B KIKUSUI 1X000651 Feb. 2012

Operation Guide

Application Software

SD010-KPM Standby Power Tester

for IEC62301 Ed1.0

Ver. 1.1x

e(F) Configration(C M Online CVCF nMenu Test Setting 1	C) Help(H) Online Test Execute Report				
Test Conditions / Repo Country/Region Nominal Voltage Nominal Frequency Measurement Time Warm-up Time Report Comment Setting Memo	rt Settings Europe 230 V 50 Hz 0 m h 5 m V Start Measureme Edit	min min min nt after warming up		Test Mode Manual 	300 ▼ V nominal voltage) 0.2 ▼ A ☑ On
Monitor Voltage Current Current Peak Power	230.60 149.48 581.04 16.711	v Voltage Current Current Peak	F CVCF Set V Voltage Frequency	'alue 230 V 50 Hz	
Test Condition File					Next>>

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About This Guide

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Introduction

This operation guide explains how to use SD010-KPM Standby Power Tester for IEC62301 for Ed1.0 to measure standby power using procedures that comply with an IEC standard (IEC62301 Ed1.0).

Product versions that this guide covers

This operation guide applies to version 1.1x of Standby Power Tester. The version is displayed in the main window's title bar.

Related equipment versions

The supported firmware versions are listed below. The firmware version will be displayed in the display section (for the KPM1000) or in the control panel display section (for AC power supplies) when the device is turned on.

- KPM1000 Digital Power Meter: All versions
- PCR-LE (AC power supply): Version 1.00 and later
- PCR-LA (AC power supply): Version 3.40 and later
- PCR-L (AC power supply): Version 2.09 and later
- PCR-M (AC power supply): Version 1.21 and later
- PCR-W (AC power supply): Version 1.03 and later

Who should read this guide?

This guide is intended for users who will use the KPM1000 Digital Power Meter to measure standby power. It is also intended for instructors who will teach these users.

This guide assumes that the users have knowledge about the electrical aspects of power measurements.

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Notations used in this guide

- In this guide, the KPM1000 Digital Power Meter is also called "KPM1000."
- SD010-KPM Standby Power Tester for IEC62301 Ed1.0 (the application that this guide covers) is also called "Standby Power Tester."
- The PCR-LE Series, PCR-LA Series, PCR-L Series, PCR-M Series, and PCR-W Series are also called "PCR Series."
- The term "PC" is used to refer generally to both personal computers and workstations.
- · The following markings are used in this guide.
- **CAUTION** Indicates a potentially hazardous situation which, if ignored, may result in damage to the product and other property.
 - **NOTE** Indicates information that you should know.

See

Indicates a reference to detailed information.

About Standby Power Tester

Standby Power Tester is a software application for using the KPM1000 Digital Power Meter to perform standby power measurement tests that comply with an IEC standard (IEC 62301 Ed1.0). You can control the KPM1000 remotely from a computer to set test conditions, execute tests, and create test reports. Test conditions, test results, and test reports can be saved to files. Test reports can be saved in PDF, Microsoft Excel, and Microsoft Word formats.

You can also use Standby Power Tester to remotely control a Kikusui AC power supply (PCR-LE, PCR-LA, PCR-L, PCR-M, and PCR-W Series).

Standby Power Tester can be used to:

- Remotely control the KPM1000 and an AC power supply (PCR-LE, PCR-LA, PCR-L, PCR-W, and PCR-M Series) from a PC.
- Configure and save test conditions.
- Start and configure tests.
- Display test results (stable/unstable judgment of power variation).
- Save test result files.
- Monitor measured values (rms current and voltage, active power, apparent power, power factor, and frequency).
- Save test reports.

Applicable standard

Standby Power Tester complies with the IEC 62301 Ed1.0 standard.

System configuration

This section explains the system configuration of standby power measurement tests. The KPM1000, AC power supply (Kikusui PCR Series), and PC can be connected through the RS232C, USB, GPIB, and LAN (only for use with some PCR Series) interfaces.

NOTE

Options may be required depending on the interface that you use. Also, for some AC power supplies (PCR Series), there are interfaces that you cannot use. For details, see the operation manuals of the corresponding device.



