

Kamstrup OMNIPOWER single-phase meter

DATA SHEET

- **Single-phase residential meter**
- **Prepared for smart home applications**
- **Optimised for smart metering systems**
- **Secured against tampering**
- **Resistant to errors in the supply network**
- **Ultra-low power consumption**
- **Remote firmware update**
- **Power quality measurements according to EN50160**
- **Type approved according to:**
 - Active energy
EN 50470-1 (MID)
EN 50470-3 (MID)
 - Active energy and reactive energy
IEC 62052-11 (IEC)
IEC 62053-21 (IEC)
IEC 62053-23 (IEC)
- **Communication protocol**
 - DLMS/COSEM
 - IEC62056-21 Mode A, C and D0



Application

OMNIPOWER single-phase meter is a direct connected electric meter for registration of electric energy. The meter is full electronic without movable parts. Thus, energy registration is not affected by shock or impact during transport and mounting. Furthermore, measurements are correct, no matter the physical mounting direction.

The shunt measuring principle secures good linearity and a considerable dynamic range. At the same time, the shunt measuring principle is immune to magnetism and DC currents.

The easily readable display scrolls automatically between readings, or readings can be changed manually by the consumer activating a push button. The required display readings as well as their order are configurable.

In addition to being read from the display, data can be collected via the

optical output or from the module area. The unique module area also permits external changing of tariffs, pulse inputs and outputs, and configuration as well as a wide range of communication media.

From the factory, the meter can be configured to measure both imported and exported energy. Measurements are saved in a permanent memory.

As default, OMNIPOWER single-phase meter can generate load profiles in all four quadrants. A load profile provides detailed information about consumed and produced energy. An additional logger with 16 channels contains data for analysis purposes.

As default, OMNIPOWER single-phase meter is supplied with the functions Smart Disconnect and software controlled Prepayment.

The OMNIPOWER single-phase meter is also designed to support extended analysis of the main grid using measurements of THD, power factor, voltage unbalance, voltage variations and sags and swells.

In order to minimise the manual configuration during installation, the meter is pre-configured from the factory. Furthermore, the meter can be reconfigured via a smart metering system.

Reading Office

Cutbush Park, Danehill, Lower Earley,
Reading, Berkshire. RG6 4UT. UK.
Tel: +44 (0)118 9311188
Email: info@able.co.uk

Aberdeen Office

Unit 6 Airside Business Park, Kirkhill Industrial Estate,
Dyce, Aberdeen. AB21 0GT. UK.
Tel: +44 (0)1224 725999
Email: ab@able.co.uk

Internet: www.able.co.uk
e-procurement: www.247able.com
Registered in England No: 01851002
VAT No: GB 417 2481 61



Kamstrup OMNIPOWER single-phase meter DATA SHEET

Contents

Functions	3
Approvals	7
Technical data	8
Connections	9
Communication	10
Secondary communication module	10
Typical accuracy charts	10
Installation	11
Safety and installation guidelines	11
Dimensions	12
Accessories	12

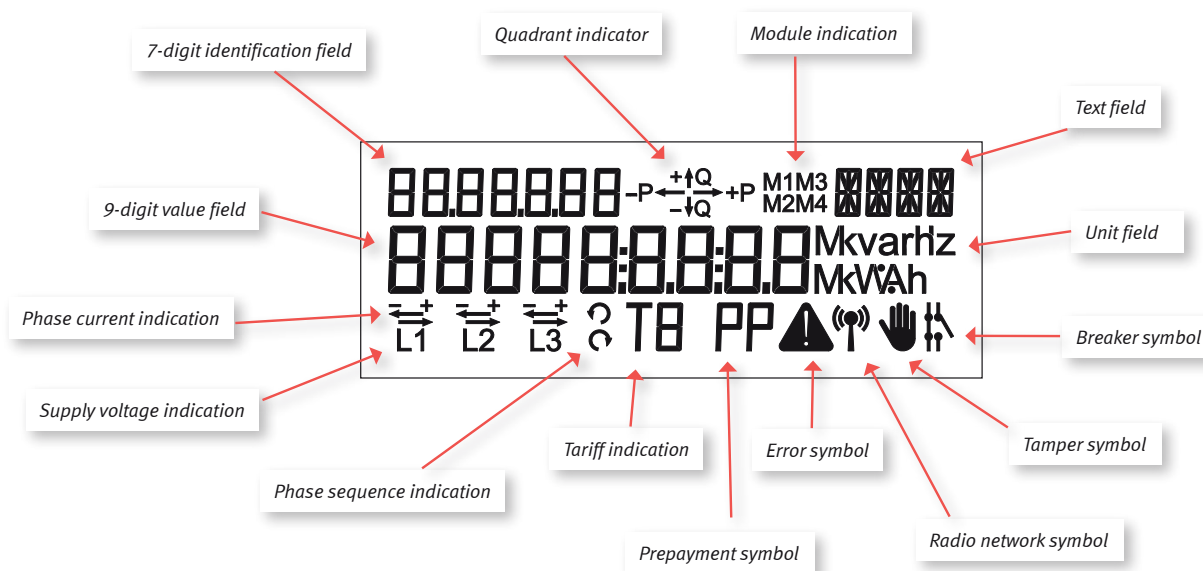
Kamstrup OMNIPOWER single-phase meter DATA SHEET

