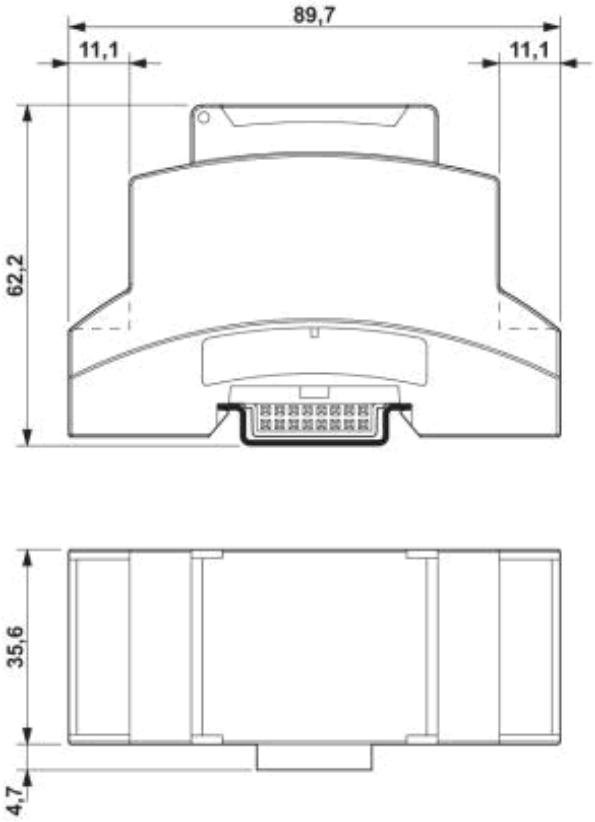
Solar Monitor SM3-GPRS Module Specification

The **2G Quad-band GSM / GPRS module** can be used for **data transfers**, where a connected cpu is responsible for data stream or module's embedded Internet protocols are used to handle application data, which are sent to the module with AT commands. Module can be configured for low power mode.

RF Parameters	
Quad-band	850 / 900 / 1800 / 1900 MHz Compliant to GSM Phase 2/2+
Transmitting Power	Class 4 (2W) at GSM850 and EGSM900 Class 1 (1W) at DCS1800 and PCS1900
Receiving Sensitivity	-110 dBm@UMTS 900 / 2100 -110.5 dBm@UMTS 850 / 1900 MHz -110.5 dBm@DCS 1800 -109.5 dBm@EGSM 900
GPRS	GPRS multi-slot class 12 (default) GPRS multi-slot class 1~12 (configurable) GPRS mobile station class B
Certificates	ANATEL, CE, FCC, GCF, IC, ICASA, NCC, PTCRB, RCM, Rogers, TELCEL, UCRF, Vodafone
Data and protocols	
GPRS Class 12	Max. **85.6 kbps** (DL & UL)
Coding scheme	CS-1, CS-2, CS-3 and CS-4
PBCCH	Support Packet Broadcast Control Channel
USSD	Support Unstructured Supplementary Service Data
Internet	TCP, UDP, PPP, SSL FTP, HTTP, SMTP, MQTT, NTP, NITZ, PING MMS, MUX
PPP	PAP (Password Authentication Protocol)
Aerial and SIM	
RF Connector	SMA (male)
SIM Card	1.8 V, 3 V
Communication Interface	
RS232	RJ12 connector and HBUS (in a DIN rail, bottom pluggable, no external wires needed) [1]

Max. Distance	12 m
Baud Rate	300 bps ~ **115.200 bps**
Autobaud Supported	4.800 bps ~ 115.200 bps
Flow Control	RTS / CTS
Electrical parameters	
Power Supply	9-35 V DC, typ. 0.3 W @ 12V[2, 3]
Low Power Mode (RF part)	1.3 mA @ DRX=5 1.2 mA @ DRX=9
Mechanical Parameters	
Dimensions	35.6 x 89.7 x 62.2 mm
Mounting	DIN rail
Screw Terminals	0.5 mm² - 1.5 mm² cable cores
Protection Rating	IP20
Extended Temperature Range	-40°C ~ +85°C
LED diodes	Status, GSM network



1 Interface connectors are mutually exclusive. The HBUS interface is intended to be used with the SM2-MU unit module. With the RJ12 connector the SM2-GSM module can be used as an individual GSM / GPRS modem with automatic power management by the DTR signal.

2 There is no need for additional power supply if the module is connected with the HBUS to the SM2-MU. In this case appropriate power supply for the SM2-MU should be selected to provide sufficient power for all modules on the HBUS.

3 During transmission, there can be consumption peak bursts up to 6.4 W.