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Screen Configuration

There are two windows that you can use to operate Standby Power Tester: Main window and Configuration window.

Configuration window

📫 Cor	nfiguration						
	mmunication Miscellan	eous					
	CVCF Model	VISA Re	PCR-M		•	Scan	
	Power Meter CVCF	USB0::0 ASRL13)x0B3E::0x10 ::INSTR	2E::AA123456:	INSTR	▼ Connect	
	Connection Status	Power	Meter	CVCF			
	Connection Status	Disc	connected	Disconnec	ted		
	Firmware Version						
	Tab		Description	า			
1	Communication	n C A	Configure 1 AC power s	the settings supply (PCR	for comn -LE, PCR-l	nunicating with _A, PCR-L, PCR-N	the KPM1000 and the A, and PCR-W Series).
2	Miscellaneous	E S S	nable or c ave the te ave "Cond	lisable the c st conditior lition File" b	confirmat ns. To disp efore test	ion message tha lay this messag execution chec	at asks if you want to e, select the Confirm :k box.

Use the Configuration window to configure communication settings.

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Main window

The Main window consists of four tabs (MainMenu, Test Setting, Test Execute, and Report). When Standby Power Tester starts, the Main window is displayed with the MainMenu tab active. Normally, follow the procedure below to execute tests.

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Start the test (MainMenu tab).

NOTE To switch between tabs, click the name of the tab that you want to switch to or click the Next>> or <<Prev buttons that are displayed at the bottom of each tab.



_	Tab	Description
1	MainMenu	This is the home screen on which buttons for performing the four operations (starting tests, loading test conditions files, loading test result files, and displaying the Configuration window) are displayed.
2	Test Setting	Use this tab to set the test conditions. For the procedure, see "Setting Test Conditions."
3	Test Execute	Use this tab to execute the test. For the procedure, see "Executing Tests."
4	Report	Use this tab to print or save test reports and save test result data. For the procedure, see "Test Results and Reports."

Establishing Communications

When you start Standby Power Tester for the first time, a dialog box appears prompting you to configure the communication settings. When you click Yes, Standby Power Tester starts in offline mode, and the Main window opens. When you click No, the Configuration window for configuring the communication settings opens.

To configure the communication settings immediately after the first time that you start Standby Power Tester, click No to display the Configuration window.

Once you have completed the communication settings, the communication is automatically established. From the second time on, the Main window opens immediately when you start the software.



Starting Standby Power Tester the first time ----- Starting Standby Power Tester the second time and later

NOTE

In addition to clicking No in the dialog box, to display the Configuration window, you can:

In the Main window, click the MainMenu tab, and then click Configuration.

Configuration

• In the Main window, click the Report tab, and then click the Configuration menu. (This command is available only when the Report tab is active.)

•••••

Configuration window

Configuration				
Communication Miscellar Communication Settings CVCF Model Power Meter CVCF Connection Status Connection Status Model Firmware Version	Select this t from a PC. Use PCR-M VISA Resource Name USB0::0x0B3E::0x102 ASRL13::INSTR Power Meter Connected KPM1000 1.01	CVCF Connected PCR2000M 0.03	Scan	Series) οκ Scans for devices
ltem	Descrip	otion		
1 Communication S	Settings Configu	ure communic	ation settings.	
2 CVCF Model	Se	lect the model ant to use.	I name of the AC power s	supply that you

2	erel model	want to use. If you also want to control a Kikusui AC power supply (PCR Series) from a PC, select the Use check box.
3	Power Meter	Specify the device ID (VISA resource name) of the KPM1000.
4	CVCF	Specify the device ID (VISA resource name) of the AC power supply.
5 Co	onnection Status	Displays the communication status.
6	Connection Status	Displays the communication status. • Connected • Disconnected
7	Model	Displays the model name.
8	Firmware Version	Displays the firmware version.

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Configuring Standby Power Tester the first time it starts



procedure below to reconfigure the settings.

- 1. Refer to the Setup Guide to check the connection and communication settings.
- 2. Click Scan to detect the devices again.

