

# Trafo $\Omega$ x Superintend<sup>®</sup>



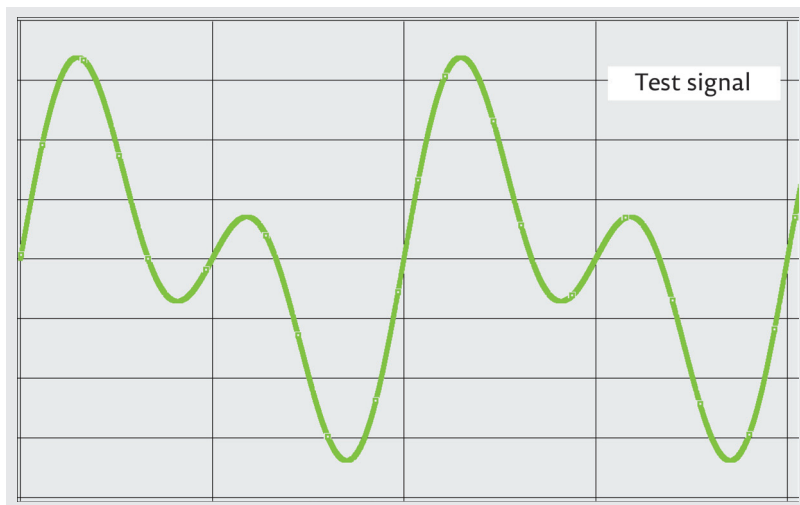
IMD Insulation Monitoring  
System  
for Photovoltaic applications

# Line Insulation Monitoring System

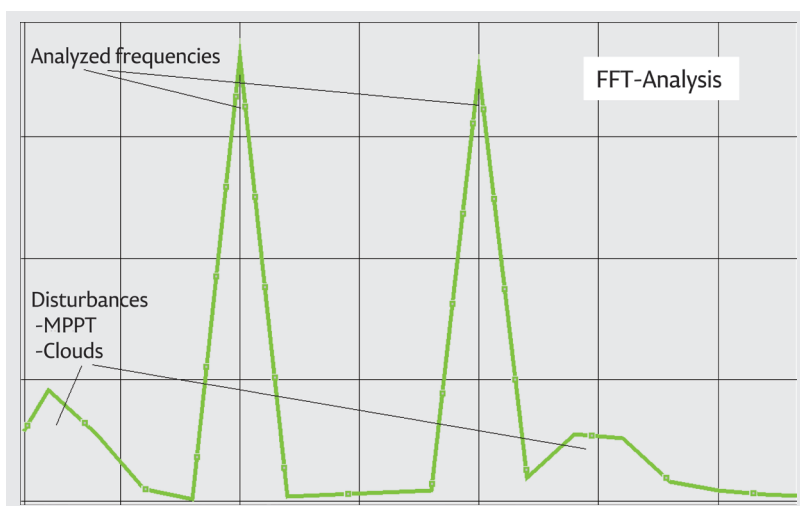


## NEW! LINE INSULATION MONITORING SYSTEM FOR PV APPLICATIONS!

- Immune against disturbances (clouds and frequency disturbances), FFT
- For voltages up to 1100 VDC
- Possibility to monitor current and temperature
- Remote monitoring and alarms over the Internet
- Quality and reliability from Finland



- Test signal adapted to the PV system parameters, observing also possible disturbances
- Test signal based on two sinusoidal waves of different frequencies



- Measured test current FFT analyzed and  $C_{insulation}$  and  $R_{insulation}$  calculated
- Improved immunity against disturbances of MPPT, clouds and shadows
- Fast and accurate measurements on wide range

## Power supply specifications

Nominal Input voltage	110-240 VAC, 110-300 VDC (Schurter 0001.2503 (T800mA))
Nominal input current	0.04 A at 230 VAC
Line frequency	48 ~ 62 Hz

## Measurement specification

Maximum DC input voltage	1100 VDC
Maximum AC input voltage	793 VAC
Resistance measurement range	500 $\Omega$ ...1 M $\Omega$ With better than 15% accuracy
Capacitance measurement range	1 $\mu$ F...2000 $\mu$ F
Measurement time	300 s @ 10 k $\Omega$ , 2000 $\mu$ F
Alarm range	500 $\Omega$ ...100k $\Omega$
System frequency	DC, 10 Hz - 460 Hz
Measuring impedance	40 k $\Omega$ ...55 k $\Omega$
Test voltage	50 Vp

## Three alarm contacts with settable limits (potential free changeover)

Alarm contact	5A at 250VAC
Pre-alarm contact	5A at 250VAC
Transformer alarm contact	5A at 250VAC

## Other functions

RS-485 serial connection for current loop transmitter	
Modbus/TCP interface for remote monitoring and controlling	
Inverter/transformer temperature monitoring	-40...+125 °C (with external NTC or PT100)
Memory logging with microSD card slot	
Easy and explanatory user interface	LEDs and backlit LCD display
Self-testing automatic	Continuous
Self-testing immediate	With TEST button

