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ENERGY STORAGE

ESS Pro

All-in-one stacked residential storage — hybrid inverter + LFP battery + MPPT

11 kW HYBRID INVERTER

30 kWh SCALABLE LFP CAPACITY

- **All-in-One** — inverter + battery + MPPT
- **LFP · 10000-cycle** — automotive-grade cells
- **Scalable** — stack 5 → 30 kWh
- **96% efficient** — WiFi app + smart BMS

All-in-one integration

- Built-in hybrid inverter, MPPT solar charger, AC charger & LiFePO4 battery
- Plug-and-play — fewer parts, faster install, lower balance-of-system cost
- Floor-standing stacked design, no wall mounting required

Safe & long-life LFP

- Automotive-grade LiFePO4 cells — ≥ 10000 cycles, 15-year design life
- Smart BMS: cell balancing + over-charge / discharge / temperature protection
- ≥ 95% usable depth of discharge, IP65 enclosure

Scalable & smart

- Stack 5.12 → 30.72 kWh; parallel up to 6 units (~120 kWh)
- WiFi + app monitoring, LCD display, field-configurable work modes
- On-grid, off-grid, backup (UPS) & time-of-use in one unit

Key specifications

Inverter power	**6 / 8 / 11 kW**
Battery chemistry	**LiFePO4 automotive**
Capacity	**5.12 – 30.72 kWh**
Cycle life	**≥ 10000 @ 80% DoD**
Peak efficiency	**96.0%**
MPPT range	**120 – 450 Vdc**
Parallel	**up to 6 units**
Warranty	**10 years**

PERFORMANCE WARRANTY

10-yr product | 15-yr design life | ≥ 80% capacity

WHY COTECH

Factory-direct & fully tested
Every unit aged, capacity-graded & BMS-verified

OPERATING MODES

- Self-consumption
- Backup (UPS)
- Off-grid
- Time-of-use
- Peak-shaving
- Zero-export

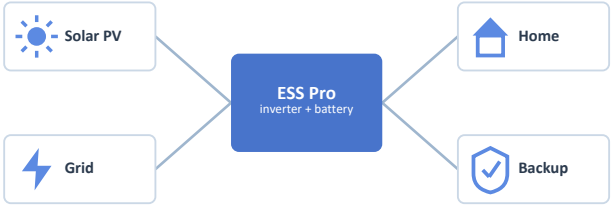
MODULAR & SCALABLE

Modular stacking — 5.12 / 10.24 / 15.36 / 20.48 kWh and beyond,

APPLICATIONS

Residential | C & I | Off-grid | Backup / UPS

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

CE | UN38.3 | MSDS | IEC 62619 | CB | UL 1973

Test conditions 25 °C unless noted. Specifications subject to change without notice.

ESS Pro — electrical specifications

MODEL	ESS Pro 6 kW	ESS Pro 8 kW	ESS Pro 11 kW
Inverter / Charger			
Inverter type	**6 kW / 48 V**	**8 kW / 48 V**	**11 kW / 48 V**
Rated output power	**6000 W**	**8000 W**	**11000 W**
Surge (peak) power	**12000 W**	**16000 W**	**22000 W**
Output waveform		Pure sine wave	
Output voltage / freq.		230 VAC ± 5% · 50 / 60 Hz	
Peak efficiency		96.0%	
THD (linear load)		< 3%	
Transfer time (UPS)		< 10 ms	
Bulk / float charge		57.6 / 56.0 Vdc	
LiFePO4 battery			
Battery module		51.2 V / 100 Ah (5.12 kWh) — stackable	
Usable capacity		5.12 – 30.72 kWh (1 – 6 modules)	
Battery voltage		51.2 Vdc (44.8 – 58.4 V)	
Cell chemistry		LiFePO4, automotive-grade	
Cycle life		≥ 10000 cycles @ 80% DoD	
Depth of discharge		≥ 95%	
Design life		15 years	
Max. charge current	**120 A**	**150 A**	**200 A**
Max. discharge current	**120 A**	**150 A**	**200 A**
AC input			
Nominal input voltage		230 Vac (single-phase)	
Input voltage range		170–280 Vac (UPS) / 90–280 Vac (APL)	
Nominal frequency		50 / 60 Hz (auto-detect)	
Max. AC charge current	**120 A**	**120 A**	**150 A**
Solar input (MPPT)			
Nominal PV voltage		360 Vdc	
MPPT voltage range		120 – 450 Vdc	
No. of MPP trackers	**2**	**2**	**2**
Max. PV input power	**8000 W**	**10500 W**	**14500 W**
Max. PV open-circuit voltage		500 Vdc	
Max. solar charge current	**120 A**	**120 A**	**150 A**

