

The testing equipment STE is a small portable equipment for checking, adjustment and measurement of all types of electricity meters. It consists of the single phase signals generator PPS, the working standard WS and compound connecting stand PHS. It is possible to check precision of the meters using this system directly at the customer's premises. The system is provided in three individual and robust portable cases, suitable also for individual usage.

Power source PPS highlights *

- Rough and fine smooth current adjustment;
- Output current indication;
- Galvanic isolation of voltage and current outputs;
- Zero values of the output voltage and current with the first switch-on;
- Voltage outputs U and $U_{\frac{1}{2}}$ create galvanically isolated line voltage;
- Adjustable phase shift;
- Temperature and current protection of the power stages;
- Single phase power supply.

Working standard WS highlights *

- Equipment precision is determined by the precision of WS. WS precision class could be selected upon the request of the customer: WS 2xxxB for 0,1 % and WS 2xxxC for 0,2 %;
- Working standard is equipped with a high sensitive optical sensor of disc black mark or testing LED. The sensor has auto-calibration features and it supresses external light influences.
- Working standard could be supplied along with a printer for testing protocols printing;

Portable handling system PHS highlights

- Fixing arrangement is equipped with quick connection system;
- Simple and fast assembling;
- Executions: **PHS 11** – single-phase
PHS 12 – single-phase with the possibility to connect three-phase meter through 1 phase
PHS 13 – three-phase

Technical data

Voltage source	
Output voltage (RMS value)	230 (220, 240) V /120 V according to the line voltage
Power	80 W
Stability	according to the line voltage
Distortion factor	according to the line voltage
Accuracy	according to the line voltage
Current source	
Output current (RMS value)	max. 120 A depends of the load type (see maximum currents)
Current ranges	2 A, 20 A, 120 A
Power	80 W
Resolution	1 mA for 2 A range 10 mA for 20 A range 100 mA for 120 A range
Stability	according to the line voltage
Distortion factor	according to the line voltage
Adjustment	smooth – rough and fine
Phase Angle	
Values	-90°, -60°, -30°, 0°, +30°, +60°, +90°, +180°
Setting accuracy	2°
Measurement accuracy	
WS 2x20B	0,1 %
WS 2x20C	0,2 %
Dimensions/weight	
PPS 111:	410 x 350 x 175 mm/ 12,3 kg
WS 2320x:	410 x 350 x 175 mm/ 5,5 kg
PHS 11:	450 x 370 x 150 mm/ 7,3 kg



Testing equipment arrangement STE 1111



Portable phantom source PPS 111



Portable handling system PHS 11



Working standard WS 2320 in a portable case

* Description in more details you can find in separate catalogue brochure.

Maximum currents according to the load type

Single-phase electricity meter			Three-phase electricity meter	
1xS	1xT	1x(S+T)	3xS	3xT
100 A	120 A	80 A	80 A	100 A

Meter current sensor: **S** – shunt, **T** – CT transformer

These maximum currents could be obtained only with current wires screwed to the meter terminals. Maximum currents are less by 25 % in a case of quick connection fixing system application.