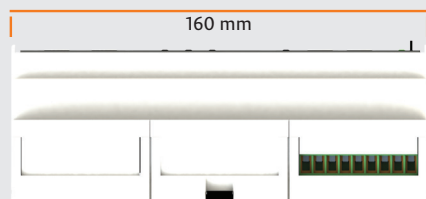
## Standards

Measurements	IEC 61557-8, IEC 62109-2
Safety	IEC 61010-1
EMC	IEC 61326-2-4

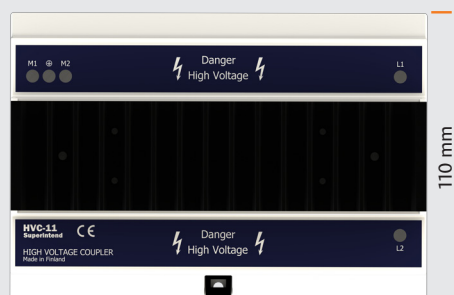
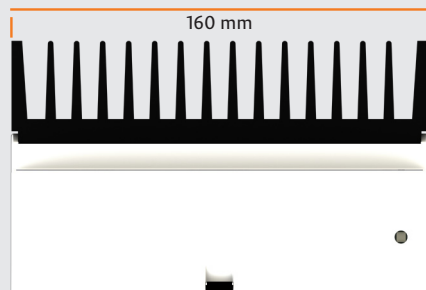
## General

Dimension (W x L x D)	160 x 110 x 62 mm
Case Material	Plastic
Mounting interface	DIN rail clamp

### IM-01PV

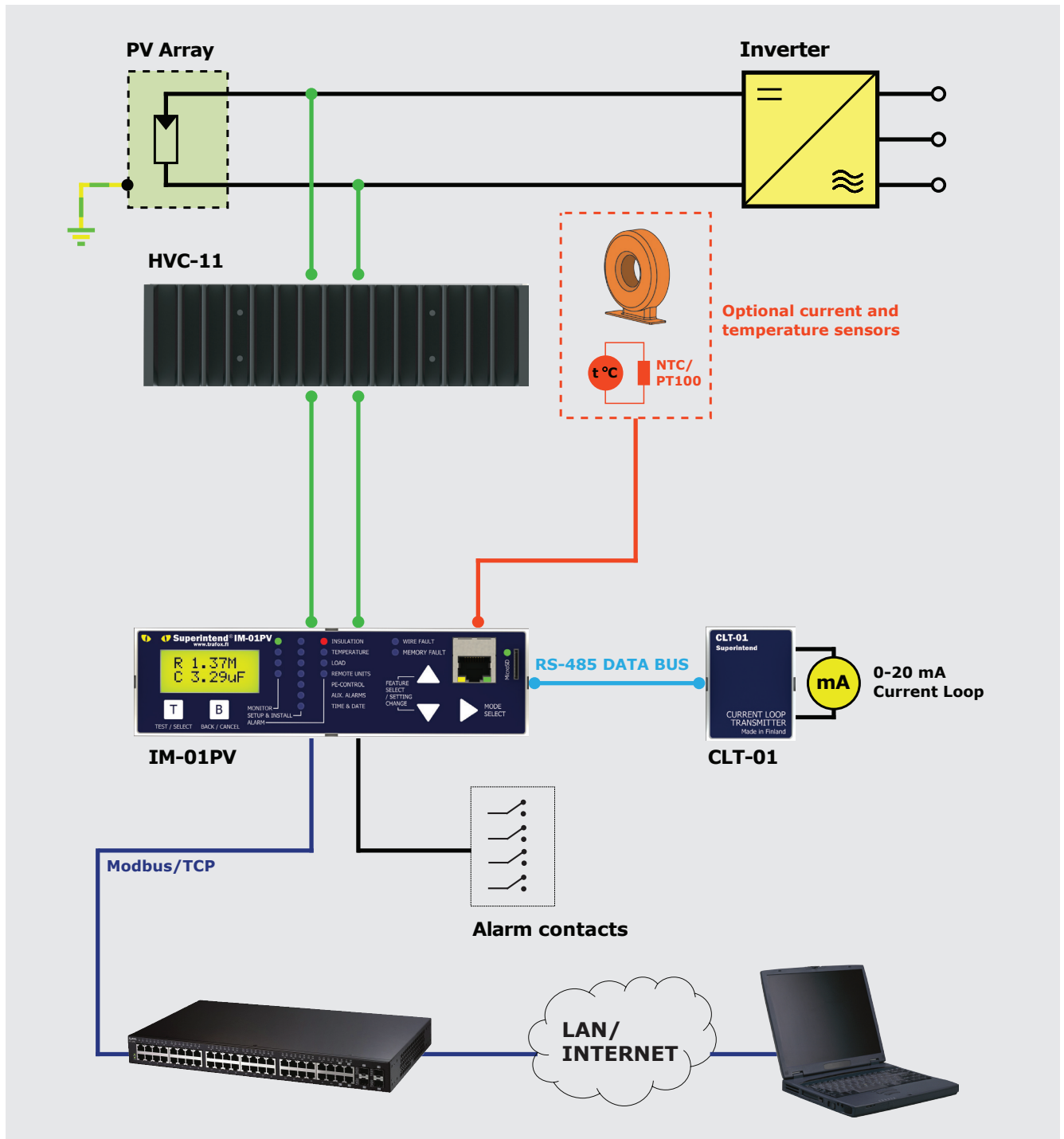


### HVC-11



### CLT-01





## Muuntosähkö

Trafox is a brand of Muuntosähkö Oy. We develop, manufacture and customise high-quality transformers, chokes, filters and Trafox Superintend® monitoring devices for a large number of applications.

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