MECHANICAL & SYSTEM

Mechanical	Data
Inverter dimensions	**582 × 460 × 160 mm**
Battery module dimensions	**525 × 460 × 160 mm**
Inverter / module weight	**≈ 22 kg / 48 kg**
Ingress protection	**IP65**
Cooling	**Natural convection**
Display & communication	**LCD · WiFi/app · RS485 / CAN · 4G (opt.)**
Parallel / scalable	**Up to 6 units · system to ≈ 120 kWh**
Operating temp / humidity	**–10 ~ +50 °C · 0–95% non-condensing**
Certifications	**CE · UN38.3 · IEC 62619 · CB · UL 1973 · MSDS**
Warranty	**10 years (battery) · 5 years (inverter)**

COTECH SOLAR — vertically-integrated manufacturing

20 GW shipped

120+ countries

ISO · TÜV certified

OPERATING MODES

- Self-consumption
- Backup (UPS)
- Off-grid
- Time-of-use
- Peak-shaving
- Zero-export

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ENERGY STORAGE

Off-Grid All-in-One

Portable all-in-one off-grid power — inverter + LFP battery + MPPT, plug-and-play

3 kVA PURE-SINE INVERTER

2.56 kWh LFP CAPACITY

- **All-in-One** — inverter + battery + MPPT
- **LFP safe** — ≥ 6000-cycle cells
- **Plug & Play** — AC + USB-A / USB-C
- **Smart** — WiFi + LED display

All-in-one & portable

- Built-in pure-sine inverter, MPPT solar charger, AC charger & LFP battery
- Compact floor-standing unit — AC outlets plus USB-A ×2 / USB-C ×3
- Ideal for homes, cabins, RV & outdoor backup

Safe LFP energy

- Automotive-grade LiFePO4 — ≥ 6000 cycles, ≥ 95% usable depth of discharge
- Smart BMS: over-charge / discharge / temperature protection
- Quiet operation < 40 dB

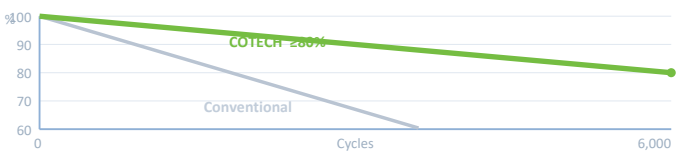
Solar + grid charging

- Charges from solar and grid simultaneously (up to 80 A)
- Seamless UPS-grade switch-over on grid loss
- WiFi monitoring & configurable work modes

Key specifications

Inverter	**1 – 3 kVA pure sine**
Battery chemistry	**LiFePO4**
Capacity	**1.28 – 2.56 kWh**
Cycle life	**≥ 6000 @ 80% DoD**
Outputs	**AC · USB-A / C**
Solar charge	**up to 80 A**
Monitoring	**WiFi + LED**
Warranty	**10 years**

PERFORMANCE WARRANTY



10-yr battery | **≥ 6000 cycles** | **≥ 80% capacity**

WHY COTECH

Factory-direct & fully tested
Every unit aged, capacity-graded & BMS-verified

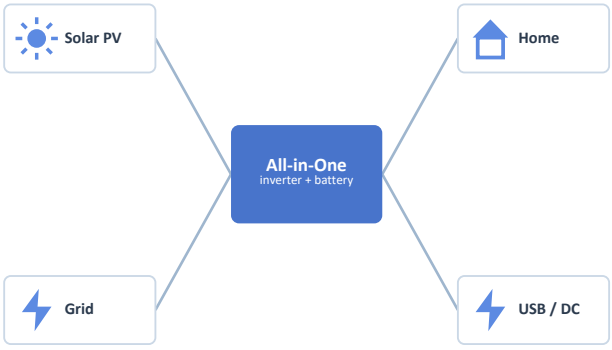
OPERATING MODES

- Off-grid
- Backup (UPS)
- Solar priority
- Grid charge
- Energy-saving
- Bypass

APPLICATIONS

Home | Off-grid | RV / Outdoor | Backup

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

CE | UN38.3 | MSDS | IEC 62619 | CB | FCC

Test conditions 25 °C unless noted. Specifications subject to change without notice.