Starting Standby Power Tester with the communication settings configured

Once you have completed the communication settings, the communication is automatically established. From the second time on, the Main window opens immediately when you start the software. If the communication is not automatically established, a dialog box appears prompting you to configure the communication settings. To configure the communication settings, click No. To start Standby Power Tester in offline mode, click Yes.

NOTE The following are some possible causes for the communication not being automatically established.

- The KPM1000 is not turned on.
- You have replaced some item (e.g. a connector of the USB-RS232C adaptor cable), and this is preventing you from connecting the KPM1000 (or CVCF) with the specified VISA resource.

Starting Testing

Starting a new test

In the Main window, click the MainMenu tab, and then Start New Measurement.

The Test Setting tab is displayed.

Start New Measurement

When Standby Power Tester is operating in offline mode, this button is unavailable, so you cannot execute tests.

Loading an existing test conditions file and starting the test

In the Main window, click the MainMenu tab and then Load Condition File. The file selection screen is displayed.

Load Condition File

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Select the test conditions file that you want to open, and click Open. The Test Setting tab is displayed with the loaded test conditions.

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Setting Test Conditions

Set the test conditions on the Test Setting tab in the Main window.

You can use the bottom section of the Test Setting tab to view the values measured by the KPM1000 and control the AC power supply output.

Test Setting tab

🚟 Kikusui SD010-KPM Standby Power Tester for IEC62301 Ed1.0	x
File(F) Configration(C) Help(H)	
KPM Online CVCF Online	
MainMenu Test Setting Test Execute Report	
1 Test Conditions / Report Settings 9 Test Mode	
Country/Region Europe Auto Manual	
Nominal Voltage 230 V	
Nominal Frequency 50 Hz Voltage Range 300 V	
6 Measurement Time 0 k 5 min (Auto Setting by the nominal voltage)	
6 Warm-up Time 0 h 5 min Select this to 12 Current Range 0.2 A	
Perform warm-up.	
Report Comment	
Select this to use the low page filter	
	9
14 Monitor	
Voltage	
Current 149.48 mArms Current	
Current Peak Current Peak	
Power 16.711 W 16 CVCF Output 10 CVCF Set Value	
ON OFF Voltage 230 V	
Frequency 50 Hz	
Turns the output on Turns the output off	
18 Test Condition File	
Load Save Displays the Test Execute tab Next>>	
Saves the test conditions file	
Loads the test conditions file	:

	Item	Description
1	Test Conditions/ Report Settings	Configure the test conditions and report settings.
2	Country/ Region	Select the destination country to which a product will be delivered. If you select Other, you can set the voltage and frequency. ¹
3	Nominal Voltage	The nominal voltage is set automatically. (It is set automatically when you select the destination country.)
4	Nominal Frequency	The nominal frequency is set automatically. (It is set automatically when you select the destination country.)
6	Measurement Time	 Set the test time. Settable range: 1 minute to 99 hours and 59 minutes (5 minutes or more is required by the IEC62301 standard).

