

AD-FG**TECHNICAL DATA**

This module provides GPRS/GSM communication between the ZMF meter and the Central System.

GSM/GPRS Module**Power Consumption**

Max. 3 W/5.5 VA

Voltage

Normal Voltage 3*230/380V

Voltage Range 80%–115%

Frequency 50 Hz

Backup Time

With super cap >7 days

Loading time for max. backup 8 hours

Fitting

Direct in meter ZxF100AC family, sealable

Functions

Extended metering functions:

- power quality supervision
- daily and hourly profiles for up to 4 register
- internal clock, synchronised remotely
- remotely configurable tariff/rate control

GPRS/GSM interface:

- GPRS/GSM communication supervision
- installation support
- fallback mode to GSM during GPRS communication

CS interface:

- local readout of meter data
- re-configuration
- local synchronisation of internal clock

Control interface:

- for local load control

GSM/GPRS

Quad band 850/900/1800/1900 MHz

GPRS Class 12 multi-slot

GPRS Class B mobile station

CSD Up to 14.4 kbit/s

Environmental Influences**Temperature Range**

Operation –40 to +65 °C

Storage –40 to +85 °C

Impermeability to IEC 60529

IP 52

Electromagnetic compatibility

Electrostatic Discharges to IEC 61000-4-2

Contact discharge 8 kV

Electromagnetic RF Fields

to IEC 61000-4-3

80 MHz to 2 GHz

10 and 30 V/m

Radio Interference Suppression
according to IEC/CISPR 22 class B


Fast Transient Burst Test to IEC 61000-4-4
Current and voltage circuits not under load 4 kV
Current and voltage circuits under load
According to IEC 62053-21 2 kV
Auxiliary circuits > 40 V 1 kV

Fast Transient Surge Test to IEC 61000-4-5
Current and voltage circuits 4 kV
Auxiliary circuits > 40 V 1 kV

Insulation Strength

Insulation Strength 4 kV at 50 Hz during 1 min.

Impulse Voltage 1.2/50 μ s to IEC 62052-11
Current and voltage circuits 8 kV
According to SP 12 kV

Protection class to IEC 6050-131  2

Inputs and Outputs

CS (active/passive)

Serial, bi-directional current interface
Standard IEC 62056-61/46
Maximum transmission rate 9'600 bps
Maximum line length 3 m

Load control output

Voltage 12...240 V AC/DC
Current max 100 mA
Isolation resist. to module 4 KV AC/50 Hz, 1 min

GSM/GPRS Antenna

Antenna connector 50 Ω

Tariff control (2 rates)

Control voltage U_t 230 V
Permissible range 80–115% U_t
Current consumption < 2 mA ohmic at 230 V

Weight and Dimensions

Weight approx. 150 g

Width/Height/Depth 90/165/45 mm

Connections

Terminal Layout

CS Interface screwless spring-type terminals
Control Output screwless spring-type terminals
Tariff Control screwless spring-type terminals

Connection to meter

6-pin connector at rear of module for data
4 spring contacts for 3 x 230 V supply

Material

Case polycarbonate

Type designation

AD – FP 9 0 A 1 7 A

Type of module

- C Internal module ZCF
- F Internal module ZMF
- G Internal module ZFF

Communication medium

- X None
- P PLC
- G GSM/GPRS

Rate control

- 0 None
- 1 1 Control Input
- 9 Internal Time of Use

Pulse inputs

- 0 None

Communication gateway

- X None
- A CS-Master/Slave
- B Reserve

Pulse output

- 0 None
- 1 1 Control Input

Load control

- 0 None
- 1 1 Relay
- 3 1 Output contact
- 5 1 Relay, and breaker control
- 7 1 Output contact, and breaker control
- 9 Breaker control

Extended functions

- X None
- A Load profile

Data subject to change without notice

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