Functions

Display

OMNIPOWER single-phase meter is provided with a liquid crystal display (LCD). The registers that can be read from the display depend on the chosen configuration. It is also possible to remotely configure the display.

The display configuration is constructed as three independent display lists: One for automatic shift function, one for manual shift function and one for battery-powered shift function. The display is constructed of segments as shown in the figure below.



9-digit value field:	This field is used for displaying register values.
Unit field:	This field is used for displaying the units that are related to the value field.
7-digit identification field:	OBIS code identification of the value in the value field.
Quadrant indicator:	Indicates the current load type.
Text field:	Contains additional text in connection with the meter's function.
Module indication:	Indicates if and which modules that communicate in the display.
Error symbol:	Indicates critical internal errors.
Breaker symbol:	Indicates the current position of the breaker if smart disconnect is enabled. If smart disconnect is disabled or the meter is without breaker, there is no indication.
Tamper symbol:	Indicates magnetic influence or opening of the meter cover, either temporarily or permanently.
Radio network symbol:	Indicates communication with AMR systems.
Prepayment symbol:	Indicates whether the prepayment functionality is activated.
Tariff indication:	Indicates the current tariff if tariffs have been selected.
Supply voltage indicator:	Indicates that the voltage is above the minimum threshold (160 V).
Phase current indication:	Indicates that the load is above the minimum threshold (2.3 W).

Kamstrup OMNIPOWER single-phase meter DATA SHEET

Functions

Display

The automatic shift function (scroll) changes between the selected readings every 10 seconds. Up to 16 readings can be selected.

The manual shift function changes through activation of the left push button. Up to 30 readings and the reading order can be selected. However, it is not possible to deselect the **legal** readings.

If the battery-operated shift function is selected, it becomes possible to read the display, also when the meter is not power supplied. Up to 8 readings can be selected, and shifts between readings are made by activating the push button.

The meter automatically returns from manual shift function to automatic scroll function two minutes after the last activation of the left push button.

Energy reading

OMNIPOWER single-phase meter has one shunt for current measurement and resistance division for voltage measurement.

Energy consumption is calculated as an expression of the current compared to the phase voltage and time.

The energy registration is communicated to the meter's legal processor via the meter's own internal bus system and is summed in the meter's main registers.

Permanent memory

Measured and calculated data are stored in the meter's permanent memory. Data are stored by every change of energy register values.

Furthermore, the below values are stored at the end of a debiting period:

Various	Energy registers	Power registers
Date	Active positive energy A+	Peak power P+max
Time	Active negative energy A-	Peak power P+max Date
Quality info	Reactive positive energy R+	Peak power P+max Time
Hour counter	Reactive negative energy R-	Accumulated peak power P+max acc
Debiting stop counter	Apparent positive energy E+	Peak power P+max Tariff 1
Power threshold counter (A+)	Apparent negative energy E-	Peak power P+max Tariff 1 Time
Pulse input	Active positive energy A+ Tariff 1	Peak power P+max Tariff 1 Date
	Active positive energy A+ Tariff 2	Peak power P+max Tariff 2
	Active positive energy A+ Tariff 3	Peak power P+max Tariff 2 Time
	Active positive energy A+ Tariff 4	Peak power P+max Tariff 2 Date
	Reactive positive energy R+ Tariff 1	Peak power S+max
	Reactive positive energy R+ Tariff 2	Peak power S+max Date
	Reactive positive energy R+ Tariff 3	Peak power S+max Time
	Reactive positive energy R+ Tariff 4	Peak power S-max
		Peak power S-max Date
		Peak power S-max Time
		Accumulated peak power P+max Tariff 1
		Accumulated peak power P+max Tariff 2