Off-Grid All-in-One — specifications

MODEL	1 kVA / 1.28 kWh	3 kVA / 2.56 kWh
Inverter / Charger		
Inverter type	**1 kVA / 12 V**	**3 kVA / 24 V**
Rated output power	**1000 W**	**2700 W**
Output waveform	Pure sine wave	
Output voltage / freq.	230 VAC ± 5% · 50 / 60 Hz	
Peak efficiency	93.0%	
Total charge current (grid+solar)	**60 A**	**80 A**
LiFePO4 battery		
Usable capacity	**1.28 kWh**	**2.56 kWh**
Battery voltage	**12.8 Vdc**	**25.6 Vdc**
Typical capacity	**100 Ah**	**100 Ah**
Cell chemistry	LiFePO4, automotive-grade	
Cycle life	≥ 6000 cycles @ 80% DoD	
Depth of discharge	≥ 95%	
Max. charge / discharge	**50 / 100 A**	**50 / 100 A**
AC input		
Nominal input voltage	230 Vac	
Input voltage range	170–280 Vac (UPS) / 90–280 Vac (APL)	
Nominal frequency	50 / 60 Hz (auto-detect)	
AC charge current	**60 A**	**80 A**
Solar input (MPPT)		
Nominal PV voltage	**30 Vdc**	**24 Vdc**
MPPT voltage range	**15 – 80 Vdc**	**30 – 350 Vdc**
Solar charge current	**40 A**	**80 A**
Outputs · protection · ambient		
DC outputs	USB-A ×2 · USB-C ×3	
Protection	Over-charge / discharge / current / temperature / short-circuit	
Noise	< 40 dB (1 m)	
Operating temp / humidity	–10 ~ +50 °C · 0–95% non-condensing	
Altitude	≤ 2000 m	

MECHANICAL & SYSTEM

Mechanical	Data
Dimensions (1 / 3 kVA)	**450×110×636 / 450×170×733 mm**
Display & monitoring	**LED · WiFi / app**
Ingress protection	**IP21 (indoor)**
Cooling	**Natural / fan-assisted**
Outputs	**AC outlets · USB-A ×2 · USB-C ×3**
Certifications	**CE · UN38.3 · IEC 62619 · CB · FCC · MSDS**
Warranty	**10 years (battery) · 2 years (unit)**

COTECH SOLAR — vertically-integrated manufacturing

20 GW shipped · **120+** countries · **ISO · TÜV** certified

OPERATING MODES

- Off-grid
- Backup (UPS)
- Solar priority
- Grid charge
- Energy-saving
- Bypass

Notes

- LFP cycle life ≥ 6000 at 25 °C, 0.2C, 80% DoD. Efficiency measured at nominal load.
- Simultaneous solar + grid charging; work mode field-configurable via the app.
- Values subject to change without notice — confirm on the order specification sheet.

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ENERGY STORAGE

Hybrid Balcony System

Plug-in balcony storage — grid-tie + off-grid micro-inverter + LFP, for apartments

1000 W GRID-TIE OUTPUT

2.5 kWh LFP STORAGE

- **Grid-tie + Off-grid** — micro-inverter built-in
- **LFP safe** — ≥ 6000-cycle cells
- **Plug-in** — apartment balcony
- **Smart** — WiFi app control

Balcony plug-and-play

- Built-in micro-inverter + LFP battery — just plug into a wall socket
- Grid-tie by day, store surplus, power loads at night
- No installer, no roof — perfect for apartments & rentals