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	Item	Description
6	Warm-up Time	 Set the pre-test warm-up time. Settable range: 1 minute to 99 hours and 59 minutes (5 minutes or more is required by the IEC62301 standard). If Test Mode is set to Manual, you can enable or disable the warm-up time by using the Start Measurement after warming up setting. If Test Mode is set to Auto, the warm-up time is fixed to enabled.
7	Report Comment	Edit the comment to include in the test report. Click Edit to display the dialog box for entering the comment. You can also edit the comment on the Report tab after the test is complete. For detailed information about editing comments, see "Editing comments."
8	Setting Memo	Enter a memo related to the test condition settings. The memos are saved in test conditions files and test result files.
9	Test Mode	Set the test mode.
		 Auto: In this mode, the current range is automatically set, and the warm-up and LPF are automatically enabled/disabled. Manual: In this mode, you need to manually set the current range and enable or disable the warm-up and the LPF.
10	Power Meter Settings	Configure the power meter settings.
0	Voltage Range	The voltage range is set automatically. (The most appropriate range for the nominal voltage is set automati- cally.)
12	Current Range	Set the current range to match the maximum current of the EUT.
13	LPF	To use the low pass filter, select the On check box. In the factory default settings, this check box is selected.
14	Monitor	
13	Range Monitor ²	These bar graphs show the voltage, current, and current peak ranges. Green: The measured value is between 30 % and 100 % of the range. Orange: The measured value is less than 30 % of the range or more than 100 % of the range. Red: Over-range.
16	CVCF Output ³	Turns the AC power supply output on and off.
Ð	CVCF Set Value ³	Displays the nominal voltage and nominal frequency of the AC power supply.
18	Test Condition File	Load: Loads an existing test conditions file.Save: Saves the test conditions to a file.
1	Do not enter a value that is outside than out-of-range value, the value will r	ne voltage/frequency range of the AC power supply that you are using. If you enter
2	In case of the peak current, the monito peak current of the range, in orange	or is displayed in green when the measured value is less than 90 % of the maximum when it is between 90 % and 95 % of the maximum peak current of the range, and
3	in red when tit is more than95 % of the lf CVCF is disabled (if the Use check be able, so you cannot select it.	ne maximum peak current of the range. The provide the configuration window is not selected), this is unavail-
	NOTE When Test Mode is set selected when the test	to AUTO, the current range during the test is held at the range that is is started (when the warm-up time completes). During the warm-up, the
	range is controlled and order to keep the over	l only increases, and eventually the most appropriate range is selected in -ranges from occurring during a test.

Setting new test conditions

NOTE

• Before you set the test conditions, turn off the AC power supply output.

While the AC power supply output is on, the Country/Region list is unavailable, and you cannot select the country for tests.

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• To manually set Nominal Voltage and Nominal Frequency, set the country to Other.

On the MainMenu tab, click Start New Measurement. Alternatively, click the Test Setting tab.

The Test Setting tab is displayed.

Check that the AC power supply output is off.

To turn the AC power supply output off, click OFF under CVCF Output.

Select the destination country for tests from the Country/Region list under 3 **Test Conditions / Report Settings.**

The Nominal Voltage and Nominal Frequency settings are set automatically when you select the destination country. To manually set these values, set the destination country to Other.

The country names, voltages, and frequencies comply with Table 1, "Typical nominal electricity supply details for some regions" in section 4.3 of IEC62301 Ed.1.0.

Specify the test mode by selecting one of the values under Test Mode. Δ

If you specify Auto mode, proceed to step 6. The current range is automatically set, and the warm-up and the LPF are automatically enabled or disabled. If you specify Manual mode, proceed to the next step.

Set the values for Warm-up Time under Test Conditions / Report Settings. Also, set the values for Current Range, and enable or disable the low pass filter by selecting or clearing the LPF check box under Power Meter Settings.

Warm-up setting

To perform warm-up before tests, select the Start Measurement after warming up check box.

Current range setting

Set the current range to match the maximum current of the EUT. Set the range so that the rms current does not exceed 120 % of the range and so that the current peak does not exceed 600 % of the range. It is useful to use the Range Monitor bar graphs as a guideline as you set the range.

Low pass filter setting

Under Power Meter Settings, select the On check box next to LPF.

When you measure minute currents such as standby currents, the minuscule noise components may be superimposed on the AC power supply output and consequently the measurement results can be unstable. In such a case, use Low pass filter (LPF) to stabilize the measurements.

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		6	Specify the measurement time next to Measurement Time.
		7	Turn on the AC power supply output. To turn the AC power supply output on, click ON under CVCF Output.
See p. 15		8	When you have finished configuring the settings, click Next>> in the lower right of the screen, or click the Test Execute tab. The Test Execute tab is displayed.
_	NOTE	lf you box v • Se • Cle in	I try to execute the test (Test Start) without saving the test conditions, a confirmation dialog will be displayed. To hide the confirmation dialog box: lect the Don't show this message again check box in the confirmation dialog box. ear the Confirm save "Condition File" before test execution check box on the Miscellaneous tab the Configuration window.