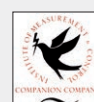
Reading Office

Cutbush Park, Danehill, Lower Earley,
Reading, Berkshire. RG6 4UT. UK.
Tel: +44 (0)118 9311188
Email: info@able.co.uk

Aberdeen Office

Unit 6 Airside Business Park, Kirkhill Industrial Estate,
Dyce, Aberdeen. AB21 0GT. UK.
Tel: +44 (0)1224 725999
Email: ab@able.co.uk

Internet: www.able.co.uk
e-procurement: www.247able.com
Registered in England No: 01851002
VAT No: GB 417 2481 61



Kamstrup OMNIPOWER single-phase meter DATA SHEET

Functions

Plug-in modules

OMNIPOWER single-phase meter can be mounted/retrofitted with plug-in modules without subsequent reverification.

The module communicates with the meter's microprocessor via an internal data bus. This provides innumerable functional possibilities such as extra pulse output, tariff, load control and data communication via e.g. GSM/GPRS and M-Bus.

Optical reading

An optical interface is placed on the front of the meter. This optical connection can be used to read data or configure e.g. display set-up, meter number and other settings.

Changes via the optical connection can be made by using the software program METERTOOL OMNIPOWER.

It is not possible to change the meter's legal data.

SO pulse output

Emits pulses of active energy at 1000 pulses per kWh. The pulses are emitted synchronously with the LED. The maximum voltage, which may be connected to the SO output, is 27 V DC (at 1 k Ω), and the maximum current, which can be drawn through the output, is 27 mA. The pulse time is 30 msec.

Breaker

OMNIPOWER single-phase meter is available with integrated disconnection function which makes it possible to disconnect the electricity meter's supply outputs. The disconnection can be made locally by activating the meter's push button, automatically via the functions Smart Disconnect or Prepayment, or remotely via an automatic smart metering system.

Do **NOT** use the disconnection as a safety function.

The connection can be made via the same media as the disconnection. Furthermore, connection via push button can be configured to only be permitted after previous release command from a smart metering system.

The breaker is a bi-stable breaker that maintains its current position in the event of a power failure and after the subsequent re-establishment of power.

Load profile

Load profiles can be configured to 5, 15, 30 or 60 min. according to the integration period and for all four quadrants. The number of generated profiles corresponds to the selected energy type for the meter.

Logging depth in days:	5	15	30	60
Minutes	5	15	30	60
A+	92	275	550	1100
A+/A-	77	231	462	924
A+/A-/R+/R-	58	175	350	700

Analysis logger

OMNIPOWER single-phase meter is provided with a configurable analysis logger. The logging depth is 2.5 to 520 days depending on the configuration of the meter as well as the number of registers. The analysis logger can register data from up to 16 different registers at a time.

OMNIPOWER single-phase meter is available with default settings which can be reconfigured subsequently via METERTOOL OMNIPOWER or a smart metering system.

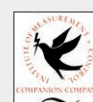
Reading Office

Cutbush Park, Danehill, Lower Earley,
Reading, Berkshire. RG6 4UT. UK.
Tel: +44 (0)118 9311188
Email: info@able.co.uk

Aberdeen Office

Unit 6 Airside Business Park, Kirkhill Industrial Estate,
Dyce, Aberdeen. AB21 0GT. UK.
Tel: +44 (0)1224 725999
Email: ab@able.co.uk

Internet: www.able.co.uk
e-procurement: www.247able.com
Registered in England No: 01851002
VAT No: GB 417 2481 61



Kamstrup OMNIPOWER single-phase meter DATA SHEET

Functions

Tamper-proof

Apart from the mechanical sealing, the meter also reveals tampering. In case of attempts of tampering (mechanical or magnetic), an alarm is activated which is time and date stamped and saved in the permanent memory. Alarms can be automatically transferred via the communication infrastructure and, in some case, indicated on the display. Magnetic influence does not affect the measuring accuracy.

