

Data sheet

GSM6i/RF Module

- Unique RF Concentrator solution with GSM/GPRS
- Fast and efficient remote reading of Kamstrup electricity and heat meters
- Transparent or data logger functionality
- Dual band GSM/GPRS 900 MHz and 1800 MHz
- RF communication with router functionality
- Easily inserted into the module area of the electricity meter (plug-and-play)
- 10 days back-up of the real time clock
- Tariff and load control
- Meter reading via SMS



Application

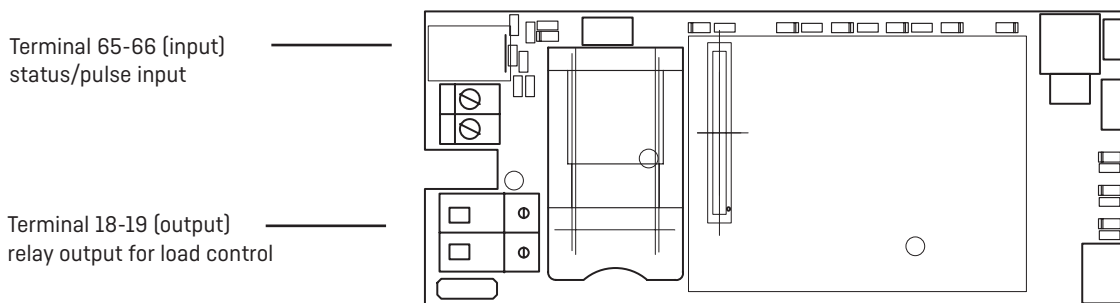
GSM6i/RF is a module used for Kamstrup electricity meters. With this module you can collect data from several meters at the same time in one single call.

The module is based on the GSM6i platform and has extended the functionality with RF which in addition to the original functionality also include functions as an RF Concentrator on the licence frequencies (444 MHz) or communicates with Kamstrup heat meters on the EU frequency in the 434 MHz area.

At the same time the RF unit makes fallback reading of the data logger possible. The GSM6i/RF module offers central upload of new features, e.g. new tariff switch times.

The module has a built-in real time clock (RTC), status/pulse input, load profile, daily/weekly/monthly logger, event logger and relay output for load control. The GSM6i/RF module can be configured to function as a transparent unit or with logger functionality.

Connection diagram



Technical data

GSM/RF

GSM 900-1800 MHz Phase II +

Class 4	900 MHz, 2 W
Class 1	1800 MHz, 1 W
Communication	9600 bit/sec.
Protocol	V.110 with CRC checksum
GPRS	Class 8, class B
RF	
- frequency	Licence band (444.xxx MHz), or EU frequencies (434.xx MHz)
- output power	Up to 500 mW (configurable)
- communication	9600 bit/sec.
Antenna	MCX connector for connection of external antenna

Electrical data

Supply	Supplied from the electricity meter via cables
Power supply	
– idle	< 0.7 W
– transmission	< 3.5 W
RTC accuracy	20 ppm
RTC backup	min. 10 days
Load profile	5/15/30/60 minutes
Logging depth	3/11/22/45 days
Daily logger, depth	45 days
Weekly logger, depth	45 weeks
Monthly logger, depth	45 months
Event logger, depth	64 events
Tariff switch	2 tariff switches + 30 optional days
Load control	230 VAC, 100 mA, Solid state

Status/pulse input (potential free)

Fixed limits		
When configured	Normal	Fast
Cable length, max.	20 m	20 m
Cable capacity, max.	100 nF	10 nF
Leak current contact, max.	0,5 uA	0,5 uA
Frequency, max.	0,5 Hz	16,6 Hz
Pulse duration, min.	1 sek.	10 ms
Pulse duration, max.	1 sek.	90 ms
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Technical data

Mechanical data

Dimension (wxhxd mm)	41x93x41
Temperature	
- storage	-40°C +60°C
- operation	-40°C +60°C
Relative humidity	< 95%, not condensing
Installation	Inserted into the module area of the electricity meter
Density	IP51 installed in the electricity meter

Marking/approvals

CE marking	
RoHS directive	
EN 61000-6-1	EMC directive
EN 61000-6-2	EMC directive
EN 61000-6-3/A1	EMC directive
EN 61000-6-4/A1	EMC directive
EN 301 489-1/52	General EMC and ERM requirements for radio equipment/ Specific EMC and ERM requirements for GSM and E-UTRA
EN 301 511	RED. Specific requirements for GSM
EN 301 908-1/13	RED. General requirements for IMT cellular radio network/ Radio equipment directive: Specific requirements for E-UTRA
EN 62368-1	Security requirements
EN 62311	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields
TA-2012/187 + TA-2012/188	ICASA, South Africa

Ordering

GSM6i/RF

681-XXXXXX

Kamstrup A/S

Industrivej 28, Stilling
DK-8660 Skanderborg
T: +45 89 93 10 00
F: +45 89 93 10 01
info@kamstrup.com
kamstrup.com