

# OMS 605

Portable Partial Discharge Monitoring System



# Portable Partial Discharge Monitoring System

The OMS 605 is a portable partial discharge (PD) monitoring system designed for online inspections of high-voltage assets under load.

It can be easily connected to existing sensors installed at the asset, e.g. coupling capacitors or high frequency current transformers. Such sensors and the notebook, necessary for online inspection, can also be ordered from OMICRON (please see options).

PD data is analyzed and displayed by the supplied software.

Further advantages of the OMS 605 are:

- > 3 + 1 channels for synchronized data acquisition
- > Real-time data processing, comprehensive analysis and data reporting
- > Easily transportable by wheels allows testing at different locations
- > Heavy-duty measurement system for industrial environments (IP65)
- > Plug and play modules for fast system set-up
- > Unique PD source separation methods (3PAR/3CFRD)
- > Gating methods (amplitude-, phase-, dynamic-, frequency-, channel-, 3PAR/3CFRD-gating)



## Portable and easy to transport

Transportation suitcase with wheels makes testing at different locations easy and convenient

## OMS 605

## VMON0160

## Additional options

### System components:

1 x	Transportation suitcase
1 x	3-channel PD acquisition unit
1 x	Controller MCU 502
1 x	“Basic Package” software
1 x	Power supply cord (2 m / 6.56 ft)
6 x	Signal cable (4 m / 13.12 ft)
1 x	Grounding strip (4 m / 13.12 ft) and clamp
1 x	USB cable (2 m / 6.56 ft)
1 x	Fiber optic cable (10 m / 32.81 ft)

Notebook	VMON0170
Calibrator CAL 542	on request
Coupling capacitors MCC	on request
High frequency current transformers MCT	on request
“Advanced Package” software	VESM4101
“Report” software module	VESM4103
“3FREQ” software module	VESM4104

### Services

Installation Services	on request
Commissioning Services	on request
Trainings	on request

## Technical Data

Data Acquisition	3 channels (expandable to 4 channels with an extra MPD unit)
Variable Centre Frequency	0 ... 32 MHz
Frequency Domain Bandwidth	9 kHz; 30 kHz; 100 kHz; 300 kHz; 1 MHz; 3 MHz
PD Event Time Resolution	< 2 ns
Sampling Rate	V input: 100 kS/s PD input: 64 MS/s
Input Frequency Range	V input: 0 ... 2.1 kHz PD input: 0 ... 20 MHz
Input Impedance	V input: 1 M $\Omega$ (parallel 1 $\mu$ F) PD input: 50 $\Omega$
Dynamic Range	V input: 102 dB / range PD input: 70 dB / range; total 132 dB

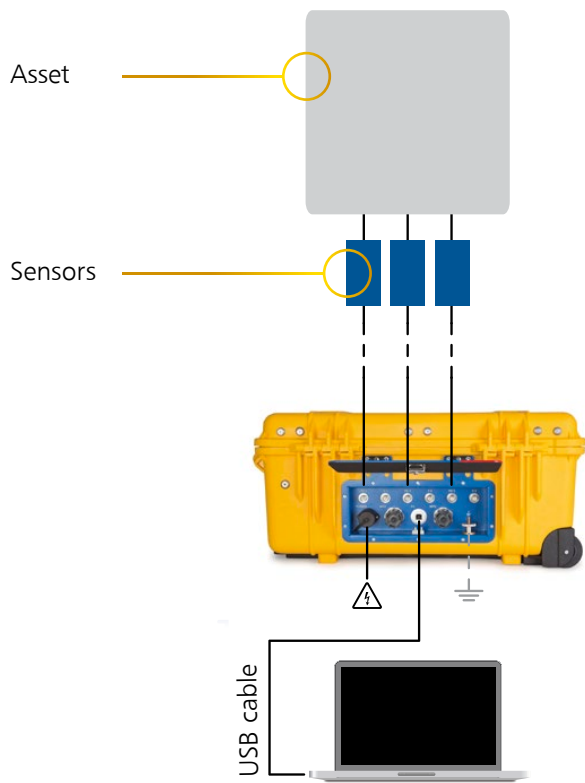
## Power supply and mechanical data

Power Supply	110 V ... 240 V, 50 Hz ... 60 Hz AC
Operating Temperature	- 20 °C ... +55 °C / -4 °F ... +131 °F
Protection Class	IP65 (NEMA 4)
Dimensions (W × H × D)	455 x 560 x 265 mm / 18 x 22 x 10 inches
Weight	16 kg / 35 lbs (without notebook)

# Operating Modes

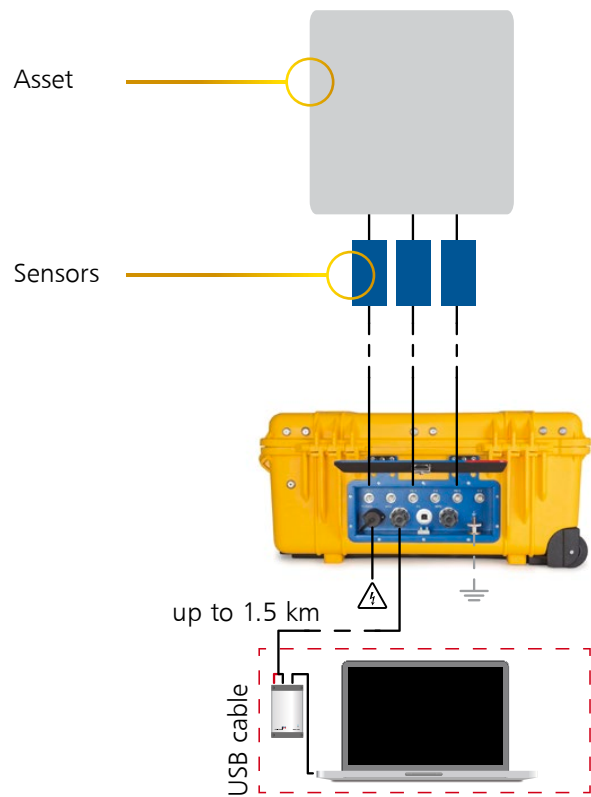
## Short link mode

The notebook is connected by USB within a 2 m / 6.56 ft distance from the acquisition unit.