Safe LFP storage

- LiFePO4 cells — ≥ 6000 cycles, ≥ 95% usable depth of discharge
- Smart BMS with full protection
- Quiet 30 dB operation, IP65 outdoor-rated

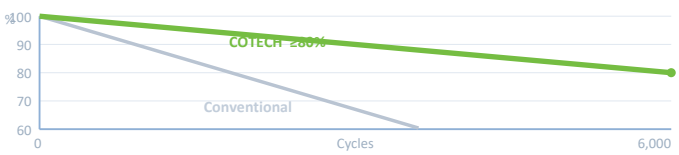
Smart & flexible

- Self-consumption, off-grid backup & time-of-use modes
- WiFi + app monitoring and control
- Storage options 1.5 → 2.5 kWh

Key specifications

AC output	**600 / 800 / 1000 W**
Battery	**LiFePO4 1.5 / 2.5 kWh**
Cycle life	**≥ 6000 @ 80% DoD**
Peak efficiency	**93.0%**
PV input	**36 – 85 Vdc · 1200 W**
Protection	**IP65**
Monitoring	**WiFi + app**
Warranty	**10 years**

PERFORMANCE WARRANTY



10-yr battery | ≥ 6000 cycles | ≥ 80% capacity

WHY COTECH

Factory-direct & fully tested
Every unit aged, capacity-graded & BMS-verified

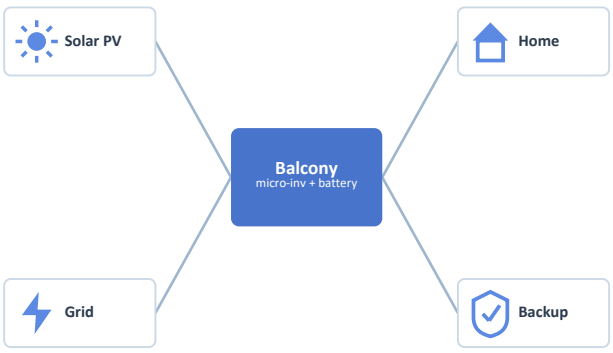
OPERATING MODES

- Grid-tie
- Off-grid
- Self-consumption
- Backup
- Time-of-use
- Zero-export

APPLICATIONS

Apartment · Home · Off-grid · Backup

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

CE | UN38.3 | MSDS | EMC | CB | RoHS

Test conditions 25 °C unless noted. Specifications subject to change without notice.

Hybrid Balcony System — specifications

MODEL	ESS 600 W	ESS 800 W	ESS 1000 W
Grid-tie / Off-grid output			
Rated AC output	**600 W**	**800 W**	**1000 W**
Max. PV input power		1200 W	
Off-grid peak power		2000 W (200 ms)	
Output voltage / freq.		230 Vac single-phase · 50 / 60 Hz	
Peak efficiency (DC-AC)		93.0%	
Nominal output current		4.35 A	
MPPT solar charger			
Battery voltage		25.6 Vdc	
PV input voltage range		36 – 85 Vdc	
PV input power		1200 W max	
Charge current		40 A max	
No. of MPP trackers		1	
LiFePO4 battery			
Energy capacity		1.54 / 2.69 kWh (option)	
Battery voltage		25.6 Vdc	
Cell chemistry		LiFePO4	
Cycle life		≥ 6000 cycles @ 80% DoD	
Depth of discharge		≥ 95%	
AC input · ambient			
AC input voltage range		180 – 265 Vac	
Input frequency		50 / 60 Hz ± 3 Hz	
Mains charge current		0 – 40 A adjustable	
Noise		30 dB (1 m)	
Operating temperature		–15 ~ +50 °C	

MECHANICAL & SYSTEM

Mechanical	Data
Connection	**Plug-in (L / N / PE)**
Ingress protection	**IP65**
Cooling	**Natural convection**
Display & monitoring	**WiFi + app**
Battery chemistry	**LiFePO4, ≥ 6000 cycles**
Certifications	**CE · UN38.3 · EMC · CB · RoHS · MSDS**
Warranty	**10 years (battery)**

COTECH SOLAR — vertically-integrated manufacturing

20 GW shipped · **120+** countries · **ISO · TÜV** certified

OPERATING MODES

- Grid-tie
- Off-grid
- Self-consumption
- Backup
- Time-of-use
- Zero-export

Balcony power, day and night.

