

Hercules

Energy Booster & Backup for C&I applications

Add power and resilience without waiting for the grid

The challenges in C&I sites

Industrial and commercial sites are increasingly constrained by grid limitations while power demand keeps rising.

Typical challenges include:

- Limited grid capacity and congested distribution networks
- Inability to increase connection power due to DSO restrictions and long delay
- Growing demand on the load side, such as: EV chargers, electrified industrial processes, equipment with high starting current (cranes, pumps, motors, etc.)
- Existing PV installations that cannot be extended or fully valorised
- Need to secure critical loads against grid disturbances or failures

What site owners want

- Keep using the existing grid connection
- Add new loads without increasing the contracted power
- Manage power peaks instead of oversizing their installation
- Secure critical loads with battery-backed power
- Better integrate or valorise PV systems

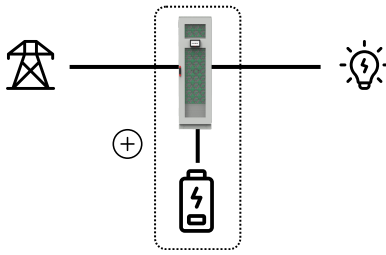
The CE+T solution: Hercules Energy Booster + Backup

Hercules is a modular, grid-interactive Power Conversion System (PCS) designed to boost available power, shave peaks, and provide backup power for C&I applications. It combines modular AC/DC/AC power converters with our advanced monitoring and control Inview, enabling smooth connection of batteries, PV systems, loads, and third-party equipment.

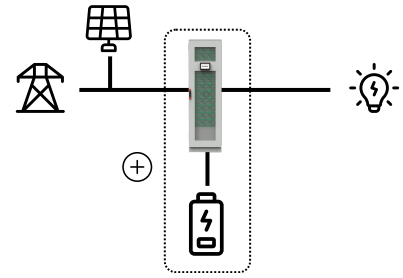


AC in/out	3x400Vac + N	3x400Vac + N	3x400Vac + N
DC in/out	408Vdc	408Vdc	408Vdc
Power (up to)	100kW	160kW	200kW

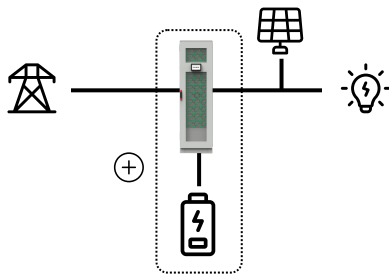
Typical use case scenarios



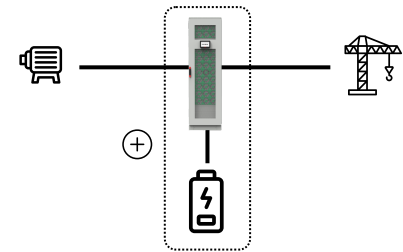
The site loads are initially supplied only by the grid. Hercules with batteries is added to support peak power demand, enabling the addition of new loads without increasing the grid connection.



The site loads are initially supplied by the grid and existing PV. Hercules with batteries is added between the grid and the loads to manage peaks and increase self-consumption.



The site loads are initially supplied by the grid and existing PV. Hercules with batteries is added to connect PV on AC OUT, optimising energy flows and allowing PV to continue operating during grid outages.



The site loads are initially supplied by a limited grid connection and/or a diesel genset. Hercules with batteries is added to absorb high starting currents, enabling a smaller (or no) genset and a reduced grid connection. It is ideal for cranes, pumps, compressors or other equipment with high starting currents.

Typical applications

EV charging hubs

Logistics centres

Manufacturing sites

Industrial processes

Commercial buildings

Infrastructure with constrained grid access

Key benefits for C&I customers

- No grid upgrade required
- Fast deployment compared to infrastructure reinforcement
- Scalable and modular architecture (grow power step by step)
- Improved operational reliability
- Optimised energy usage

Why CE+T Power?

- Proven expertise in modular power conversion
- Highly scalable architecture
- Easy maintenance with hot-swappable modules
- Designed for industrial environments
- One solution for booster + backup, not separate systems

Get started !

Each project is site-specific. To pre-size a Hercules Energy Booster solution, we typically need: grid connection limit, load profile and peak behavior, critical vs. non-critical loads, existing PV (if any), backup and autonomy requirements (if any). Contact CE+T Power or one of our partners for a sizing discussion.