Approvals

OMNIPOWER single-phase meter is type approved according to the Measuring Instruments Directive (MID) for active positive energy and according to the national requirements for other energy types, where required.

Approval

Type test according to:

- Active energy
- Reactive energy and active energy

Standard

- EN 50470-1
- EN 50470-3
- IEC 62052-11
- IEC 62053-21
- IEC 62053-23

Various

- Terminal
- SO pulse output
- Optical reading
- OBIS/EDIS codes
- Measuring principle
 - Current
 - Voltage
- Nominal voltage Un

Standard

- DIN 43857
- DIN 43864
- DLMS/COSEM, IEC62056-21 mode A, C and D0
- IEC 62056-61

Current measurement by current shunt
Voltage measurement by voltage divider

1x230 VAC -20 % - +15 %

Current

$I_{tr} - I_b (I_{max})$

OMNIPOWER single-phase meter

Without breaker	With breaker
0.25-5(100)A 35 mm ²	0.25-5(100)A 35 mm ²

Accuracy class

MID: Class A, Class B

IEC: Class 2, Class 1

Nominal frequency fn

50 Hz ± 5 %

Phase displacement

Unlimited

Operating temperature

-40°C - +70°C

Storage temperature

-40°C - +85°C

Protection class

IP54

Protection class

II

Reading Office

Cutbush Park, Danehill, Lower Earley,
Reading, Berkshire. RG6 4UT. UK.
Tel: +44 (0)118 9311188
Email: info@able.co.uk

Aberdeen Office

Unit 6 Airside Business Park, Kirkhill Industrial Estate,
Dyce, Aberdeen. AB21 0GT. UK.
Tel: +44 (0)1224 725999
Email: ab@able.co.uk

Internet: www.able.co.uk
e-procurement: www.247able.com
Registered in England No: 01851002
VAT No: GB 417 2481 61



Kamstrup OMNIPOWER single-phase meter DATA SHEET

Technical data

Relative humidity	< 75 % year's average at 21°C < 95 % less than 30 days/year, at 25°C
Weight	1100 g with breaker/800 g without breaker
Application area	Indoors or outdoors in suitable meter cabinet
Internal consumption	

OMNIPOWER single-phase meter	Without breaker	With breaker
Current circuit	0.01 VA	0.01 VA
Voltage circuit	0.7 VA	0.7 VA
	< 0.3 W	< 0.3 W

Materials	Glass reinforced polycarbonate
Data storage	EEPROM, > 10 years without voltage
Display	LCD, 7 mm digit height (value field) LCD, 5 mm digit height (identification readings) LCD, 3 mm digit height (voltage and tariff readings)

Meter constant	1000 imp/kWh
S0 pulse diode	1000 imp/kWh, kvarh Pulse time 30 ms ± 10 %
S0 pulse output	1000 imp/kWh Pulse time 30 ms ± 10 %
Short circuit level	4500 A

Real-time clock (RTC)

Accuracy	Typically 5 ppm at 23°C
Backup	Battery life > 10 years at normal operation Supercap life > 10 years at normal operation
Supercap operating time	7 days fully charged

Connections

Terminals	Elevator terminals
-----------	--------------------

Size	For use with connection:		
	Multi-cored	7-cored	Massive/terminal tube
35 mm ²	≥ 6 mm ²	≥ 6 mm ²	≥ 2.5 mm ²

Screws	Pz 2 or straight slot Tightening 2.5 - 3 Nm
Voltage output	0.25 – 1.5 mm ² , 5 mm terminal forks
Screws	TORX Tx 10 Torque 1 Nm

Kamstrup OMNIPower single-phase meter DATA SHEET

Communication

OMNIPower single-phase meter can be supplied and retrofitted with communication modules. The modules function as inputs and outputs for the meter. Mounting of modules does not require subsequent verification of the meter.

Communication modules

SO supply	Sends 24 V via a 2-wire and pulses by drawing the voltage to 0 V at each pulse. Can supply e.g. MULTICAL®.
Serial	Serial RS-485 or RS-232 communication or current loop with pulse inputs, tariff inputs or load control.
M-Bus	Reading via wired M-Bus system.
GSM/GPRS	Collection of consumption data via GSM/GPRS communication. Supports SMS reading.

