

Stabiliti

25C3-CE & 30C3-CE



Smart power conversion for the energy revolution!
Ideal solution for C&I, AC & DC microgrids or electric vehicles, among others.

Innovative technology:

Stabiliti 25C3-CE & 30C3-CE are innovative multiport power converters with **3 bidirectional ports** (AC/DC/DC) to easily interconnect **power sources** (grid, PV, fuel cells, storage unit, ...) and **loads** (AC or DC). Using a single multiport converter offers much easier systems **integration**, **control** and ongoing **maintenance** by simplifying system level hardware and software design. The enclosure is **IP44** and can therefore be installed **indoor** or **outdoor**.

Battery life is **extended** through **galvanic isolation** (protection against grid disturbances). The wide DC voltage range allows the use of **multiple storage** technologies such as lead-acid, lithium-ion, super-caps, aqueous batteries, flow batteries or flywheels. The galvanic isolation also maximizes **PV production** over the long-term, by reducing PID (Potential-Induced Degradation).

Applications:

The Stabiliti 25C3-CE & 30C3-CE can be used in energy management applications for:

- **Commercial and Industrial (C&I):**
 - Increase **self-consumption** of **renewable** energy
 - Minimize demand costs by **peak shaving**
 - **Be paid** for **grid support** (re-injection and demand response)
 - **Backup power** for **AC & DC loads**
- **Microgrids:**
 - **Same advantages** as C&I solution but for **several consumers**
 - **Grid interactive** or completely **off-grid**
 - **Save fuel** for generators (Solar + Storage microgrid)
- **Electric vehicles:**
 - Integrate **renewable** energy, **energy storage** with **fast chargers**
 - **Reduce** energy costs and demand costs (via renewable and increased self-consumption)
 - **Supports Vehicle-to-Grid** "V2G" applications

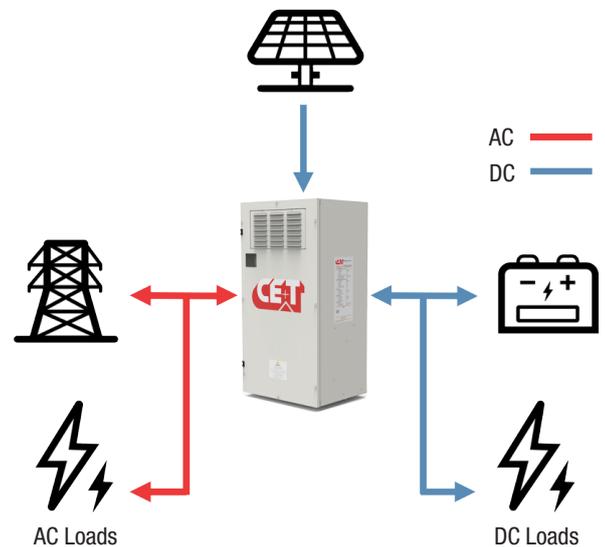
Building blocks:

- Stabiliti is a **25/30 kW modular power converter** that can be used to design systems in any size
- Capable of off-grid operation (**tested up to 240 kW**)

Illustrations are non-binding and may include customized fittings.

Stabiliti 25C3-CE & 30C3-CE

3 ports (AC/DC/DC)