Saving test conditions to files



Loading existing test conditions

Click Load under Test Condition File.
 Select the file that you want to load.
 NOTE
 Alternatively, you can follow one of the procedures below to load a test conditions file.
 On the File menu, click Load and then Condition File, and then select the file.
 On the MainMenu tab, click Load Condition File, and then select the file.

Executing Tests

Execute tests using the specified test conditions

NOTE

During test execution, you cannot switch to a different tab.

Test Execute tab



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The status of the AC power supply is checked automatically, and the standby power test starts. The progress is displayed on the Progress bar under Test Overview. The test conditions are displayed below the Progress bar.

Fest Overview		— Displays the test	st progre	SS	
	00:00:23				00:05:00
Progress					
				1	
Nominal Voltage	230V	Current Range	0.02		
Nominal Frequency	50Hz	Voltage Range	300V		
Measurement Time	Oh 5min	LPF	ON]	
Warm-up Time	Oh 5min				



2 When the test has finished, click Next>> in the lower right of the screen, or click the Report tab.

The Report tab is displayed.

If an over-range occurs during testing

If you have set the test mode to Manual or if you have set the test mode to Auto and you are testing a device that has large current fluctuations, current over-ranges may occur during testing.

See p. 21

If an over-range occurs during testing, "Current Over-Range detected" is displayed to the lower right of the progress bar, and the time that the over-range occurred is recorded in the test status log. While the over-range is occurring, the times that it occurs are repeatedly recorded in the test status log.

🗮 Kikusui SD010-KPM Standby	Power Tester for IEC	52301 Ed1.0	States with a			
File(F) Configration(C)	Help(H) Debug					
KPM Online CVCF Onl	ine					
MainMenu Test Setting Test	Execute Report					
Execution	Test Overview					
	Progress	00:00:32				00:05:00
Test Ston	Nominal Voltage	230V	Current Range	0.005A	Curren	t
rest stop	Nominal Frequency	50Hz	Voltage Range	300V	Over-Rar	nge
	Measurement Time	0h 5min	LPF	ON	detecte	d!
	Warm-up Time	Oh 5min				
					An over-range has	occurred.
Power Supply Conditions	ue Limit Value	Status	Measure Data			_
Crest Factor 1.42	1.34-1.49	OK	Power Variation		Unstable	
THD-V(%) 0.06	2.0%	ок	Last Power 1.498	37 w	Average Power 0.188	5 w
Voltage(V) 230.6	2 +-1.0%	OK	Max Power 1.498	37 W	Accum. Power 0.661	54 mWh
Erequency(Hz) 49.99	6 +-1.0%	OK	Min Power 0.075	5 2 W	Variation(<5%) 94.9	8 %
		un	Power Factor		Apparent PowerOve	r VA
Measure Status						
Current over-range has o	letected! 13:43:41	The times	s when over-ranges	occur	^	Clear log
Current over-range has o Current over-range has o	letected! 13:43:42 letected! 13:43:42	are recor	ded in the test status	s log.		Savalaa
Current over-range has o Current over-range has o	letected! 13:43:43 letected! 13:43:43					Save log
					-	
< <prev< td=""><td></td><td></td><td></td><td></td><td>Ν</td><td>lext>></td></prev<>					Ν	lext>>
						.:

To clearly indicate that an over-range has occurred even when only one over-range occurs during testing, "Current Over-Range has occurred" will remain displayed to the lower right of the progress bar throughout the test.

Test Overview				
	00:00:42			00:05:00
Progress				
Nominal Voltage	230V	Current Range	0.005A	Current
Nominal Frequency	50Hz	Voltage Range	300V	Over-Range
Measurement Time	Oh 5min	LPF	ON	has occurred!
Warm-up Time	Oh 5min			Indication that an over range
				has occurred



When the test is finished, the following dialog box is displayed to notify the user that an over-range

If an over-range occurs during a test, the comment "Over-range has occurred. The value is for one's information only." is added to the test report in the Value column.

3 Measured Data

occurred.

