60V 250A Power Analyzer

Attentions :

1. Avoid in contact with flammable, alkaline and acidic substances.
2. Avoid direct contact with water.
3. Do not reverse the polarity of the electrical supply input, it may damage the device.
4. Keep the product away from magnetic field such as iron, nichrome, battery and motor should not be placed within 25mm. This is to assure the measuring accuracy of the device.
5. Extra attention: Any signal made by wireless or telecom device during analyzing process may cause discrepancy to the sample result.

Specifications :

1. Range of auxiliary voltage: 5V – 15V
2. Range of allowed analyzing voltage: 0V – 60V
3. Maximum testing current: 250A
4. Net weight: about 30g
5. Size: 50 x 30 x 11mm

The Power Analyzer package includes:
1. Power Analyzer
2. LCD Operation Panel
3. USB data wire
4. 4pin display wire
5. software CD

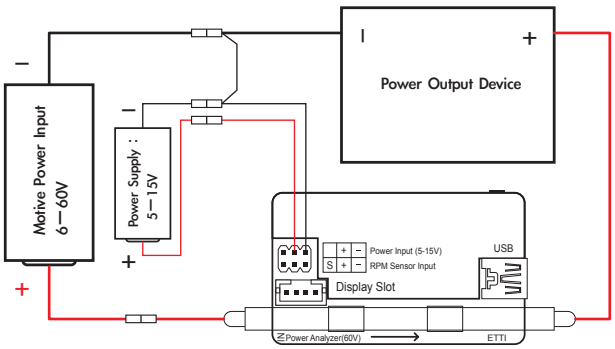
Characteristics :

This device specializes in testing the output performance of the power cell as well as the rotational speed of the brushless motor. It can perform real time monitoring, sampling, recording and analyzing. With the help of the analyzing software, users can observe the change in output electric current, voltage, rotational speed of the motor in a certain time interval, so that they can assess the cell capacity and motor combinations and hence make evaluation. Owing to its small size and light weight, users can obtain a live and actual sample data in its voyage, in order to choose the best cell and motor combination. The device can work stably and shows a clear and accurate result. It is mainly used for RC Plane, boat and car and scientific research of power cell monitor, analysis and configuration.

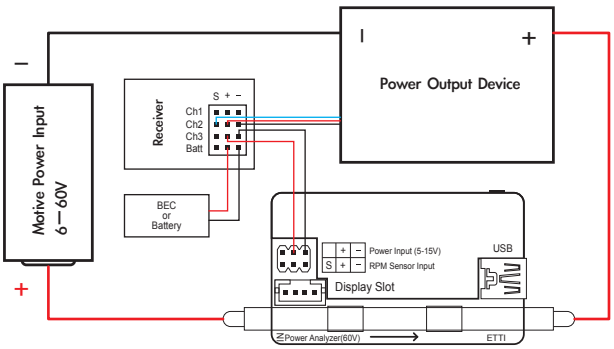
Connections :

Assemble the device on the equipment that is going to be checked, connect it in between the electrical supply and the equipment. (Please follow the label on the device for the input and output direction, reverse connection of the polarity may cause permanent damage to the device.)

A.



B.



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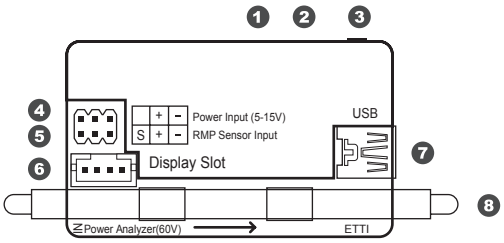
Usage :

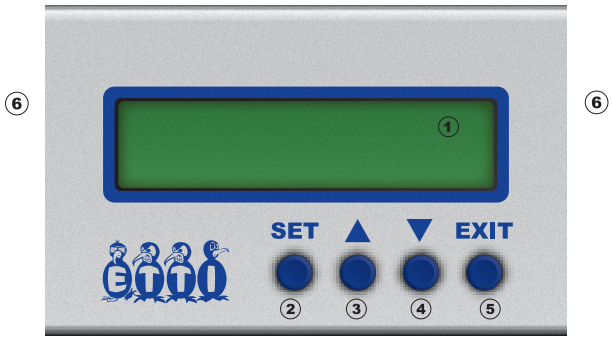
1. Power indicator
2. Data indicator
3. Clear memory
4. Power Input
5. RPM Input
6. Display slot
7. USB plug
8. Motive Power Input

① Display
② SET
③ UP
④ DOWN
⑤ EXIT
⑥ Display connection



Software of the operation panel:

Connect the Power analyzer with the device using the data wire, after the power analyzer has electrified, the LCD operation panel shows the software version of the Portable LCD operation Panel. It will then enter the following options:



1. Peak Value (Peak value)
   Minimum voltage (V min) / Maximum electric cur rent (A max) / battery Consumption (Used), Maxi mum display value 65534mAH / Used power (Power)
2. Data History (Complete set of data history)
3. Data clearance (Deletion of data)
4. Instant Value (real time value)
   Voltage / Electric current / Power / Rotational speed
5. Parameter Set (Setting of parameter)
   Sampling Interval (Sampling interval)
   Startup Amp (Initial electric current)
   Sampling Defer. Defer. = Deferment (Deferred sampling)
   Pole of motor (Pole of brushless motor)
   Write Data (Input of data)
6. Read PA Version (Read the software version of the power analyzer)

Instruction of indicator condition :

Sample awaiting status: Flashes alternatively in 1 second
Sampling status: Flashes quickly
Complete sampling: Lasting bright

Connection to data bus :

Connect the Power Analyzer to the USB port of the computer using the USB data wire
No external electricity is required

Recording :

Electrifying: Open the electrical supply when the device is connected.
History clearance: Press and hold the button for 3 seconds to clear the last record.
The device cannot execute new sampling when the last history is not cleared.
Start recording: Export an electric current which is equal or greater than that of the start up value, the analyzer will start recording after the preset deferred starting time, the indicator will flash quickly.
Sampling process should be completed as a whole, no interruption is allowed.
Completion of sampling process: The indicator lasts lighting up.