Grid-tie by day, stored backup by night — clean energy for every apartment.

Safe & certified — automotive-grade LFP · full BMS

High performance — high efficiency · long cycle life

Modular & scalable — expand capacity as needs grow

Easy to live with — quiet · compact · plug-and-play

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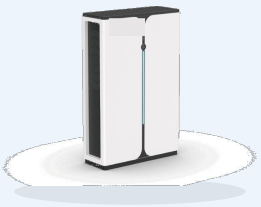
ENERGY STORAGE

Compact Storage

Plug-in balcony battery — PV input, DC output, expandable, app-controlled

3.0 kWh LFP CAPACITY

410 W ×2 PV INPUT



- **PV + Battery** — plug-in DC storage
- **LFP safe** — ≥ 6000-cycle cells
- **Expandable** — 1.5 → 3.0 kWh
- **App timer** — WiFi control

Plug-in balcony storage

- Connect 2 PV modules in, DC output to your grid-tie micro-inverter
- Stores solar by day, releases on a timer at night
- No installer — ideal for balconies & small homes

Safe LFP battery

- LiFePO4 cells — ≥ 6000 cycles, 90% usable energy
- Low-temperature charge protection (0–5 °C holding)
- Smart BMS, IP54 weather-resistant

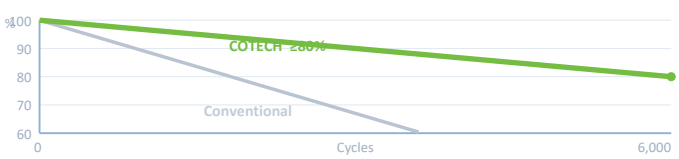
Smart control

- Timer DC output set in the mobile app
- RGB LED + WiFi status (PV / battery / output / alarm)
- Expandable capacity 1.5 → 3.0 kWh

Key specifications

Capacity	**1.5 / 3.0 kWh**
Battery chemistry	**LiFePO4**
Cycle life	**≥ 6000 @ 80% DoD**
PV input	**30 – 60 Vdc · ×2**
DC output	**32 A · 26–32 V**
Protection	**IP54**
Control	**WiFi app timer**
Warranty	**10 years**

PERFORMANCE WARRANTY



10-yr battery | ≥ 6000 cycles | ≥ 80% capacity

WHY COTECH

Factory-direct & fully tested
Every unit aged, capacity-graded & BMS-verified

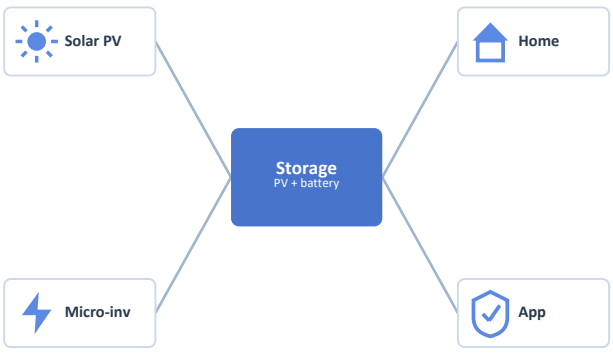
OPERATING MODES

- Timer output
- App control
- Solar charge
- Low-temp protect
- Auto
- Eco

APPLICATIONS

Apartment · Home · Balcony · Backup

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

CE | UN38.3 | MSDS | IEC 62619 | CB | RoHS

Test conditions 25 °C unless noted. Specifications subject to change without notice.

