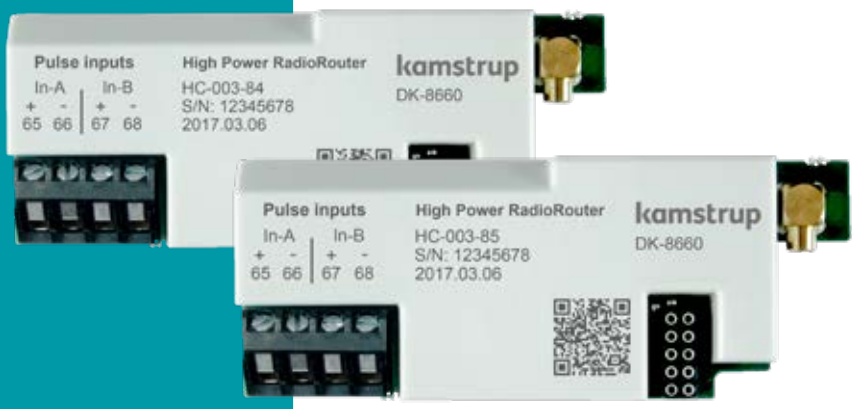
kamstrup

Data sheet

Kamstrup High Power Radio Router module

for MULTICAL® 603

- Automatic radio reading of MULTICAL® 603
- High transmission power
- Built-in router functionality
- Autodetection of radio frequency on two channels
- External antenna connection
- Two extra pulse inputs for connection of water and electricity meters
- Easily built into the modular slot of the meter – plug and play
- Supports leakage and burst alarm
- Data from the meter is read in as little as one second
- GDPR compliant



General description/Application

The High Power Radio Router module is mounted in MULTICAL® 603 and functions as a router unit in a radio network. In addition, the module functions as an ordinary radio module and can be read via hand-held terminal, USB Meter Reader or a fixed network.

The module is installed in MULTICAL® 603 without configuration and is ready for communication in less than 30 seconds after installation.

The reading system (hand-held terminal, USB Meter Reader or Radio Mesh Fixed Network) then determines which data should be read (note that HC-003-85 - GDPR cannot be read via the hand-held terminal MULTITERM Pro).

The High Power Radio Router module is equipped with two radio channels and detects automatically whether communication is on the high-power channel (channel 1) or on the low-power channel (channel 2) .

Channel 1 is typically used for communication between high-power radio network units, whereas channel 2 is used for collecting data from e.g. a battery-supplied water meter. This provides good stability and high security when transferring data.

The built-in router functionality provides you with the possibility of building up a radio mesh network between the individual meters and the central concentrator controlling the radio communication to and from the meters.

The RadioRouter module can be delivered with both internal and external antenna. To obtain the best possible radio coverage and range, Kamstrup recommends to use the external antenna.

In addition, the module is equipped with extra pulse inputs for direct connection with other consumption meters, e.g. water or electricity meters. Max cable size is 1.5 mm^2.

Kamstrup's radio system is extremely robust to interference.

The data security and privacy are secured by applying individual encryption on the data registers from the meter (HC-003-85 - GDPR).

Technical data

Electrical data

Supply	Supplied by the meter which must be mains-supplied (high power 24/230 VAC)
Range – channel 1 (high-power)	Urban areas up to 350 m Rural areas up to 5,000 m
– channel 2 (low-power)	Up to 200 m
Frequency band	Available for license-free and license-demanding frequencies: – 434 MHz range (license-free) – 444 MHz range (license-demanding)
Output power	Max 500 mW on license-demanding frequencies (high power) Max 10 mW on the license-free frequency (EU) (low power)
Reading period	Down to one second for short data packages containing billing data

Mechanical data

Dimensions (L x W x D)	90 x 35 x 14 mm
Weight	37 g, incl. internal antenna and module cover
Temperature range	-40 °C...+ 70 °C

Markings and standards

Radio Equipment Directive (RED)

- EN300 220-2 v.3.1.1:2016
- EN301 489-1 v.2.1.1:2016
- EN301 489-3 v.2.1.0:2017
- EN61010-1:2010
- EN62311:2008

Restriction of Hazardous Substances Directive (RoHS)

Ordering information

	XX	YY	ZZZ
Module type			
High Power Radio Router	84		
High Power Radio Router, GDPR compliant	85		
System configuration			
EU, 319, Ch1/Ch2, NET0 (434.050/434.420 MHz) *		00	
EU, 319, Ch1/Ch2, NET1 (434.050/434.420 MHz) *		01	
CH, 318, Ch1/Ch2, NET0 (434.050/434.420 MHz)		02	
CH, 318, Ch1/Ch2, NET1 (434.050/434.420 MHz)		03	
SE2, 327, Ch1/Ch2, NET0 (444.050/434.420 MHz)		04	
SE2, 327, Ch1/Ch2, NET1 (444.050/434.420 MHz)		05	
SE1, 328, Ch1/Ch2, NET0 (444.050/444.400 MHz)		06	
SE1, 328, Ch1/Ch2, NET1 (444.050/444.400 MHz)		07	
NO, 339, Ch1/Ch2, NET0 (444.675/434.420 MHz)		08	
NO, 339, Ch1/Ch2, NET1 (444.675/434.420 MHz)		09	
DK2, 348, Ch1/Ch2, NET0 (444.550/434.420 MHz)		10	
DK2, 348, Ch1/Ch2, NET1 (444.550/434.420 MHz)		11	
DK1, 349, Ch1/Ch2, NET0 (444.450/434.420 MHz)		12	
DK1, 349, Ch1/Ch2, NET1 (444.450/434.420 MHz)		13	
FI, 359, Ch1/Ch2, NET0 (444.300/434.420 MHz)		14	
FI, 359, Ch1/Ch2, NET1 (444.300/434.420 MHz)		15	
Datagram			
Determined by the reading system			000

* Both frequencies are max 10 mW (10 dBm)

Accessories

Description	Type number
External triangle antenna with 2.5 m antenna cable	6699 407
External triangle antenna without antenna cable	6699 408
Converter box for external triangle antenna without antenna cable	6699 417
Cavity wall antenna with 2.5 m antenna cable	6699 442
Antenna cable – 50 m super low loss RG58	6699 460

Kamstrup A/S • 58101573_D1_EN_07.2022

Kamstrup A/S
Industrivej 28, Stilling
DK-8660 Skanderborg
T: +45 89 93 10 00
info@kamstrup.com
kamstrup.com