Judge (Stable / Unstable)	Unstable (But, over-range has occurred. The value is for one's information only.)
Stable Measurement	
Item	Value
Measurement Period (hh:mm:ss)	Comment recorded when an over-range occurs
Power Variation (5% MAX)	73.55% (Over-range has occurred. The value is for one's information only.)
Max Power Value (W)	59.948W (Over-range has occurred. The value is for one's information only.)
Last Power Value (W)	16.496W (Over-range has occurred. The value is for one's information only.)
Unstable Measurement	
Item	Value
Measurement Period (hh:mm:ss)	00:01:00
Accumulated Energy (Whr)	319.737mWh (Over-range has occurred. The value is for one's information only.)
Average Power (W)	19.183W (by the 'Accumulated energy approach') (Over-range has occurred. The value is for one's information only.)
Detail Measured Data	
Item	Value
Apparent Power (VA)	34.291VA (Over-range has occurred. The value is for one's information only.)
Real Power Factor	0.480 (Over-range has occurred. The value is for one's information only.)

NOTE

• When an over-range is occurring, the power is calculated as "the actual voltage × 130 % of the current range."

For example, if the actual voltage is 230.05 V and the current range is 0.01 A, the power is 2.9907 W ($230.05 \times 0.01 \times 1.3 = 2.9907$).

 The values measured when an over-range occurs are only to be used for your reference. The average power when an over-range occurs varies depending on whether Unstable Meas. Approach has been set to Average (averaged power method) or Accumulated (accumulated power method). This is because the internal calculation methods vary. For information on setting the measurement method, see "Test Results and Reports."

See p. 22

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Checking the quality of power supplies

The results of the quality measurement of the AC power supply that you are using in the tests are displayed under Power Supply Conditions.

I ower Suppry C	Worst Value	Limit Value	Status
2 Crest Factor	1.420	1.34-1.49	ОК
3 THD-V(%)	0.06	2.0%	ок
4 Voltage(V)	230.58	+-1.0%	ОК
5 Frequency(Hz)	49.996	+-1.0%	ок

Power quality items that are checked

	Item	Description	Limits
1	Power Supply Conditions	Displays the results of the quality measurement of the power supply	
2	Crest Factor	Voltage crest factor	1.34 to 1.49
3	THD-V(%)	Total harmonic distortion of voltage (2nd to 13th order)	2 % or less
4	Voltage(V)	Voltage	Within 1%
6	Frequency(Hz)	Frequency	Within 1%

• The upper and lower limits comply with section 4.3 of IEC62301 Ed.1.0.

 Standby Power Tester performs one measurement of the four items listed above before starting the test and displays the result.

NOTE

Checking the test results

The test results are displayed under Measure Data.



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Test result items

	ltem	Description
6	Measure Data	Displays the test results.
0	Power Variation	Displays the status of the EUT's power variation width. Stable: The power variation width during testing is less than or equal to the Variation Limit value. Unstable: The power variation width during testing exceeds the Variation Limit value.
8	Last Power	Displays the power at the end of the test.
9	Max Power	Displays the maximum power during testing.
10	Min Power	Displays the minimum power during testing.
1	Power Factor	Displays the power factor.
12	Average Power	Displays the average power that is calculated from the accumulated power and the test time.
13	Accum. Power	Displays the accumulated power during testing.
14	Variation (<5%)	Displays the power variation width in reference to the maximum value during the test.
ß	Apparent Power	Displays the apparent power.

NOTE IEC62301 Ed1.0 states whether Last Power (the power at the end of the test) or Average Power (the averaged power) should be used as the measured value. The standard specifies that Last Power be used as the measured value when Power Variation (the power variation width) is 5 % or less and that Average Power be used as the measured value when Power Variation exceeds 5 %. (See section 5.3.1, "Where the selected mode is stable," in this standard.)

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Stopping tests

To stop a	test.	click	Test	Stop.
10 500 0		circit		Stop.

Stops the test
Test Stop

After a test starts, the Test Start button changes to the Test Stop button.

Clearing and saving the measurement status log

Details of the test's progress are displayed under Measure Status. You can clear and save this test status log. The log file is saved in text format, and you can open the file in general text editors such as Windows Notepad.

Auto-ranging is turn on. LPF is turn on.	Clears the measurement status log ———————————————————————————————————
Start Warming up of test equipment Warming up is done	Saves the measurement status log ———————————————————————————————————

To clear the log

Under Measure Status, click Clear log.

