2026 EDITION · IMAXPWR

8 PRODUCT LINES 85 MODELS 1.2kW ~ 500kW

MODULE-LEVEL PRODUCT SELECTION GUIDE

ENERGY STORAGE · POWER ELECTRONICS · EV CHARGING

C&I Storage | PV + Storage + EV Charging | Microgrid | Telecom Base Stations | DC Power Panels | EV Charging

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BIM48 Series

LV bidirectional PCS · 48V battery · Off-grid inverter · UPS bypass

Adopts a patented high-efficiency soft-switching topology and digital control, integrating pure sine-wave inversion, high-power charging, UPS bypass and CAN / RS485 ports. Supports 6 units in parallel, wide-range 100-240Vac input/output, and off-grid inverter peak power up to 2× rated.

PROTECTION: Rectifier input over/under-voltage, rectifier output over-voltage, inverter input over/under-voltage, inverter output over/under-voltage, over-temperature, short-circuit and fan-failure protection.

KEY SPECS: Max. efficiency **93.4%** · Parallel operation **6 units** · Peak overload **2×**



APPLICATIONS

- Residential Storage
- Small C&I
- Backup Power

KEY FEATURES

1. Bidirectional conversion · inverter · charger
2. UPS bypass 20ms transfer
3. Parallel up to 6 units
4. Wide input 90~264Vac

TECHNICAL SPECIFICATIONS

Parameter		BIM48-1200	BIM48-1500
Output power	Inverter power	1200W	1500W
	Charging power	1200W	1500W
	Battery compatibility	13/14S NMC	15/16S $LiFePO_4$
Inverter output	DC discharge range	40~59.5Vdc	
	Inverter output voltage	110/120/240Vac	
	Output frequency	60Hz	
	Output waveform	Pure sine wave	
	THD	2% linear / 4% non-linear	
	Inverter eff. Max	93.4%@220Vac	
	Peak overload	2× rated (200%/200ms)	
Rectifier charging	AC input / frequency	90~264Vac · 47~63Hz	
	PF / THDi	≥0.99 / <5%	
	Max. input current	18A	
	Max. charge current	26.67A	33.3A
	Charge voltage / ripple	40~59Vdc · Max 500mV	
	Rectifier eff. Max	93.4%@220Vac	
	Charge management	BMS management	
Parallel & bypass	Parallel qty	Up to 6 units	
	AC bypass current	Max 15A / 20ms transfer	
	Communication / monitoring	RS485 / CAN · On-off / mode / parameter setting · Voltage / current / temperature / alarm acquisition	
Environment & Mechanical	Operating temp.	-25~+70℃, derating above 45℃	
	Cooling	Forced air cooling	
	Noise	Max 45dB (1m)	
	Weight	Max 1.5kg	
	Dimensions (H×W×D)	44×141×269mm	

BIM48 Series

LV bidirectional PCS · 48V battery · PV / grid hybrid charge & discharge

Adopts a patented high-efficiency soft-switching topology and digital control, integrating a pure sine-wave inverter, high-power charger, UPS bypass and RS485/CAN communication. Supports 6 units in parallel; off-grid inverter peak power up to 1.5× rated. Compatible with 14S NMC / 16S $LiFePO_4$ batteries.

PROTECTION: Charge input over/under-voltage, charge output over-voltage, inverter input over/under-voltage, inverter output over/under-voltage, over-temperature, short-circuit, communication loss (30s) and fan-failure protection.

KEY SPECS: Max. efficiency **94.5%** · Parallel operation **6 units** · Peak overload **1.5x**



APPLICATIONS

- Residential Storage
- Small C&I
- Backup Power

KEY FEATURES

1. Bidirectional conversion · inverter · charger
2. UPS bypass 20ms transfer
3. Parallel up to 6 units
4. Wide input 90~264Vac

TECHNICAL SPECIFICATIONS

Parameter		BIM48-3000	BIM48-3600	BIM48-4200
Output power	Inverter power	3000W	3600W	4200W
	Charging power	3000W	3600W	4200W
Inverter output	DC discharge range	40~59.5Vdc		
	Inverter output voltage	100/110/120/220/230/240Vac		220/230/240Vac
	Output frequency	50/60Hz		
	Output waveform	Pure sine wave		
	THD	3% resistive		
	Inverter eff. Max	Max.91.2%@120Vac, Max.93.5%@220Vac		Max.93.5%@220Vac
Rectifier charging	AC input	90~264Vac		176~264Vac
	PF/THDi	≥0.99 / <5%		
	Max. input current	30A		
	Max. charge current	60A	72A	80A
	Charge voltage	40~59.5Vdc		
	Voltage ripple	Max 700mV		
	Rectifier eff. Max	Max.92.5%@120Vac, Max.94.5%@220Vac		Max.94.5%@220Vac
	Charge management	Host computer management		
	Charging characteristics	CV / CP / CC		
Parallel & bypass	Parallel qty	Up to 6 units		
	AC bypass current	Max 15A / 20ms transfer		
	Communication / monitoring	RS485 / CAN · On-off / mode / parameter setting · Voltage / current / temperature / alarm acquisition		
Environment & Mechanical	Operating temp.	-25~+70℃, derating above 45℃		
	Cooling	Forced air cooling		
	Noise	Max 58dB (1m)		
	Weight	Max 4kg		
	Dimensions (H×W×D)	70×174×304mm		

BIM48-C Series

Bidirectional PCS with MPPT · 48V · PV / grid hybrid charging

Adopts a patented high-efficiency soft-switching topology and digital control, integrating pure sine-wave inversion, high-power charging, DC/MPPT PV charging, UPS bypass and RS485/CAN communication. Charging input 90-240Vac, discharge output 100-240Vac; automatically identifies PV panels / DC sources; MPPT tracking efficiency 99.9%.

PROTECTION: Rectifier input over/under-voltage, rectifier output over-voltage, inverter input over/under-voltage, inverter output over/under-voltage, over-temperature, short-circuit and fan-failure protection.

KEY SPECS: Max. efficiency **94%** · MPPT efficiency **99.9%** · Bypass transfer **20ms**



APPLICATIONS

- PV + Storage integrated unit
- Residential Storage
- Backup Power

KEY FEATURES

1. Built-in MPPT PV charging
2. Seamless UPS bypass transfer
3. Automatic PV source detection
4. Pure sine wave, THD ≤3%

TECHNICAL SPECIFICATIONS

Parameter		BIM48-1500C	BIM48-1800C	BIM48-2000C	BIM48-2400C
Output power	Inverter power	1500W	1800W	2000W	2400W
	Charging power	1500W	1800W	2000W	2400W
	Battery compatibility	14S NMC / 16S $LiFePO_4$			
Inverter output	DC discharge range	40~59.5Vdc			
	Inverter output voltage	100/110/120/220/230/240Vac			
	Inverter output frequency	50/60Hz			
	Overload capability	100~110% 20s · 110~125% 5s · 125~150% 2s · 150~200% 200ms			
	Output waveform / THD	Pure sine wave, THD ≤3% @ linear load			
	Inverter eff. Max	91%@120Vac / 93%@220Vac			
Rectifier charging	AC input	90~264Vac · 47~63Hz			
	Max. AC input current	15A			
	PF / THDi	0.99@100%Load / <5%@100%Load			
	Max. charge current	33.3A	40A	41.6A	50A
	Charge voltage / ripple	40~59.5Vdc · Ripple max. 700mV (0~20MHz)			
	Rectifier eff. Max	92%@120Vac / 94%@220Vac			
	Charge management	Host computer management			
DC/MPPT	MPPT input voltage	40~59Vdc			12~59Vdc
	Max. MPPT power	500W			800W
	MPPT efficiency	99.9% (EN50530), conversion efficiency 97%			
Bypass & mechanical	AC bypass current	Max. 18A / 20ms transfer			Max. 14A / 20ms transfer
	Communication / monitoring	RS485 / CAN · On-off / mode / parameter setting · Voltage / current / temperature / alarm acquisition			
	Operating temp.	-25~+70°C, derating above 45°C			
	Cooling	Forced air cooling (PCS) / Natural cooling (MPPT)			
	Noise	Max.45dB (1m)			
	Weight	Max.2.3kg			
	Dimensions (H×W×D)	55×161×258mm			57×161×258mm

BIM7548

Bidirectional AC/DC converter · 48V battery · HF isolation · CAN communication

A full-digital, high-efficiency, high-power-density bidirectional AC-DC converter using a totem-pole bridgeless circuit and full-bridge LLC topology with HF transformer isolation. Rectifier mode outputs 48VDC (35~56V adjustable); inverter mode outputs 230VAC; rectifier max. 2400W, inverter max. 3600W, up to 95% efficiency.

PROTECTION: AC/DC-side over-voltage, under-voltage, over-current, short-circuit and over-temperature protection.

KEY SPECS: Max. efficiency **95%** · Inverter power **3.6kW** · UPS transfer **20ms**



APPLICATIONS

- Energy storage PCS
- Backup power
- 48V battery system

KEY FEATURES

1. Full digital totem-pole + LLC
2. High-frequency transformer isolation
3. Charge 2.4kW / Invert 3.6kW
4. CAN communication + online upgrade

TECHNICAL SPECIFICATIONS

Parameter		BIM7548
Output power	Inverter power	3600W
	Charging power	2400W
	DC battery voltage	35~56Vdc (rated 48V)
Inverter output	Output voltage	200/220/230/240Vac (default 230V)
	Output frequency	50/60Hz (selectable)
	Output waveform / THD	Pure sine wave, THD ≤3%
	Inverter efficiency	94%
	UPS transfer time	20ms
Rectifier charging	AC input voltage	180~264Vac
	Input frequency	45~65Hz (rated 50/60Hz)
	Max. AC input current	13.2A
	PF / THDi	0.98 / 7%
	Charging output voltage	35~56.5Vdc
	Charging efficiency	95%
	Charge management	Host computer / CAN management
Communication & protection	Communication interface	CAN (isolated) · Bootloader online upgrade supported
	Protection	AC/DC-side over-voltage, under-voltage, over-current, short-circuit and over-temperature protection
	Parallel	Module paralleling supported in inverter mode
Environment & Mechanical	Operating temp.	-10~+40℃
	Storage temp.	-40~+70℃
	Cooling	Forced air cooling
	Altitude	≤3000m
	Dimensions (H×W×D)	338×224×83.3mm
	Safety	EN55022 Class B / IEC62368-1 / ROHS

BIM24540

Bidirectional isolated AC/AC module · Grid-tie / off-grid inverter · Wide voltage adaptation

A multi-function bidirectional isolated AC/AC module with digital control, integrating grid-tie and off-grid inversion. Ultra-wide adaptive input frequency (40~80Hz) and wide 80~304Vac AC input; high efficiency, high power density and electrical safety isolation, supporting CV/CC/CP applications.

PROTECTION: Over-temperature, communication loss 30s and fan-failure protection.

KEY SPECS: Output power **4kW** · Efficiency **Max.90%** · Input **80~304Vac**



APPLICATIONS

- Energy storage PCS
- Microgrid system
- Backup Power

KEY FEATURES

1. Electrical safety isolation
2. Grid-tie / off-grid dual mode
3. Wide voltage adaptation 40~80Hz
4. CAN / RS485 communication

TECHNICAL SPECIFICATIONS

Parameter		BIM24540
Output power	Grid-tie inverter power	4000W
	Off-grid inverter power	4000W
	Efficiency	Max.90%
Off-grid inverter	Output voltage	80~304Vac (selectable)
	Output frequency	40~80Hz (selectable)
	Output waveform	Pure sine wave
	Input voltage	176~264Vac
	Input frequency	50~60Hz
	Max. input current	25A
Grid-tie inverter	Grid voltage	176~264Vac
	Grid frequency	50~60Hz
	Max. grid-tie current	25A
	Input voltage	80~304Vac
	Input frequency	40~80Hz
Communication & protection	Communication interface	CAN / RS485
	Protection	Over-temperature, communication loss 30s and fan-failure protection
	Monitoring	Voltage / current / bus / inverter / fan speed / temperature / alarm acquisition
Environment & Mechanical	Operating temp.	-25~+70℃, derating above 45℃
	Storage temp.	-40~+70℃
	Relative humidity	≤95%RH, non-condensing
	Cooling	Forced air cooling
	Noise	Max.55dB (1m)
	Dimensions (H×W×D)	44×141.4×333.8mm
	Weight	Max.4kg
	MTBF	250kHrs

BIM25560 / BIM15060 / BIM15075

Bidirectional AC/DC module · HF isolation · Battery test / aging

Adopts a patented high-efficiency soft-switching topology and digital control, integrating a high-power charger with CAN/RS485 ports, bidirectional AC-DC HF isolation and bidirectional power flow. Wide 176-264Vac AC input/output, wide DC 10~150V / 10~255Vdc regulation, bidirectional PF >0.99, current harmonics <5%, bidirectional efficiency 91%.

PROTECTION: AC high/low-voltage protection, DC reverse-connection protection, DC high/low-voltage protection, fan failure protection and over-temperature protection.

KEY SPECS: Bidirectional efficiency **91%** · Power factor **>0.99** · Power flow **Seamless transfer**



APPLICATIONS

- Battery module testing
- Bidirectional electrical testing
- Bidirectional aging test

KEY FEATURES

1. Bidirectional HF isolation
2. Three-stage topology, high efficiency
3. Wide-range DC regulation
4. High PF · Low harmonics
5. Strong grid adaptability
6. CAN / RS485 communication

TECHNICAL SPECIFICATIONS

Parameter		BIM25560	BIM15060	BIM15075
Output power	Rectifier output capacity	3000W		4000W
	Grid-tie input capacity	3000W		4000W
	Bidirectional efficiency	91%		
AC input	Input configuration	L+N+PE		
	Rated voltage	176~264Vac		
	Frequency range	50/60Hz (adaptive)		
	Input current	≤20A		≤25A
DC side	Voltage range	10~255Vdc	10~150Vdc	
	Voltage accuracy	±0.5%FS		
	Current range	0.1~60A		0.1~75A
	Current accuracy	±0.5%FS		
	Ripple voltage	<1%		
	Temperature coefficient	±0.02%/℃		
Grid-tie inverter	Grid voltage	176~264Vac		
	Grid frequency	50/60Hz (adaptive)		
	Grid-tie output current	<12A@220V		<20A@220V
	Charge / discharge mode	CC / CV / CR / CP		
System & environment	Power flow transfer	Seamless transfer		
	Parallel	TBD	Yes	
	Operating temp.	-10~+45℃ full load, derating above 45℃		
	Storage temp.	-40~+70℃		
	Relative humidity	5~95%RH, non-condensing		
	Operating altitude	≤1000m, derate 1% per additional 100m		≤1500m, derate 1% per additional 150m
	Cooling	Forced air cooling (intelligent stepless speed control)		
	Airflow direction	Front-in, rear-out airflow		
	Indicators	Green forward / Blue reverse / Red fault		
	Communication interface	RS485 / CAN · Online upgrade supported		
	Dimensions (W×H×D)	141×44×425mm	141.4×44×333mm	
	Weight	Max.4kg	1.5kg	
	IP rating	IP20		

BAC300100 / BAC75040

15kW ~ 20kW · Isolated bidirectional AC/DC

Uses a three-level AC/DC + HF-isolated DC/DC (soft-switching resonant) topology with dual-DSP full digital control: bidirectional AC/DC conversion, bidirectional power flow and automatic charge/discharge transfer. Supports module paralleling (up to 12) and CAN communication, seamless on/off-grid transfer, 40~750Vdc wide battery voltage range, V2G and V2L.

PROTECTION: Over-voltage, over-current, short-circuit and over-temperature protection.

KEY SPECS: Charging efficiency **95%** · Battery voltage **40~750Vdc** · Parallel operation **12 units**



APPLICATIONS

- Storage V2G
- Battery formation & grading
- Battery second-life use
- Test power supply

KEY FEATURES

1. Three-level + HF isolation
2. Dual DSP + dual CPLD control
3. Parallel up to 12 units
4. Seamless on/off-grid transfer
5. Intelligent fan speed control
6. No line-frequency transformer

TECHNICAL SPECIFICATIONS

Parameter		BAC300100	BAC75040
Output power	Rated power	15kW	20kW
	Battery voltage range	40~300VDC (rated 150V)	60~750VDC (rated 500V)
	Rated output current	100A	40A
	Discharge current	100A Max	40A Max
AC input	Rated grid voltage	400Vac (380/400/415Vac settable)	
	Grid voltage range	304~485Vac	
	Grid frequency	50/60Hz ±5% (adaptive)	
	Voltage configuration	3-phase 4-wire (3W+PE)	
	Input current	≤29A	≤38A
	Power factor	≥0.99 (full load)	
	Current harmonics	<3% (full load)	
Efficiency & accuracy	Charging efficiency	95%max(SiC)/ 94%(Si)	
	Voltage regulation accuracy	±0.5%	
	Current regulation accuracy	±1%	
	Ripple factor	<1%Vo	
System & environment	Parallel	Yes (up to 12 modules in parallel)	
	Communication interface	CAN (isolated)	
	Protection	Over-voltage / over-current / short-circuit / over-temperature protection	
	Operating temp.	-30~+65°C, derating above 55°C	
	Storage temp.	-40~+75°C	
	Noise	<60dB	
	Cooling	Intelligent variable speed, forced air cooling	
	IP rating	IP20 (single module)	
	Dimensions (W×H×D)	442×86×575mm	
	Weight	15kg	19kg
	Certification	GB/T34120-2017, GB/T34133-2017, NB/T33001-2018, NB/T33008-2018	

BAC300100-II

15kW · 2nd-generation HF-isolated bidirectional AC/DC

The 2nd-generation module is an iteration of the 1st generation, with only 58% of the volume and higher power density. It uses a three-level AC/DC + HF-isolated DC/DC (soft-switching resonant) topology with dual DSP+CPLD full digital control; integrated charge/discharge and bidirectional power flow make it ideal for space-constrained applications such as V2G bidirectional chargers and battery capacity calibration in DC power panels.