Device marking

STE x₁ x₂ x₃ x₄

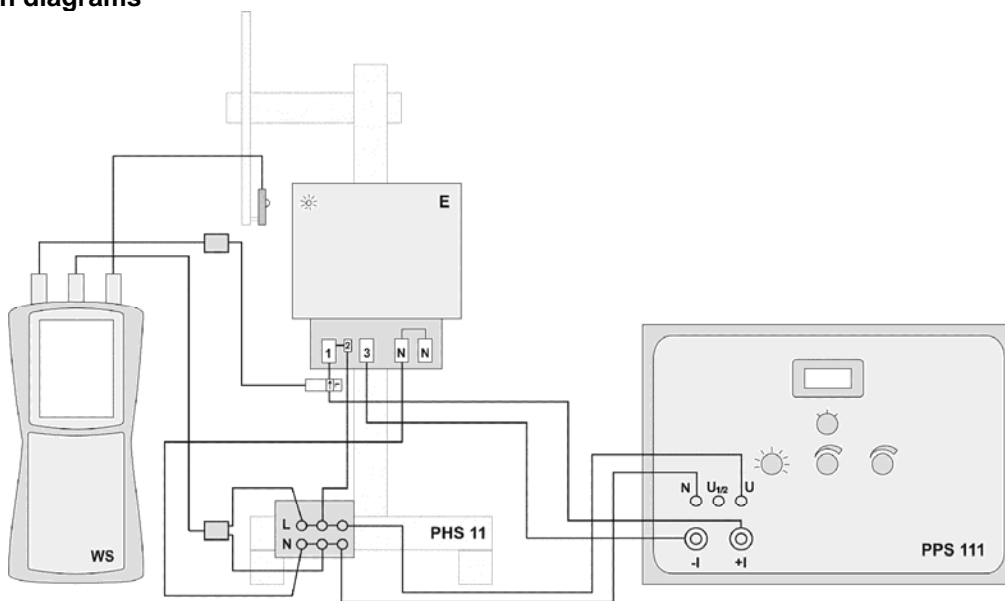
x₁ - innovation series ... **1**

x₂ - type of **PHS** **1** - PHS 11 – single-phase; **2** - PHS 12 – single-phase with the possibility to connect three-phase meter; **3** - PHS 13 three-phase

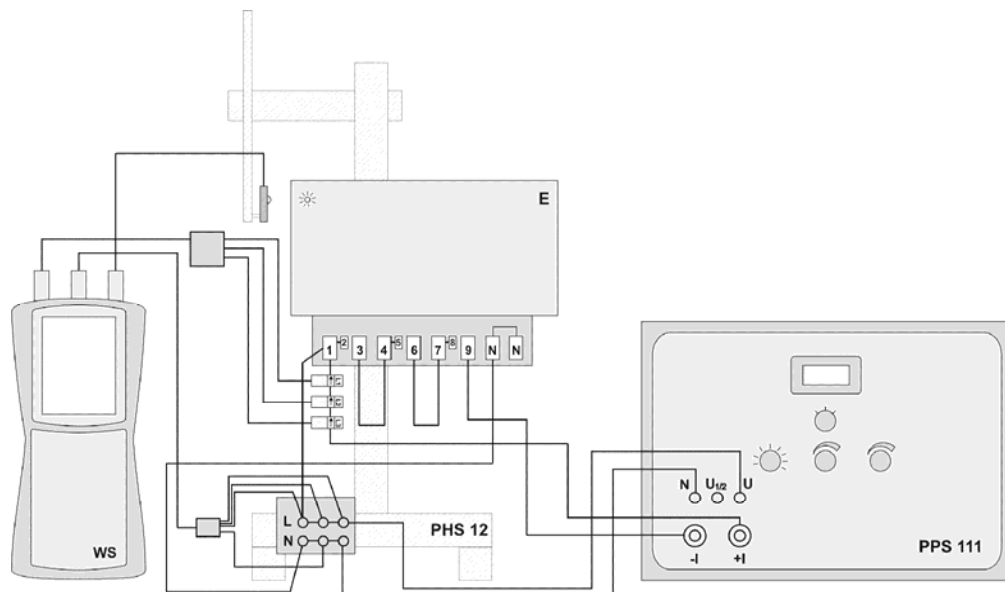
x₃ - type of **WS** **1** - single-phase WS 2120B (TP 0,1); **2** - single-phase WS 2120C (TP 0,2); **3** - three-phase WS 2320B (TP 0,1); **4** - three-phase WS 2320C (TP 0,2)

x₄ - type of **PPS** **1** - single-phase PPS, power 80 W

Connection diagrams



STE 1111 - Measurement of single-phase meter



STE 1231 - Measurement of three-phase meter using single-phase power source