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Installation of computer software :

I. Installing software for power analyzer

a. Insert the CD into CD/DVD ROM
b. Inside the folder of Power Analyzer PC software, double click SETUP, the installation wizard will start to operate.
c. Click NEXT in the "welcome to the InstallShield Wizard for Power Analyzer" interface.
d. In the Destination Folder, user can choose to change the location of installation; or just click NEXT to continue.
e. In the "Ready to Install the Program", click "Install", the software will then be installed automatically to the computer.
f. In "InstallShield Wizard Completed", click "Launch Power Analyzer" to run the software, then press Finish.

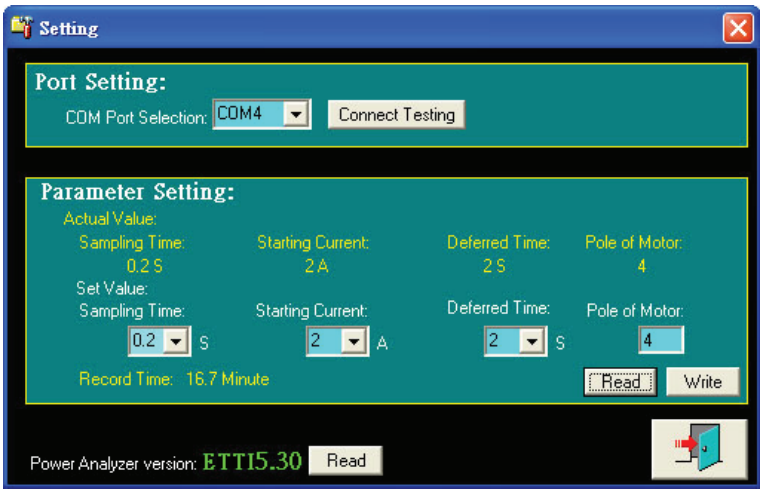
II. Installing the USB drive

It is required to install the USB drive before usage, in order to ensure the data exchange of the power analyzer and the computer.

a. Connect the power analyzer to the computer through the USB wire. Do not disconnect the USB wire during installation. The system will detect new hardware and the installation wizard will execute.
b. Select "No, not now" in the "Welcome to hardware installation wizard" then press "Next".
c. Choose "Select from list/destined location" and press "Next"
d. Insert the Power Analyzer installation CD, click "Browse" to find the "USB driver" directory, then click "Next".
e. The computer will find the driver and start installing, click finish.
f. At this time, the computer will find another new hardware, the installation method will be the same as above (a-e)
g. After the completion of the two driver installations, the power analyzer will be able to connect to the computer to download required data.

Setting

Through the software setting (Open the software, software setting interface)



1. Serial port selection

Set COM1~COM15 to choose the data interface of the computer. (when several serial ports are in use.)

Firstly, check the serial port setting of the computer: Control>System>Hardware>Driver>(COM & LPT),

Find the serial number for the connectable COM, choose the corresponding COM serial port in the Serial port setting] and test its communication status.

Setting :

II. Setting of sampling time interval

Sampling time interval 0.1s ->Total recording time lasts for 8.3 minutes
Sampling time interval 0.2s ->Total recording time lasts for 16.7 minutes
Sampling time interval 0.3s ->Total recording time lasts for 25 minutes
Sampling time interval 0.4s ->Total recording time lasts for 33.3 minutes
Sampling time interval 0.5s ->Total recording time lasts for 41.7 minutes
Sampling time interval 0.6s ->Total recording time lasts for 50 minutes
Sampling time interval 0.7s ->Total recording time lasts for 58.3 minutes
Sampling time interval 0.8s ->Total recording time lasts for 66.7 minutes
Sampling time interval 0.9s ->Total recording time lasts for 75 minutes
Sampling time interval 1s ->Total recording time lasts for 83.3 minutes

III. Setting of the operating electric current

User can set the operating electric current ranging from 3A to 30A.

VI. Deferred starting, time setting:

Set the deferred starting time after the operating electric current has reached the required value, from 1 second to 10 seconds.

V. Setting of pole of motor

Setting of the pole of motor to test the accurate rotational speed of the motor.

Recording

Electrifying: Open the electrical supply when the device is connected. History clearance: Press and hold the button for 3 seconds to clear the last record. The device cannot execute new sampling when the last history is not cleared.

Setting of the operating electric current: Export an electric current which is equal or greater than that of the start up value, the analyzer will start recording after the preset deferred starting time, the indicator will flash quickly. Sampling process should be completed as a whole, no interruption is allowed. Completion of sampling process: The indicator lasts lighting up.

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Setting :

Downloading

Connect the data wire and wait until downloading is completed. See below for the record analysis interface.

Voltage: Blue line
Electric Current: Red line
Rotation: Green line

Specifications

Working voltage: 0~60V
Testing current: 0~250A
Electric current sampling A/D resolution: 10bit
Electric current resolution: 0.244A
Voltage dissolution: 0.0586V
Size(exclude wires and cables): 30mm×50mm×11mm
Weight: about 30g