PROTECTION: Over-voltage, over-current, short-circuit and over-temperature protection.

KEY SPECS: Charging efficiency **95%** · Battery voltage **40~300Vdc** · Parallel operation **12 units**



APPLICATIONS

- Storage V2G
- Battery second-life use
- Battery formation & grading
- DC power supply aging
- Battery capacity calibration

KEY FEATURES

1. Only 58% of 1st-generation volume
2. No line-frequency transformer
3. Three-level + soft switching 98%
4. Dual DSP + CPLD control
5. Parallel up to 12 units
6. Seamless on/off-grid transfer

TECHNICAL SPECIFICATIONS

Parameter		BAC300100-II
AC input	Rated grid voltage	400Vac (380/400/415Vac settable)
	Grid voltage range	304~485Vac
	Grid frequency	50/60Hz ±5% (adaptive)
	Voltage configuration	3-phase 4-wire (3W+PE)
	Input current	≤29A
	Power factor	≥0.99 (full load)
	Current harmonics	<3% (full load)
Battery-side charging	Battery voltage range	40~300VDC (rated 150V)
	Rated output current	100A
	Rated power	15kW
	Power derating	280~1000Vdc constant power 20kW; 200~280Vdc constant current 70A
	Charging efficiency	95%max(SiC)/ 94%(Si)
	Regulation accuracy	±0.5% / ±1%
	Ripple factor	<1%Vo
Discharge V2G	Discharge current	100A Max
	Grid-tie discharge power	15kW
	Grid-tie discharge efficiency	95%max(SiC)/ 94%(Si)
Other performance	Protection	Over-voltage / over-current / short-circuit / over-temperature protection
	Operating temp.	-30~+65℃ (derating above 55℃)
	Storage temp.	-40~+75℃
	Noise	<60dB
	Cooling	Intelligent variable speed, forced air cooling
	IP rating	IP20 (single module)
	Dimensions (W×H×D)	320×86×459mm
	Weight	12kg
	Certification	GB/T34120-2017, GB/T34133-2017, NB/T33001-2018, NB/T33008-2018

BAC-75050

15kW · AC/DC bidirectional module · V2G power router

The BAC-75050 is a power router developed for V2G, energy storage and smart-grid applications, providing bidirectional AC/DC conversion. It offers three operating modes — rectifier, grid-tie inverter and off-grid inverter — and supports hot swap, automatic current sharing (unbalance <5%) and battery reverse-current protection. Control can be selected on the AC or DC side, with dual CAN ports.

PROTECTION: Rectifier/inverter over- and under-voltage protection, over-temperature protection (78℃), short-circuit protection, internal bus fault protection, fan failure protection and host communication loss protection.

KEY SPECS: Conversion efficiency **96%** · DC voltage **100~750Vdc** · Parallel operation **8 units**



APPLICATIONS

- Storage V2G
- Smart Grid
- Battery storage
- Off-grid supply

KEY FEATURES

1. Rectifier / grid-tie / off-grid three modes
2. Efficiency 96% · Standby 15W
3. Reverse-current protection
4. Excellent EMC performance
5. Modular & flexible ESS configuration
6. Dual CAN · AC/DC control selectable

TECHNICAL SPECIFICATIONS

Parameter		BAC-75050
AC input	Input configuration	3-phase + PE
	Rated voltage	380Vac
	Voltage range	260~485Vac
	Grid frequency	45~65Hz (settable) · Rated 50/60Hz
	Rated current	23A
	Power factor	≥0.97(20%~50%)/ ≥0.99(50%~100%)
	Current THD	≤5% (50%~100% full load)
AC output	Output configuration	3-phase + N + PE
	Rated voltage / frequency	380Vac / 50Hz (both fixed)
	Rated current	23A
	Parallel qty	≤8
DC port	Voltage range	Rectifier/grid-tie 100~750Vdc / Off-grid 200~750Vdc
	Current range	0~50A (current limit settable)
	Rated current	30A @500V
	Regulation accuracy	<±0.5% / ≤±1%
	Ripple factor	≤1% (300~750V, rectifier mode)
Efficiency & protection	Conversion efficiency	Rectifier ≥96% / Inverter ≥96% (@500V, 50%~100% load)
	Standby loss	15W (at rated input voltage)
	Overload capacity	110% 10min / 120% 1min / short-circuit 200ms
	Protection	Over-voltage / under-voltage / over-temperature / short-circuit / bus / fan / communication loss
Mechanical & environment	Operating temp.	-40~+75℃ (derating above 45℃)
	Storage temp.	-40~+70℃
	Cooling / protection	Forced air cooling · IP20 · Altitude 2000m
	Dimensions (W×H×D)	226×85×395mm (depth includes socket)
	Weight	≤12kg
	Certification	NB/T 33001-1-2018, NB/T 33008-1-2018

BIM300120

15kW · Isolated bidirectional AC/DC · DC 120A

The BIM300120 is a converter module featuring bidirectional HF-isolated AC-DC conversion: DC side 40~300Vdc with max. 120A; AC side 304~456Vac with max. 30A. It provides DC reverse-connection, over-current, over-voltage, over-temperature and short-circuit protection, and supports up to 32 units in parallel in grid-tie mode.

PROTECTION: DC reverse-connection, over-voltage, over-current, short-circuit, over-temperature protection and fast AC over-voltage protection (>425Vac).

KEY SPECS: Rated power **15kW** · Peak efficiency **94%** · Parallel operation **32 units**



OPERATING MODES

- Grid-tie charging
- Grid-tie inverter
- Off-grid inverter
- Parallel expansion up to 32 units

KEY FEATURES

1. Grid-tie / inverter / off-grid three modes
2. Bidirectional HF-isolated conversion
3. DC 120A high current
4. Dual DSP full digital control
5. Parallel up to 32 units
6. 19-inch rack mounting

TECHNICAL SPECIFICATIONS

Parameter		BIM300120
AC input	Voltage configuration	A/B/C+PE
	Rated power	15kW (max. 18kW)
	Voltage range	304~456Vac
	Max. current	30A max
	Grid frequency	50/60Hz±5%
	Power factor	>0.98 (leading or lagging)
AC output	Voltage configuration	A/B/C/N+PE
	Rated voltage / frequency	380Vac / 50/60Hz
	Max. current	30A max
	Rated power	15kW (max. 18kW)
	Voltage THD	<5% (voltage unbalance <2%)
DC port	Voltage range	40~300Vdc (rated 150Vdc)
	Max. current	120A max
	Rated power	15kW (max. 18kW)
	Regulation accuracy	≤±0.5% / ≤±2%
	Voltage / current ripple	≤±2% / ≤±1%
Efficiency & protection	Peak efficiency	≥94%
	No-load loss	<300W(Vbat=150Vdc)
	Overload capability	≤110% continuous / 110~120% 10min / >120% 1min
	Protection	DC reverse / over-voltage / over-current / short-circuit / over-temperature
	Noise	<65dB
Mechanical & environment	Operating temp.	-40~+75℃ (derating above 50℃)
	Storage temp.	-40~+75℃
	Cooling / protection	Intelligent variable-speed forced air cooling · IP20 · Altitude 2000m
	Dimensions (W×H×D)	440×84×400mm
	Weight	<15kg

BIDC-F75025

20kW · Isolated bidirectional AC/DC · AC/DC hybrid conversion module

The BIDC-F75025 is an isolated AC/DC hybrid conversion module with compatible AC and DC dual inputs, combining grid-to-battery-pack charging and battery-pack-to-EV charging in one unit. With high efficiency, high power factor, high power density and excellent EMC performance, it can also serve as a front-end converter for wind and solar, supporting distributed generation and smart microgrids.

PROTECTION: Input over/under-voltage protection, output over-voltage protection, over-current and short-circuit protection, over-temperature protection; safe hot swap and battery reverse-flow protection.

KEY SPECS: Output power **20kW** · DC output **50~750Vdc** · Standby loss **<9W**



APPLICATIONS

- EV charging stations
- Mobile charging vehicles
- Wind / PV front-end conversion
- PV + Storage + EV Charging station

KEY FEATURES

1. AC/DC dual input · Two functions in one
2. Wide DC output 50~750Vdc
3. Ultra-low standby loss <9W
4. Full digital dual-DSP control
5. Safe hot swap · Battery reverse-flow protection
6. Triple-protection design · EMC Class A

TECHNICAL SPECIFICATIONS

Parameter		BIDC-F75025
AC input	Input voltage range	260~530Vac (3-phase, no neutral)
	Max. input current	<37A
	Frequency range	45Hz ~ 65Hz
	Power factor	≥0.99
	Efficiency (full load)	>95%
	Current THD	<5%
DC input	Input voltage range	260Vdc ~ 750Vdc
	Max. input current	34A
DC output	Output power	20kW
	Output voltage range	50Vdc ~ 750Vdc (0.1Vdc step)
	Constant-power voltage range	400Vdc ~ 750Vdc
	Output current	0 ~ 50A
	Output current limit	0.2 ~ 50A continuously adjustable
	Regulation accuracy	<±0.5% / ≤±1%
	Current sharing unbalance	<±5%
Protection & monitoring	Standby loss	<9W
	Communication	CAN bus
	Indicators	Green: normal / Yellow: protection / Red: fault
	Alarms & protection	Input over/under-voltage, output over-voltage, over-current & short-circuit, over-temperature
	MTBF / Safety	>500,000 hours / CE compliant
Mechanical & environment	Operating temp.	-40 ~ +75℃ (derating above +55℃)
	Storage temp.	-40 ~ +80℃
	Relative humidity	≤95%RH, non-condensing
	Cooling	Forced air cooling · Altitude 2000m
	Dimensions (W×H×D)	226×85×395mm (excluding handle and terminal protrusion)
	Weight	≤11kg

IMAX1K075

22kW · Isolated bidirectional AC/DC · V2G power router

The IMAX1K075 is a power router developed for V2G, energy storage and smart-grid applications, with bidirectional HF-isolated AC/DC conversion. It offers rectifier, grid-tie inverter and off-grid inverter modes, an ultra-wide range of 260~530Vac AC and 150~1000Vdc DC, and complies with Chinese / European / American standards. It supports start-up from either AC or DC side, active/reactive power regulation and LVRT/HVRT.

PROTECTION: AC/DC over- and under-voltage protection, over-temperature protection, short-circuit protection, battery reverse-connection alarm and protection, and LVRT/HVRT.

KEY SPECS: Max. power **22kW** · DC **150~1000Vdc** · Efficiency **95.5%**



APPLICATIONS

- Storage V2G
- Smart Grid
- Off-grid supply
- C&I loads

KEY FEATURES

1. Bidirectional AC/DC HF isolation
2. Ultra-wide DC 150~1000V
3. Start-up from either AC or DC side
4. Adjustable active / reactive power
5. LVRT / HVRT capability
6. 8 units in parallel off-grid

TECHNICAL SPECIFICATIONS

Parameter		IMAX1K075
AC input	Voltage configuration	3-phase + PE
	Rated voltage	380Vac (range 260~530Vac)
	Rated current	33A
	Grid frequency	45~65Hz · Rated 50Hz
	Power factor	≥0.97(20%~50%)/ ≥0.99(50%~100%)
	Max. output power	22kW (apparent 24.4kVA)
AC output	Voltage configuration	3-phase + N + PE
	Rated voltage / frequency	380Vac / 50Hz
	Rated current	33A
	Output power	19.8kW (apparent 22kVA)
DC port	Voltage range	Rectifier/grid-tie 150~1000Vdc / Off-grid 200~1000Vdc
	Current range	0~73.3A (rated 22A @1000V)
	Max. output power	22kW
	Regulation accuracy	<±0.5% / ≤±1%
Efficiency & protection	Conversion efficiency	Rectifier/inverter ≥95.5% (@400V/800V, 50%~100% load)
	Standby loss	22W (at rated input voltage)
	Parallel qty	Rectifier ≤32 / Off-grid ≤8
	Overload capability	110% 10min / 120% 1min / short-circuit 200ms
	Protection	Over-voltage / under-voltage / over-temperature / short-circuit / battery reverse / LVRT-HVRT
	Noise	≤55dB(A)(1m, 25℃)
Mechanical & environment	Operating temp.	-40~+75℃ (derating above 55℃)
	Storage temp.	-40~+70℃
	Cooling / protection	Forced air cooling · IP20 · Altitude 2000m
	Dimensions (W×H×D)	300×84×395mm (excluding handle and socket depth)
	Weight	≤14kg
	Certification	NB/T 33001-1-2018, NB/T 33008-1-2018

BAC1K0100

30kW · Isolated bidirectional AC/DC · V2G / V2L

The BAC1K0100 is an HF-isolated bidirectional AC/DC module. The AC/DC stage uses three-level technology and the DC/DC stage uses soft-switching resonant HF isolation, enabling bidirectional power flow and automatic charge/discharge transfer. With dual DSP+CPLD full digital control it supports grid-tie and off-grid (V2G/V2L) modes, covers 100~1000Vdc battery voltage, and supports hot swap and parallel expansion.

Protection: full high-frequency isolation ensuring safety between battery and grid/load; DSP+CPLD full digital control with multi-level hardware and software over-current, over-voltage and over-temperature protection; reliable parallel operation, up to 12 modules in parallel.

KEY SPECS: Power **30kW** · DC **300~1000Vdc** · Efficiency **94% Max**



APPLICATIONS

- Storage V2G
- Battery second-life use
- Battery formation & grading
- DC power supply aging

KEY FEATURES

1. HF isolation · No line-frequency transformer
2. Three-level AC/DC · Soft-switching DC/DC
3. Dual DSP + CPLD full digital control
4. Wide battery voltage 100~1000Vdc
5. Grid-tie / off-grid V2G/V2L dual mode
6. Hot swap · Up to 12 units in parallel

TECHNICAL SPECIFICATIONS

Parameter		BAC1K0100
AC input	Rated voltage	400Vac (380/400/415 settable)
	Voltage range	304~485Vac
	Grid frequency	50/60±5% (50/60Hz adaptive)
	Voltage configuration	3-phase 4-wire (3W+PE)
	Input current	≤57A
	Power factor	≥0.99 (full load)
	Current harmonics	<3% (full load)
Battery-side charging	Output voltage	300~1000Vdc
	Output current	100A Max
	Rated power	30kW
	Power derating	100~300Vdc constant current 100A; 300~950Vdc full load; 950~1000Vdc derating
	Regulation accuracy	±0.5% / ±1%
	Ripple factor	<1%Vo
Discharge & grid-tie	Battery voltage range	100~1000Vdc
	Discharge current	100A Max
	Output power	30kVA Max
	Grid-tie derating	304~323Vac linear derating; 323~485Vac full load
Efficiency & protection	Conversion efficiency	Charge 94% max / Discharge 94% max
	Protection	Over-voltage / over-current / short-circuit / over-temperature
	Communication	CAN · RS485
Mechanical & environment	Operating temp.	-30~65℃ (derating above 55℃)
	Storage temp.	-40~75℃
	Cooling / protection	Intelligent variable-speed air cooling · IP20
	Dimensions (W×H×D)	440×86×459mm
	Weight	18kg
	Certification	GB/T 34120/34133-2023 · NB/T 33001/33008-2018

IMAX1K0100

30kW · Isolated bidirectional AC/DC · V2G power router

The IMAX1K0100 is a power router developed for V2G, energy storage and smart-grid applications, with bidirectional HF-isolated AC/DC conversion. Its ultra-wide 156~530Vac AC range is compatible with Chinese / European / American standards and the DC range is adjustable from 150~1000Vdc. It supports LVRT/HVRT, battery reverse-connection protection and group control.

PROTECTION: AC/DC over- and under-voltage protection, internal bus fault protection, short-circuit protection, fan failure protection, communication loss protection (10s) and battery reverse-connection alarm and protection; the unit can start up from either the AC or the DC side.

KEY SPECS: Power **30kW** · AC **156~530Vac** · Efficiency **≥95.5%**



APPLICATIONS

- V2G vehicle-grid interaction
- Energy storage system
- Smart Grid

KEY FEATURES

1. Bidirectional AC/DC · High-frequency isolation
2. Ultra-wide AC 156~530Vac
3. Ultra-wide DC 150~1000Vdc
4. Rectifier / grid-tie / off-grid three modes
5. Off-grid supports 16 modules in parallel
6. LVRT / HVRT · Battery reverse protection

TECHNICAL SPECIFICATIONS

Parameter		IMAX1K0100
AC grid-tie	Voltage configuration	3-phase + PE
	Voltage range	156~530Vac
	Rated voltage	208/380/400/480Vac
	Rated current	29.3/47.8/45.8/38A
	Grid frequency	45~65Hz · Rated 50/60Hz
	Max. output power	30kW (apparent 30kVA)
	Power factor	≥0.97(20%~50%)/ ≥0.99(50%~100%)
	Current harmonics	THD ≤5% (50%~100% full load)
AC off-grid	Voltage configuration	3-phase + N + PE
	Rated voltage	208/380/400/480Vac
	Output power	27kW (apparent 30kVA)
	Voltage harmonics	THD ≤3% (no load or R full load)
	Parallel current sharing	<5% · ≤8 units
	Overload capability	110% 10min / 120% 1min / short-circuit 200ms
DC port	Voltage range	Rectifier/grid-tie 150~1000Vdc / Off-grid 200~1000Vdc
	Current range	0~100A (current limit settable) · Rated 30A @1000V
	Regulation accuracy	<±0.5% / ≤±1%
	Voltage ripple factor	≤1% (300~1000V, rectifier mode)
Efficiency & protection	Conversion efficiency	Rectifier/inverter ≥95.5% (@400V/800V)
	Standby loss	22W (at rated input voltage)
	Protection	Over-voltage / under-voltage / over-temperature / short-circuit / bus / fan / communication loss
	Communication	CAN bus
Mechanical & environment	Operating / storage temp.	-40~+70℃ (derating above 55℃)
	Cooling / protection	Forced air cooling · IP20
	Altitude	2000m (derating above 2000m)
	Dimensions / weight	300×84×395mm · ≤16kg

BAC-1K0110

62.5kW · Non-isolated bidirectional AC/DC · Power router

The BAC-1K0110 is a power router developed for V2G, energy storage and smart-grid applications, providing bidirectional AC/DC conversion. It supports AC dispatching (grid-tie P/Q) and DC dispatching (CV/CC/CP), automatic current sharing between modules (unbalance <5%), hot swap and up to 12 modules in parallel.