Integrated radio

OMNIPower single-phase meter can be provided with built-in radio communication. Radio communication therefore requires no mounting/retrofitting of communication module. If the meter's module area is used for another type of communication, the built-in radio communication can be deactivated.

Consumer communication channel (CCC) module

In OMNIPower single-phase meter, it is possible to mount a CCC module. The module can be used for communication and data exchange with smart home products such as energy displays and external relays. The CCC module is mounted without using tools or breaking the seal of the meter. The mounting may be done by e.g. the consumer himself.

Reading Office

Cutbush Park, Danehill, Lower Earley,
Reading, Berkshire. RG6 4UT. UK.
Tel: +44 (0)118 9311188
Email: info@able.co.uk

Aberdeen Office

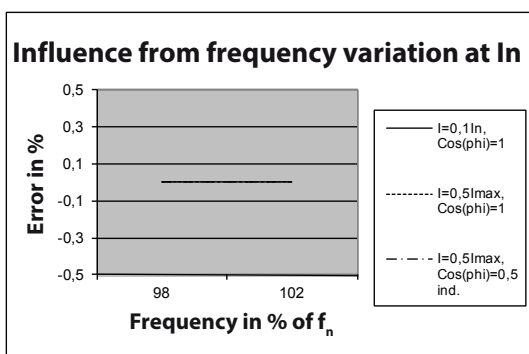
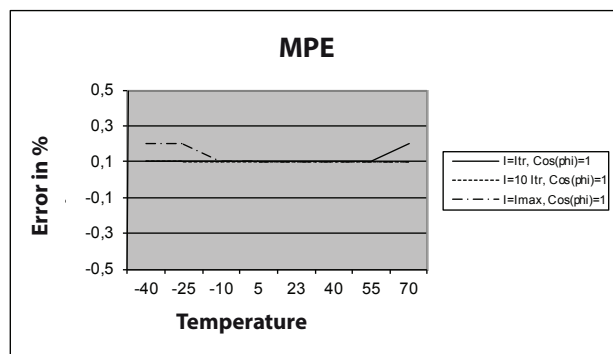
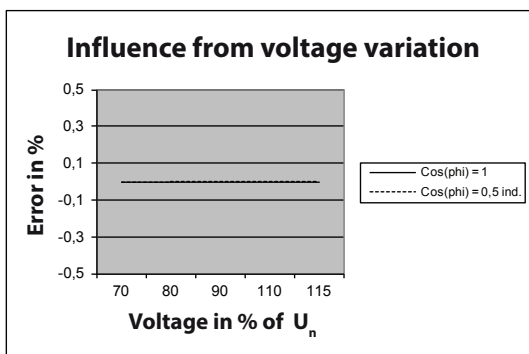
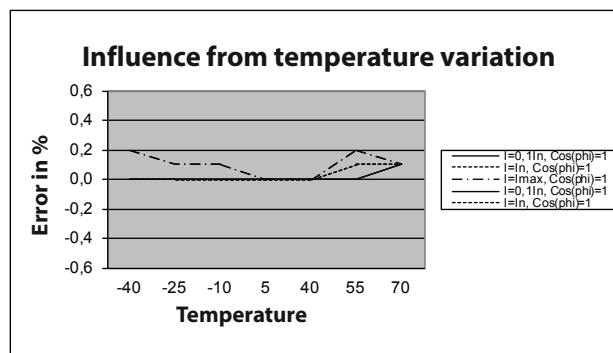
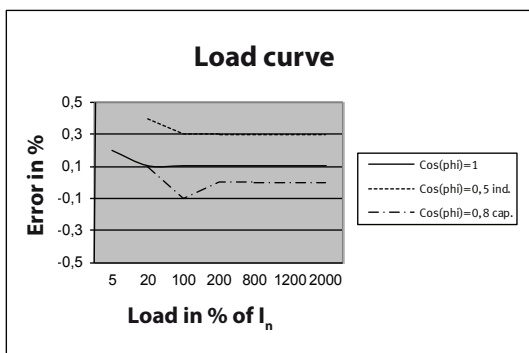
Unit 6 Airside Business Park, Kirkhill Industrial Estate,
Dyce, Aberdeen. AB21 0GT. UK.
Tel: +44 (0)1224 725999
Email: ab@able.co.uk

Internet: www.able.co.uk
e-procurement: www.247able.com
Registered in England No: 01851002
VAT No: GB 417 2481 61