Compact Storage — specifications

MODEL	Compact 1.5 kWh	Compact 3.0 kWh
PV input		
Recommended module power	220 – 410 W ×2	
MPPT voltage range	30 – 60 Vdc	
Start-up voltage	30 Vdc	
Max. input current	26 A	
Max. input short-circuit current	32 A	
DC output		
DC output current	32 A	
Output voltage range	26.1 – 32 Vdc	
Timer	Set via mobile app	
LiFePO4 battery		
Total energy	**1497 Wh**	**2995 Wh**
Usable energy (90% DoD)	**1347 Wh**	**2695 Wh**
Battery voltage	28.8 Vdc	
Typical capacity	**52 Ah**	**104 Ah**
Cycle life	≥ 6000 cycles @ 80% DoD	
Max. charge / discharge	**26 / 32 A**	**52 / 60 A**
Protection · ambient		
Ingress protection	IP54	
Protection	Over-charge / discharge / temp / reverse-polarity / low-temp	
Noise	< 40 dB (1 m)	
Operating temp / humidity	–10 ~ +50 °C · 0–95% non-condensing	
Altitude	≤ 4000 m	

MECHANICAL & SYSTEM

Mechanical	Data
Dimensions	**194 × 410 × 100 mm**
Weight (1.5 / 3.0 kWh)	**30.3 / 40.1 kg**
Ingress protection	**IP54**
Display	**RGB LED**
Monitoring	**WiFi + app (timer)**
Certifications	**CE · UN38.3 · IEC 62619 · CB · RoHS · MSDS**
Warranty	**10 years (battery)**

COTECH SOLAR — vertically-integrated manufacturing

20 GW shipped · **120+** countries · **ISO · TÜV** certified

OPERATING MODES

- Timer output
- App control
- Solar charge
- Low-temp protect
- Auto
- Eco

Store your sunshine.

Compact plug-in storage that banks solar by day and powers you after dark.

COTECH SOLAR — a vertically-integrated solar manufacturer since 2005, a Top-50 global brand.
20 GW shipped to 120+ countries: cells · modules · storage · mounting · complete systems.

Safe & certified — automotive-grade LFP · full BMS

High performance — high efficiency · long cycle life

Modular & scalable — expand capacity as needs grow

Easy to live with — quiet · compact · plug-and-play

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ENERGY STORAGE

Balcony Solar Kit

Plug-in balcony solar — ultra-thin panels + micro-inverter, generate from a wall socket

800 W MICRO-INVERTER OUTPUT

23 % MODULE EFFICIENCY

- **Plug & Play** — into a wall socket
- **Micro-inverter** — 96.5% · IP67
- **Ultra-thin panels** — 215 W · 23% eff
- **Smart** — WiFi monitoring

Plug-in balcony solar

- Just plug into a wall socket — start generating clean power immediately
- No installer, no roof, no permit hassle — ideal for apartments & rentals
- Grid-tie micro-inverter feeds your home; surplus offsets your bill

High-efficiency hardware

- 215 W ultra-thin / flexible modules, 23% cell efficiency
- Micro-inverter 96.5% peak efficiency, IP67 all-weather
- Power factor > 0.99, THD < 3%

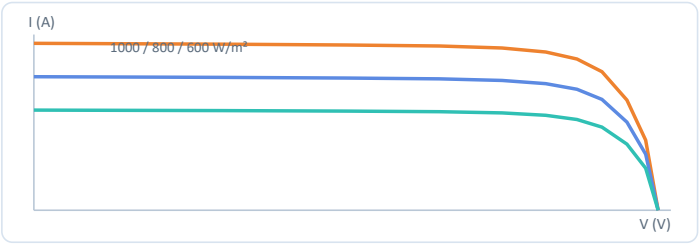
Safe & smart

- WiFi app monitoring of yield & status
- Built-in anti-islanding & grid protection
- Lightweight panels mount on balcony rail or wall

Key specifications

AC output	**300 / 400 / 600 / 800 W**
Panels	**2 – 4 × 215 W**
Module efficiency	**23%**
Micro-inverter eff.	**96.5%**
MPPT range	**25 – 55 Vdc**
Ingress	**IP67**
Monitoring	**WiFi**
Warranty	**12 yr panel · 10 yr micro**