PROTECTION: AC/DC over- and under-voltage protection, DC-side battery charge over-voltage protection, over-temperature (76℃), internal bus fault, short-circuit, fan failure and host communication loss (30s) protection; DC-side current limit adjustable from 0~110A.

KEY SPECS: Power **62.5kW** · DC **580~1000Vdc** · Efficiency **≥98.5%**



APPLICATIONS

- V2G vehicle-grid interaction
- Energy storage system
- Smart Grid

KEY FEATURES

1. Non-isolated · Power router
2. Max. efficiency ≥98.5%
3. AC or DC dispatching selectable
4. Grid-tie only / on-off-grid flexible configuration
5. Wide DC 580~1000Vdc
6. Hot swap · Current sharing <5%

TECHNICAL SPECIFICATIONS

Parameter		BAC-1K0110
AC port	Input configuration	3-phase + PE
	Voltage range	323~440Vac
	Rated voltage / current	380Vac / 95A
	Grid frequency	45~65Hz (50/60Hz adaptive)
	Power factor	≥0.97(20%~50%)/ ≥0.99(50%~100%)
	Current harmonics	THD ≤3% (50%~100% full load)
	Non-operating withstand voltage	600Vac
DC port	Voltage range	On/off-grid 650~1000Vdc / Grid-tie only 580~1000Vdc
	Current range	0~110A (current limit settable)
	Rated current	87A @720V
	Voltage regulation accuracy	<±1%
	Current regulation accuracy	≤±2% (20%~100% load)
	Ripple voltage	≤1%(650~1000V)
	Overload capability	110% continuous / 110~120% 1min / >120% 200ms
Efficiency & protection	Max. efficiency	≥98.5%(@720Vdc, 380Vac)
	Standby loss	DC <15W / AC <30W
	Protection	AC/DC over- and under-voltage, over-temperature 76℃, bus, short-circuit, fan and communication loss
	Communication	CAN bus (AC / DC dispatching)
Mechanical & environment	Operating temp.	-20~+75℃ (derating above 55℃)
	Storage temp.	-20~+70℃
	Relative humidity	≤95%RH, non-condensing
	Cooling / protection	Forced air cooling · IP20
	Altitude	2000m (derating above 2000m)
	Dimensions (W×H×D)	385×110×390mm
	Weight	≤24kg
	Certification	GB/T 34120-2017 · GB/T 36558-2018

MSP100HC / MSP125HC

100kW ~ 125kW · Air-cooled PCS · Integrated on/off-grid

The MSP100HC / MSP125HC are high-efficiency, high-reliability energy storage PCS developed for small and medium ESS microgrids. They include an on/off-grid transfer device and support multi-unit parallel operation, diesel-hybrid operation and fast on/off-grid transfer (<10ms). Up to 15 units can be paralleled on the AC side and multiple units on the DC side, covering scenarios such as battery second-life use.

SAFETY: isolated airflow, salt-mist protection and sealed control compartment; 2kV-to-ground immunity and Class III lightning protection; IP5X protection for the core control part; 150% instantaneous overload capability; front wiring and front maintenance; comprehensive fault protection and fault logging.

KEY SPECS: Power **100~125kW** · Max. efficiency **98.5%** · Transfer **<10ms**



APPLICATIONS

- Small C&I
- Island microgrid
- Farms / villas
- Battery second-life use

KEY FEATURES

1. Seamless on/off-grid transfer <10ms
2. Max. efficiency 98.5%
3. 150% instantaneous overload capability
4. 15 units in parallel on AC side
5. Diesel hybrid · Black start
6. Isolated airflow · IP5X protection

TECHNICAL SPECIFICATIONS

Parameter		MSP100HC	MSP125HC
Battery parameters	Max. battery voltage	950V	
	Min. battery voltage	680V	
	Rated voltage range	680~900V	
	Max. battery current	150A	200A
AC grid-tie	Rated power	100kVA	125kVA
	Rated current	145A	181A
	Rated grid voltage	400V / 230V	
	Grid voltage range	-20%~15%	
	Grid frequency	50Hz/47~52Hz(60Hz/57~62Hz)	
	Power factor / harmonics	-1~1 / <3% (>30% load)	
AC off-grid	Rated output power	100kVA	125kVA
	Max. output power	110kVA	137.5kVA
	Rated output current	145A	181A
	Max. output current	160A	200A
	Rated voltage	400V / 230V	
	Output voltage harmonics	<3% (resistive load)	
	Unbalance / frequency	100% / 50/60Hz	
	Output overload	1.1~1.25× 100s / >1.25× 300s	
System & environment	Max. efficiency	98.5%	
	Losses	Standby <15W · No-load <200W	
	Communication port	EMS: RS485 / Battery: CAN or RS485	
	Dimensions (W×H×D)	440×200×720mm	
	Weight	≤50kg	
	Protection / temperature	IP20 / -30~60℃ (derating at 45℃)	
	Cooling / altitude	Intelligent variable-speed air cooling / 4000m (derating above 2000m)	
	Certification	CE, IEC62477, IEC61000, EN50549	

BAC125K950C

125kW · Non-isolated PCS · All-SiC design

The BAC125K950C is an HF non-isolated AC/DC energy storage PCS that connects the storage battery to the grid for bidirectional energy exchange and charge/discharge management. The all-SiC design reaches 98.8% max. efficiency, with DSP+CPLD full digital control, 3-phase 3-wire / 4-wire compatibility, reactive and 3-phase unbalance compensation, and grid-side peak shaving, frequency regulation and off-grid backup.

PROTECTION: DSP+CPLD full digital control with multi-level software and hardware over-current, over-voltage and over-temperature protection; low battery circulating current and automatic current sharing in parallel; modular design means a single module failure does not affect other branches, simplifying maintenance.

KEY SPECS: Power **125kW** · DC **600~950Vdc** · Efficiency **98.8%**



APPLICATIONS

- Peak shaving & valley filling
- Uninterruptible power supply
- Dynamic capacity expansion
- Power quality management

KEY FEATURES

1. All-SiC · 98.8% efficiency
2. 3-phase 3-wire / 4-wire compatible
3. Reactive & unbalance compensation
4. Automatic current sharing in parallel
5. Modular · Fast maintenance
6. DSP + CPLD full digital control

TECHNICAL SPECIFICATIONS

Parameter		BAC125K950C
AC input	Rated voltage	400Vac (380/400/415 settable)
	Voltage range	304~485Vac
	Grid frequency	50/60±5% (50/60Hz adaptive)
	Voltage configuration	3-phase 4-wire or 3-phase 5-wire
	Rated input current	181A
	Power factor	≥0.99 (full load)
	Current harmonics	<3% (full load)
Battery-side charging	Output voltage	600~950Vdc
	Output current	198A Max
	Rated power	125kW
	Power derating	600~630Vdc linear derating; 630~950Vdc full load
	Voltage regulation accuracy	±0.5%
	Current regulation / ripple	±1% / <1%Vo
Discharge & grid-tie	Battery voltage range	600~950Vdc
	Discharge current	198A Max
	Output power	125kVA Max
	Grid-tie derating	304~360Vac linear derating; 360~485Vac full load
Efficiency & protection	Conversion efficiency	Charge 98.8% max / Discharge 98.5% max
	Protection	Over/under-voltage / over-current / short-circuit / over-temperature
	Communication	RS485
Mechanical & environment	Operating temp.	-35~60℃ (derating above 45℃)
	Storage temp.	-40~75℃
	Cooling / protection	Intelligent variable-speed air cooling · IP20 · Altitude 2000m
	Dimensions (W×H×D)	500×200×675mm (excluding handle)
	Weight	50kg
	Certification	GB/T 34120-2023 · GB/T 34133-2023

BAC-1K0125-2

125kW · Modular energy storage PCS · Non-isolated

The BAC-1K0125-2 is an HF non-isolated bidirectional AC/DC modular energy storage PCS using a three-level topology for both rectification and inversion. In rectifier mode it converts 3-phase AC into DC to feed the storage system; in inverter mode it filters DC and generates 3-phase AC for loads or grid feed-in. It features fast response, high power density, high integration and high protection.

PROTECTION: AC over-current, AC over-voltage, AC short-circuit, anti-islanding and DC reverse-connection protection; LVRT/HVRT supported; the electronics compartment is independently protected and the power compartment is IP20 (battery-side short-circuit protection not supported).

KEY SPECS: Power **125kW**(max. 156.25kW) · DC **600~1000VDC** · Efficiency **≥98.7%**



APPLICATIONS

- Peak-valley arbitrage
- Frequency & peak regulation
- Backup power
- Reactive power support

KEY FEATURES

1. 3-phase 3-wire / 4-wire compatible
2. Peak efficiency 98.7%
3. PQ / VF operating modes
4. 100% 3-phase unbalanced load
5. Charge/discharge transfer <100ms
6. High-protection isolated airflow design

TECHNICAL SPECIFICATIONS

Parameter		BAC-1K0125-2
DC parameters	Operating voltage range	600~1000VDC (same range at full load)
	Operating current range	0~210A max
	Max. DC power	156.25kW
	Rated power	125kW
	Rated voltage	750VDC
	Regulation accuracy	≤±1% / ≤±1%
	Ripple factor	≤±3%
AC grid-tie	Rated AC power	125kW (max. 156.25kW)
	Rated operating voltage	380Vac (380/400/415 settable)
	Grid voltage range	304~457Vac
	Rated operating frequency	50Hz / 60Hz(46.5~53.5Hz)
	Rated power factor	0.99 (adjustable -1~1)
	Reactive power range	-131.25~131.25kvar
	Current harmonics	<5% (full load)
AC off-grid	Rated output voltage	380Vac (380/400/415 settable)
	Rated output power	125kW (max. 156.25kW)
	Rated output frequency	50Hz / 60Hz
	Output voltage distortion	<3%; voltage unbalance <2%
	Overload capability	≤110% continuous; 110~120% 10min; >120% 1min
	AC output over-current prot.	230A (over-voltage 265V / under-voltage 175V settable)
Other mechanical	Peak efficiency	≥98.7%
	Charge / discharge transfer time	<100ms
	Standby loss	<625W
	Communication interface	CAN, RS-485, Ethernet (CAN2.0B / Modbus)
	Operating temp.	-35~60℃ (derating above 45℃)
	Dimensions (W×H×D)	440×178×550mm

BAC-1K0100-2

125kW · Bidirectional AC/DC module · Non-isolated

The BAC-1K0100-2 is a 125kW energy storage PCS containing two 62.5kW non-isolated bidirectional AC/DC modules. Using third-generation SiC power devices and coupled inductors, it provides bidirectional AC/DC conversion and supports grid-tie, off-grid and on/off-grid applications with a modular, hot-swappable design.

PROTECTION: battery EOD protection, ambient/internal over-temperature protection, bus over/under-voltage protection, AC-side short-circuit protection, communication loss protection and fan-failure alarm.

KEY SPECS: Power **125kW**(2×62.5kW) · DC **650~950Vdc** · Efficiency **≥98.5%**



APPLICATIONS

- Energy storage system
- Smart Grid
- Grid-tie operation
- Off-grid operation

KEY FEATURES

1. Built-in dual 62.5kW single modules
2. SiC devices · 98.5% efficiency
3. Grid-tie / off-grid / on-off-grid applications
4. Off-grid parallel ≤10 units
5. Dual DSP full digital control
6. Modular · Hot-swap supported

TECHNICAL SPECIFICATIONS

Parameter		BAC-1K0100-2
Environmental conditions	Operating temp.	-20~+70℃ (derating above 50℃)
	Storage temp.	-20~+70℃
	Relative humidity	≤95%RH (non-condensing)
	Cooling	Forced air cooling
	IP rating	IP20
	Altitude	2000m (derating above)
AC port	Input configuration	3-phase 5-wire
	Voltage range	323~418Vac
	Static withstand voltage	600Vac (max. non-operating withstand)
	Rated voltage	380Vac
	Rated current	190A
	Grid frequency	45~55Hz(50Hz) / 55~65Hz(60Hz)
	Power factor	≥0.97@20~50% / ≥0.99@50~100%
DC port	Voltage range	650~950Vdc (on/off-grid SPWM)
	Current range	0~220A (current limit settable)
	Rated current	174A@720V
	Regulation accuracy	≤±1% / ≤±2%
	Regulation	Load ≤±0.5% · Grid ≤±0.1%
	Ripple voltage	≤1%(650~1000V)
	Overload capability	0~110% continuous; 110~120% 1min; ≥120% 200ms
Other mechanical	Max. efficiency	≥98.5%(@720Vdc,380Vac)
	Standby loss	≤50W(@720Vdc,380Vac)
	Current harmonics	≤3% (50~100% full load)
	Noise	≤65dB (at 1m)
	Dimensions (W×H×D)	640×240×640mm (excluding handle and terminals)
	Weight	≤80kg

MSP125HKST

125kW · PCS + STS integrated · Seamless on/off-grid transfer

The MSP125HKST is a high-efficiency, high-reliability energy storage PCS developed for small and medium ESS microgrids. With a built-in STS it achieves seamless on/off-grid transfer (<10ms) and supports multi-unit parallel and diesel-hybrid operation, suitable for C&I peak-valley arbitrage, PV + storage ESS and island microgrids.

SAFETY: isolated airflow · salt-mist protection · sealed control compartment (core control IP5X); 2kV-to-ground immunity and Class III lightning protection; passed operating vibration and packaged transport tests.

KEY SPECS: Power **125kVA**(off-grid max. 137.5kVA) · Battery **680~950V** · Efficiency **98.5%**



APPLICATIONS

- C&I peak-valley arbitrage
- PV + Storage integrated ESS
- Island microgrid
- Farms / villas

KEY FEATURES

1. Standby ≤15W · No-load <200W
2. Max. conversion efficiency 98.5%
3. Core control IP5X protected
4. Isolated airflow design
5. 150% instantaneous overload capability
6. Seamless on/off-grid transfer <10ms

TECHNICAL SPECIFICATIONS

Parameter		MSP125HKST
Battery parameters	Max. battery voltage	950V
	Min. battery voltage	680V
	Rated battery voltage range	680~900V
	Max. battery current	200A
AC grid-tie	Rated power	125kVA
	Rated current	181A
	Rated grid voltage	400V / 230V
	Grid voltage range	-20%~+15%
	Grid frequency range	50Hz/47~52Hz(60Hz/57~62Hz)
	Current harmonics	<3% (>30% load)
	Power factor	-1~1
AC off-grid	Rated / max. output power	125kVA / 137.5kVA
	Rated / max. output current	181A / 200A
	Rated voltage	400V / 230V
	Output voltage harmonics	<3% (resistive load)
	Unbalance	100%
	Output overload	1.1~1.25× 100s; >1.25× 300ms
System mechanical	Max. efficiency	98.5%
	Standby / no-load loss	Standby <15W · No-load <200W
	Communication port	EMS: RS485 · Battery: CAN/RS485 · 2× DI / 2× DO
	Temperature range	-30~60℃ (derating at 45℃)
	Humidity / protection	5~95%RH · IP20
	Cooling / altitude	Intelligent variable-speed fan cooling · 4000m (derating above 2000m)
	Dimensions (W×H×D)	440×220×720mm
	Weight	≤50kg
	Certification	CE, IEC62477, IEC61000, EN50549

IMPPCS125-A2

125kW · 4-leg energy storage PCS

The IMPPCS-125A2 is a 125kW 3-phase 4-leg 4-wire energy storage PCS providing bidirectional energy flow between grid and battery; it is the main actuator and core component of the storage system. It supports grid-tie and off-grid operating modes with mode transfer.

PROTECTION: anti-islanding, DC over-voltage, AC over/under-voltage, AC short-circuit and bus abnormality protection; on a fault the AC- and DC-side breakers open immediately and automatic fault restart is supported.

KEY SPECS: Power **125kW** · DC **600~1000V** · Efficiency **≥99%**



APPLICATIONS

- PV power smoothing
- Wind power smoothing
- Peak shaving & valley filling
- Microgrid

KEY FEATURES

1. 3-phase 4-leg 4-wire topology
2. Max. conversion efficiency ≥99%
3. Grid-tie / off-grid mode transfer
4. Charge/discharge transfer <100ms
5. 100% unbalanced load capability
6. Comprehensive fault protection & logging

TECHNICAL SPECIFICATIONS

Parameter		IMPPCS125-A2
DC side	DC voltage range	DC600~1000V
	Full-load voltage	630~950V (derating 600~630V, 950~1000V)
	Rated DC current	198A
	Rated DC power	125kW
AC grid-tie	Rated AC power	125kW
	Rated voltage	AC400V / 380V
	Rated AC current	180A / 190A
	AC connection	3-phase 4-wire
	Grid voltage range	±15%
	Grid frequency range	50Hz/60Hz ±2.5Hz
	Total harmonic distortion	≤3% (full load)
	Power factor	0.99 / -1~1
AC off-grid	AC off-grid voltage	AC400V / 380V(±3%)
	AC off-grid frequency	50Hz / 60Hz
	Off-grid output THDU	≤3% (linear load)
	Unbalanced load capability	100%
Other mechanical	Charge / discharge transfer time	<100ms
	Overload capability	1.1× continuous · 1.2× 1min (≤40℃)
	DC current component	≤0.5%
	Max. conversion efficiency	≥99% (>98% at full load)
	Permissible ambient temperature	-30~60℃ (load limited at ≥50℃)
	Humidity / noise	≤95% · ≤75dB
	Cooling / airflow	Forced air cooling · Front-in, rear-out airflow
	Protection / altitude	IP20 · 3000m (derating at ≥2000m)
	Dimensions (W×H×D)	520×200×680mm
	Weight	≤60kg

IMAX1500125~215K

125kW~215kW · Central PCS · Transformerless

The IMAX1500 series consists of 1500Vdc central energy storage PCS covering 125~250kW with AC 400/480/690/800V options. Featuring a transformerless topology, intelligent air cooling and IP66 high protection, it reaches 99.0% max. efficiency and suits large C&I and generation-/grid-side storage.