Kamstrup OMNIPOWER single-phase meter DATA SHEET

Typical accuracy charts



MPE (Maximum Permissible Error)

Error composed of:

- current load
- voltage variation
- frequency variation
- temperature variation

Kamstrup OMNIPOWER single-phase meter DATA SHEET

Configuration - hardware

	68	X1 - X2	X3	X4	X5 - X6	X7	X8	X9 - X10	X11	X12 - X13	X14	X15	X16
X1 - Meter type no. version		<input type="checkbox"/> - <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> - <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> - <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> - <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OMNIPOWER single-phase meter		6											
OMNIPOWER three-phase meter		4											
X2 - Type no. version			<input type="checkbox"/>										
OMNIPOWER			1										
X3 - Housing			<input type="checkbox"/>										
Standard			1										
X4 - Measuring systems				<input type="checkbox"/>									
1 system				1									
2 system				2									
3 systems				3									
X5 - Current range					<input type="checkbox"/>								
5-100 A					1								
5-65 A					4								
10-60 A					6								
10-80 A					7								
5-80 A					8								
X6 - Accuracy Class						<input type="checkbox"/>							
Class A						A							
Class B						B							
Class 2						2							
Class 1						1							
X7 - Generation						<input type="checkbox"/>							
Generation N						N							
X8 - Variant							<input type="checkbox"/>						
Standard							1						
X9 - Energy type								<input type="checkbox"/>					
A+								1					
A+/A-								2					
A+/A-/R+/R-								4					
X10 - Breaker									<input type="checkbox"/>				
No breaker									0				
Dual breaker									2				
Standard breaker									3				
X11 - Communication									<input type="checkbox"/>				
No radio									0				
RF 2.0									1				
X12 - Supply backup										<input type="checkbox"/>			
Supercap										0			
Supercap + battery										1			
X13 - Interface											<input type="checkbox"/>		
None											0		
S0 output											1		
APS											2		
X14X15X16 - Country code													
Denmark													010
Norway													040
Switzerland (Italian part)													059
Switzerland (German part)													063
Poland													064
Switzerland (French part)													065
Iceland													067
Germany													070
The Netherlands													080
Finland													084
Sweden													090
Saudi Arabia													110
South Africa													120

Kamstrup OMNIPOWER single-phase meter DATA SHEET

Configuration - software 1 (Z1-Z2-Z3-Z4)

- Z1** Decimals in display (locked)
- Z2** LED configuration (locked)
- Z3** Module configuration
- Z4** Integration period/Load profile period

	Z1	Z2	Z3	Z4
Z1 - Decimals in display				
7.0	1			
6.1	2			
7.2	3			
6.3	4			
Z2 - LED configuration				
LED off at no consumption		1		
LED on at no consumption		2		
Z3 - Primary module configuration				
	I/O 1	I/O 2		
No function	-	-	00	
4-tariff	Input	Input	01	
4-tariff inverted	Input	Input	02	
Pulse in / Alarm in	Input	Input	03	
Pulse in / Alarm in inverted	Input	Input	04	
Pulse in / A+ out	Input	Output	05	
R+ out / A+ out	Output	Output	06	
2-tariff / Alarm in	Input	Input	07	
2-tariff inverted / Alarm in	Input	Input	08	
2-tariff / Alarm in inverted	Input	Input	09	
2-tariff inverted / Alarm in inverted	Input	Input	10	
2-tariff / A+ out	Input	Output	11	
2-tariff inverted / A+ out	Input	Output	12	
Pulse in / 2-tariff	Input	Input	13	
Pulse in / 2-tariff inverted	Input	Input	14	
Debiting stop pulse / -	Input	-	15	
A- out / A+ out	Output	Output	16	
Load control load / Status control	Input	Output	17	
Pulse in / Load tariff sync	Input	Output	18	
Pulse in inv. / Load tariff sync	Input	Output	19	
Pulse in / Load tariff sync inverted	Input	Output	20	
Pulse in inv. / Load tariff sync inverted	Input	Output	21	
4-tariff sync load control	Input	Input	22	
4-tariff sync load control inverted	Input	Input	23	
Load control 1 / Load control 2	Output	Output	26	
Pulse in / Load control	Input	Output	27	
Pulse in / Toggle load control 1 & 2	Input	Output	28	
Z4 - Integration period/Load profile period				
5 min				1
15 min				2
30 min				3
60 min				4

