

Electrogravimetric Analyzer

Model 2547

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1 General Description

Model 2547 completes the line of AMEL's galvanostat. The instrument has been designed to perform electrogravimetric analysis. It is equipped with two displays to monitor power and potential of the cell, while a third display is used as process timer. The system works with two ad hoc platinum electrodes, typically an external cylindrical mesh and internal helix, the latter being able to rotate up to 100 revolutions per minute. Specifically developed electronic circuitry ensures stability of the working current upon changes of solution conductivity. The equipment is designed to run continuously and it is fully protected against short circuits.



2 Metrological Properties

2.1 Electric Parameters

| | |
|-----------------------|--------------------------------------------------------------------------------------------------------------|
| Output Voltage | ±10V |
| Output Current | ±2A |
| Output Current (peak) | ±2,2A |
| Potential Resolution | ±10mV |
| Working Mode | Galvanostatic |
| Response Time | 100µs with 2A range |
| Current Stability | ±100µV (with respect to baseline) ±10µV/°C (with respect to temperature) ±100µV/week (in the long run) |
| Timer Lifetime | 8 years with internal lithium battery |
| Timer Duration | 9999h 59m 59s |
| Timer Reset | Manual front display command |
| Display | 3½ digit |

2.2 Operating Conditions

| | |
|-----------------------|---------------------------------|
| Temperature | 0 to +45°C |
| Relative Humidity | 0 to 90%RH without condensation |
| Voltage Mains | 115 or 230V AC ±10% 50/60Hz |
| Power Consumption | 50VA |
| Weight | 9,4kg |
| Dimensions (L xW x H) | 360 x 300 x 400mm |

3 Accessories and Spare Parts

Few replacements are needed for everyday use and maintenance of the Electrogravimetric Analyzer, apart from platinum working electrodes. Please refer to AMEL's electrodes catalogues for more information.

| | |
|------------|----------------------------------|
| 805/SEP/10 | Platinum helix central electrode |
| 805/SMP/40 | Platinum mesh outer electrode |
| 191/GPC | Grid power cable |