

UMD 96 – Measurement technology for panel mounting

Download data sheet



UMD 96

The UMD 96 is a powerful front panel meter* and replaces all analogue measuring devices. It measures 3-phase current and voltage in 4-quadrant operation in class 0.2 and thus the work in class 0.5s as well as all common mains quantities, e.g. harmonics up to the 50th harmonic. It can be measured via current transformers with N/5 A and N/1 A as well as via Rogowski coils (333 mV). It has an illuminated, large and easy-to-read digital display. It is conveniently operated via 4 function keys. A Pt100 sensor is integrated internally. It is used in 400 V-networks as well as in 690 V-networks.

Optionally, the UMD 96 can also be equipped with an Ethernet interface and a web server. This makes it easy to connect PLC systems and building management systems. Digital inputs/outputs and a serial RS485 interface with Modbus are available. The unit is parameterised and visualised with the ENVIS software.

* also suitable for DIN rail mounting with adapter



Insert

The device is used to measure consumption in LV and subdistribution systems.

Standard

INPUTS 3U, 3I	MEASUREMENT U, I, P, Q	PF, cos, THD	+/- Wh, varh	CURRENT INPUT X/5A	SUPPLY 230V
HARMONICS 50	SAMPLING 25,6 kHz	STANDARDS IEC 61557-12	STANDARDS class 0.5S IEC 62053-22	OUTPUTS 2x PULSE	INPUTS 1x DIGI

Optional

CURRENT INPUT X/100mA	CURRENT INPUT 333mV	SUPPLY 12V/24V/230V	M-BUS M-Bus		
ETH 	WEBSERVER 	OUTPUTS 2x RELAY	MODBUS 	RS485 	

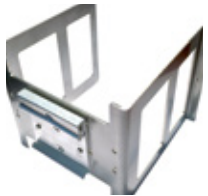

Technical specification – UMD 96

		UMD 96	UMD 96M	UMD 96S	UMD 96EL		
Inputs and outputs	Digital inputs/outputs	1 inputs and 2 outputs	1 inputs and 2 outputs	1 inputs and 2 outputs	1 inputs and 2 outputs		
	Relay inputs/outputs	none	none	none	none		
	Analogue inputs/outputs	none	none	none	none		
	Residual current inputs	none	none	none	none		
	Temperature inputs	none	none	none	none		
Kommunikation	Interfaces	none	M-Bus	RS485	Ethernet		
	Communication protocols*	Modbus RTU, Modbus TCP/IP, SMTP, SNMP, DHCP, JSON					
More functions	Alarms*	Integrated logic: limit values for exceeding/falling below freely defined values					
	Internal temperature measurement	-40 ... 80 °C					
Data logger	Storage capacity and allocation	none					
	Measured value storage	Minimum and maximum memory					
Electrical connection	Supply voltage	230 V variant: 85 ... 275 V AC / 80 ... 350 V DC					
		24 V variant: 20 ... 50 V AC / 20 ... 75 V DC					
	Power consumption	8 VA / 4 W					
	Overvoltage category	CAT III / 300 V					
Accuracy classes		Voltage:	Cl. 0,5	Current:	Cl. 0,5	Frequency:	Cl. 0,05
		Active power:	Cl. 0,5	Reactive power:	Cl. 1	Apparent power:	Cl. 0,5
		Harmonics:	Cl. 0,5	Power factor:	Cl. 0,5	cos phi:	Cl. 0,5
		Active energy:	Cl. 0,5	Reactive energy:	Cl. 2	Apparent energy:	Cl. 0,5
Measuring inputs	Voltage*	U L-N: 6 ... 375 V AC; Optional: 10 ... 625 V AC					
		U L-L: 8 ... 660 V AC; Optional: 20 ... 1090 V AC					
	Overload voltage*	Permanent U L-N: 600 V AC / peak overload for max. 1 sec. U L-N: 1200 V AC					
	Input impedance voltage*	3,6 MOhm					
	Input load voltage*	< 0,025 VA					
	Frequency	40 ... 70 Hz (DC-500 mode: 0 ... 500 Hz)					
	Current transformer*	3x 1 / 5 A; Optional: 3x 333 mV					
	Overload current*	Permanent: 7,5 AAC (666 mV) / Peak overload for max. 1 sec.: 70 AAC (3,33 V)					
	Input impedance current*	< 10 mOhm					
	Input load current*	< 0,5 VA					
	Sampling rate	25,6 kHz					
	Harmonics per order	1. ... 50. for current and voltage					
Measurement method	IEC 61000-4-30						
Mechanical properties	Temperature range operation	-20 ... 60 °C bei < 95 % rel. humidity					
	Temperature range bearing	-40 ... 80 °C bei < 95 % rel. humidity					
	Protection class front / rear	IP 40; Optional IP 54 / IP 20					
	Dimensions WxHxD	96 x 96 x 80 mm					
	Weight	0,3 kg					
Internal real time clock	Accuracy	none					
	Possible synchronisation	none					
FW modules		UDP: optional*					

