UEC80-3X, UEC80-4X

80A three phase 3 or 4 wires energy counter

- Direct connection up to 80 A
- Fully bi-directional four quadrants measurements for all energies and powers
- For 3 or 4 wire networks with balanced or unbalanced load
- Class B according to EN50470-1-3
- Tariff input
- 2 S0 outputs for energy pulse emission
- LCD display with 8 main digits
- Optical port for communication
- Available with MID certification

General features

4 DIN modules energy counter for the energy measurement in industrial and civilian application, available with MID certification suitable for billing.

Combined with different external modules, the counter can communicate with other systems. COM modules are available for the most common field protocols.

Besides the energy, the counter can measure the main electrical parameters and makes them available on the COM port. The LCD display shows the energies and the instantaneous powers.

The counter is built according EN50470-1-3 standard. The accuracy of the active energy fulfills class B requirements. The accuracy of the reactive energy is compliant to EN62053-23 class 2.

Wide backlighted LCD display with clear graphic symbols comprehensible at a glance.

Metrological LED on front panel and sealable terminal covers.

Available versions with different voltage working range for the connection on 3 or 4 wire network, suitable for balanced or unbalanced loads.

The analysis of the MTBF values, the accurate selection of components and the reduction of the internal working temperatures together with strict production and control standards guarantee a product with an excellent quality and a long lasting reliability.

Benefits

- Up to 30 instantaneous measurements, complete set of energy counters with 2 tariffs total and partial counters. Moreover partial counters can be started, stopped or reset.
- The counter provides phase sequence and a diagnostic function for error signalling in case of wrong polarity connection.

Applications

- Totalization of the electric energy in the industry for each single line or machine.
- Measurement of energy generated by renewable sources such as solar, eolic, etc.
- Accounting and billing of consumptions in camp sites, malls, residential areas, naval ports, etc.
- Totalization of the electric consumption in hotels, congress centers, exhibition fairs.
- Accounting of the consumptions in buildings with executive office services.
- Internal allocation of the consumptions in timeshare civilian and industrial buildings.
- Realization of energy monitoring systems.
- Remote survey of the consumptions and compute of the costs.

TECHNICAL FEATURES

Power supply
- Power supplied from the voltage circuit
- Nominal measurement voltage ±20%
- Consumption (for each phase): 7,5 VA max
- Nominal frequency: 50/60 Hz

Voltage
- Nominal values:
  A) 3x230/400V 50Hz 4 wires
  A) 3x400V 50Hz 3 wires
  B) 3x240/415V 50Hz 4 wires
  B) 3x415V 50Hz 3 wires
  C) 3x230/400V 50/60Hz 4 wires
  C) 3x400V 50/60Hz 3 wires
  D) 3x230/400V...3x240/415V 50/60Hz 4 wires
  D) 3x400V...3x415V 50/60Hz 3 wires
  E) 3x120/210V 60Hz 4 wires
  E) 3x210V 60Hz 3 wires
  F) 3x110/190V 60Hz 4 wires
  F) 3x190V 60Hz 3 wires

Current
- Maximum value I_{max}: 80 A
- I_{ref} value (I_b): 5 A
- I_{tr} value: 500 mA
- I_{min} value: 250 mA
- Start current I_{st}: 20 mA

Accuracy
- Active energy class B according to EN50470-1-3
- Reactive energy class 2 according to EN62053-23

S0 outputs
- 2 passive optoisolated
- Maximum values: 250 V_{AC-DC} - 100 mA
- Pulse length: 50 ±2ms ON time, 50 ±2ms OFF time

Tariff input
- Active optoisolated
- Maximum voltage: 276 V_{AC-DC}

Metrological LED
- Meter constant: 1000 imp/kWh

Environmental conditions
- Operating temperature: -25°C ÷ +55°C
- Storage temperature: -25°C ÷ +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part - IP20 terminals

MEASUREMENTS

	SYMBOL	MEASURE UNIT	DISPLAY	COM PORT
INSTANTANEOUS VALUES				
Voltage	$V\Sigma$ - V_{L1-N} - V_{L2-N} - V_{L3-N}	kV		●
Line voltage	V_{L1-L2} - V_{L2-L3} - V_{L3-L1}	kV		●
Current	$I\Sigma$ - I_1 - I_2 - I_3 - I_N	kA		■
Power factor	$PF\Sigma$ - PF_{L1} - PF_{L2} - PF_{L3}			●
Apaprent power	$S\Sigma$ - S_{L1} - S_{L2} - S_{L3}	kVA	■	■
Active power	$P\Sigma$ - P_{L1} - P_{L2} - P_{L3}	kW	■	■
Reactive power	$Q\Sigma$ - Q_{L1} - Q_{L2} - Q_{L3}	kvar	■	■
Frequency	f	kHz		●
Phase sequence	CW/CCW		●	●
Power direction	IMP/EXP		●	●
RECORDED DATA				
Total active energy	Σ - L1 - L2 - L3	kWh	■	■
Total ind. and cap. reactive energy	Σ - L1 - L2 - L3	kvarh	■	■
Total ind. and cap. apparent energy	Σ - L1 - L2 - L3	kVAh	■	■
T1/T2 tariff energy counters	Σ	kWh, kvarh, kVAh	■	■
Resettable partial energy counters	Σ	kWh, kvarh, kVAh	■	■
Energy balance	Σ	kWh, kvarh, kVAh	■	■
OTHER INFORMATION	**SYMBOL**	**VALUE/STATUS**	**DISPLAY**	**COM PORT**
Present tariff	T	1/2		●
Undervoltage/overvoltage	VOL, VUL	ON/OFF		●
Undercurrent/overcurrent	IOL, IUL	ON/OFF		●
Underfrequency/overfrequency	fOL, fUL	ON/OFF		●
Partial counters	PAR	START/STOP	●	●
Active communication	COM	ON/OFF	●	
Active S0 pulse	S0-1, S0-2	ON/OFF	●	
Error condition	ERR	01/02/OFF	●	●
LEGEND	● = STANDARD	■ = BIDIRECTIONAL VALUE		

ORDER CODE FOR 80A THREE PHASE 3 WIRES ENERGY COUNTER

EBB					X	X	X	X	X	X	X	X

UEC80-3X

Series
A = Algodue

Language
I = Italian
U = English

Nominal voltage
A = 3x400V 50Hz
B = 3x415V 50Hz
C = 3x400V 50/60Hz
D = 3x400V...3x415V 50/60Hz
E = 3x210V 60Hz
F = 3x190V 60Hz

Options
X = None
R = Reset function (all counters reset)
M = MID certification

ORDER CODE FOR 80A THREE PHASE 4 WIRES ENERGY COUNTER

EBA					X	X	X	X	X	X	X	X

UEC80-4X

Series
A = Algodue

Language
I = Italian
U = English

Nominal voltage
A = 3x230/400V 50Hz
B = 3x240/415V 50Hz
C = 3x230/400V 50/60Hz
D = 3x230/400V...3x240/415V 50/60Hz
E = 3x120/210V 60Hz
F = 3x110/190V 60Hz

Options
X = None
R = Reset function (all counters reset)
M = MID certification

Subject to change without notice

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