To save the log

Under Measure Status, click Save log.

NOTE

Test Results and Reports

You can print test reports via a connected printer, or you can save test reports to files. The test results can be saved as test reports or test results data.



Use the Report Comments dialog box to edit the comment that is included in the test report. For details, see "Editing comments."

Report tab

Kikusui SD010-KPM Standby Power Tester for IEC623	01 Ed1.0 Ver Untitled-	
File(F) Configration(C) Help(H) Debug		
KPM Online CVCF Online Prints	s the report Saves the report	t Edits the comment
Test Report Print Export Format	Excel - Report Comment	Edit Average Accumulated
	Select the format of the fil	le to save.
······································	Standard	IEC62301 Ed1.0
1 Appliance and Test Equipment De	tails	E
Item	Appliance	Test Equipment
Brand		KIKUSU
Model		KHM1000
Type Seriel No.		Digital Pow er Weter
Deted Veltere	2201/	AA123436
Pated Frequency	230V 60H 7	
Application Software Version		Ver10.0.3
Firmw are Version		Ver1.01
Pow er Meter Settings		Range = 300V,0.02A
Product Description		
Manufacturer Information		
2 Test Parameters		•
<-Prev Displays the Tes	t Execute tab	Save Result End of Test
	Sa	ves the test result Finishes testing

	ltem	Description
1	Unstable Meas. Approach ¹	Select the calculation method of the average power that is written in the test report. (The factory default setting is Accumulated.)
2	Average	Averaged power method. Averaging is performed over the entire test period to calculate the aver- age power.
3	Accumulated	Accumulated power method. The average power is calculated from the accumulated power and the time.

1 You can only set this when "Unstable" is displayed next to Power Variation under Measure Data on the Test Execute tab.

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NOTE The IEC62301 standard accepts both the Average Power Approach and the Accumulated Power Approach.

Normally, there is no significant difference in the measurement result regardless of which measurement method you select. If you need to use a specific method, such as when you need to select one that matches a product manufactured by a different company, select a value under Unstable Meas. Approach.

Printing test reports

Click Print next to Test Report.

2 Specify the printer, configure the print settings, set the number of copies, and print.

Saving test reports to files

1 From the Format list, select the format that you want to save the file in. Select PDF, Excel, or Word.

2 Click Export next to Test Report.

Specify the save destination and the file name to save the test report.

NOTE If you save the report in Microsoft Excel (.xls) or Microsoft Word (.doc) format, the test report may be displayed with incorrect layout depending on the version of Excel or Word that you are using. In this situation, adjust the new line positioning and font size to correct the layout.

Saving test results to files

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	1	Click Save Result in the lower right of the screen.
	2	Specify the save destination and the file name to save the test result file.
NOTE	Alter	natively, on the File menu, click Save and then Result File to save the test result to a file.

Loading existing test results

To load existing test results, follow one of the procedures listed below.

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If the Report tab is active in the Main window On the File menu, click Load and then Result File. Select the file that you want to load. The selected test results are displayed. If the MainMenu tab is active in the Main window Click Load Test Result File. The file selection screen is displayed. Load Test Result File Select the test result file that you want to open, and click Open. 2 The selected test results are displayed on the Report tab. After you load a test result file, you cannot execute tests even if you move to the Test Execute tab. NOTE To start a new test, click Start New Measurement on the MainMenu tab, or save the test conditions file on the Test Setting tab.

Editing comments

Click Edit to the right of Report Comment.

The Report Comments form is displayed.

Edit the comment. 2

The comment format complies with provision in "Chapter 6 Test Report" in IEC62301 Ed1.0.