Kamstrup OMNIPOWER single-phase meter DATA SHEET

Configuration - software 2 (Z5-Z6-Z7-Z8)

- Z5** Display configuration
- Z6** Debiting stop date
- Z7** Debiting logging interval
- Z8** Pulse out length / Alarm input

Z5		Z6	
Z5 - Display configuration			
See Display order form or contact Kamstrup			
Z6 - Debiting stop date			
1.		01	
2.		02	
3.		03	
4.		04	
5.		05	
6.		06	
7.		07	
8.		08	
9.		09	
10.		10	
11.		11	
12.		12	
13.		13	
14.		14	
15.		15	
16.		16	
17.		17	
18.		18	
19.		19	
20.		20	
21.		21	
22.		22	
23.		23	
24.		24	
25.		25	
26.		26	
27.		27	
28.		28	

Z7		Z8	
Z7 - Debiting logging interval			
None (externally controlled)		00	
Monthly		01	
Every second month, January		02	
Every second month, February		03	
Every third month, January		04	
Every third month, February		05	
Every third month, March		06	
Every six month, January		07	
Every six month, February		08	
Every six month, March		09	
Every six month, April		10	
Every six month, May		11	
Every six month, June		12	
Yearly, January		13	
Yearly, February		14	
Yearly, March		15	
Yearly, April		16	
Yearly, May		17	
Yearly, June		18	
Yearly, July		19	
Yearly, August		20	
Yearly, September		21	
Yearly, October		22	
Yearly, November		23	
Yearly, December		24	
Z8 - Pulse out length / Alarm input			
30 ms pulse length / Alarm input deactivated		1	
30 ms pulse length / Alarm input active		2	
80 ms pulse length / Alarm input deactivated		3	
80 ms pulse length / Alarm input active		4	

Kamstrup OMNIPOWER single-phase meter DATA SHEET

Configuration - software 3 (Z9-Z10-Z11-Z12)

- Z9** Disconnect setup
- Z10** Maximum power
- Z11** GMT
- Z12** Unit pulse input

	Z9	Z10	Z11	Z12
Z9 - Disconnect setup				
See Disconnect order form or contact Kamstrup				
Z10 - Maximum power				
Maximum power standard 0				
Z11 - GMT				
0	London time		00	
1	+ 1 Hour (DK/NO/SE/DE/FR/ES)		01	
2	+ 2 Hours (FI)		02	
3	+ 3 Hours		03	
4	+ 4 Hours		04	
5	+ 5 Hours		05	
6	+ 6 Hours		06	
7	+ 7 Hours		07	
8	+ 8 Hours		08	
9	+ 9 Hours		09	
10	+ 10 Hours		10	
11	+ 11 Hours		11	
12	+ 12 Hours		12	
-11	- 11 Hours		13	
-10	- 10 Hours		14	
-9	- 9 Hours		15	
-8	- 8 Hours		16	
-7	- 7 Hours		17	
-6	- 6 Hours		18	
-5	- 5 Hours		19	
-4	- 4 Hours		20	
-3	- 3 Hours		21	
-2	- 2 Hours		22	
-1	- 1 Hour		23	
Z12 - Unit pulse input				
	None			00
	kWh			01
	m3			02
	L			03

Kamstrup OMNIPOWER single-phase meter DATA SHEET

Configuration - software 4 (Z13-Z14-Z15-Z16-Z17-Z18-Z19-Z20)

Z13	Tariff control tables	Z17	Push button 2 setup
Z14	Load control tables	Z18	1107 configuration
Z15	Daylight saving time / Summer-wintertime table	Z19	Breaker position
Z16	Frequency code protocol	Z20	Calendar setup

