



Fixed Type 2 connector

# Charging Station Test Adapter

## CST-122

The CST-122 Charging Station Test adapter is designed to test functionality and safety of Mode 2 and Mode 3 single-phase and three-phase Electric Vehicle Supply Equipment (EVSE) with fixed cable or direct socket connection. The adapter can simulate Electrical Vehicle (EV), charging cable and some most common errors that may occur on EV according to IEC/EN 61851-1 and IEC/HD 60364-7-722 functional standards.

- PE Pretest (LED indicator for voltages  $>50$  V AC/DC)
- Schuko socket for connection of an Installation tester or Mains Load up to 10 A
- L1, L2, L3, N, PE 4-mm output terminals for connection of an Installation tester
- CP 4-mm output terminals for connection of an Oscilloscope or Multimeter for CP signal analysis
- Robust mechanical construction

## TECHNICAL SPECIFICATIONS

General Features	
Input voltage	Up to 250V (single phase system) / Up to 480 V (three phase system), 50/60 Hz, max 10 A
Internal power consumption	1 W max.
EV Connector	IEC 62196-2 plug, 16 A (type 2, 7P three-phase), cable length 0.5 m
Housing	Plastic handheld
Housing dimensions (w × h × l)	110 × 45 × 205 mm
Weight	1 kg
Ingress protection class	IP40
CE directive	Low Voltage Directive LVD 2014/35/EU
Safety	EN / IEC 61010-1:2010+A1:2019 (Safety requirements for electrical equipment for measurement, control and laboratory use - General requirements) EN / IEC 61010-2-030:2021 (Safety requirements for electrical equipment for measurement, control and laboratory use - Particular requirements for equipment having testing or measuring circuits)
Working temperature range	-20 ... +40 °C
Storage temperature range	-20 ... +50 °C
Working humidity range	10 ... 85 % relative humidity w/o condensation
Storage humidity range	Up to 90 % relative humidity w/o condensation
Pollution degree	2
Protection class	II (double insulation)
Measurement category	CAT II 300 V
Altitude above sea level	3000 m max.
Functions	
L1, L2 and L3 indicators	Yes (presence of three phase voltages measured to N) - three LEDs
PE Test	Yes (potential presence of dangerous voltage at PE terminal by mistake) - touch electrode and red LED. LED indicator ON at voltage > 50 V AC/DC at PE touch electrode against GND
PP state simulation	Open, 13 A, 20 A, 32 A, 63 A, Error - rotary switch
CP state simulation	A, B, C, D, "E"
CP Error "E"	Yes (CP signal short circuited) - push button
PE Error	Yes (PE interrupted) - push button
Diode Error	Yes (diode short circuited) - push button
Outputs	
L1, L2, L3, N and PE output terminals	4-mm sockets, max. 250/480 V, CAT II 300 V, max. 10 A
CP signal output terminals	4-mm sockets, approx. +/-12 V, under normal conditions
Schuko socket	Max. 250 V, CAT II 300 V, allowed current max. 10 A
Schuko socket protection	Fuse T10A/250V, 5×20 mm
Available measurements by using an Installation Tester	
L1, L2, L3, N and PE terminals	Earth bonding, Loop impedance, Line impedance, RCD Test, Insulation resistance between live terminals L1, L2, L3, N, Insulation resistance between live terminals L1, L2, L3, N and PE
Available measurements by using an Oscilloscope or Multimeter	
CP terminals	CP signal analysis