MODULE I–V CURVE



WHY COTECH

Factory-direct & fully tested
Every unit aged, capacity-graded & BMS-verified

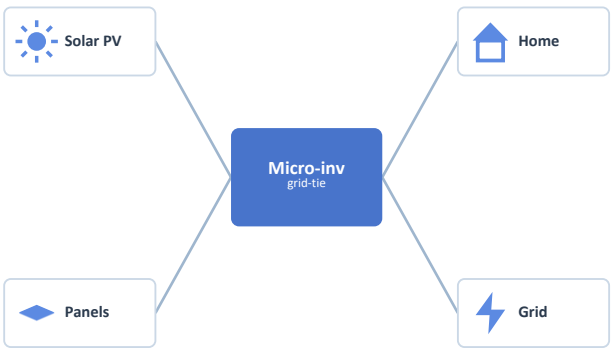
OPERATING MODES

- Grid-tie
- Self-consumption
- Plug-and-play
- App monitor
- Anti-islanding
- Zero-export

APPLICATIONS

Apartment · Home · Balcony · Terrace

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

CE · EMC · VDE · IEC 61730 · CB · RoHS

Test conditions 25 °C unless noted. Specifications subject to change without notice.

Balcony Solar Kit — specifications

MODEL	300 W	400 W	600 W	800 W
Micro-inverter				
Rated output power	**300 VA**	**400 VA**	**600 VA**	**800 VA**
Rated output current (220 Vac)	**1.4 A**	**1.8 A**	**2.7 A**	**3.6 A**
Max. input voltage / MPPT	60 V · 25 – 55 V			
Nominal frequency	50 / 60 Hz			
Power factor / THD	> 0.99 · < 3%			
Peak efficiency	96.5%			
Ingress protection	IP67			
Communication	WiFi			
Solar panel				
Panel type	215 W ultra-thin / flexible PV module			
Panels per system	**2**	**2**	**4**	**4**
System PV power	**430 W**	**430 W**	**860 W**	**860 W**
Power per panel (Pmax)	215 W			
Open-circuit voltage (Voc)	41.52 V			
Short-circuit current (Isc)	6.156 A			
Voltage / current at Pmax	35.46 V / 6.797 A			
Module efficiency / cell	23% · 182 mm			
System & ambient				
Panel dimensions	1159 × 1066 × 3 mm			
Panel weight	3.6 kg each			
Attached PV cables	2 m × 1 pair			
Connectors	MC4-compatible			
Mounting	Balcony rail / wall (accessories)			

MECHANICAL & SYSTEM

Mechanical	Data
Panel type	**215 W ultra-thin / flexible**
Panel size / weight	**1159×1066×3 mm · 3.6 kg**
Micro-inverter	**300–800 VA · IP67 · 96.5%**
Communication	**WiFi monitoring**
Grid compliance	**Anti-islanding · grid-tie**
Certifications	**CE · EMC · VDE · IEC 61730 · CB · RoHS**
Warranty	**12 years panel · 10 years micro-inverter**

COTECH SOLAR — vertically-integrated manufacturing

20 GW shipped · **120+** countries · **ISO · TÜV** certified

OPERATING MODES

- Grid-tie
- Self-consumption
- Plug-and-play
- App monitor
- Anti-islanding
- Zero-export

Plug in. Power up. Cut your bill.

Apartment-friendly balcony solar — no roof, no installer, no permit hassle.

High-yield micro-inverter — 96.5% peak · grid-tie

215 W ultra-thin panels — 23% efficiency · light

IP67 all-weather — safe outdoor operation

Apartment-ready — plug-in, no installer

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ENERGY STORAGE

Container ESS

20-ft liquid-cooled LFP battery container for utility & large C&I storage — up to 5 MWh per box

5 MWh PER 20-FT CONTAINER

8000 cycles LFP BATTERY LIFE

- **Liquid-cooled** ≤ 3 °C cell ΔT
- **LFP 280 / 314 Ah** utility-grade cells
- **3-level fire safety** detect · suppress · vent
- **Plug & play** pre-tested, ship & connect

MW-scale in one box

- Up to 5.0 MWh of LFP storage in a standard 20-ft container — ship, set, connect
- DC block architecture pairs with 1250 – 2500 kW PCS (0.25 – 0.5C)
- Parallel containers to tens of MWh; modular plant design

Liquid-cooled longevity

- Pack-level liquid cooling holds cell ΔT ≤ 3 °C — longer life, higher usable energy
- ≥ 8000 cycles to 70% EOL; ~94% DC round-trip efficiency
- Operates -30 °C to +50 °C with smart thermal management

