IRIS INSTRUMENTS

NEW

VIP 5000

5 kW
IP TRANSMITTER

- **Up to 3000V, 10A**
- **Standard motor generator**
- **Ease of use**
- **Full microprocessor control**

IRIS Instruments is pleased to introduce its new entry in the VIP range of resistivity and IP transmitters, **VIP 5000, a 5 kW** current regulated Time Domain Induced Polarization transmitter.

VIP 5000 MAJOR BENEFITS

- VIP 5000 is light in weight and endowed with a high voltage output (3000V): this is particularly convenient for IP surveys in high resistivity rugged areas and for deep resistivity soundings.

- VIP 5000 is microprocessor driven for ease of operation and protection against misuse. All injection parameters (current, voltages, ...) are controlled.

- VIP 5000 is powered from a standard single phase or three phase motor generator: this eliminates the maintenance and supply problems associated with custom power sources.

VIP 5000 MAIN FEATURES

HIGH OUTPUT :

In medium and high resistivity areas, the amount of current driven into the ground depends on the maximum output voltage provided by the transmitter; in addition in low resistivity areas, it is also dependent on the maximum output power.

The VIP 5000 features the following specifications:

- High output voltage: 3000 V
- High output power: 5 kW
- High output current: 10 A

HEAVY DUTY CONSTRUCTION:

Very high quality connectors, and heavy duty industrial components are used throughout. The VIP 5000 is shock resistant and weatherproof, for a higher reliability.

FULLY AUTOMATED:

The VIP 5000 is designed **for ease of operation**. It has a much simplified front panel: current setting is the only parameter to be selected by the operator. All the other functions, like voltage range setting, are fully automated.

PROGRAMMABLE:

Programming functions are also available through the front panel, but with a special key combination. These functions are used to select the parameters and options that are not normally changed during a survey: operating mode, time or frequency domain, cycle time, frequencies.
This approach reduces front panel cluttering and drastically reduces the possibility of operator mistake. **Instrument reliability** is thus increased.

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VIP 5000

STANDARD MOTOR GENERATOR SUPPLY

In order to minimize transportation and maintenance costs, the local availability of a motor generator is a key factor. Being powered by a standard motor generator, the VIP 5000 offers the highest flexibility in its class. Its power input requirements are:

- 180 to 250 V voltage for maximum output power
- 45 to 800 Hz frequency
- single phase or three phases
- motor generator or power line supply

FULL MICROPROCESSOR CONTROL

The full microprocessor control of the VIP 5000 allows the following basic benefits:

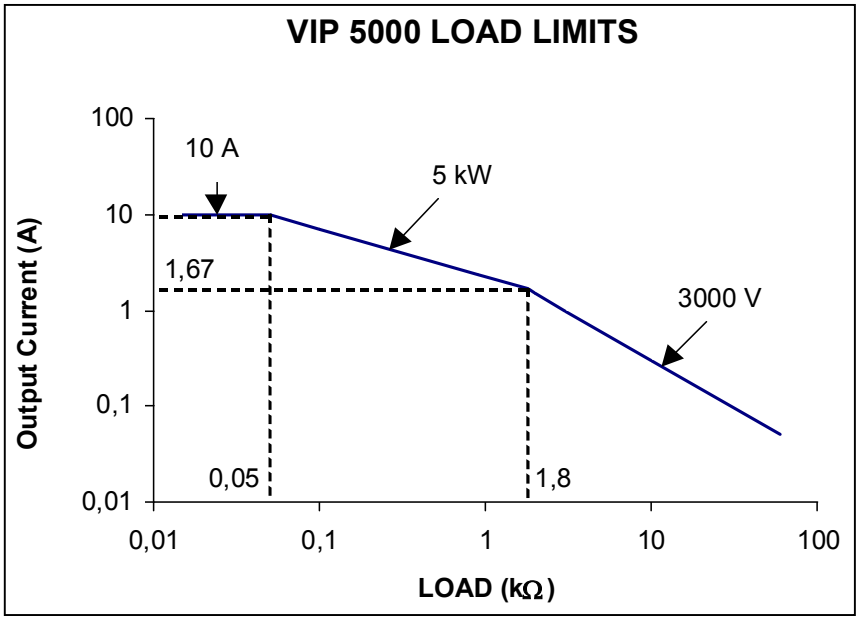
- Ease of use through interactive menus
- User friendly selection of the current value
- Continuous display of output current, voltage, power, ground resistance values
- Display of intelligent messages and warnings in case of a problem or malfunction: overload, short circuit, input, under or overvoltage ....

INTELLIGENT REGULATION:

The VIP 5000 internal microprocessor is capable **of excellent current regulation** in almost any load. Current may be selected by the operator in preprogrammed steps from 50 mA to 10 A. Intelligent current adjustment algorithms are always in operation. For example, the contact resistance will occasionally be too high for the VIP 5000 to provide the requested current setting. In such cases, the VIP 5000 will display a warning message and will set the current to the maximum value allowable under that combination of current setting and contact resistance. Some reserve current capacity will always be kept to insure that the current stays constant during the measurements, even with some contact resistance fluctuations.

COMPLETE DISPLAY:

A back-lighted liquid crystal four lines alpha-numeric display is provided for the simultaneous indication **of all output parameters**. Output current, output voltage, contact resistance and output power are continuously displayed.



Technical specifications

- Output Power: 5000 W maximum
- Output Voltage: 3000 V maximum
- Automatic voltage range selection
- Output Current: 10 A maximum, current regulated
- Current accuracy: better than 1%
- Current stability: 0.1%
- Output Connectors: connectors accepts bare wire or plug of up to 4 mm. diameter.

TIME DOMAIN MODE:

- Waveform : ON+, OFF, ON-, OFF, (ON = OFF) preprogrammed cycle.
- Automatic circuit opening in off time.
- Preprogrammed ON times from 0.5 to 8 seconds by factor of two.

FREQUENCY DOMAIN MODE:

- Waveform: Square wave,
- Preprogrammed frequencies from 0.0625 Hz to 4 Hz by factors of 2.
- Alternate or simultaneous transmission of any two frequencies.

Time and Frequency Stability: 0.01%

Protections:

- Short circuit at 10 ohms,
- Open loop at 60 000 ohms
- Thermal
- Input overvoltage and undervoltage

POWER SOURCE:

175 to 270 VAC, 45-800 Hz, single phase or three phases

GENERAL FEATURES :

- Dimensions (h w d): 50 x 40 x 30 cm
- Weight: 23 kg
- Operating temperature: -40 to +50 °C.

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