PROTECTION: DC reverse-connection protection, AC short-circuit protection, AC output over-current prot., AC/DC Class II surge protection, insulation resistance monitoring and temperature protection.

KEY SPECS: Power **125~250kW** · DC **1500Vdc** · Efficiency **99.0%**



APPLICATIONS

- Peak-valley arbitrage
- Demand response
- Backup power
- Emergency & disaster recovery

KEY FEATURES

1. 1500Vdc DC input
2. Max. efficiency 99.0%
3. Transformerless topology
4. IP66 high protection · C5 anti-corrosion
5. Intelligent air cooling · Altitude 4000m
6. Automatic on/off-grid transfer (with STS)

TECHNICAL SPECIFICATIONS

Parameter		125K-400A	150K-480A	200K-690A	215K-690A
DC side	Max. DC voltage	1500V			
	DC voltage range	600~1500V	700~1500V	1000~1500V	
	Max. DC-side current	209A	215A	200A	215A
AC grid-tie	Rated charge / discharge power	125kW	150kW	200kW	215kW
	Max. charge / discharge power	150kW	180kW	240kW	258kW
	Rated charge / discharge current	182A	181A	168A	180A
	Rated grid voltage	400V	480V	690V	
	Grid voltage range	-15%~+15%			
	Grid connection	3W+PE			
	Rated grid frequency	50Hz / 60Hz			
	Current harmonic distortion	<3% (at rated power)			
	Power factor	>0.99 (range -1~1)			
	Overload capability	1.2Pn 1min · 1.1Pn 10min			
Efficiency & protection	Max. efficiency	99.0%			
	Protection	DC reverse · AC short-circuit · Output over-current			
	Surge protection	AC Class II · DC Class II			
	Insulation resistance monitoring	Yes			
Basic parameters	Dimensions (W×H×D)	700×275×900mm (excluding handle)			
	Weight	<113kg			
	Topology	Transformerless			
	Operating ambient temp.	-40~+60℃ (derating at 45℃)			
	IP rating	IP66			
	Anti-corrosion class	C5 / C3 optional			
	Max. operating altitude	4000m (derating above 3000m)			
	Standby loss	<20W			
	Cooling	Intelligent air cooling			

IMDC100100 / IMDC70120

5kW · Isolated bidirectional DC/DC · HF isolation

The IMDC100100 / IMDC70120 are 5kW bidirectional HF-isolated DC-DC modules with a minimum battery-to-DC-bus voltage ratio of 2.6×. They provide DC reverse-connection, over-current, over-voltage, over-temperature and short-circuit protection, support expansion to 32 units in parallel, and are designed for 19-inch rack mounting.

PROTECTION: battery and DC bus reverse-connection protection, over-current, over-voltage, over-temperature and short-circuit protection; full digital control with multi-level software and hardware protection.

KEY SPECS: Power **5kW** · Efficiency **93~94%** · Parallel operation **32 units**



APPLICATIONS

- DC power supply system
- Bidirectional storage conversion
- 19-inch rack
- Parallel expansion

KEY FEATURES

1. Bidirectional HF-isolated DC-DC
2. Charge / discharge / auto transfer
3. Parallel expansion up to 32 units
4. Full digital control
5. Hot-swap supported
6. CAN / RS485 communication

TECHNICAL SPECIFICATIONS

Parameter		IMDC100100	IMDC70120
DC bus side	Voltage range	200~420Vdc	90~132 / 133~265Vdc
	Rated voltage	370Vdc	110Vdc / 220Vdc
	Max. current	17A max	25A max
Battery side	Voltage range	30~100Vdc	20~45 / 46~100Vdc
	Rated voltage	60Vdc	24Vdc / 48Vdc
	Max. current	105A max	120A max
	Rated power	5kW	
Efficiency & accuracy	Peak efficiency	94% (charge / discharge)	93% (charge / discharge)
	Current regulation accuracy	≤±5%	≤±1%
	Voltage regulation accuracy	≤±1%	
	Ripple	Current <5% · Voltage <2%	Current / voltage ≤±3%
	Soft-start time	3s ≤ t ≤ 8s	
	Standby / no-load loss	Standby <30W	Standby <7W · No-load <50W
Protection	Protection	Battery/bus reverse · over-current & over-voltage · over-temperature · short-circuit	
	Bus over-voltage protection	≥430Vdc (recovery ≤420Vdc)	≥300Vdc (recovery ≤270Vdc)
	Bus under-voltage protection	≤180Vdc	≤80Vdc
Environment & Mechanical	Operating temp.	-40~60℃ (derating above 50℃)	-40~50℃ (derating above 40℃)
	Storage temp.	-40~75℃	
	Cooling	Intelligent variable speed · Forced air cooling	
	IP rating	IP20	
	Altitude	≤2000m (derating above)	
	Dimensions (W×H×D)	220×84×400mm	
	Weight	<6kg	
	Parallel expansion	Up to 32 units	
	Communication / certification	CAN / RS485 · GB/T 34120/34133 · UL1973/9540	

BIDC75025 / BIDC75050 / BIDC75050F

15~20kW · Isolated DC/DC

The BIDC75025 / BIDC75050 / BIDC75050F are isolated DC/DC power modules with high efficiency, high power density and high reliability. The 75025 is a bidirectional storage conversion module, while the 75050/75050F are DC power supply modules; the 75050F additionally has built-in MPPT PV input. All support current-limit setting, temperature-based power limiting and intelligent internal fan speed control.

PROTECTION: over-voltage, over-current, short-circuit, over-temperature and reverse-connection protection; ambient over-temperature protection at 80°C, with automatic recovery once temperature returns to normal.

KEY SPECS: Power **15~20kW** · HV side **260~900Vdc** · Efficiency **≥98.5%**



APPLICATIONS

- DC power supply
- Bidirectional storage conversion
- PV + Storage + EV Charging
- Common DC bus

KEY FEATURES

1. Isolated DC/DC
2. Peak efficiency ≥98.5%
3. Current limit 0~50A settable
4. Temperature-based power limiting
5. 75050F with built-in MPPT
6. CAN bus communication

TECHNICAL SPECIFICATIONS

Parameter		BIDC75025	BIDC75050	BIDC75050F
Environmental conditions	Operating temp.	-40~+75℃ (derating above 55℃)	-40~+75℃ (derating above 50℃)	
	Storage temp.	-40~+70℃		
	Relative humidity	≤95%RH (non-condensing)		
	Cooling	Forced air cooling		
	Altitude	≤2000m (derating above)		
DC input	Voltage range	300~860Vdc	260~900Vdc	
	Rated voltage	—	710Vdc	
	Current range	0~25A	0~50A	
	Voltage regulation accuracy	<±0.5%		
Battery side	Voltage range	300~750Vdc	150~750Vdc	
	Current range	0~25A	0~50A	
	Rated current	20A	26A	
	Current regulation accuracy	≤±1% (20~100% rated load)		
Efficiency & functions	Rated power	15kW / 20kW		
	Peak efficiency	≥98.5%	≥95.8%	
	MPPT function	—	260~720Vdc	
	Standby loss	—	9W	
	Current sharing error	≤±5% (50~100% load)		
Protection & mechanical	Protection	Over-voltage · over-current · short-circuit · over-temperature · reverse connection		
	Communication	CAN		
	Dimensions (W×H×D)	226×85×395mm	226×84×395mm	226×85×390mm
	Weight	≤10.5kg	≤11kg	≤11kg
	IP rating	IP20 (single module)		
	Noise	≤65dB	≤65dB	≤65dB
	Certification	NB/T 33001-1 · NB/T 33008-1		

IMDC300100 / IMDC75040

15kW ~ 20kW · Isolated bidirectional DC/DC

The IMDC300100 / IMDC75040 use HF-isolated bidirectional conversion (soft-switching resonance) for high efficiency. With MPPT PV input and integrated MPPT, they are widely used in common-DC-bus applications, providing HF isolation of the DC bus — the preferred choice for bidirectional power flow applications.

PROTECTION: over-voltage, over-current, short-circuit and over-temperature protection; full digital control with multi-level software and hardware protection.

KEY SPECS: Power **15~20kW** · Bus **600~850VDC** · Efficiency **97% Max**



APPLICATIONS

- PV + Storage + EV Charging
- Battery swap stations
- Common DC bus
- Multi-energy complementarity

KEY FEATURES

1. HF-isolated bidirectional DC-DC
2. Soft-switching resonance · 97% efficiency
3. Integrated MPPT PV input
4. No line-frequency transformer
5. Parallel expansion up to 16 modules
6. Battery voltage 40~750Vdc

TECHNICAL SPECIFICATIONS

Parameter		IMDC300100	IMDC75040
Charge section	DC bus voltage range	600~850VDC	
	DC bus current	≤25A	≤32A
	Output voltage	40~300VDC	200~750VDC
	Rated output current	100A MAX	40A MAX
	Rated output power	15kW	20kW
	Output power derating	Above 150V constant power 15kW, below 150V constant current 100A	Above 500V constant power 20kW, below 500V constant current 40A
	Charging efficiency	97% Max	
	Voltage regulation accuracy	±0.5%	
	Current regulation accuracy	±1%	
	Ripple factor	<1%Vo	
	Soft-start time	3s ≤ t ≤ 8s	
Discharge section	Battery-side voltage range	40~300VDC	200~750VDC
	Battery-side current	100A MAX	40A MAX
	Rated output power	15kW	20kW
	Discharge efficiency	97% Max	
Protection	Over-voltage protection	Yes	
	Over-current protection	Yes	
	Short-circuit protection	Yes	
	Over-temperature protection	Yes	
Other mechanical	Operating temp.	-30~65°C (output power derating above 55°C)	
	Storage temp.	-40~75°C	
	Noise	<60dB	
	Dimensions (W×H×D)	226×86×575mm	
	Weight	10kg	11kg
	Protection / cooling	IP20 (single module) · Forced air cooling	
	Certification	GB/T 34120-2017 · GB 9254-2008	

IMDC300120

15kW · Isolated bidirectional DC/DC

The IMDC300120 is a converter module with bidirectional HF-isolated DC-DC conversion. The battery-side voltage range is 40~300Vdc and the DC bus voltage range is 350~850Vdc, with a minimum battery-to-bus voltage ratio of 2.4×. Full digital control, multi-level software and hardware protection, expansion to 32 units in parallel and online hot swap are supported.

PROTECTION: battery reverse-connection, over-current, over-voltage, over-temperature and short-circuit protection; short circuits above 800Vdc on the bus are cleared by the internal DC bus fuse.

KEY SPECS: Power **15kW** · Bus **350~850Vdc** · Efficiency **96.5%**



APPLICATIONS

- Bidirectional storage
- Common DC bus
- DC microgrid
- Battery charge / discharge

KEY FEATURES

1. HF-isolated bidirectional DC-DC
2. Bus with neutral N connection
3. Parallel expansion up to 32 units
4. 19-inch rack mounting
5. LED alarm display
6. Full digital multi-level protection

TECHNICAL SPECIFICATIONS

Parameter		IMDC300120
DC bus side	Bus voltage range	350~850Vdc (rated 750Vdc)
	Max. bus current	23A max. (linear current limiting below 600Vdc)
Battery-side characteristics	Battery voltage range	40~300Vdc
	Rated battery voltage	150Vdc
	Max. battery current	120Amax
	Rated power	15kW
Control accuracy	Current regulation accuracy	≤±1%
	Voltage regulation accuracy	≤±0.5%
	Current ripple	≤±3%
	Voltage ripple	≤±1%
	Soft-start time	3s ≤ t ≤ 8s
Efficiency & losses	Peak efficiency	96.5% (charge / discharge)
	No-load loss	<300W
	Standby loss	<25W
Protection	Reverse-connection protection	Yes
	Over-current protection	Yes
	Over- / under-voltage protection	Yes (bus over-voltage ≥880Vdc, bus under-voltage ≤280Vdc)
	Short-circuit protection	Yes (module locks after short-circuit, power cycle required)
	Over-temperature protection	Yes (auto-recovery after temperature returns to normal)
Environment & Mechanical	Operating temp.	-40~60°C (output power derating above 50°C)
	Storage temp.	-40~75°C
	Altitude / pollution degree	≤2000m (derating above) · Pollution degree II
	Noise / IP rating	<60dB · IP20
	Dimensions (W×H×D)	220×84×400mm
	Weight / cooling	<8.5kg · Intelligent variable-speed forced air cooling
	Communication	CAN bus / RS485

BIDC1K0100 / BIDC1K0100G

30kW · Isolated unidirectional DC/DC

The BIDC1K0100 / BIDC1K0100G are DC-input charging modules developed for EV charging stations, offering high efficiency, high protection, high power density, a wide constant-power range and low noise. Input up to 825Vdc, DC output 150~1000Vdc, rated power 30kW, wide constant-power output 300~1000Vdc, and constant current without fold-back at low output voltages.

PROTECTION: input over- / under-voltage protection, output over-voltage protection, over-temperature protection, short-circuit protection, internal bus fault protection, fan failure protection and battery reverse-current protection.

KEY SPECS: Power **30kW** · Output **150~1000Vdc** · Efficiency **≥95.5%**



APPLICATIONS

- DC fast charger
- Charging stations
- Battery pack charging
- Energy storage system

KEY FEATURES

1. Built-in HF isolation transformer
2. Full hot-swap design
3. Isolated airflow · High protection
4. Wide output voltage 150~1000V
5. No current fold-back at low voltage
6. Intelligent discharge · Reverse-flow protection

TECHNICAL SPECIFICATIONS

Parameter		BIDC1K0100	BIDC1K0100G
DC input	Input configuration	DC+ / DC- and PE	
	Input voltage range	300~825Vdc (rated 700Vdc)	
	Max. input current	50A · Static withstand voltage 900Vdc	
DC output	Output voltage range	150~1000Vdc	
	Output current range	0~100A (current limit settable)	
	Rated current / power	30A · 30kW	
	Voltage regulation accuracy	<±0.5%	
	Current regulation accuracy	≤±1%	≤±1% · ≥0.98 @50~100% full load
	Load regulation	≤±0.5%	≤±0.5% · ≥0.99 @100% full load
	Line regulation / overshoot	≤±0.1% · Start-up overshoot ≤±3%	
	Voltage ripple factor	≤1%	
Efficiency & losses	Efficiency	≥95.5%@1000V full load; ≥95%@350~500V & 680~1000V	
	Standby loss	<14W@700Vdc	<4.5W @700Vdc (super standby)
	Inrush current	<70A	
	Start-up time	Normal start-up ≤8s · Output soft start 3~8s	
Protection	Over/under-voltage protection	Yes (shutdown protection for <300Vdc or >825Vdc)	
	Output over-voltage protection	Yes (settable 260~1036Vdc, default 1036Vdc)	
	Over-temperature protection	Yes (78℃)	Yes (80℃)
	Short-circuit / bus fault	Yes	
	Fan failure protection	Yes	
Environment & Mechanical	Operating temp.	-40~+75℃ (derating above 55℃)	
	Storage temp. / humidity	-40~+70℃ · ≤95%RH non-condensing	
	Noise / IP rating	≤60dB(A) · IP20	
	Dimensions (W×H×D)	385×110×390mm	385×110×395mm
	Weight / cooling	≤22.5kg · Forced air cooling	
	Certification	NB/T 33001-1-2018 · NB/T 33008-1-2018	NB/T 33001-1 · NB/T 33008-1 · CE/TUV

BIDC1K0135S2

40kW · Isolated DC/DC

The BIDC1K0135S2 is a high-performance DC/DC charging module developed for EV charging stations: input up to 950Vdc, DC output 150~1000Vdc, power 40kW. It offers a wide constant-power output range of 300~1000Vdc with no current fold-back at low voltage — still delivering 133.3A below 300Vdc — and is fully compatible with AC/DC charging modules in dimensions, interface and protocol.

PROTECTION: input over- / under-voltage protection, output over-voltage protection, over-temperature protection, short-circuit protection, internal bus fault protection, fan failure protection, e-stop protection and battery reverse-current protection.