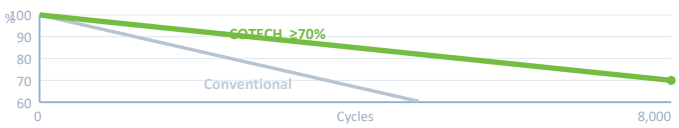
Bank-grade safety

- Cell-to-container safety: smart BMS, pack aerosol suppression, gas detection & explosion venting
- Optional water-sprinkler interface & 24/7 remote monitoring (EMS)
- UN38.3 · IEC 62619 · UL 1973 cells · UL 9540A test basis

Key specifications

Rated energy	**3.44 / 5.02 MWh**
Battery	**LFP 280 / 314 Ah**
DC voltage range	**1064 – 1500 V**
Cooling	**Liquid (pack-level)**
Cycle life	**≥ 8000 @ 70% EOL**
Ambient	**-30 – +50 °C**
Enclosure	**IP55 · C4 anti-corrosion**
Warranty	**5 yr (extendable LTSA)**

PERFORMANCE WARRANTY



5-yr product | LTSA extendable | ≥ 70% @ 8000 cyc

WHY COTECH

Factory pre-commissioned
Every container cycled, capacity-graded & alarm-tested before shipping

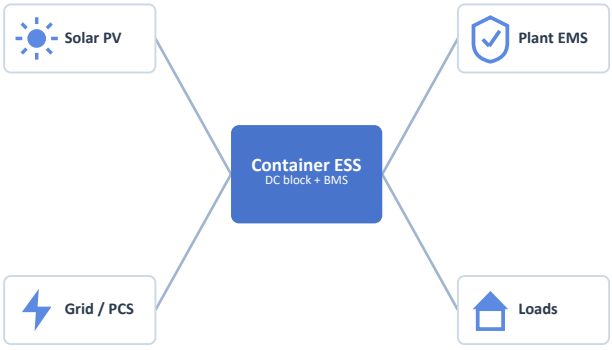
USE CASES

- Utility storage
- Solar shifting
- Peak shaving
- Frequency reg.
- Microgrids
- Large C & I

APPLICATIONS

Utility | C & I | Solar + storage | Microgrid

SYSTEM TOPOLOGY



CERTIFICATION & QUALIFICATION

UN38.3 | IEC 62619 | UL 1973 | UL 9540A | CE | ISO 9001

Ratings at 25 °C, 0.5C unless noted. PCS supplied separately or integrated on request. Subject to change.

Container ESS — system specifications

Model	CSESS-C3440	CSESS-C5020
Battery system		
Cell type	**LFP 3.2 V / 280 Ah**	**LFP 3.2 V / 314 Ah**
Rated energy	**3440 kWh**	**5015 kWh**
Rack configuration	**416S · 10 racks**	**416S · 12 racks**
Nominal DC voltage	1331.2 V	
DC voltage range	1064 – 1500 V	
Max charge / discharge	0.5C continuous	
DC round-trip efficiency	≈ 94%	
Cycle life	≥ 8000 cycles (to 70% EOL, 25 °C)	
Thermal & safety		
Cooling	Pack-level liquid cooling, cell ΔT ≤ 3 °C	
Fire safety	Gas detection · pack aerosol · explosion vent (NFPA 68/69)	
Sprinkler interface	Optional water suppression connection	
Monitoring	3-level BMS + EMS, remote 24/7	
Enclosure & environment		
Container	**20-ft ISO high-cube**	**20-ft ISO high-cube**
Dimensions (L×W×H)	6058 × 2438 × 2896 mm	
Weight	**≈ 33 t**	**≈ 42 t**
Ingress / corrosion	IP55 · C4 (C5-M optional)	
Operating temperature	-30 – +50 °C (derating > 45 °C)	
Altitude	≤ 2000 m (higher on request)	
Recommended PCS	**860 – 1720 kW**	**1250 – 2500 kW**
Warranty	5 years product · capacity LTSA extendable	

MECHANICAL & SYSTEM

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USE CASES

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- Large C & I

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