- 1	I Appliance and Test Equipment Details	
2	Brand	ОК
3	Model	Canaal
ň	Туре	Cancer
	Serial No.	
D	Dendurk description	
6		
7	Manufacture Information	
-		
	Ambient Temp dec	
ğ	Information and documentation on the instrumentation	
10		
2	Measured Data	
) - 3 (b)	3 Measured Data Description of how the appliance mode	
) 3 12	3 Measured Data Description of how the appliance mode	
) 3 12 13	A Measured Data Description of how the appliance mode Any notes	
) 3 12 13	3 Measured Data Description of how the appliance mode Any notes	
) 3 12 13	B Measured Data Description of how the appliance mode Any notes Test and laboratory details	
) 3 12 13 14 15	B Measured Data Description of how the appliance mode Any notes Test and laboratory details Test Report No.	
) 3 12 13 14 15	B Measured Data Description of how the appliance mode Any notes Test and laboratory details Test Report No.	
) 3 12 13 14 15 16	B Measured Data Description of how the appliance mode Any notes Test and laboratory details Test Report No. Lab name_Address	
) 3 D B 14 D 0 D	B Measured Data Description of how the appliance mode Any notes Test and laboratory details Test Report No. Lab name _Address Test officer(s)	
) 3 12 13 14 15 16 10	B Measured Data Description of how the appliance mode Any notes Test and laboratory details Test Report No. Lab name _Address Test officer(s)	
13 12 13 14 15 16 10 10	A Measured Data Description of how the appliance mode Any notes Test and laboratory details Test Report No. Lab name _Address Test officer(s) Remarks	
	A Measured Data Description of how the appliance mode Any notes Test and laboratory details Test Report No. Lab name _Address Test officer(s) Remarks Remarks Remarks	



	Item	Description
1	Appliance and Test Equipment Details	EUT information
2	Brand	Brand name
3	Model	Model number
4	Туре	Classification
6	Serial No.	Serial number
6	Product description	A brief explanation about the prod- uct
7	Manufacture Information	Information about the manufacturer of the product
8	Test Parameters	Parameters used for the test
9	Ambient Temp.	Ambient temperature
0	Information and documentation on the instrumentation	Information and technological docu- mentation related to the measuring instruments
1	Measured Data	Data that has been measured
12	Description of how the appliance mode	EUT mode overview
13	Any notes	Notes
14	Test and laboratory details	Information related to the tests and the laboratory that they were executed at
15	Test Report No.	Number of the test report
16	Lab name_Address	Name and address of the laboratory
Ð	Test officer(s)	Officers who conducted the test
18	Remarks	Remarks about the test

Click OK to confirm the comment.

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Troubleshooting

If you need to troubleshoot this application, check the symptoms listed below, and then try the corresponding remedy. If that does not solve the problem, contact your Kikusui agent or distributor.

Symptom	Item to check	Remedy
The program does not start.	 Is the VISA COM library installed cor- rectly? 	 Uninstall all the libraries, and then install only one library. If multiple VISA libraries are installed on the same PC, the application will not operate correctly.
The application does not connect to the measuring instrument when I press Connect.	 Are the baud rates of the KPM1000 and AC power supply and the VISA address for communications set correctly? 	 Refer to the operation manual of the KPM1000 or AC power supply to config- ure the settings correctly. If the KPM1000 or AC power supply is connected to the PC with an RS232C cable, set the baud rate as shown below. KPM1000: 38400 bps PCR-LE, PCR-LA, and PCR-M: 19200 bps PCR-L and PCR-W: 9600 bps
Tests stop partway through their execution.	 Is a password-protected screen saver enabled on your PC? 	Disable the screen saver.
l forget what settings l have made.	 Have you tried to return the KPM1000 and AC power supply to their factory default settings? 	 To return the KPM1000 to its factory default settings, hold down the LOCAL key while you turn the KPM1000 on. For details on returning the AC power supply (PCR Series) to its factory default settings, see the corresponding operation manual. (The procedure varies depending on the model.)

Menu Reference

Menu	Description	
File		
Load		
Condition File	Load a test conditions file.	
Result File	Load a test result file.	
Save		
Condition File	Save the present test conditions to a file.	
Result File	Save the present test result to a file.	
Exit	Exit the program.	
Configuration ¹	Opens the Configuration window.	
Help		
Online Manual(J)	Opens the online manual (Japanese).	
Online Manual(E)	Opens the online manual (English).	

1 This can only be selected when the MainMenu tab or the Report tab is active.