KEY SPECS: Power **40kW** · Output **150~1000Vdc** · Efficiency **≥97%**



APPLICATIONS

- DC fast charger
- Charging stations
- Battery pack charging
- Energy storage system

KEY FEATURES

1. Ultra-wide input 300~950Vdc
2. Ultra-wide output 50~1000Vdc
3. No current fold-back at low voltage
4. Three noise levels settable
5. Intelligent airflow detection
6. E-stop function · High reliability

TECHNICAL SPECIFICATIONS

Parameter		BIDC1K0135S2
DC input	Input configuration	DC+ / DC- and PE
	Input voltage range	300~950Vdc (rated 800Vdc)
	Max. input current	66.6A
	Static withstand voltage	1000Vdc (max. non-operating static withstand voltage)
DC output	Standby loss	<20W @rated 800Vdc input
	Output voltage range	150~1000Vdc
	Output current range	0~133.3A (current limit settable)
	Rated current / power	40A · 40kW
	Voltage regulation accuracy	<±0.5%
	Current regulation accuracy	≤±1%
Operating modes	Load regulation / overshoot	≤±0.5% · Start-up overshoot ≤±3% · Ripple factor ≤2%
	Noise mode	Standard 80dB · Reduced 70dB · Silent 60dB (3 levels)
Efficiency & losses	Efficiency	≥97%@input 800~865Vdc, 50%~100% load
	Current sharing / start-up time	Current sharing ≤±5% rated · Normal start-up ≤3s · Soft start 3~8s
Protection	Over/under-voltage protection	Yes (shutdown protection for <300Vdc or >960Vdc)
	Output over-voltage protection	Yes (settable 260~1050Vdc, default 1050Vdc)
	Over-temp. / short-circuit	Yes (over-temperature protection at 80℃)
	E-stop / fan protection	Yes (e-stop triggered by 9~15V signal)
	Reverse-current protection	Yes · Built-in discharge circuit automatically bleeds residual charge
Environment & Mechanical	Operating temp.	-40~+75℃ (derating above 55℃)
	Storage temp. / humidity	-40~+70℃ · ≤95%RH non-condensing
	Noise / IP rating	≤65dB(A) · IP20
	Dimensions (W×H×D)	300×395×84mm
	Weight / cooling	≤15.5kg · Forced air cooling (3 pcs DC axial fans)
	Certification	KEP / CEPRI · IEC61851-1 · IEC61851-23 · UL2202

M60KPV1 / M60KPV4

60kW · PV MPPT (1 channel / 4 channels)

M60KPV1 / M60KPV4 are bidirectional DC/DC power modules built with third-generation semiconductors, integrating MPPT and supporting 1-channel / 4-channel MPPT input, mainly for PV power generation. Isolated air duct design provides strong environmental adaptability; fast MPPT search (1s step) and multiple communication protocols ease integration with EMS remote monitoring and management.

Protection: over-temperature, over-current, over-voltage and ground short-circuit protection; fully disconnects from the battery when the battery or converter is abnormal.

KEY SPECS: Power **60kW** · PV **200~900V** · Efficiency **99.3%**



APPLICATIONS

- PV + Storage + EV Charging
- Energy storage plant
- Common DC bus
- Multi-energy complementarity

KEY FEATURES

1. 4-string / 1-string independent MPPT tracking
2. Peak efficiency 99.3%
3. Isolated airflow · Core IP5X
4. 15 units in parallel · Independent control
5. Fast MPPT search, 1s step
6. Front wiring · Front maintenance

TECHNICAL SPECIFICATIONS

Parameter		M60KPV1	M60KPV4
PV parameters	Rated power	60kW	
	PV open-circuit voltage range	200V-900V	
	MPPT voltage range	200V-850V	
	Rated voltage	500V	
	Start-up voltage	250V	
	PV input strings	1	4
	Max. PV current	120A	30A+30A+30A+30A
	Short-circuit current	40A+40A+40A+40A	
HV side	Voltage range	500V-950V	
	Rated voltage	680V	
	Max. current	90A	
System parameters	Communication port	EMS: RS485 · Battery: CAN or RS485	
	DIDO	DI: 2 · DO: 2	
	Max. efficiency	99.3%	
	Mounting	Rack module	
	Losses	Standby <15W · No-load <100W	
	Weight	29kg	
	Dimensions (W×H×D)	440×183×560mm	
Environment & Mechanical	IP rating	IP20	
	Temperature range	-30~60℃ (derating above 45℃)	
	Humidity range	5%~95%	
	Cooling	Intelligent forced air cooling	
	Noise	50dB	
	Altitude	4000m (derating above 2000m)	
	Protection	Over-temperature, over-current, over-voltage and ground short-circuit protection	
	Certification / soft start	CE · IEC62477 · IEC62109 · IEC61000 · Soft-start Yes	

SEG1K0135S2

40kW · Unidirectional DC/DC charging module with MPPT

SEG1K0135S2 is a DC charging module with three-phase neutral-less AC input, supporting a wide 50Vdc~1000Vdc output range, with high efficiency (>96% at full load), high power density and low noise; it provides high/low-voltage output modes and three noise modes (standard / low-noise / silent), suitable for EV DC charging.

Protection: input over/under-voltage, output over-voltage (1036Vdc), over-temperature (80℃), internal bus fault, short-circuit, communication loss, fan fault and E-stop protection.

KEY SPECS: Power **40kW** · Efficiency **≥96%** · Output **50~1000Vdc**



APPLICATIONS

- DC charging pile
- High-power fast charging
- Low-noise charging stations
- Distributed charging scenarios

KEY FEATURES

1. Ultra-wide output voltage range
2. HV / LV dual mode
3. Three noise levels settable
4. Full-load efficiency ≥96%
5. CAN bus monitoring
6. Intelligent airflow detection

TECHNICAL SPECIFICATIONS

Parameter		SEG1K0135S2
Environmental conditions	Operating temp.	-40℃ ~ +75℃ (derating above 55℃)
	Storage temp. / humidity	-40℃ ~ +70℃ · ≤95%RH, non-condensing
	Cooling	Forced air cooling
	Altitude / atmospheric pressure	2000m (derating above) · 79kPa ~ 106kPa
	IP rating	IP20
AC input	Input configuration	3-phase + PE
	AC input voltage range	260Vac ~ 530Vac
	Static withstand voltage	600Vac
	Rated input voltage	380Vac
	Max. input current	76A
	Grid frequency / rated frequency	45Hz ~ 65Hz · 50Hz / 60Hz
DC output	DC output voltage range	150Vdc ~ 1000Vdc
	DC output current range	0 ~ 133A (current limit settable)
	Rated current	40A (required for current-limit setting)
	Voltage regulation accuracy	<±0.5%(150~1000V, 0~20MHz)
	Current regulation accuracy	≤±1% (20%~100% rated load range)
	Regulation / start-up overshoot	≤±0.5% · ≤±0.1%(320~530V)· ≤±3%
Output mode	HV / LV mode	Auto 50~1000V/133A · HV 50~1000V/68.4A · LV 50~585V/133A
	Noise mode	Standard 80dB · Reduced 70dB · Silent 60dB
Performance	Power factor	≥0.95@25~50% · ≥0.98@50~100% · ≥0.99@100% full load
	THD / ripple factor	≤5% @50~100% full load · ≤1% (0~20MHz)
	Efficiency / weighted efficiency	≥96%@1000V full load · ≥95%@350~585V & 650~1000V · weighted ≥95%
	Inrush / standby loss / noise	<100A · ≤10W · ≤70dB(A)
	Grounding / leakage current	≤0.1Ω(≥80A)· ≤3.5mA
Mechanical parameters	Dimensions (W×H×D)	300×84×395mm
	Weight / ROHS	≤16.5kg · R10

BIPV Wall-mount MPPT Series

60kW ~ 320kW · Wall-mount PV MPPT

The BIPV Series is a wall-mount PV MPPT controller dedicated to DC-coupled on/off-grid PV-storage systems. Multiple MPPT channels support PV panels installed at various angles; PV strings are boosted locally and then combined for output, eliminating the PV inverter and DC/AC combiner boxes to lower investment cost. IP66 protection for outdoor use.

Protection: built-in output short-circuit, reverse-connection, over-temperature, input PV reverse-connection, terminal over-heating and level-2 surge protection; insulation impedance detection (optional PID).

KEY SPECS: Power **60~320kW** · MPPT voltage **200~1460V** · Efficiency **99.4%**



APPLICATIONS

- DC-coupled PV + storage
- PV plant
- Building-integrated PV (BIPV)
- Outdoor storage

KEY FEATURES

1. Multi-string independent MPPT tracking
2. IP66 + C5 anti-corrosion
3. Built-in level-2 surge protection
4. Insulation detection · PID option
5. Intelligent fan speed control · Low noise
6. Compact wall-mount · Easy installation

TECHNICAL SPECIFICATIONS

Parameter		BIPV60K2	BIPV120K4	BIPV200K8	BIPV320K6
PV-side parameters	Rated output power	60kW	120kW	200kW	320kW
	Max. PV array voltage	≤900V	≤1500V	≤1000V	≤1500V
	MPPT voltage range	200~900V	500~1460V	200~900V	500~1460V
	Full-load MPPT voltage range	560~900V	900~1266V	—	900~1266V
	Max. string current	20A	30A	18A	30A
	PV strings	6	12	16	24
	MPPT quantity	2	4	8	6
	Full-load current per MPPT	55A	60A	36A	60A
Output parameters	Output voltage range	600~950V	950~1500V	400~950V	950~1500V
	Rated voltage	716.8V (adjustable)	1331.2V (adjustable)	700V	1331.2V (adjustable)
	Rated output current	80A	160A	—	240A
	Max. output current	120A	200A	288A	278A
System parameters	Max. efficiency	99.4%		99.26%	99.4%
	IP rating / cooling	IP66 · Air-cooled		IP65 · Air-cooled	IP66 · Air-cooled
	Anti-corrosion class	C5		C5-M	C5
Mechanical & environment	Dimensions (W×H×D)	610×260×480mm	800×300×500mm	765×597×266mm	900×340×620mm
	Weight	25kg	30kg	≈60kg	60kg
	Operating temp.	-30~55℃		-30~60℃ (derating above 45℃)	-30~55℃
	Power supply / communication	Self-powered · RS-485		EMS: RS485 · Battery: CAN	Self-powered · RS-485

M66KDC

66kW · Non-isolated DC/DC

M66KDC is a DC/DC module for bidirectional voltage conversion between two DC voltages, adaptively stepping up or down within the nominal range on both sides. Its all-SiC topology achieves up to 99% conversion efficiency. Supporting RS485 / CAN / Ethernet / dry-contact communication, it is widely used in DC microgrids, PV-storage-DC-flexible systems, flow batteries and supercapacitors — the preferred choice for C&I energy storage.

Protection: over-voltage, under-voltage, over-current, HV-side short-circuit, over-temperature, insulation impedance detection, surge and DC reverse-connection protection.

KEY SPECS: Power **66kW** · Voltage **180~1000Vdc** · Efficiency **99%**



APPLICATIONS

- DC microgrid
- PV-storage DC flexible system
- Flow batteries
- Supercapacitors

KEY FEATURES

1. Adaptive bidirectional buck-boost
2. All-SiC · 99% efficiency
3. Interleaved parallel · Low ripple
4. Module height only 2U
5. Multi-interface communication
6. High power density

TECHNICAL SPECIFICATIONS

Parameter		M66KDC
Battery side	Voltage range	180~1000Vdc (rated 350Vdc)
	Max. voltage	1000Vdc
	Full-load voltage range	350~1000Vdc
	Max. current / strings	189A · 1 channel
Bus side	Voltage range	180~1000Vdc (rated 600Vdc)
	Min. voltage	180Vdc
	Full-load voltage range	600~1000Vdc
	Rated current / power	110A · 66kW
System parameters	Topology / efficiency	Non-isolated · Max. efficiency 99.2%
	IP rating	IP20
	Protection	Over-voltage · Under-voltage · Over-current · HV-side short circuit · Over-temperature · Insulation impedance detection · Surge · DC reverse connection
Environment & Mechanical	Storage / operating temp.	-40~75℃ · -30~60℃ (over-temp protection above 45℃)
	Humidity / altitude	0~95%RH non-condensing · 4000m (derating above 2000m)
	Noise / cooling	≤65dB · Smart air cooling
	Dimensions (W×H×D)	440×86×535mm (excluding mounting ears and handles)
	Weight	13kg
	Communication interface	RS485 · CAN · Ethernet · Dry contacts
	Compliant standards	GB/T 34120-2023 · GB/T 34133-2023 · EN 62477 · EN IEC 61000

M66KPV

66kW · MPPT module

M66KPV is a PV MPPT module that continuously detects the PV module output voltage and tracks the maximum power point, keeping the PV modules at maximum power output. Using SiC devices, its MPPT tracking efficiency reaches 99.9%. Three independent MPPT channels with PV modules connected directly eliminate the PV combiner box; it is widely used in DC-coupled scenarios (DC microgrid, PV-storage-DC-flexible, PV-storage-diesel, etc.).

Protection: over-voltage, under-voltage, over-current, HV-side short-circuit, over-temperature, insulation impedance detection, surge and DC reverse-connection protection.

KEY SPECS: Power **66kW** · MPPT efficiency **99.9%** · Max. efficiency **99.2%**



APPLICATIONS

- DC microgrid
- PV-storage DC flexible system
- PV + storage + diesel
- C&I Storage

KEY FEATURES

1. 3-string independent MPPT tracking
2. MPPT efficiency 99.9%
3. SiC devices · High efficiency
4. No PV combiner box needed
5. Interleaved parallel · Low ripple
6. 2U rack mounting

TECHNICAL SPECIFICATIONS

Parameter		M66KPV
LV-side PV	Voltage range	180~1000Vdc (rated 350Vdc)
	Max. voltage	1000Vdc
	MPPT full-load voltage range	340~1000Vdc
	Max. MPPT current / strings	45A · 3 channels
HV side	Voltage range	350~1000Vdc (rated 600Vdc)
	Min. voltage	350Vdc
	Full-load voltage range	600~950Vdc
	Rated current / power	110A · 66kW
	HV-side start-up voltage	350Vdc
System parameters	Topology / efficiency	Non-isolated · MPPT efficiency 99.9% · Max. efficiency 99.2%
	IP rating	IP20
	Protection	Over-voltage · Under-voltage · Over-current · HV-side short circuit · Over-temperature · Insulation impedance detection · Surge · DC reverse connection
Environment & Mechanical	Storage / operating temp.	-40~75°C · -30~60°C (over-temp protection above 45°C)
	Humidity / altitude	0~95%RH non-condensing · 4000m (derating above 2000m)
	Noise / cooling	≤65dB · Smart air cooling
	Dimensions (W×H×D)	440×86×535mm (excluding mounting ears and handles)
	Weight	18kg
	Communication interface	RS485 · CAN · Ethernet · Dry contacts
	Compliant standards	GB/T 34120-2023 · GB/T 34133-2023 · EN 62477 · EN IEC 61000

M100KDC1 / M100KDC4

100kW · Non-isolated DC/DC

M100KDC1 / M100KDC4 use third-generation semiconductors for a small footprint and high efficiency, with isolated air ducts and strong environmental adaptability. Mainly used for battery charge/discharge, they support CC / CV / CP operating modes with 0ms switching between battery-side and bus-side modes; they support multi-unit parallel operation, work well with inverters, and enable fast on/off-grid and charge/discharge switching.

Protection: over-temperature, over-current, over-voltage and ground short-circuit protection; fully disconnects from the battery when the battery or converter is abnormal.

KEY SPECS: Power **105kW** · Battery **200~900V** · Efficiency **99.3%**



APPLICATIONS

- Battery charge / discharge
- Energy storage system
- On/off-grid transfer
- Multi-energy complementarity

KEY FEATURES

1. CC / CV / CP multiple modes
2. 0ms seamless switching
3. Peak efficiency 99.3%
4. Isolated airflow · Core IP5X
5. 15 units in parallel · Independent control
6. Front wiring · Front maintenance

TECHNICAL SPECIFICATIONS

Parameter		M100KDC1	M100KDC4
Battery parameters	Rated power	105kW	
	Battery voltage range	200~900V	
	Rated voltage	525V	
	Battery input channels	1 channel	4 channels
	Max. battery current	200A	50A+50A+50A+50A
HV side	Voltage range	500~900V	
	Rated voltage	680V	
	Max. current	180A	
System parameters	Communication port	EMS: RS485 · Battery: CAN or RS485	
	DIDO	DI: 2 · DO: 2	
	Max. efficiency	99.3%	
	Mounting / losses	Rack module · Standby <10W · No-load <100W	
Environment & Mechanical	Dimensions (W×H×D)	440×183×560mm	
	Weight	TBD	
	IP rating	IP5X (core control part)	
	Operating temp. / humidity	-30~60℃ · 5%~95%RH	
	Cooling / noise	Intelligent forced air cooling · 50dB	
	Altitude	4000m (derating above 2000m)	
	Protection	Over-temperature, over-current, over-voltage and ground short-circuit protection	
	Certification / soft start	CE · IEC62477 · IEC62109 · IEC61000 · Soft-start Yes	

M120KPV1 / M120KPV4

120kW · Bidirectional DC/DC power module with MPPT

M120KPV1 / M120KPV4 use third-generation semiconductors for a small footprint and high efficiency, with isolated air ducts and strong environmental adaptability. Mainly for PV power generation with integrated MPPT supporting 1-channel / 4-channel input, they support multi-unit parallel operation and seamless charge/discharge switching, work well with inverters, and meet on/off-grid and fast-switching requirements.

Protection: over-temperature, over-current, over-voltage and ground short-circuit protection; fully disconnects from the battery when the battery or converter is abnormal.