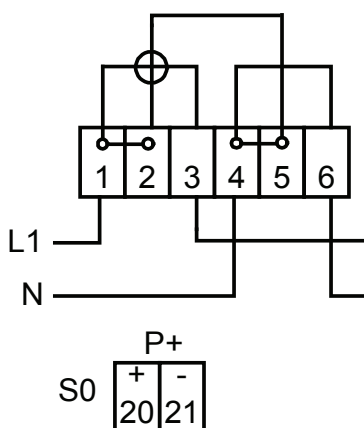
	Z13	Z14	Z15	Z16	Z17	Z18	Z19	Z20
Z13 - Tariff control tables								
See Tariff order form or contact Kamstrup								
Z14 - Load control tables								
See Load control order form or contact Kamstrup								
No tariff plan		000						
Module port control		001						
Z15 - Daylight saving time / Summerwinter time table								
None			000					
EU			001					
Z16 - Frequency code Protocol								
None				000				
CH 318 K				318				
EU 319 K				319				
SE 328 S				328				
NO 339 K				339				
DK 348 K				348				
DK 349 K				349				
FI 359 K				359				
AT 379 K				379				
Z17 - Push button 2 setup								
See PB2 order form or contact Kamstrup								
Z18 - 1107 configuration								
See 1107 order form or contact Kamstrup								
Disabled						000		
Mode A and C, UD1						001		
Mode A and C, UD2						002		
Z19 - Breaker position								
No breaker							0	
Connected							1	
Disconnected							2	
Z20 - Calendar setup								
See Calendar setup order form or contact Kamstrup								

Kamstrup OMNIPOWER single-phase meter DATA SHEET

Installation

Connection diagram

The connection diagram appears from the front of the meter.



Safety and installation guidelines

The meter shall only be used for measuring electrical energy and shall operate within the specified values only.

The meter must be switched off when working on it. It can be highly dangerous to touch connected meter parts.

Current local standards, guidelines, regulations and instructions must be observed. Only authorized personnel are permitted to install electricity meters.

Meters for direct connection must be protected against short circuit by a backup fuse in accordance with the maximum current stated on the meter.

The relevant backup fuse must therefore be removed and kept in a place where it cannot be inserted in the meter by unauthorized personnel.

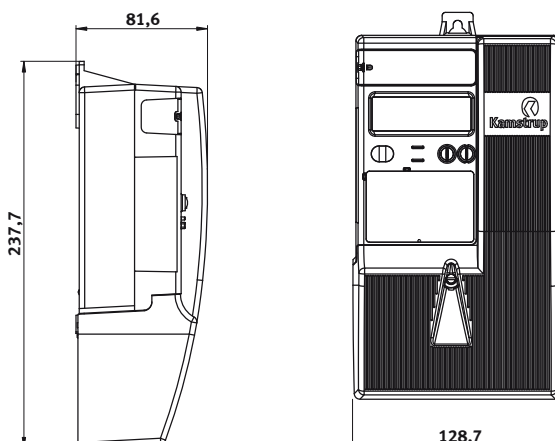
The meter constant LED flashes proportionally to the consumed active energy.

Only authorized personnel are allowed to break the utility sealing.

Warning Do **not** use the breaker function in the meter as safety function.
When the meter's breaker function is used, the meter is still carrying a voltage.

Kamstrup OMNIPOWER single-phase meter DATA SHEET

Dimensions



Accessories

Modules

S0 supply module	68 50 001
Data/pulse module, relay output	68 50 003
Tariff control, 4 tariffs, 230V input, current loop	68 50 076
GSM8i	68 50 053
LON, twisted pair	68 50 057
5 A load control module	68 50 058
M-Bus module	68 50 068
5 A load control module	68 50 069
Radio module, router, high power	68 50 070
RS485	68 50 072
Tariff control, 4 tariffs, 230 V input	68 50 078

Software

Configuration software, METERTOOL OMNIPOWER	68 99 570
---	-----------

Various

Standard cover for 162M	59 60 322
Long terminal cover 60 mm	59 60 323
Optical reading head with USB plug	66 99 099
Optical reading head with 9-pole D-sub connector	66 99 102
METERTOOL kit	68 30 017
Pins, 50 pcs.	68 50 102
Cable sockets, 50 pcs.	68 50 103

Reading Office

Cutbush Park, Danehill, Lower Earley,
Reading, Berkshire. RG6 4UT. UK.
Tel: +44 (0)118 9311188
Email: info@able.co.uk

Aberdeen Office

Unit 6 Airside Business Park, Kirkhill Industrial Estate,
Dyce, Aberdeen. AB21 0GT. UK.
Tel: +44 (0)1224 725999
Email: ab@able.co.uk

Internet: www.able.co.uk
e-procurement: www.247able.com
Registered in England No: 01851002
VAT No: GB 417 2481 61

