

Electronic single phase meter *alpha A220*

Electronic single phase meter for residential and light commercial application

With the deregulation of the energy market, in combination with a changing cost situation, new flexible tariff structures and a modern energy management are required. Remote metering and the standardization process become more and more important. With the adaptation of the *alpha* meter A220, the conditions to match these new requirements were created.

The A220 meter is available for direct connection. The meter is in accordance with the relevant EN, IEC and MID standards.

Features

- High accuracy and stability
- Display according to the VDEW-specification
- DIN or BS version available
- 4-Quadrant measurement
- 4 energy and 4 demand tariffs, independently controllable
- measurement of active, reactive and apparent demand
- integrated tariff clock
- time back-up with internal battery, exchangeable battery optional
- readout of meter data according the EN 62056-21 protocol
- readout of meter data without main power
- Anti-Tampering features, like
 - terminal cover removal detection
 - reverse run detection
 - different security levels against meter reprogramming
- Installation support features
- Optical interface acc. EN62056-21
- current loop or RS485 interface (optional)
- OBIS identifier system acc. EN62056-61
- log file for registration of all events with time and date stamps
- load profile for billing data (optional)
- measuring of instantaneous values
- power quality measurement
- up to 1 control inputs (option, only DIN version)
- 1 electronic S0 outputs (optional)
- user friendly reading, setting and programming tool *alphaSET*



Technical Data

Modifications or deviations are reserved R 1.4

Nominal voltage	2-wire, 1 system	220 .. 240V (-20% .. 15%)
Nominal frequency		50 / 60Hz, +/-5%
Nominal / maximum current	Continuous current Short duration	DC: 5(60)A, 5(80)A, 5(100)A DC: 7000A for 2 cycles
Starting current		DC: < 16mA
Accuracy	Class 2 or 1, A or B	EN62053-21 MID app. MI-003
Up to 1 control input	only for DIN version available Control voltage Threshold	max. 265V AC „OFF“ at <40V, „ON“ at >60V
Up to 1 electronic outputs	BS-version : S0 Standard DIN-version : 230V AC/DC or S0	acc. IEC 62053-31 230V, 100mA (only in DIN version available)
Interfaces	Optical interface Electrical interface (CL0, RS485)	acc. IEC 62056-21, max 9600 Baud
Internal tariff source	4 tariffs 4 seasons weekday dependent tariff scheme	acc. EN 62054-21
Time backup for RTC	with external Battery Accuracy	10 years continuous operation at 25°C shelf life of 5 years < 5ppm
Time backup for readout without main power	Supercap Internal battery Additional exchangeable battery	1 day 4 years, depending on number of readouts 7 years, depending on number of readouts
Temperature condition	Operating temperature Storage temperature Humidity Temperature coefficient	-40°...+70°C -40°...+80°C acc. EN62052-11 0,01% per °C (PF=1 and PF=0,5)
EMC compatibility	Surge withstand (1,2/50µs) Dielectric test EMC environmental conditions	6kV, R _{source} = 2 Ohm 12kV, R _{source} = 40 Ohm *) 4kV, 1min, 50Hz MID E2
Power consumption		< 0,7W, < 8VA
Connections	Direct connected meter Auxiliary connections	Terminals: Ø=9,0mm Terminals: Ø=4,0mm
Housing	Dimensions Protection class Material Mechanical environmental conditions	DIN 43857 part 1, BS 7856 Housing: IP54, terminal block: IP31 Polycarbonate, non-inflammable, self-extinguishing synthetic material, recyclable MID M1
Weight		<0,4 kg

*) only between main terminals

ELSTER GmbH
Otto-Hahn-Str. 25
68623 Lampertheim
Germany

Phone +49 (0) 62 06 / 933-0
Fax +49 (0) 62 06 / 933-292
Mail to e-info@de.elster.com
www.elstermesstechnik.com