



WHY THE INTEGRATED SYSTEM

- Unit footprint -20% (dual-chamber)
- Power cabling -30%
- Energy recovery +5-10%
- Per-chamber multi-channel temperature control
- AGV-ready for unmanned lines
- No on-site construction - plug & run

GENERAL 0.1			
Product	Integrated Cyclers-Chamber System	Model	GRIDENCE ICS-6000
Series	Integrated Cycling System	Configuration	Chamber + cell charge/discharge, single cabinet
Dimensions (WxDxH)	1660 × 2972 × 2710 mm	Footprint	4.92 m ² per unit
Loading	AGV automatic · unmanned-line ready	System cooling	Water-cooled

CHARGE / DISCHARGE — VOLTAGE 0.2			
Charge voltage	0-6 V	Discharge voltage	1.5-6 V (0 V customizable)
Voltage accuracy	±0.01% FS	Resolution	0.1 mV

CHARGE / DISCHARGE — CURRENT 0.3			
Current range	100 / 200 / 400 / 600 / 1200 / 2400 / 4800 / 6000 A	Current accuracy	±0.02% FS
Resolution	0.1 mA	Current overshoot	< ±0.5% · settling < 100 ms
Current response	10-90% in < 3 ms	Current switching	-90% to +90% in < 5 ms
Ripple current	0.1-200 Hz superimposed, 200 A sine		

PERFORMANCE & DATA 0.4			
Power factor	> 0.99	Energy recovery	> 85%
Hardware sampling	60 kHz	Time record interval	1 ms
Min. step interval	20 ms	Calibration interval	> 1 year
Data storage	> 1 TB	Charge modes	CC, CV, CP, ramp
Discharge modes	CC, CV, CP, CR, ramp	Other modes	Rest, drive-cycle, pulse, DCIR

ENVIRONMENTAL CHAMBER 0.5			
Chamber size	1000 × 1000 × 1000 mm (customizable)	Temperature range	-40 °C to 120 °C
Temperature accuracy	≤ 1 K	Temperature uniformity	≤ 2 K
Temperature fluctuation	< 0.5 K	Heating rate	≥ 2 K/min (no load)
Cooling rate	≥ 2 K/min (no load)	Humidity range	10-98% RH
Humidity rate	1%/min	Humidity accuracy	±2% RH
Noise	≤ 65 dB (at 1 m)	Chamber cooling	Air / water

Protection	Pressure-relief valve, door chain, forced exhaust, EM + mechanical locks	Over-temp protection	Independent, redundant, adjustable high/low limits
Fire detection	Smoke + gas (CO, HC, H ₂)	Fire suppression	N ₂ / CO ₂ gas or water spray
Air purge	Rapid dehumidify & flush, strong exhaust	Enclosure & door	Explosion-proof design
Safety PLC	Manual / auto / remote suppression, independent alarm cut-off	Alarm	Three-color signal tower
EUCAR hazard level	Level 7		

MULTI-CHANNEL FIXTURE

Applicable cells	Prismatic & blade, various sizes	Channels	4 CH per chamber
Current range	±600 A	Temperature range	-40 °C to 120 °C
Temperature accuracy	≤ 1 K	Temperature uniformity	≤ 0.5 K
Temperature fluctuation	< 0.5 K	Heating / cooling rate	≥ 5 K/min (no load)
Temperature control	Per-channel independent	Interfaces	Current, signal, coolant; water-cooling plate
Load accuracy	±3.0 mm (AGV)		

Compliance and certification documentation available upon request.