KEY SPECS: Power **120kW** · PV **200~900V** · Efficiency **99.3%**



APPLICATIONS

- PV + storage plant
- PV optimizer
- AC/DC hybrid microgrid
- Energy storage system

KEY FEATURES

1. 4-string / 1-string MPPT input
2. Peak efficiency 99.3%
3. Isolated airflow · Core IP5X
4. 15 units in parallel · Independent control
5. Seamless charge/discharge switching
6. Fast MPPT search, 1s step

TECHNICAL SPECIFICATIONS

Parameter		M120KPV1	M120KPV4
PV parameters	Rated power	120kW	
	PV open-circuit voltage range	200~900V	
	MPPT voltage range	200~850V	
	Rated voltage	600V	
	Start-up voltage	250V	
	PV input strings	1 channel	4 channels
	Max. PV current	200A	50A+50A+50A+50A
	Short-circuit current	60A+60A+60A+60A	
HV side	Voltage range	500~950V	
	Rated voltage	680V	
	Max. current	180A	
System parameters	Communication port	EMS: RS485 · Battery: CAN or RS485	
	DIDO	DI: 2 · DO: 2	
	Max. efficiency	99.3%	
	Mounting / losses	Rack module · Standby <10W · No-load <100W	
Environment & Mechanical	Dimensions (W×H×D)	440×183×560mm	
	Weight	TBD	
	IP rating	IP5X (core control part)	
	Operating temp. / humidity	-30~60℃ · 5%~95%RH	
	Cooling / noise	Intelligent forced air cooling · 50dB	
	Altitude	4000m (derating above 2000m)	
	Protection	Over-temperature, over-current, over-voltage and ground short-circuit protection	
	Certification / soft start	CE · IEC62477 · IEC62109 · IEC61000 · Soft-start Yes	

BIDC1500100

125kW · Non-isolated DC/DC

BIDC1500100 is a buck-boost non-isolated bidirectional DC converter module with integrated power relays and fuses, supporting constant-voltage / constant-current charge and discharge. It offers wide-range voltage operation and MPPT to independently track the maximum power point of PV strings in PV-storage systems. It supports multi-level parallel expansion of system power with automatic current sharing between modules, and is widely used in energy storage systems.

Protection: integrated fuse (≥100kA·≥1500Vdc), short-circuit, over-temperature, communication fault (default 0.5s timeout), over-voltage / under-voltage and over-current protection.

KEY SPECS: Power **125kW** · Voltage **600~1500V** · Efficiency **≥99.2%**



APPLICATIONS

- Energy storage system
- PV + Storage integrated
- DC microgrid
- Battery charge / discharge

KEY FEATURES

1. Bidirectional buck-boost conversion
2. Non-isolated · High power density
3. Integrated power relay · fuse
4. MPPT function
5. 40 units in parallel · Automatic current sharing
6. Dark start (black start)

TECHNICAL SPECIFICATIONS

Parameter		BIDC1500100
Bus / battery side	Rated voltage	1250V
	Operating voltage range	600V~1500V
	Over- / under-voltage protection	1560±20V / 550±20V (default, communication-settable)
	Rated current	100A
	Voltage control accuracy	0.5%
Battery-side specific	Over-current protection	105%~120% for 20s · >120% protected within 0.1s
	Max. continuous power	125kW
	Current control accuracy	0.4% / 0.5% (rated operating point)
	Ripple current RMS	≤5% IBNOM (rated operating point)
PV parameters	Max. DC input voltage	1500V
	MPPT voltage range	600~1400V
	Max. input current per MPPT	90A
	Max. short-circuit per MPPT	100A
	MPPT quantity	1
Efficiency / auxiliary supply	Max. efficiency / CEC efficiency	≥99.2% / ≥99% (rated operating point)
	Auxiliary power supply	24V±1V · <65W
	Protection	Fuse (≥100kA·≥1500Vdc·L/R≥3ms) · Short circuit · Over-temperature · Communication fault (default 0.5s timeout)
Mechanical specifications	Dimensions (W×H×L)	350×85×585mm (excluding mounting ears)
	Weight / protection rating	<17kg · IP00
	Cooling / mounting	Forced air cooling · Screw-locked
General parameters	Operating / storage temp.	-25~45℃ (derating at 45~55℃, non-condensing) · -40~70℃
	Humidity / altitude / pollution	5%~85% · 4000m (derating above 3000m) · PD2
	Noise / vibration & shock	≤75dB (ambient <30℃) · ≤80dB · Operation IEC60721-3-3 3M12 / Transport 2M5
	Communication / safety	RS-485·CAN·Ethernet (optional) · Basic insulation 3.2kV · Reinforced 4.4kV · OV II
Safety functions	Certification / EMC	IEC62477·UL1741 · IEC61000-2/4·FCC Part15 ClassA
	Functions / lifetime	CV·CC·CP·PV · Dark start · 40 units in parallel · 20-year lifetime

BIDC1000250

250kW · Bidirectional DC/DC

BIDC1000250 offers bidirectional buck-boost capability with a wide 150~1000Vdc operating range, supporting lithium batteries, sodium batteries, supercapacitors, PV and other inputs. Its all-SiC design delivers peak efficiency >99.2% and power density up to 13.8kW/L; the control unit, power relays and fuses are integrated. It supports constant-voltage / constant-current / constant-power modes and black start.

Protection: fuse · DC surge protection · DC reverse-connection protection · insulation detection · over/under-voltage protection · over-current / short-circuit protection · over-temperature protection · overload protection; bidirectional short-circuit protection with microsecond fault-current interruption, short-circuit capacity I^2t <1600A^2·S.

KEY SPECS: Power **250kW** · Voltage **150~1000Vdc** · Efficiency **≥99.2%**



APPLICATIONS

- Li-ion / Na-ion batteries
- Supercapacitors
- PV + Storage
- Energy storage system

KEY FEATURES

1. Bidirectional buck-boost capability
2. All-SiC · Efficiency >99.2%
3. 13.8kW/L high power density
4. Built-in MPPT algorithm
5. Black start mode
6. 40 units in parallel

TECHNICAL SPECIFICATIONS

Parameter		BIDC1000250
Bus side	Rated voltage / operating range	800VDC · 150~1000VDC
	Rated current	250A
	Measurement accuracy	Voltage 0.5% · Current 1% (full scale)
PV / battery side	Rated voltage / operating range	800VDC · 150~1000VDC
	MPPT voltage range	150~900VDC
	Rated current	250A
	Measurement accuracy	Voltage 0.5% · Current 0.4% (full scale)
Power conversion	Conversion topology	Intelligent bidirectional buck-boost
	Max. continuous power	250kW
	Max. efficiency	≥99.2% (all-SiC design)
	Power density	13.8kW/L
Aux. supply & protection	Auxiliary power supply	24VDC±2V · Power consumption <150W
	Protection configuration	Fuse · DC surge · DC reverse connection · Insulation detection · Over/under-voltage · Over-current/short circuit · Over-temperature (all standard)
	Short-circuit protection	Bidirectional short-circuit protection (microsecond interruption) · Short-circuit capacity I^2t <1600A^2·S
Mechanical & environment	Dimensions (W×H×D)	350×84×615mm
	Unit weight	<20kg
	Operating / storage temp.	-25~60℃ · -40~70℃
	Humidity / cooling	5%~95% non-condensing · Smart forced air cooling
	Noise / altitude	<85dB · 4000m (derating above 2000m)
Operating functions	Operating modes	CV · CC · CP · MPPT
	Power dynamic response	<5ms (10%~90% amplitude step)
	Black start / parallel	Black start · 40 units CV parallel (unbalance <7%)
Communication & certification	Communication interface	RS-485 (Modbus RTU) · CAN · Ethernet Modbus TCP
	Safety / EMC	IEC 62109-1 · IEC62477-1 · UL1741 · IEC61000-2/4 · FCC Part15
	Vibration / env. standards	Operation IEC60721-3-3 3M12 · Transport IEC60721-3-2 2M5 · IEC60068

HI30KW / HI25KW

25kW / 30kW · PV-storage integrated unit

HI30KW / HI25KW are high-efficiency, high-reliability hybrid inverters developed for small and medium storage microgrids. They include an on/off-grid transfer device, support PV connection, multi-unit parallel and diesel-hybrid operation, and enable fast seamless on/off-grid switching (<5ms); they suit small C&I sites, small island microgrids, farms, villas, battery second-life applications and more.

Protection: complete LVRT / HVRT, islanding protection, black start, fault protection and logging; isolated air ducts, salt-spray resistance, sealed control compartment, Class C lightning protection.

KEY SPECS: Power **25~30kW** · Efficiency **97.8%** · Transfer **<5ms**



APPLICATIONS

- Small C&I
- Island microgrid
- Farms / villas
- Battery second-life use

KEY FEATURES

1. Seamless on/off-grid transfer <5ms
2. Peak efficiency 97.8%
3. Diesel-hybrid mode
4. Independent 3-phase grid-tie control
5. 15 units in parallel · Multiple DC units in parallel
6. Built-in EMS energy management

TECHNICAL SPECIFICATIONS

Parameter		HI30KW	HI25KW
DC side	Max. voltage	850V	
	Min. voltage	200V	
	Rated voltage range	320V-850V	
	Max. input current	100A	80A
PV parameters	Max. / min. voltage	850V / 200V	
	MPPT voltage range	300V-830V	
	Max. input current	32A+32A	25A+25A
Grid-tie	Output power	33kVA	27.5kVA
	Max. output current	50A	40A
	Rated voltage / range	400V / 230V · -20%~15%	
	Frequency range	50Hz(47~52Hz)· 60Hz(57~62Hz)	
	Harmonics / power factor	<3% (>30% load) · -100%~100%	
Off-grid	Rated voltage / harmonics	400V / 230V · <1.5% (resistive load)	
	Unbalance / frequency	100% · 50/60Hz	
	Output overload	1.25× / 10s · 1.5× / 100ms	
System parameters	Communication port	HMI (cloud) CAN·RS485 · Battery CAN·RS485	
	DIDO	DI: 2 · DO: 2	
	Max. efficiency	97.8%	
	Mounting / losses	Rack module · Standby <10W · No-load <100W	
Environment & Mechanical	Dimensions (W×H×D)	550×440×173mm (standard 19-inch rack)	
	Weight / IP rating	35kg · IP6X (sealed control compartment)	
	Temperature / humidity	-25~60°C · 0~99%	
	Cooling / altitude	Intelligent forced air cooling · 2000m (90%/80% derating at 3000/4000m)	
	Certification / grid support	CE · Insulation resistance >10MΩ (500V) · Ground withstand 2120Vdc 1min · LVRT / HVRT / SVG	

MSP30HCPS

30kW · Energy storage PCS

MSP30HCPS is a high-efficiency, high-reliability energy storage PCS developed mainly for small and medium storage microgrids. It includes an on/off-grid transfer device and supports multi-unit parallel operation, diesel-hybrid operation and fast on/off-grid switching; it suits small C&I sites, small island microgrids, farms, villas, battery second-life applications and more.

Protection: complete LVRT / HVRT, islanding protection, fault protection and logging; isolated air ducts, salt-spray resistance, sealed control compartment, 2KV ground immunity, Class III lightning protection.

KEY SPECS: Power **30kVA** · Efficiency **97.8%** · Battery **200~850V**



APPLICATIONS

- Small C&I storage
- Off-grid microgrid
- 3-phase unbalance compensation
- Storage + backup power

KEY FEATURES

1. Seamless on/off-grid transfer
2. Peak efficiency 97.8%
3. Diesel-hybrid mode
4. Independent 3-phase grid-tie control
5. 15 units in parallel
6. Front wiring · Front maintenance

TECHNICAL SPECIFICATIONS

Parameter		MSP30HCPS
Battery parameters	Battery voltage range	200V-850V
	Rated battery voltage range	320V-820V
	Max. battery current	100A
	Supported battery types	Li-ion, lead-acid, etc.
Grid-tie	Rated power / current	30kVA · 43.5A
	Rated grid voltage / range	400V / 230V · -20%~15%
	Grid frequency range	50Hz (47~52Hz) or 60Hz (57~62Hz)
	Start-up inrush current	8.5A
	Current harmonics / power factor	<3% · -1~1
	Over-voltage / protection class	Class II / Class I
Off-grid	Rated / max. output power	30kVA / 33kVA
	Rated / max. output current	43.5A / 48A
	Output voltage harmonics	<3% (resistive load)
	Unbalance / frequency	100% · 50/60Hz
	Max. fault current	472A / 20ms
	Max. AC protection current	48A
	Output overload	1.1~1.25× / 100s · >1.25× / 300ms
System parameters	Communication port	EMS: RS485 · Battery: CAN or RS485
	DIDO / Max. efficiency	DI: 2 · DO: 2 · 97.8%
	Mounting / losses	Rack module · Standby <15W · No-load <160W
Environment & Mechanical	Dimensions (W×H×D)	440×183×560mm
	Weight / IP rating	≤35kg · IP20
	Temperature / humidity	-30~60℃ (derating above 45℃) · 5%~95%
	Cooling / pollution degree	Smart variable-speed fan cooling · Class II
	Altitude	4000m (derating above 2000m)
	Certification / grid support	CE · IEC62109 · IEC62477 · IEC61000 · EN50549-1 · AS4777.2 · LVRT / HVRT / VSG

IM60KFCM3 / IM50KFCM3

50kW / 60kW · Hybrid storage inverter

IM60KFCM3 / IM50KFCM3 are high-efficiency, high-reliability hybrid storage inverters developed for small and medium storage microgrids. They support PV connection and include an on/off-grid transfer device, supporting multi-unit parallel operation, diesel-hybrid operation and fast on/off-grid switching; they suit small C&I sites, small island microgrids, farms, villas, battery second-life applications and more.

Protection: complete LVRT / HVRT, islanding protection, black start, fault protection and logging; isolated air ducts, salt-spray resistance, sealed control compartment.

KEY SPECS: Power **50~60kW** · Efficiency **97.8%** · Battery **200~850V**



APPLICATIONS

- Small C&I storage
- Off-grid microgrid
- PV + Storage
- Storage + backup power

KEY FEATURES

1. Seamless on/off-grid transfer <10ms
2. Peak efficiency 97.8%
3. PV connection supported
4. Independent 3-phase grid-tie control
5. 15 units in parallel
6. Built-in EMS · Diesel hybrid

TECHNICAL SPECIFICATIONS

Parameter		IM60KFCM3	IM50KFCM3
Battery parameters	Max. / min. voltage	850V / 200V	
	Rated battery voltage range	420V-820V	350V-820V
	Max. battery current	150A	
PV parameters	Max. power	38.4kW+38.4kW	
	Max. PV / start-up voltage	850V / 250V	
	MPPT voltage range	200V-800V	
	Max. PV current	64A+64A	
Grid-tie	Rated power	60kVA	50kVA
	Rated current	87A	73A
	Rated grid voltage / range	400V / 230V · -20%~20%	
	Grid frequency range	50Hz (47~52Hz) or 60Hz (57~62Hz)	
	Current harmonics / power factor	<3% · -1~1	
Off-grid	Rated / max. output power	60kVA / 66kVA	50kVA / 55kVA
	Rated / max. output current	87A / 96A	73A / 80A
	Rated voltage / harmonics	400V / 230V · <3% (resistive load)	
	Unbalance / frequency	100% · 50/60Hz	
	Output overload	1.25×/100s · 1.4×/300ms · 1.5×/100ms · >1.5×/30ms	
System parameters	Communication port	EMS: RS485 · Battery: CAN or RS485	
	DIDO / Max. efficiency	DI: 2 · DO: 2 · 97.8%	
	Mounting / losses	Rack module · Standby <10W · No-load <160W	
Environment & Mechanical	Dimensions (W×H×D)	440×200×670mm	
	Weight / IP rating	<45kg · IP20	
	Temperature / humidity	-30~60℃ (derating at 45℃) · 5%~95%	
	Cooling / altitude	Intelligent forced air cooling · 4000m (derating above 3000m)	
	Certification	CE · IEC62109 · IEC62477 · IEC61000 · EN50549	

MSP50HBG2

50kW · Hybrid storage inverter · PCS+PV

MSP50HBG2 is a high-efficiency, high-reliability hybrid storage inverter developed mainly for small and medium storage microgrids. It supports PV connection and includes an on/off-grid transfer device, supporting multi-unit parallel operation, diesel-hybrid operation and fast on/off-grid switching; it suits small C&I sites, small island microgrids, farms, villas, battery second-life applications and more.

Protection: LVRT / HVRT, islanding protection, black start, fault protection and logging; IP5X high protection · isolated air duct design · 150% instantaneous overload capability.

KEY SPECS: Power **50kVA** · Efficiency **98.2%** · Battery **200~850V**



APPLICATIONS

- Small C&I storage
- Off-grid microgrid
- 3-phase unbalance compensation
- Storage + backup power

KEY FEATURES

1. Seamless on/off-grid transfer <10ms
2. Peak efficiency 98.2%
3. Diesel-hybrid mode
4. Independent 3-phase grid-tie control
5. 15 units in parallel
6. IP5X high protection

TECHNICAL SPECIFICATIONS

Parameter		MSP50HBG2
Battery parameters	Max. battery voltage	850V
	Min. battery voltage	200V
	Rated battery voltage range	350V-850V
	Max. battery current	150A
	Supported battery types	$LiFePO_4$, NMC, lead-acid, etc.
PV parameters	Max. power	38.4kW+38.4kW
	Max. PV voltage	850V
	PV start-up voltage	250V
	MPPT voltage range	200V-800V
	Max. PV current	64A+64A
Grid-tie	Rated power	50kVA
	Rated current	72.5A
	Max. bypass current	145A
	Rated grid voltage	400V / 230V
	Grid voltage range	-20%~15%
	Grid frequency range	50Hz/47~52Hz(60Hz/57~62Hz)
	Current harmonics / power factor	<3% (above 30% load) · -1~1
Off-grid	Rated output power	50kVA
	Max. output power	55kVA
	Rated / max. output current	72.5A / 79.8A
	Rated voltage	400V / 230V
	Output harmonic / unbalance	<3% (resistive load) · 100%
	Frequency range	50 / 60Hz
	Output overload	1.1~1.25× / 100s · >1.25× / 300ms
System parameters	Communication port	EMS: RS485 · Battery: CAN or RS485
	DIDO / Max. efficiency	DI: 2 · DO: 2 · 98.2%

MSP60HBG2

60kW · Hybrid storage inverter · PCS+PV

MSP60HBG2 is a high-efficiency, high-reliability hybrid storage inverter developed mainly for small and medium storage microgrids. It supports PV connection and includes an on/off-grid transfer device, supporting multi-unit parallel operation, diesel-hybrid operation and fast on/off-grid switching; it suits small C&I sites, small island microgrids, farms, villas, battery second-life applications and more.

