

**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  $\mu$ 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  $\Omega$

#### 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

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Data subject to change without notice

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