

# **USER MANUAL**

## THREE-PHASE SOCKET ADAPTERS FOR ELECTRICAL APPLIANCE SAFETY TESTERS PAT

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This manual applies to adapters supplied as accessories to PAT electrical safety meters.



NOTE!

Adapters are designed for measurements performed with PAT meters. They are not recommended for using in other applications.

## 1 Adapters for single-phase industrial sockets



- The adapters are designed for safety tests performed on devices powered from industrial sockets 16 A and 32 A, whereas the tested device must not take the current higher than 16 A.
- The adapters enable the user to perform all the measurements available in PAT using the network measurement socket.



When using the adapter for  $\mathsf{R}_{\mathsf{PE}}$  tests, take into account that the measurement result may be overstated by the value of adapter resistance.

## 2 Adapters for three-phase sockets

### 2.1 Unswitchable

**Five-wire** 



Four-wire



1

32 A - WAADAPAT32P

32 A - WAADAPAT32C



These adapters have permanently shorted lines L1, L2, L3 of the three-phase socket and they are connected to line 'L' of the singlephase plug.

#### 2.2 Switchable

**Five-wire** 



The adapters are provided with a rotary switch that provides connections shown below:



- L line of the test socket connected with L1
- 2 L line of the test socket connected with L2
- 3 L line of the test socket connected with L3
- 4 L line of the test socket connected with L1+L2+L3 (shorted)
- The adapters of three-phase sockets are designed to test the safety of devices powered from 16 A and 32 A three-phase sockets.
- Adapters may be used for the following measurements:
  - o protective conductor resistance R<sub>PE</sub> (200 mA, 10 A, 25 A),
  - insulation resistance R<sub>ISO</sub> (100 V, 250 V, 500 V, 1000 V).
  - substitute leakage current I<sub>SUB</sub>.
- The adapters with the exception of the adapter for industrial sockets 16 A shall not be used to measure:
  - PE leakage current,
  - o differential leakage current  $I_{\Delta}$ ,
  - touch leakage current I<sub>T</sub>,
  - o power and current consumption,
  - o automatic containing the above measurements.

In the cases specified above, the measurement assumes that the tested device is powered from the outlet test socket. In the case of three-phase devices it is impossible. Moreover, if the current consumption from the test socket exceeds 16 A, replaceable fuses will be blown in PAT device.



When using the adapter for  $R_{PE}$  tests, take into account that the measurement result may be overstated by the value of adapter resistance.



The adapters are provided with a rotary switch that provides connections shown below:



- L1 L line of the test socket connected with L1
- L2 L line of the test socket connected with L2
- L3 L line of the test socket connected with L3
- In conjunction with the socket adapters, the devices allow to test 16 A and 32 A three-phase extension cords. To do this:
  - $\circ$  ~ connect the IEC plug of the adapter to the IEC socket of the PAT meter,
  - o connect the extension cord to the adapter,
  - o connect an appropriate three-phase socket adapter to the extension cord,
  - the mains plug of the three-phase socket adapter connect to the measuring socket of the PAT meter.
- The adapters can be used for measurements listed in sec. 2.2.
- The adapters shall not be used for measurements listed in sec. 2.2.



When using the adapter for  $R_{PE}$  tests, take into account that the measurement result may be overstated by the value of adapter resistance.

## 4 Other adapter parameters

a) I <sub>max</sub>	ł
b) U <sub>max</sub>	/
c) ingress protectionIP40	С

### 5 Manufacturer

The provider of guarantee and post-guarantee services is:

#### SONEL S.A.

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#### NOTE!

Service repairs must be performed only by the manufacturer.