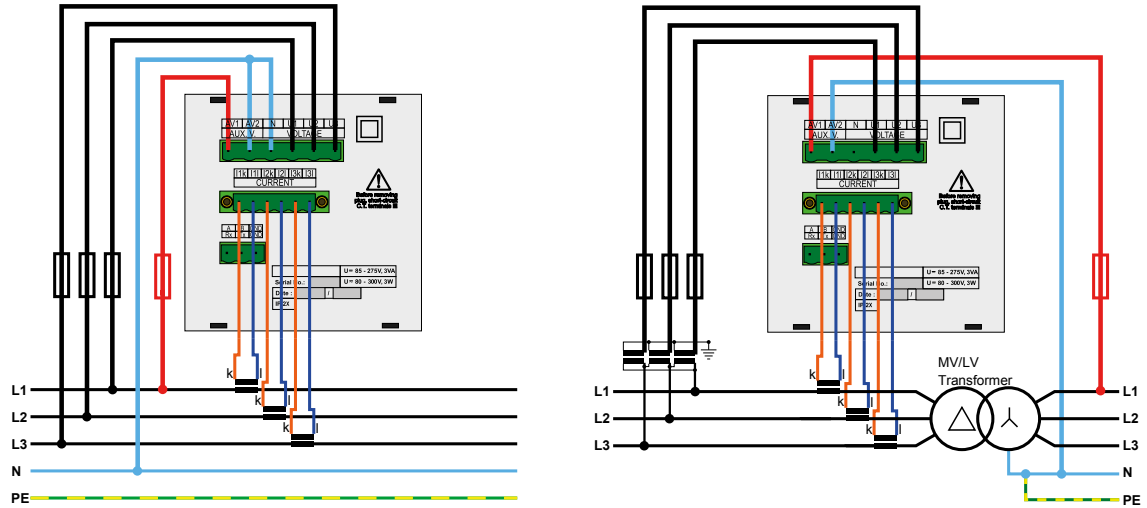
* depending on variant

Supply voltage		Measuring voltage		Functions				Communication					Type	Article number	
85 - 275 V AC 80 - 350 V DC	20 - 50 V AC 20 - 75 V DC	8 - 660 V LL	20 - 1090 V LL	Digital inputs	Digital outputs	Memory size in MB	Clock	RS485	Ethernet	Modbus master	M-Bus	USB			
•	-	•	-	1	2	-	-	-	-	-	-	-	-	UMD 96*	10.05.1000
•	-	-	•	1	2	-	-	-	-	-	-	-	-	UMD 96	10.05.2000
-	•	•	-	1	2	-	-	-	-	-	-	-	-	UMD 96	10.05.3000
-	•	-	•	1	2	-	-	-	-	-	-	-	-	UMD 96	10.05.4000
•	-	•	-	1	2	-	-	•	-	-	-	-	-	UMD 96S*	10.05.1001
•	-	-	•	1	2	-	-	•	-	-	-	-	-	UMD 96S	10.05.2001
-	•	•	-	1	2	-	-	•	-	-	-	-	-	UMD 96S	10.05.3001
-	•	-	•	1	2	-	-	•	-	-	-	-	-	UMD 96S	10.05.4001
•	-	•	-	1	2	-	-	-	•	-	-	-	-	UMD 96EL*	10.05.1002
•	-	-	•	1	2	-	-	-	•	-	-	-	-	UMD 96EL	10.05.2002
-	•	•	-	1	2	-	-	-	•	-	-	-	-	UMD 96EL	10.05.3002
-	•	-	•	1	2	-	-	-	•	-	-	-	-	UMD 96EL	10.05.4002
•	-	•	-	1	2	-	-	-	-	-	•	-	-	UMD 96M	10.05.1013
•	-	-	•	1	2	-	-	-	-	-	•	-	-	UMD 96M	10.05.2013
-	•	•	-	1	2	-	-	-	-	-	•	-	-	UMD 96M	10.05.3013
-	•	-	•	1	2	-	-	-	-	-	•	-	-	UMD 96M	10.05.4013
Variant with 333 mV direct connection															
•	-	•	-	1	2	-	-	•	-	-	-	-	-	UMD 96S	10.05.9001

* Preferred types (short delivery times)

Accessories	Article number
 <p>DIN rail adapter AH9697 (depth incl. UMD: 110 mm)</p>	81.00.9697
 <p>Protective cover IP65</p>	37.00.9600

Typical connection variant - UMD 96



Dimension drawings - UMD 96