Protection: LVRT / HVRT, islanding protection, black start, fault protection and logging; IP5X high protection · isolated air duct design · 150% instantaneous overload capability.

KEY SPECS: Power **60kVA** · Efficiency **98.2%** · Battery **200~850V**



APPLICATIONS

- Small C&I storage
- Off-grid microgrid
- 3-phase unbalance compensation
- Storage + backup power

KEY FEATURES

1. Seamless on/off-grid transfer <10ms
2. Peak efficiency 98.2%
3. Diesel-hybrid mode
4. Independent 3-phase grid-tie control
5. 15 units in parallel
6. IP5X high protection

TECHNICAL SPECIFICATIONS

Parameter		MSP60HBG2
Battery parameters	Max. battery voltage	850V
	Min. battery voltage	200V
	Rated battery voltage range	420V-850V
	Max. battery current	150A
	Supported battery types	$LiFePO_4$, NMC, lead-acid, etc.
PV parameters	Max. power	38.4kW+38.4kW
	Max. PV voltage	850V
	PV start-up voltage	250V
	MPPT voltage range	200V-800V
	Max. PV current	64A+64A
Grid-tie	Rated power	60kVA
	Rated current	87A
	Max. bypass current	174A
	Rated grid voltage	400V / 230V
	Grid voltage range	-20%~15%
	Grid frequency range	50Hz/47~52Hz(60Hz/57~62Hz)
	Current harmonics / power factor	<3% (above 30% load) · -1~1
Off-grid	Rated output power	60kVA
	Max. output power	66kVA
	Rated / max. output current	87A / 95.7A
	Rated voltage	400V / 230V
	Output harmonic / unbalance	<3% (resistive load) · 100%
	Frequency range	50 / 60Hz
	Output overload	1.1~1.25× / 100s · >1.25× / 300ms
System parameters	Communication port	EMS: RS485 · Battery: CAN or RS485
	DIDO / Max. efficiency	DI: 2 · DO: 2 · 98.2%

STS-H Series

200kW ~ 600kW · Static transfer switch (STS)

The STS (static transfer switch) comprises a fast switch, high-precision detection, logic control and external communication, and automatically performs on/off-grid transfer and grid synchronization. In energy storage systems it provides fast on/off-grid transfer for the PCS, with 0ms active transfer and 20ms passive transfer (typical), and customizable switching within 4ms.

Transfer capability: active transfer **0ms** · Passive transfer **20ms**(typical, <4ms customizable); IP5x protection · -30~60℃ wide-temperature operation.

KEY SPECS: Rated **200~600kVA** · Max. current **330~900A** · Transfer **0ms**



APPLICATIONS

- Storage on/off-grid transfer
- Seamless microgrid transfer
- Critical load power guarantee
- LVRT / HVRT scenarios

KEY FEATURES

1. Active transfer 0ms
2. Passive transfer 20ms typical
3. Grid synchronization
4. High-precision grid detection
5. External communication interface
6. IP5x high protection

TECHNICAL SPECIFICATIONS

Parameter		STS-200HC	STS-300HC	STS-400HC	STS-600HC
Input / output	Rated power	200kVA	300kVA	400kVA	600kVA
	Rated voltage	230V / 400VAC(-20% / +15%)			
	Rated grid frequency	50Hz / 60Hz(±5Hz)			
	Max. power	220kVA	330kVA	440kVA	600kVA
	Max. current	330A	480A	660A	900A
General parameters	Dimensions (W×H×D)	440×420×320mm		440×420×320mm	
	Weight	≤35kg		≤35kg	
	IP rating	IP5x			
	Operating temp.	-30℃ ~ +60℃			
	Humidity range	0% ~ 100%			
	Cooling	Thermostatic forced air cooling			
	Max. operating altitude	4000m (derating above 3000m)			
	Communication interface	RS485×3 / ModbusTCP / CAN / 4G · DI:8 DO:8			
Transfer performance	Active transfer time	0ms			
	Passive transfer time	20ms (typical)			
	Transfer time (PCC)	<10ms			

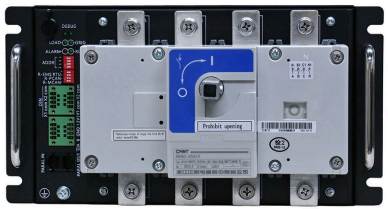
PCM Series

170kW ~ 600kW · Power conversion module

The PCM Series is an on-grid / off-grid transfer controller supporting self-consumption, load balancing and reverse-power protection, with SOC balancing, fast on/off-grid switching and manual bypass. It supports CAN / RS485 / cloud-platform communication and suits small C&I storage, microgrids and storage + emergency backup scenarios.

Protection: over-temperature, over-current, over-voltage and ground-fault protection; on/off-grid transfer: active **0ms** · Passive 10ms; self-powered design.

KEY SPECS: Rated **170~600kVA** · Max. current **250~870A** · Parallel operation **3 units**



APPLICATIONS

- Small C&I storage
- Microgrid on/off-grid
- Load balancing
- Storage + backup power

KEY FEATURES

1. SOC balancing function
2. Reverse-power protection with 30ms response
3. On/off-grid transfer 0ms
4. Manual bypass capability
5. CAN / RS485 / Cloud platform
6. Intelligent forced air cooling

TECHNICAL SPECIFICATIONS

Parameter		MPCM-170	MPCM-330	MPCM-600
Input / output	Rated power	170kVA	330kVA	600kVA
	AC voltage range	400V / 230V(-20% ~ +15%)		
	Frequency range	50Hz / 60Hz(±5Hz)		
	Max. AC current	250A	500A	870A
	Grid voltage range	400V / 230V (-20% ~ +15%), other voltages customizable		
System Features	SOC balancing	Yes (off-grid / grid-tie mode)		
	Functional Features	Self-consumption · Load balancing · Reverse-power protection (30ms response)		
	Parallel qty	3 units		
	Communication interface	CAN / RS485×2 · DI:2 DO:2		
	Communication protocol	MODBUS RTU / CAN 2.0B / Cloud platform		
	On/off-grid transfer time	Grid→Off-grid: active 0ms · passive 10ms; Off-grid→Grid: 0ms		
	Manual bypass capability	250A	500A	1000A
Mechanical & environment	Dimensions (W×H×D)	330×175×268mm	391×339×265mm	591×400×375mm
	Weight	20kg	TBD	50kg
	Operating temperature range	-40°C ~ +60°C		
	Humidity range	5% ~ 95%		
	Cooling	Intelligent forced air cooling		
	Altitude	4000m (derating above 2000m)		
Protection & certification	Protection	Over-temperature · Over-current · Over-voltage · Ground-fault protection		
	Power supply	Self-powered		
	Transfer time / certification	<10ms · CE		

IMAX75020S

7kW · Single-phase AC/DC charging module

IMAX75020S is a charging module developed for EV mobile chargers, featuring single-phase AC input, high efficiency and a wide constant-power output range. It supports a wide 50Vdc~750Vdc output range with automatic two-stage operation (50~500V / 500~750V) and CAN bus monitoring.

Protection: input over/under-voltage, output over-voltage (76~778Vdc settable), over-temperature (80℃), internal bus fault, short-circuit, background communication loss and fan fault protection.

KEY SPECS: Power **7kW** · Efficiency **≥94%** · Output **50~750Vdc**



APPLICATIONS

- Mobile chargers
- Portable charging equipment
- On-board charging
- Distributed charging scenarios

KEY FEATURES

1. Single-phase AC input
2. Wide constant-power output range
3. Automatic dual-range output transfer
4. Stepless current limiting 0~20A
5. CAN bus monitoring
6. Intelligent fan speed control

TECHNICAL SPECIFICATIONS

Parameter		IMAX75020S
Environmental conditions	Operating temp.	-40℃ ~ +75℃ (derating above 55℃)
	Storage temp.	-40℃ ~ +70℃
	Relative humidity	≤95%RH, non-condensing
	Cooling	Forced air cooling
	Altitude	2000m (derating above 2000m)
	Atmospheric pressure	79kPa ~ 106kPa
AC input	Input configuration	Single-phase L / N + PE
	AC input voltage range	90Vac ~ 280Vac · 100Vdc ~ 400Vdc
	Static withstand voltage	300Vac
	Rated input V / max. current	220Vac · 32A
	Grid frequency / rated frequency	45Hz ~ 65Hz · 50Hz / 60Hz
DC output	DC output voltage range	50Vdc ~ 750Vdc
	DC output current range	0 ~ 20A
	Rated current	9.33A @750V
	Voltage regulation accuracy	<±0.5%
	Current regulation accuracy	≤±1% (20%~100% rated load range)
	Load / line regulation	≤±0.5% · ≤±0.1%(220~280V)
	Start-up overshoot	≤±3%
Performance	Power factor	≥0.95@20~50% · ≥0.98@50~100% · ≥0.99@100% full load
	THD / peak-to-peak noise	≤5% @50~100% full load · ≤1% (150~750V, 0~20MHz)
	Safety requirements	NB/T 33001-1-2010 · NB/T 33008-1-2013
	Efficiency / inrush current	≥94.0%@750V full load · <20A
	Temp. coeff. / start-up	≤±0.01%/℃ · Normal start-up ≤8s (soft start 3~8s)
	Noise / leakage current	≤65dB(A)(1m) · ≤3.5mA
Mechanical parameters	Dimensions (W×H×D)	177.5×87×385mm
	Weight / protection	≤7kg · ROHS R5

SEG750 Series

20kW ~ 21kW · AC/DC charging module

The SEG750 Series is a high-power AC/DC charging module with three-phase AC input, supporting a wide 50Vdc~750Vdc output range with high power factor, low harmonics and wide-temperature operation. It uses forced air cooling and CAN bus monitoring, and is suitable for high-power EV DC charging such as DC charging piles.

Protection: input over/under-voltage, output over-voltage, over-temperature (80℃), internal bus fault, short-circuit, background communication loss, fan fault and E-stop protection.

KEY SPECS: Power **20kW** · Efficiency **≥95.2%** · Output **50~750Vdc**



APPLICATIONS

- DC charging pile
- High-power fast charging
- Charging stack modules
- Distributed charging scenarios

KEY FEATURES

1. Three-phase AC input
2. Wide-range, wide-temperature output
3. Power factor ≥0.99
4. Current sharing error ≤±5%
5. CAN bus monitoring
6. Forced air cooling

TECHNICAL SPECIFICATIONS

Parameter		SEG75035	SEG75050	SEG75060
Environmental conditions	Operating temp.	-40℃ ~ +75℃ (derating above 50℃ / 55℃)		
	Storage temp.	-40℃ ~ +70℃		
	Relative humidity	≤95%RH, non-condensing		
	Cooling	Forced air cooling		
	Altitude	2000m (derating above 2000m)		
	Atmospheric pressure	79kPa ~ 106kPa		
AC input	Input configuration	3-phase + PE		
	AC input voltage range	260Vac ~ 530Vac		
	Static withstand voltage	600Vac		
	Rated input voltage	400Vac	400Vac	380Vac
	Max. input current	32A	32A	32A(380Vac)
	Grid frequency / rated frequency	45Hz ~ 65Hz · 50Hz / 60Hz		
DC output	DC output voltage range	150Vdc ~ 750Vdc	50Vdc ~ 750Vdc	50Vdc ~ 750Vdc
	DC output current range	0 ~ 33.3A	0~33.3A (HV) / 0~50A (LV)	0 ~ 66.6A
	Rated current	26A	26A @750V	26.67A @750V
	Voltage regulation accuracy	<±0.5%		
	Current regulation accuracy	≤±1% (20%~100% rated load range)		
	Load / line regulation	≤±0.5% · ≤±0.1%(320~530V)		
	Start-up overshoot	≤±3%		
Performance	Power factor	≥0.95@20~50% · ≥0.98@50~100% · ≥0.99@100% full load		
	THD / peak-to-peak noise	≤5% @50~100% full load · ≤1% (150~750V, 0~20MHz)		
	Efficiency / standby loss	≥95.5% · 9W	≥95.2% · 9W	≥95.5% · 10W
Mechanical parameters	Dimensions (W×H×D)	226×85×395mm	226×84×395mm	218×84×458mm
	Weight / ROHS	≤10.5kg · R5	≤11.5kg · R5	≤13kg · R5

SEG50050

21kW · Three-phase AC/DC charging module

SEG50050 is a high-power AC/DC charging module with three-phase AC input, supporting 150Vdc~500Vdc output with a maximum output current of 50A, featuring high power factor, low harmonics and wide-temperature operation. It uses forced air cooling and CAN bus monitoring, suitable for EV DC charging piles and similar scenarios.

Protection: input over/under-voltage, output over-voltage, over-temperature (80℃), internal bus fault, short-circuit, background communication loss and fan fault protection.

KEY SPECS: Power **21kW** · Efficiency **≥95%** · Output **150~500Vdc**



APPLICATIONS

- DC charging pile
- High-power fast charging
- Charging stack modules
- Distributed charging scenarios

KEY FEATURES

1. Three-phase AC input
2. Max. output 50A
3. Power factor ≥0.99
4. Current sharing error ≤±5%
5. CAN bus monitoring
6. Forced air cooling

TECHNICAL SPECIFICATIONS

Parameter		SEG50050
Environmental conditions	Operating temp.	-40℃ ~ +75℃ (derating above 50℃)
	Storage temp.	-40℃ ~ +70℃
	Relative humidity	≤95%RH, non-condensing
	Cooling	Forced air cooling
	Altitude	2000m (derating above 2000m)
	Atmospheric pressure	79kPa ~ 106kPa
AC input	Input configuration	3-phase + PE (single-phase L/N+PE also supported)
	AC input voltage range	260Vac ~ 530Vac (single-phase 160~300Vac)
	Static withstand voltage	600Vac
	Rated input voltage	400Vac (single-phase 220Vac)
	Max. input current	32A (single-phase 35A)
	Grid frequency / rated frequency	45Hz ~ 65Hz · 50Hz / 60Hz
DC output	DC output voltage range	150Vdc ~ 500Vdc
	DC output current range	0 ~ 50A
	Rated output current	40A
	Voltage regulation accuracy	<±0.5%
	Current regulation accuracy	≤±1% (20%~100% rated load range)
	Load / line regulation	≤±0.5% · ≤±0.1%(320~530V)
	Start-up overshoot	≤±3%
Performance	Power factor	≥0.90@25~50% · ≥0.98@50~100% · ≥0.99@100% full load
	THD / peak-to-peak noise	≤5% @50~100% full load · ≤1% (150~500V, 0~20MHz)
	Efficiency / standby loss	≥95%@500V · 9W
	Inrush current / current sharing	<48A · 10~100% load current-sharing error ≤±5%
	Noise / leakage current	≤65dB(A)(1m) · ≤3.5mA
Mechanical parameters	Dimensions (W×H×D)	226×84×395mm
	Weight / ROHS	≤10.5kg · R6

BAC-75050A

20kW · Three-phase AC/DC charging module

BAC-75050A is a high-power AC/DC charging module with three-phase AC input, supporting a wide 50Vdc~750Vdc output range with continuously adjustable two-stage high/low voltage; it features high power factor, low harmonics, low ripple and wide-temperature operation, suitable for high-power EV DC charging such as DC charging piles.

Protection: input over/under-voltage, output over-voltage, over-temperature, internal bus fault, short-circuit, background communication loss and fan fault protection.

KEY SPECS: Power **20kW** · Efficiency **≥95.2%** · Output **50~750Vdc**



APPLICATIONS

- DC charging pile
- High-power fast charging
- Charging stack modules
- Distributed charging scenarios

KEY FEATURES

1. Three-phase AC input
2. Adjustable HV / LV dual range
3. Power factor ≥0.99
4. Current sharing error ≤±5%
5. CAN bus monitoring
6. Forced air cooling

TECHNICAL SPECIFICATIONS

Parameter		BAC-75050A
Environmental conditions	Operating temp.	-40℃ ~ +75℃ (derating above 55℃)
	Storage temp.	-40℃ ~ +70℃
	Relative humidity	≤95%RH, non-condensing
	Cooling	Forced air cooling
	Altitude	2000m (derating above 2000m)
	Atmospheric pressure	79kPa ~ 106kPa
AC input	Input configuration	3-phase + PE
	AC input voltage range	260Vac ~ 530Vac
	Static withstand voltage	600Vac
	Rated input voltage	380Vac
	Max. input current	39A (at 320V input)
	Grid frequency / rated frequency	45Hz ~ 65Hz · 50Hz / 60Hz
DC output	DC output voltage range	50Vdc ~ 750Vdc
	DC output current range	0~40A (HV) / 0~66.67A (LV) continuously settable
	Rated output current	26A @750V (26.67A at full power)
	Voltage regulation accuracy	<±0.5%
	Current regulation accuracy	≤±1% (20%~100% rated load range)
	Load / line regulation	≤±0.5% · ≤±0.1%(320~530V)
	Start-up overshoot	≤±3%
Performance	Power factor	≥0.95@20~50% · ≥0.98@50~100% · ≥0.99@100% full load
	THD / ripple factor	≤5% @50~100% full load · ≤1% (150~750V, 0~20MHz)
	EMC specifications	Surge 4kV · EFT 4kV/1kV · ESD 8kV/15kV · Radiated immunity 10V · Emissions Class A
	Efficiency / standby loss	≥95.2%@750V · 9W
	Inrush current / current sharing	<45A · 10~100% load current-sharing error ≤±5%
	Dimensions (W×H×D)	226×84×395mm
Mech. parameters	Weight / ROHS	≤11kg · R5

SEG1K Series

20kW / 30kW · Three-phase AC/DC charging module

SEG1K070 / SEG1K0100A2 are DC charging modules with three-phase neutral-less AC input, offering high efficiency, high power density, a wide constant-power range and low harmonics. They use forced air cooling and CAN bus monitoring, suitable for EV DC charging piles.

