guaranteed accuracy voltage to earth 400V		up, with 50/60 Hz sine wave input or less		
Temperature and for guaranteed a		23°C ±5°C (73 ± 9°F), (applies to all specifica	80%RH or less ations unless otherwise noted)		
Display area of guaranteed a	accuracy	Effective measurement	t range		
Real-time clock a	accuracy	Within ±0.3 sec/day (operating temperatur	(with power on, within specified re and humidity ranges)		
Temperature cha	racteristic	Within ±0.1% f.s./ °C	(except 23±5°C)		
Effect of exter magnetic field		Within ±1.5% f.s. (in a magnetic field of	400 A/m rms AC, 50 Hz/60 Hz)		
Effect of radiated, radio-frequency, electromagnetic field Within ±5% f.s. for voltage and active			e power at 10 V/m		
Apparent pow	/er	± 1 dgt. for the calculation	obtained from each measurement value		
		Fundamental waveform calculations ±2.0% rdg, ±3.0% f.s. + clamp-on sensor accuracy (w/power factor = 1)			
		Rms calculations From each measuremer	nt applied to calculation ±1 dgt.		
Energy		Active and reactive pow	ver measurement accuracies ± 1 dgt.		
Power factor		From each measuremen	nt applied to calculation ± 1 dgt.		
Frequency		$\pm 0.5\%$ rdg. (with 90 to 520 V sine wave input)			
Demand value Active and reactive pow			ver measurement accuracies ± 1 dgt.		
Demand quar	ntity	Active and reactive power measurement accuracies ±1 dgt.			
		nge of guaranteed accuracy $500 \text{ m} \text{ A to } 50 \text{ A}$	y is from 500 mA to 5 A,		

and for the 9695-02, from 500 mA to 50 A.

 *2 For the 9660 and 9695-03 sensors, the range of guaranteed accuracy is from 5 A to 100 A and for the 9661, from 5 A to 500 A.

Current Display and Effective Measurement Ranges

typical

	Panga	Total display range	Effective meas	urement range	Total display range	Effective peak
	Range	Minimum	Minimum	Maximum	Maximum	Range
Voltage	400 V Range	5.0 V	90.0 V	520.0 V	520.0 V	±750 V peak
	5 A Range	0.0200 A	0.2500 A	5.5000 A	6.5000 A	±20 A peak
	10 A Range	0.040 A	0.500 A	11.000 A	13.000 A	±40 A peak
Current	50 A Range	0.200 A	2.500 A	55.000 A	65.000 A	±200 A peak
-	100 A Range	0.40 A	5.00 A	110.00 A	130.00 A	±400 A peak
	500 A Range	2.00 A	25.00 A	550.00 A	650.00 A	±1000 A peak



Model : CLAMP ON POWER LOGGER PW3365

Model No. (Order Code) (Note)

PW3365-20 (English model, main unit only)

Accessories	
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- SAFETY VOLTAGE SENSOR PW9020
- AC ADAPTER Z1008
- USB cable (0.9 m, 2.95 ft length)
- Instruction manual
- · Measurement guide • Color clips (red, green, yellow, white)
- Spiral tubes

×1 ×1 ×1 $\times 1$ 4 each ×10

×4



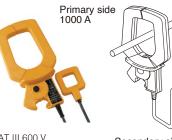
Clamp On Power Logger PW3365-20 by itself does not support current and power measurements. Current and power measurements require clamp on sensors, sold separately. Use only HIOKI SD cards guaranteed to work for saving measurement data (options, sold separately).

Options

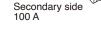
CLAMP ON SENS	SOR (for load	current measurement)			
CLAMP ON SENSOR	9694	(AC 5 A)			
CLAMP ON SENSOR	9660	(AC 100 A)			
CLAMP ON SENSOR	9661	(AC 500 A)			
CLAMP ON SENSOR	9669	(AC 1000 A)			
AC FLEXIBLE CURRENT SENSOR	CT9667-01	(AC 500 A/ 5000 A)			
AC FLEXIBLE CURRENT SENSOR	CT9667-02	(AC 500 A/ 5000 A)			
AC FLEXIBLE CURRENT SENSOR	CT9667-03	(AC 500 A/ 5000 A)			
CLAMP ON SENSOR (Not CE marked) *	9695-02	(AC 50 A)			
CLAMP ON SENSOR (Not CE marked) *	9695-03	(AC 100 A)			
CONNECTION CORD	9219	(for connection to 9695-02, 9695-03)			
* When purchasing the 9695-02 and 9695-03, we recommend also purchasing the separately sold 9219 Connection Cord.					

CLAMP ON LEAK SENSOR (for leakage current measurement) CLAMP ON LEAK SENSOR 9657-10 CLAMP ON LEAK SENSOR 9675

CLAMP ON ADAPTER 9290-10



CAT III 600 V Cord length: 3 m (9.84 ft)



Measurable conductor diameter

φ55 mm (2.17 in) Bus bar : 80 mm (3.46in) 5 20 mm (0.79 in) CT ratio : 10:1 MAX. 1500 A AC (continuous: 1000 A)



HEADQUARTERS

81 Koizumi. Ueda, Nagano 386-1192 Japan https://www.hioki.com/



regional contact information