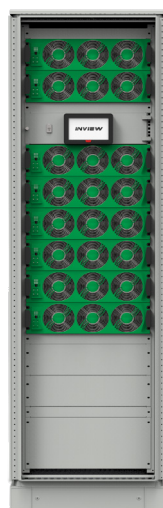
Hercules Standard Cabinets

General	Hercules 100	Hercules 160	Hercules 200
Vibration	GR63 office vibration 0 to 100Hz-0.1g / transport vibration 5 to 100Hz-0.5 g, 100 to 500Hz - 1.5g / Drop test		
Operating conditions	Designed for installation in an IP20 or IP21 environment. When installed in a dusty or corrosive environment, appropriate measures (air filtering, ...) must be taken.		
Altitude above sea without de-rating	1500m / Above 1500m : 0.8% de-rating per 100m		
Operating T° / Relative Humidity (RH) non-condensing	Tested according ETS300-019-2-3 Class 3.1 -20°C to 50°C, power de-rating from 35°C to 50°C / Max RH 95% for 96 hours per year		
Turn on delay	20 to 60 seconds, depending on the number of modules installed		
Power			
AC Input Specifications			
Maximum power (VA) / (W)	100 kVA / 100 kW	160 kVA / 160 kW	200 kVA / 200 kW
Nominal voltage (AC)	3 x 380V / 400V / 415V + Neutral 5 wires		
Voltage range (AC)	150 Vac to 270 Vac line to neutral (power derating below 220 Vac)		
Frequency range (selectable) / synchronization range	50 or 60 Hz / range 30 to 70 Hz adjustable		
Short circuit backfeed current per phase	53 A 20 ms - 38 A RMS ,15 s		
DC Battery Specifications			
Maximum power (W)	100 kW	160 kW	200 kW
Nominal voltage (DC)	-204 Vdc / 0 Vdc / +204 Vdc with the zero-voltage connected to AC neutral		
Voltage range (DC)	-170 Vdc to -245 Vdc / 0 Vdc / +170 Vdc to +245 Vdc		
Nominal current (at 408 Vdc)	255 A	408 A	511 A
Maximum input current (for 15 seconds) / voltage ripple	383 A / < 400 mVrms	613 A / < 400 mVrms	766 A / < 400 mVrms
AC Output Specifications			
Maximum power (VA) / (W)	100 kVA / 100 kW	160 kVA / 160 kW	200 kVA / 200 kW
Nominal voltage (AC)	3x380V / 400V / 415V + Neutral 5 wires		
Short time overload capacity (@PF 0.9)	150% - 15s 130% - 30s 120% - 60s 110% permanent		
Short circuit current on battery, per phase	217 A Rms for 15 sec.	348 A Rms for 15 sec.	435 A Rms for 15 sec.
Admissible load power factor	Full power rating from 0 inductive to 0 capacitive		
Frequency / frequency accuracy	50 - 60 Hz / 0.03 %		
Total harmonic distortion (resistive load)	< 1.5 %		
Nominal current per phase (In)	145 A	232 A	290 A
Crest factor at nominal power	2.1 : 1		
Signaling & Supervision			
Display	7" display included (rack mounting)		
Controller	Pegasus controller included		
Alarms output / Supervision	Dry contact on Pegasus controller / Modbus, CANBUS and SNMP via Pegasus controller		
Certificates & Approvals			
Safety / Grid Interactive	EN 62040-1-1 / Synergrid: C10-11, EN50549 (up to 240 kW)		
EMC (immunity)	EN 55022 (A), EN 61000-4-2/3/4/5/6/8		
Mechanical Specifications			
Dimensions (W x H x D mm)*	600 x 2100 x 800 mm	600 x 2100 x 800 mm	600 x 2100 x 800 mm
Numbers of cabinets	1	1	1
AC Connection / DC Connection	Nut and bolt on copper bar / Nut and bolt on copper bar, AC MCCB and DC fuse (optional may require extra cabinet)		
Anti-islanding relay	ZHIEL UFR1001E (optional)		

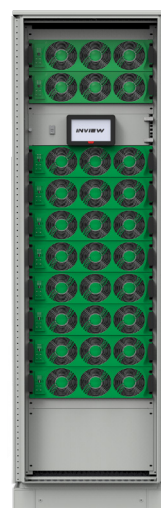
* Other cabinet heights on demand.



HERCULES 100



HERCULES 160



HERCULES 200

Hercules PCS Energy Booster and Backup - Datasheet - v1.0 Specifications can change without notice. New data will be updated on our website: www.cet-power.com.

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