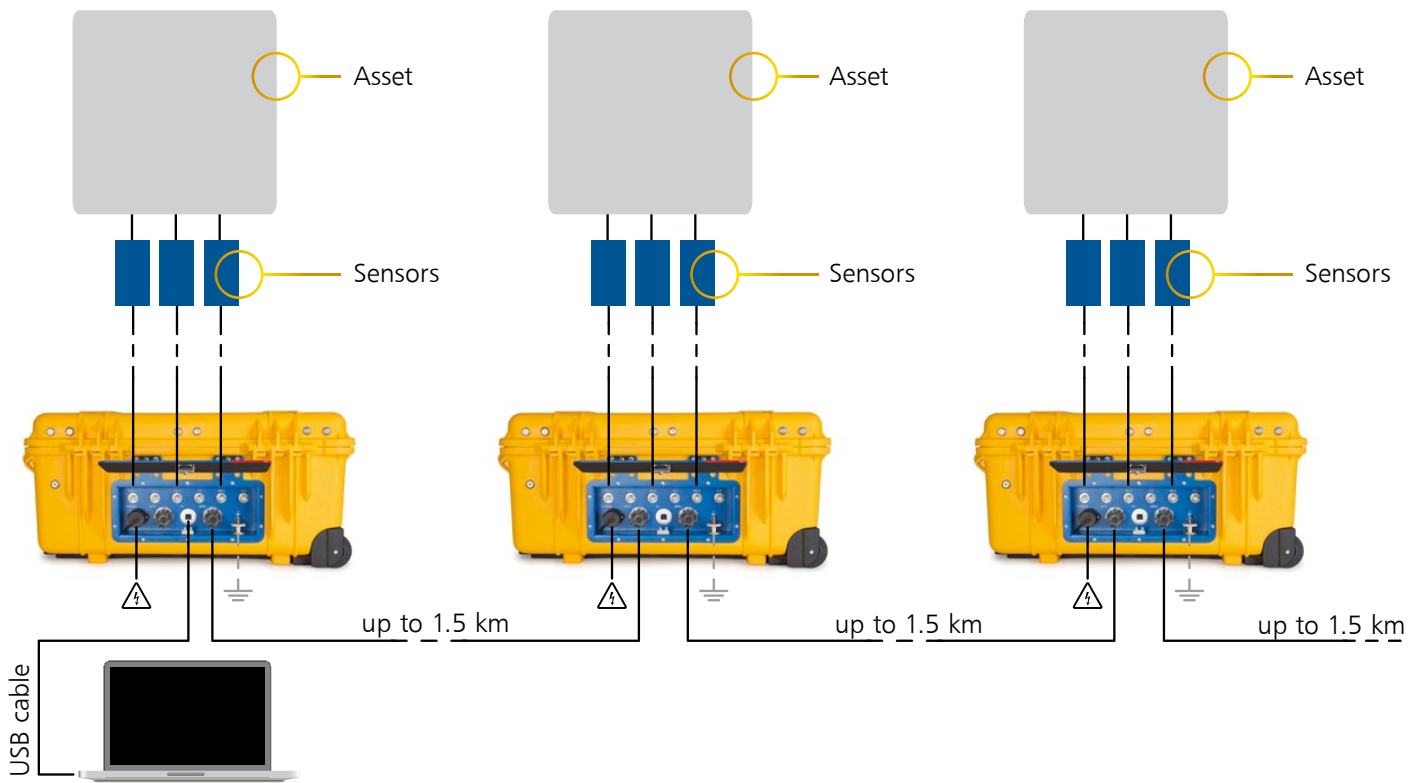
## Wide link mode

The USB controller and the notebook are connected to the OMS 605 system using a fiber optic cable. A maximum distance of 1.5 km / 0.93 mi can be bridged.



## Cascade mode

Several OMS 605 systems can be cascaded while synchronicity of monitored channels is guaranteed by fiber optic cable within a maximum length of 1.5 km / 0.93 mi, between the individual OMS 605 units.



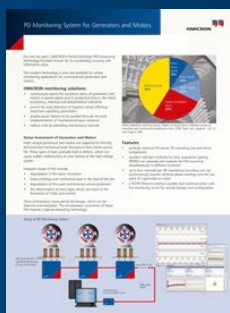
**OMICRON** is an international company serving the electrical power industry with innovative testing and diagnostic solutions. The application of OMICRON products allows users to assess the condition of the primary and secondary equipment on their systems with complete confidence. Services offered in the area of consulting, commissioning, testing, diagnosis and training make the product range complete.

Customers in more than 140 countries rely on the company's ability to supply leading edge technology of excellent quality. Service centers on all continents provide a broad base of knowledge and extraordinary customer support. All of this together with our strong network of sales partners is what has made our company a market leader in the electrical power industry.

The following publications provide detailed information on the products described in this brochure and their applications:



*OMICRON  
Monitoring Solutions*



*Monitoring of  
Rotating Machines*



*MPD 600  
Brochure*

For a complete list of available literature please visit our website.