

Stabiliti 30C3 & 30C



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

Innovative technology:

Stabiliti 30C3 is an innovative multiport power converter with 3 bidirectional ports (2 DC and 1 AC) to easily interconnect power sources (grid, PV and batteries) and loads (AC or DC). Using a single multiport module offers much easier systems integration, control and ongoing maintenance by simplifying system level hardware and software design. The enclosure is IP54 and can therefore be installed indoors or outdoors.

Battery life is extended through galvanic isolation (protection against grid disturbances) and built-in smart algorithms to minimize battery stress. 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 can be used for energy management applications for:

- Commercial and Industrial (C&I):
 - Increase self-consumption of renewable energies
 - Minimize demand costs by peak shaving
 - Be paid for grid support (reinjection and demand response)
 - Backup and pure power for AC & DC loads (no voltage drops, sags or surges)
- Microgrids:
 - Same advantages as C&l solution but for several consumers
 - Grid-tied or off-grid
 - **Save fuel** for generators (consuming more the renewable production)
- Electric vehicles:
 - Integrate renewable energy, storage and fast chargers
 - Reduce energy cost (via renewable and increased self-consumption)
 - Backup for EV and loads (AC & DC)
 - Supports Vehicle-to-Grid "V2G"

Building blocks:

Stabiliti is a 30 kW modular power converter that can be used to design systems of up to 240 kW. Depending on your requirements, select Stabiliti 30C3 (3 ports) or Stabiliti 30C (2 ports).

AC Loads DC Loads

Stabiliti 30C3 3 ports (DC/DC/AC)

Stabiliti 30C 2 ports (DC/AC)

AC Loads DC Loads

Illustrations are non-binding and may include customized fittings.



Stabiliti 30C3 & 30C

Model	Stabiliti 30C3	Stabiliti 30C	
General			
Part Number	30C3	30C	
Size (W x H x D)	20.5" x 40" x 16" / 520 x 1		
Veight	135 lbs / 61 k	135 lbs / 61 kg	
Enclosure protection	NEMA-3R / IP54 (powder-co	NEMA-3R / IP54 (powder-coated aluminum)	
Mounting		Wall mount (vertical)	
Viring		Hinged access panel	
solation between AC and DC ports	-	Galvanic isolation	
Certifications	UL1741, UL1741SA and	d IEEE1547a	
Compliances		CA Rule 21, PJM, RoHS and Reach	
SunSpec compliance		Models: 1, 103, 120, 121, 122, 123, 126, 129, 130, 132, 134, 135 and 136 (pending)	
AC Grid port (In / Out)			
Output power	60 Hz: 30 kW / 50 H:	z: 25 kW	
Nominal current (maximum)		60 Hz: 37 A (44 A) / 50 Hz: 39 A (44 A)	
Nominal output voltage (range)	, ,	3 x 480 Vac (422 to 528) / 3 x 400 Vac (334 to 440)	
Nominal output frequency (range)		60 Hz (55 to 65 Hz) / 50 Hz (45 to 55 Hz)	
Power factor (programmable range)		> 0.99 at rated output power (0.75 leading to 0.75 lagging)	
Reactive power range (programmable)		+21 kVAR to -21 kVAR	
Conversion efficiency (CEC*)		95.5% (95%)	
Current harmonics	< 5% THD	,	
Microgrid features	Load following and volta	Load following and voltage forming	
Microgrid black start	-	Integrated	
DC Battery port (In / Out)			
Output power	30 kW	30 kW	
Output current		60 A	
Output voltage range		100 to 1000 Vdc (derating below 500 Vdc)	
Open-circuit voltage (Voc)		1000 Vdc	
DC Filter		Integrated differential choke	
DC Disconnect	External	-	
Wiring configurations	Ground referenced (monopolar of	Ground referenced (monopolar or bipolar) or floating	
GFDI protection	1 A: fused	, , , , ,	
DC PV port (In / Out)			
Output power	30 kW		
Output current	60 A	_	
Output current Output voltage range	100 to 1000 Vdc (derating below 500 Vdc)	-	
Output voltage range Open-circuit voltage (Voc)	1000 Vdc	-	
DC Filter	Integrated differential choke	-	
DC Disconnect	External	-	
	Common with DC battery port		
Wiring configurations	(ground referenced or floating)	-	
GFDI protection	1 A: fused	-	
Monitoring and control			
Available control methods	Idle, net, power (grid and battery), curre	Idle, net, power (grid and battery), current (battery) and MPPT (PV)	
Monitoring / Control interfaces	RS-485 Modbus RTU - 2W / Modb	RS-485 Modbus RTU - 2W / Modbus TCP over Ethernet	
Logs	Saves operating data when	Saves operating data when a fault occurs	
Firmware updates	Remote	Remote	
Environmental			
Transient overvoltage protection	AC and DC MOVs in v	AC and DC MOVs in wiring tray	
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)	

 $^{^{\}star}$ Based on California Energy Commission (CEC) efficiency calculation.