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HIGHEND DATA ACQUISITION SYSTEMS

ELECTRONIC LOADS

EL101 / EL300

Add-on modules for IM5/6/6e electrochemical workstations

Modern electrochemistry at high currents

in IMPEDANCE SPECTROSCOPY, CYCLIC VOLTAMMETRY, POLARISATION CURVES ...
for BATTERIES, FUEL CELLS, ELECTROLYSIS, ELECTRO PLATING ...



Power potentiostats and electronic loads today are indispensable tools in several fields of electrochemistry, for example in the research of fuel cells. The potentiostats of the EL series are designed to sink high currents up to 100A/25A at a total power dissipation of up to 300W/100W (*EL300/EL101*). Both modules may be connected in full cell or half cell schemes. Using an additional external power supply you easily can extend an electronic load of the EL series to a two-quadrant potentiostat, you need for example in the field of electrolysis.

The *EL101/300* is controlled by an *EPC40*, a module which is plugged into an extension slot of the *IM6/6e*. Each *EPC40* can address up to 4 *PP/EL* modules. Up to 4 *EPC40* cards can be installed in an *IM6* system, 1 in an *IM6e* system. In total, an *IM6* is able to control up to 16 *EL101/300* devices, an *IM6e* up to four. Each potentiostat will hold all its values from one control access to the next one so that no potential or current disturbances can occur while scanning the potentiostats. If series measurements are performed with more than one *EL* module connected, spectra are taken from all modules in a definable order.

The *EL* series modules are implemented completely in the *IM6/6e* environment. Thus, all acquisition and analysis techniques that run on these systems can as well be applied with the *EL* modules. The installation of one or more *EL* devices will upgrade your *IM6/6e* to an even more versatile high-current electrochemical workstation.

Supported Methods	Software Module
Impedance spectroscopy	IM
Simulation & model fitting	SIM
Cyclic voltammetry	CV
Polarisation curves	CV
Multicell multitasking voltammetry	CV
Arbitrary current/potential/time measurements	PVI
Capacity/potential measurements	C/E
Automatic series measurements	AS
Electrochemical Noise	NS
SCRIPT	AS

Specifications	EL101	EL300
Operating modes	potentiostatic / galvanostatic	potentiostatic / galvanostatic
Potential range	±4V / ±12V	±4V / ±12V
Potential accuracy	0.25%	0.25%
Current range	0A ... 25A	0A ... 100A
Current accuracy	0.25%	1%
Power dissipation	100W @ T _a	100W @ T _a 300W water cooled
Frequency range	10mHz ... 10kHz	10mHz ... 3kHz @ 100A 10mHz ... 10kHz @ 25A
Ambient temperature T _a	0°C ... 25°C	0°C ... 25°C
System requirements	IM5/6 + EPC40	IM5/6 + EPC40

For connection of an *EL* device an *EPC40* module is required !

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For all kinds of questions feel free to contact us. We are looking forward to hearing from you, e.g., by [E-MAIL](#)



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