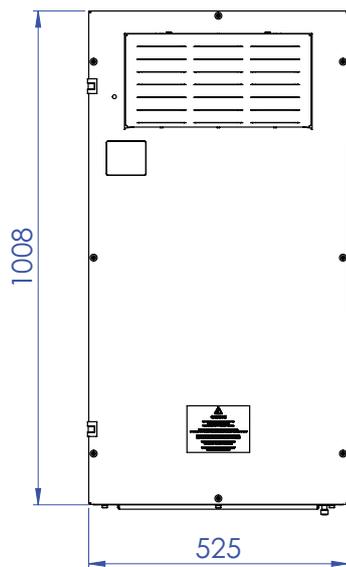
Stabiliti 25/30C3-CE

Model	Stabiliti 25C3-CE	Stabiliti 30C3-CE*
General		
Part Number	T831890201	T831990201
Size (W x H x D)	525 x 1008 x 405 mm	
Weight	64 kg	
Enclosure protection	Ingress Protection IP44 (powder-coated aluminum)	
Mounting	Wall mount (vertical)	
Wiring	Hinged access panel	
Isolation between AC and DC ports	Galvanic isolation (AC to DC)	
International Certifications	Grid interactive certifications: VDE-4105, EN50549-10, C10/11 (pending)	
Compliances	CE, RoHS and Reach	
AC1 Bidirectional port - AC Grid Interactive port		
Maximum Output power AC1 port	25 kW	30 kW*
Nominal current (maximum)	50 Hz: 39 A (44A rms per phase max)	
Nominal output voltage	3 x 400 Vac	3 x 480 Vac*
Nominal output frequency (range)	50 Hz (45 to 55 Hz)	
Power factor (programmable range)	> 0.99 at rated output power (0.8 leading to 0.8 lagging)	
Reactive power range (programmable)	-21 to +21 kVAR	
Apparent power range (programmable)	-28 to +28 kVA	-30 to +30 kVA
Conversion efficiency, AC1 to DC2 or DC3	94% @peak	94.5% @peak
Current harmonics	< 5% THD	
Microgrid features	Voltage forming and load following	
Microgrid black start	Integrated	
DC2 Bidirectional port - Battery default port		
Maximum Power	45 kW (above 750Vdc – derating below)	
Maximum Current	60 A	
Operating Voltage range	200 to 1000 Vdc	
Open-circuit voltage (Voc)	1000 Vdc	
Conversion efficiency, DC2 to DC3	97.5% @peak	
DC Filter	Integrated differential choke	
DC Disconnect	External	
Wiring configurations	+ or - ground referenced mono-polar, bipolar or floating	
DC3 bidirectional port - Auxiliary default port		
Maximum Power	45 kW (above 750 Vdc – derating below)	
Maximum Current	60 A	
Operating Voltage range	200 to 1000 Vdc	
Open-circuit voltage (Voc)	1000 Vdc	
Conversion efficiency, DC3 to DC2	97.5% @peak	
DC Filter	Integrated differential choke	
DC Disconnect	External	
Wiring configurations	+ or - ground referenced mono-polar, bipolar or floating	
Monitoring and control		
Available control methods	AC1 port: Idle, Net, Grid Following, Grid Forming DC2 & DC3 port: Idle, Current, Power, Voltage, MPPT, Net	
Monitoring / Control interfaces	RS-485 Modbus RTU - 2W / Modbus TCP over Ethernet	
Fault logging	Saves all operating data when a fault occurs	
Firmware updates	Remote via HTTP Request**	
Environmental		
Transient overvoltage protection	AC and DC MOVs at AC & DC input terminal	
Operating temperature	-25 to 60°C (derating starting at 50°C)	
Storage temperature	-40 to 85°C	
Relative humidity	0 to 100% (non-condensing)	
Cooling	Forced air (with variable speed fan)	
Highest working altitude	2000 m	

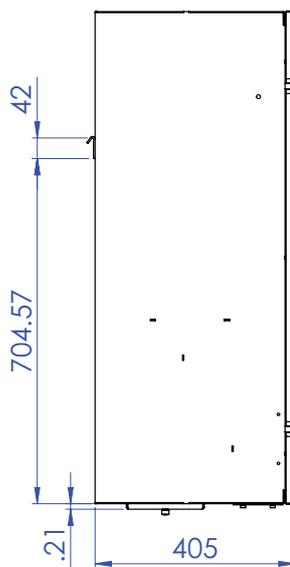
* 30 kW Stabiliti 30C3-CE requires an autotransformer 3x400 to 3x480 VAC to provide full power.

** Not available in current release.

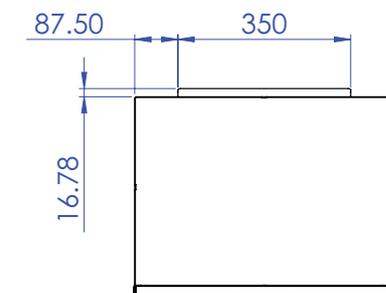
Stabiliti System - Dimensions



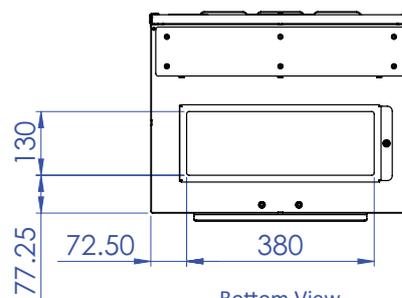
Front View



Left View



Top View



Bottom View

Stabiliti 25C3-CE & 30C3-CE - Datasheet - v1.7 Specifications can change without notice. New data will be updated on our website: www.cet-power.com.
The present equipment is protected by several international patents, trademarks and copyrights.