A1200 ALPHA® meter

Elster's A1200 ALPHA meter builds on the A1000 ALPHA platform by offering an integrated real time clock, current transformer connection, and RS-232 or RS-485 communication.

Energy, maximum demand, and time-of-use

- Records up to 4 energy tariffs with 3 day types and 8 seasons
- Economically measures active (kWh) and reactive (kVARh) or apparent (kVAh) energy in as many as 4 tariffs
- Records kWh over a certain kW threshold in a separate register with the optional overload energy registration feature
- Measures kW, kVAR, or kVA demand, depending on the meter's configuration
- Measures maximum demand for kW, kVAR, or kVA (arithmetic or vectorial)

Installation and instrumentation

- Installation tools help to ensure proper connections that reduce installation and maintenance labor
- Instrumentation tools display instantaneous per phase values of voltage, current, system kW, kVAR, and kVA (delivered and received)

Security features

- Total operation time register
- Phase absent elapsed timer
- Reverse energy flow detection
- Service error registers
- Optional hardware lock that protects the meter from unauthorized configuration changes
- Can be ordered with theft-resistant measurement of kWh or kVARh that measures negative energy flow on any phase as positive flow
- Optional daily verification of proper meter connections providing ongoing tamper detection

Interfaces

- One pulse output for kWh
- Option for second pulse output on any configured meter quantity, including bidirectional kWh
- Optical port complies with IEC 61107
- Optional RS-232 port complies with IEC 61107
- Optional RS-485 port complies with IEC 61107

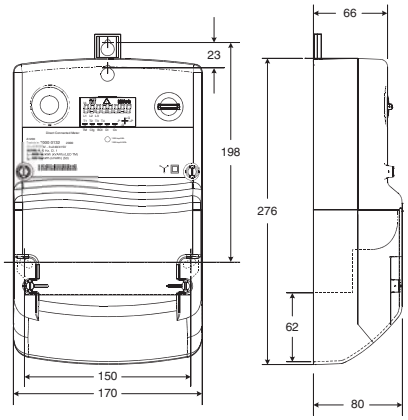
elster

A1200 ALPHA meter is a cost-effective choice for three-phase commercial and light industrial applications

Wide current and voltage range

Like the A1000 ALPHA, the A1200 ALPHA meter can be used for various current and voltage ratings, significantly reducing your inventory cost.

The A1200 ALPHA will accurately meter at system voltages from 100 V line-to-neutral through 415 V line-to-line. Direct connected (to 120 A)[1] and CT-connected (to 10 A) system connections are supported.



Dimensions in millimeters. For reference only.

Accuracy	Class 1.0 or 2.0 (IEC 61036)[1]	Class 0.5S (IEC 60687)
Maximum current	DC[2]: 120 A[1] continuous	CT[2]: 10 A continuous
Current ranges	DC[2]: 5/40 A; 5/60 A; 5/80 A; 5/100 A; 10/40 A; 10/60 A; 10/80 A; 10/100 A; 5/120 A[1]	CT[2]: /1 /5 (6) A (Class 1.0) /5 (6) A (Class 0.5) (10 A continuous)
Starting current	DC[2]: < 40 mA for meters with I_b = 5 A (Class 1.0) DC[2]: < 50 mA for meters with I_b = 5 A (Class 2.0)	CT[2]: < 2 mA (Class 1.0 and 0.5S) CT[2]: < 3 mA (Class 2.0)
Maximum continuous voltage	3-element: 500 VAC (line-to-line); 288 VAC (line-to-neutral) 2-element: 288 VAC	
Operating voltage range		
3-phase, 3-wire service	3 x 100 to 240 VAC ± 20 % L1-to-L2 or L3-to-L2, delta or network	
3-phase, 4-wire service	3 x 120/208 VAC to 3 x 254/440 VAC -20 %/+15 % wye	
Frequency	50 Hz or 60 Hz ± 5 %	
I/O		
Standard LED pulse output	DC[2]: 1000 pulses/ kWh(kVAh)(kVARh)	CT[2]: 5000 pulses/ kWh(kVAh)(kVARh)
Relay output	DC[2]: 500 pulses/ kWh(kVAh)(kVARh) T_i = 40 ms; V < 27 VDC, IEC 62053-31	CT[2]: 5000 pulses/ kWh(kVAh)(kVARh) T_i = 40 ms; V < 27 VDC, IEC 62053-31
Tariff inputs	Nominal line voltage	
Optical port	4800 bps (nominal) IEC 61107 compliant	
RS-232/RS-485	Configurable 300 bps to 9600 bps. IEC 61107 compliant, optionally suppressing the baud rate negotiation	
Accuracy of internal real time clock	Typically < 5 ppm while the meter is powered at 23 °C.	
Battery	$LiSOCl_2$ battery rated 800 mAhr, 3.6 V and shelf life of 20+ years. 5 years continuous duty at 25 °C	
Temperature range	-40 °C to +55 °C (ambient)	-40 °C to +85 °C (at electronics)
Power supply burden (multiphase)	< 2 W and 10 VA across voltage range	
Surge voltage withstand	Test performed	Test levels
	Disturbance voltage test (EFT fast transient)	2 kV with current 4 kV with no current
	Impulse dielectric test[3] 1.2 x 50 µs waveform	12 kV, R_{source} ≥ 40 ohms 6 kV, R_{source} ≥ 2 ohms
	AC voltage dielectric test (1 minute)	4000 V at 50 Hz
Start up delay	< 5 seconds from power application to pulse accumulation	

[1]Conforms fully up to 100 A; conforms also (with exception to DC immunity) up to 120 A
[2]DC: direct connected meter; CT: current transformer connected meter
[3]For the main terminals, tested per IEC 61036

About Elster Group

Elster Group is the world's leading manufacturer and supplier of highly accurate, high quality, integrated metering and utilization solutions to the gas, electricity and water industries. In addition, through its subsidiary Ipsen International, it is the leading global manufacturer of high level thermo-chemical treatment equipment.

The group has over 9,000 staff, operations in 38 countries and serves over 115 markets around the world. Elster's high quality products and systems reflect the wealth of knowledge and experience gained from over 170 years of dedication to measuring precious resources and energy.

Elster
208 S Rogers Lane
Raleigh, NC 27610-2144
United States

T +1 800 338 5251 (US toll free)
T +1 905 634 4895 (Canada)
F +1 919 212 4801

support@us.elster.com
www.elster.com