Protection: input over/under-voltage, output over-voltage (1036Vdc), over-temperature (80℃), internal bus fault, short-circuit, communication loss, fan fault and E-stop protection.

KEY SPECS: Power **20 / 30kW** · Efficiency **≥95%** · Output **150~1000Vdc**



APPLICATIONS

- DC charging pile
- High-power fast charging
- Charging stack modules
- Distributed charging scenarios

KEY FEATURES

1. 3-phase without neutral input
2. Wide constant-power output range
3. Power factor ≥0.99
4. Current sharing error ≤±5%
5. CAN bus monitoring
6. Forced air cooling

TECHNICAL SPECIFICATIONS

Parameter		SEG1K070	SEG1K0100A2
Environmental conditions	Operating temp.	-40℃ ~ +75℃ (derating above 55℃)	
	Storage temp.	-40℃ ~ +70℃	
	Relative humidity	≤95%RH, non-condensing	
	Cooling	Forced air cooling	
	Altitude / atmospheric pressure	2000m (derating above) · 79kPa ~ 106kPa	
	IP rating	IP20	
AC input	Input configuration	3-phase + PE	
	AC input voltage range	285Vac ~ 475Vac	260Vac ~ 530Vac
	Static withstand voltage	600Vac	
	Rated input voltage	380Vac	
	Max. input current	32A(380Vac)	58A
	Grid frequency / rated frequency	45Hz ~ 65Hz · 50Hz / 60Hz	45Hz ~ 65Hz · 50Hz
DC output	DC output voltage range	200Vdc ~ 1000Vdc	150Vdc ~ 1000Vdc
	DC output current range	0 ~ 67A	0 ~ 100A (current limit settable)
	Rated current	20A @1000V	30A (required for current-limit setting)
	Voltage regulation accuracy	<±0.5%	
	Current regulation accuracy	≤±1% (20%~100% rated load range)	
	Load / line regulation	≤±0.5% · ≤±0.1%(323~475V)	≤±0.5% · ≤±0.1%(320~530V)
	Start-up overshoot	≤±5%	≤±3%
Performance	Power factor	≥0.95@20~50% · ≥0.99@50~100% full load	≥0.95@25~50% · ≥0.98@50~100% · ≥0.99@100%
	THD / voltage ripple factor	≤5% @50~100% full load · ≤1% (0~20MHz)	
	Efficiency	≥92%(4~10kW)· ≥95%(10~20kW)	≥95%@1000V full load · ≥94%@400-500V and other ranges
	Standby loss / inrush current	10W · <45A	— · <72A
	Noise / grounding / leakage	≤65dB(A) · ≤0.1Ω(≥25A) · ≤3.5mA	≤65dB(A) · ≤0.1Ω(≥80A) · ≤3.5mA
Mechanical parameters	Dimensions (W×H×D)	218×84×458mm	300×84×395mm
	Weight / ROHS	≤13kg · R5	≤15.5kg · R5

SEG1K0135

40kW · Bidirectional AC/DC charging module

SEG1K0135 is a bidirectional AC/DC charging module with three-phase AC input, supporting a wide 150Vdc~1000Vdc output range with high power density and wide-temperature operation. It uses forced air cooling and CAN bus monitoring, suitable for EV DC charging piles and bidirectional energy conversion such as storage PCS.

Protection: input over/under-voltage, output over-voltage, over-temperature, internal bus fault, short-circuit, communication loss, fan fault and E-stop protection.

KEY SPECS: Power **40kW** · Efficiency **≥95%** · Output **150~1000Vdc**



APPLICATIONS

- DC charging pile
- Bidirectional energy conversion
- Storage conversion
- High-power fast charging

KEY FEATURES

1. Bidirectional AC/DC conversion
2. Wide-range, wide-temperature output
3. Power factor ≥0.99
4. Current sharing error ≤±5%
5. CAN bus monitoring
6. Forced air cooling

TECHNICAL SPECIFICATIONS

Parameter		SEG1K0135
Environmental conditions	Operating temp.	-40℃ ~ +75℃ (derating above 55℃)
	Storage temp.	-40℃ ~ +70℃
	Relative humidity	≤95%RH, non-condensing
	Cooling	Forced air cooling
	Altitude / atmospheric pressure	≤2000m (derating above) · 79kPa ~ 106kPa
	IP rating	IP20
AC input	Input configuration	3-phase + PE
	AC input voltage range	260Vac ~ 530Vac
	Static withstand voltage	600Vac
	Rated input voltage	380Vac
	Max. input current	80A
	Grid frequency / rated frequency	45Hz ~ 65Hz · 50Hz / 60Hz
DC output	DC output voltage range	150Vdc ~ 1000Vdc
	DC output current range	0 ~ 133A (current limit settable)
	Rated current	40A (required for current-limit setting)
	Voltage regulation accuracy	<±0.5%(150~1000V, 0~20MHz)
	Current regulation accuracy	≤±1% (20%~100% rated load range)
	Regulation / start-up overshoot	≤±0.5% · ≤±0.1%(320~530V)· ≤±3%
Performance	Power factor	≥0.90@25~50% · ≥0.98@50~100% · ≥0.99@100% full load
	THD / ripple factor	≤5% @50~100% full load · ≤1% (0~20MHz)
	Efficiency / weighted efficiency	≥95%@1000V full load · ≥94.5% (300/380/470/530/670V)
	Inrush current / standby loss	<102A · at rated input voltage
	Current sharing / temp. coeff.	≤±5% rated output current · ≤±0.01%/℃
	Grounding / leakage current	≤0.1Ω(≥80A)· ≤3.5mA
Mechanical parameters	Dimensions (W×H×D)	385×110×390mm
	Weight / ROHS	≤22.5kg · R5

IMDC100040

40kW · Ultra-wide constant-power 1000V charging module

IMDC100040 is a DC charging module designed for EV charging, with an ultra-wide constant-power output voltage range, smart air cooling and CAN bus monitoring. It supports hot plug and battery reverse-feed protection, and is easy to parallel.

Protection: short-circuit, output over-voltage (1010V/510V+15V), output under-voltage, input over/under-voltage, over-temperature protection and fan fault alarm.

KEY SPECS: Power **40kW** · Efficiency **≥95%** · Input **250~825Vdc**



APPLICATIONS

- EV charging
- High-power DC fast charging
- Charging stack modules
- DC charging pile

KEY FEATURES

1. Ultra-wide constant-power output
2. Intelligent air cooling
3. Power factor correction
4. Hot-swap supported
5. Reverse-current protection
6. CAN bus parallel operation

TECHNICAL SPECIFICATIONS

Parameter		IMDC100040
Environmental conditions	Operating temp.	-40℃ ~ +70℃ (module starts at -40℃; shuts down above 70℃)
	Storage temp.	-40℃ ~ +85℃
	Relative humidity	≤95%, non-condensing
	Atmospheric pressure / altitude	79kPa ~ 106kPa · Altitude <2000m (derating above 2000m)
	Cooling	Intelligent air cooling
Input parameters	Input voltage	DC 250Vdc ~ 825Vdc
	Input current overshoot	Input peak current ≤ 110% of rated input current
DC output	Regulated output voltage range	(200~1000)Vdc
	Rated output voltage / current	1000V · 40A
	Current limit range	0.5A ≤ I ≤ 80A
	Output ripple factor (25℃)	≤1%(500Vdc~1000Vdc)
	Start-up time in normal mode	3~8s
Performance	Efficiency	≥95% (rated) · 97% peak · 96.5% at full load with 750Vdc input
	Standby loss	15.4W @700Vdc input
	Regulation accuracy	≤±1% · ≤±0.5%
	Current sharing unbalance	≤5% rated output current (10%~100% load)
Communication protection	Comm. port / max. parallel	CAN · 60 units
	Alarms & status	Reported to the monitoring background via CAN bus or shown on the panel LED
	Short-circuit protection	Module auto-shutdown after short-circuit (lock-out after three short circuits)
	Output over-voltage protection	High voltage 1010V / low voltage 510V +15V (manual recovery)
	Over/under-voltage protection	825Vdc / 245Vdc +5V recovery (hysteresis ≥10V)
	Over-temp. / fan control	Auto protection when the detected temperature reaches the preset value · Stepless speed control by ambient temperature and output current
Mechanical parameters	Noise	≤68.1dB (25℃, full-load rated output)
	Dimensions (W×H×D)	84×300×437.5mm
	Weight	≤17kg
	MTBF / safety standards	500000 hours (40℃) · NB/T 33001-2018, NB/T 33008.1-2018, GB/T 18487.2-2017

Charger Series

Bidirectional AC/DC · Bidirectional DC/DC · DC fast charger

The Charger Series covers bidirectional V2G chargers and 240kW DC fast chargers: the bidirectional charger uses V2G technology to use the electrochemical energy stored in EVs as a supplement to the grid and renewable energy; the 240kW dual-gun DC charger uses a modular design with multiple charging modes and convenient payment methods.

Protection: AC over/under-voltage, AC leakage, DC output over/under-voltage, output current-limit/over-current, over-temperature, battery reverse-connection protection, E-stop switch and insulation detection.

KEY TECHNOLOGIES: **V2G bidirectional interaction** · Per gun **250A** · Protection **IP54**



APPLICATIONS

- EV-grid interaction
- High-power DC fast charging
- Peak-valley price arbitrage
- Clean energy consumption

KEY FEATURES

1. V2G bidirectional interaction
2. Independent monitoring system
3. Modular power expansion
4. IP54 high protection
5. Multiple charging modes
6. Card swipe / APP / VIN recognition

TECHNICAL SPECIFICATIONS

Parameter		Bidirectional AC/DC charger	Bidirectional DC/DC charger	240kW dual-gun DC charger
System composition	Module composition	V2G module	Bidirectional DC/DC module	Main controller + auxiliary module (module management)
	HMI unit	Enclosure · LCD touch screen · Card reader · Charging plug		
	Metering / safety protection	Energy meter · E-stop · Over-current/short circuit	Energy meter · E-stop · Over-current/short circuit	Energy meter · E-stop · Insulation detection
Product Features	Independent monitoring system	An independent controller exchanges information with the HMI and host computer to monitor system operation		
	Battery communication	The HMI connects to the battery management unit (BMS) or vehicle instrument via CAN bus		
	Charging modes	Charge/discharge mode set by BMS parameters	Charge/discharge mode set by BMS parameters	By time / By energy / By amount / Auto
	Modular design	Easy power expansion · Simple maintenance	Easy power expansion · Simple maintenance	Module management · Output voltage/current control
	Protection design	IP54 high protection: rain/snow, sand, salt-mist and condensation resistant		
	Payment & identification	Card swipe · APP · VIN recognition	Card swipe · APP · VIN recognition	RFID / IC / CPU card
	Protection	AC over/under-voltage · AC leakage · DC over/under-voltage · Output current-limit/over-current · Over-temperature · Battery reverse connection · E-stop · Insulation detection		
Specifications	Input voltage	—	—	DC 200~850V (>550V full power)
	Rated power	—	—	240kW
	Output voltage range	—	—	DC 200V ~ 1000V
	Max. output current	—	—	500A (max. 250A per gun)
	Cooling	—	—	Air cooling
	Communication port / method	CAN bus	CAN bus	CAN · wireless (optional) · Ethernet / 4G
	Charging interface	—	—	2 pcs · Floor-standing
	Operating / storage temp.	—	—	-20~+50°C · -40~+70°C
	Humidity / IP rating	—	—	5%~95% · IP54
	Floor-standing dimensions	—	—	700mm × 640mm × 1700mm
	Floor-standing weight	—	—	≤250kg
APPLICATIONS	Grid interaction	Peak-valley arbitrage · Grid load regulation	Peak-valley arbitrage · Grid load regulation	Peak-valley arbitrage · Higher utilization
	Energy consumption / sharing	Clean energy consumption · Bidirectional vehicle-grid interaction	Energy supplement for DC power systems	Networked sharing (offline capable)

IM-K Series

9kW ~ 10kW · High-frequency switching rectifier module

The IM-K Series high-frequency switching rectifier modules are AC-input, adjustable DC-output AC/DC modules using DSP digital control, resonant soft switching and active PFC. They offer high power density, high power factor, low harmonics and high efficiency, and support multi-module parallel operation and hot plug.

Protection: input fuse and lightning-protection circuit · output positive/negative fuse protection · fault self-test indication · over-heat protection · output over-voltage protection · current-limit protection.

KEY SPECS: Power **9~10kW** · Efficiency **≥95%** · PF **≥0.99**



APPLICATIONS

- DC operating power supply
- Telecom base station power
- DC Power Panels
- Industrial rectifier systems

KEY FEATURES

1. DSP digital control
2. Active PFC
3. Resonant soft switching
4. High efficiency ≥95%
5. Hot-swap supported
6. CAN parallel up to 60 units

TECHNICAL SPECIFICATIONS

Parameter		IM48-9K	IM100-10K	IM150-10K	IM120-10K
Environmental conditions	Operating ambient temp.	-40°C ~ 50°C normal operation; 50°C ~ 75°C derated output			
	Storage temperature / humidity	-40°C ~ 75°C · 0 ~ 95%			
	Altitude	Up to 4000m (no derating below 2300m, 1% derating per 100m above)			
AC input	Rated input voltage	3-phase 380Vac / 480Vac			
	Input voltage range	323~520Vac (full load) · 323~260Vac (linear derating to half load)			
	Input current / frequency	<20A · 45Hz ~ 65Hz			
	Power factor / THD	PF ≥0.99 · THD ≤5%			
	Input protection	Fuse · Lightning-protection circuit			
DC output	Rated output power	9kW	10kW	10kW	10kW
	Rated output current	150A	100A	75A	92A
	Output voltage range	20Vdc ~ 60Vdc	30Vdc ~ 100Vdc	50Vdc ~ 150Vdc	40Vdc ~ 120Vdc
	Adjustable current limit range	10% ~ 110% stepless adjustable			
	Regulation accuracy	≤±0.5% · ≤±1%			
	Noise / current sharing	≤1% · ≤±5%			
	Efficiency	≥95%			
Safety & reliability	Dielectric strength	Input to chassis 2500VAC/3535VDC for 1min; input to output 3000VAC/4242VDC for 1min			
	MTBF	>120000 hours			
Communication alarm	Communication / parallel qty	CAN · 60 units			
	Alarms & status	Output positive/negative fuse protection; alarms and status reported via CAN and indicated by 3 panel LEDs			
Mechanical parameters	Dimensions (W×H×D)	130×84×396mm			
	Module net weight	7kg			

DM48-9KA / DM100-10K

9kW ~ 10kW · High-frequency switching DC/DC module

The DM100-10K Series high-frequency switching DC/DC modules are DC-input, adjustable DC-output DC/DC modules using DSP digital control, resonant soft switching and active PFC. They offer high power density, high power factor, low harmonics and high efficiency, and support multi-module parallel operation and hot plug.

Protection: input fuse · output positive fuse protection · output over-voltage protection (latching) · input under/over-voltage · internal over-temperature · ambient over-temperature · over-current protection · fan fault.

KEY SPECS: Power **9~10kW** · Efficiency **≥95%** · PF **≥0.99**



APPLICATIONS

- DC operating power supply
- Telecom base station power
- DC Power Panels
- Industrial DC power supply

KEY FEATURES

1. DSP digital control
2. Active PFC
3. Resonant soft switching
4. High efficiency ≥95%
5. Hot-swap supported
6. CAN parallel up to 60 units

TECHNICAL SPECIFICATIONS

Parameter		DM48-9KA	DM100-10K
Environmental conditions	Operating ambient temp.	-40℃ ~ 50℃ normal operation; 50℃ ~ 75℃ derated output	
	Storage temperature / humidity	-40℃ ~ 75℃ · 0 ~ 95%	
	Altitude	2000m full-load output	
DC input	Rated input voltage	DC 400V	
	Input voltage range	260Vdc ~ 750Vdc (full load) · 260Vdc ~ 150Vdc (linear derating)	
	Input current / PF	<45A · PF ≥0.99	
	Input protection	Fuse	
DC output	Rated output power	9kW	10kW
	Rated output current	150A	100A
	Output voltage range	20Vdc ~ 60Vdc	30Vdc ~ 100Vdc
	Adjustable current limit range	10% ~ 110% stepless adjustable	
	Regulation accuracy	≤±0.5% · ≤±1%	
	Peak-to-peak noise	≤1% · Telephone weighted noise: not required	
	Current sharing	≤±5%	
	Efficiency	≥95%	
Safety & reliability	Dielectric strength	Input to chassis 2500VAC/3535VDC for 1min; input to output 3000VAC/4242VDC for 1min	
	MTBF	>120000 hours	
Communication alarm	Communication / parallel qty	CAN · 60 units	
	Alarms & status	Output positive fuse protection; alarms and status reported via CAN and indicated by 3 panel LEDs	
Mechanical parameters	Dimensions (W×H×D)	130×84×396mm	
	Module net weight	7kg	

BIDC48500

20kW · Digitally controlled DC power supply

BIDC48500 is a digitally controlled DC power supply with standout advantages such as ultra-high output current, an ultra-wide input voltage range, ultra-high reliability and easy maintenance. Its output voltage is continuously adjustable from 0~60Vdc and output current from 0~500A, supporting 1.3× overload; it suits high-current DC power supply applications.

Protection: input over/under-voltage · output over-voltage (65Vdc latching) · ambient over-temperature (75℃) · communication-loss alarm (shutdown after >10s) · severe current-unbalance alarm.

KEY SPECS: Power **20kW** · Output **0~500A** · Efficiency **>95%**



APPLICATIONS

- High-current DC power supply
- DC power systems
- Industrial electrolysis power
- Special power systems

KEY FEATURES

1. 0~500A continuously adjustable
2. 0~60Vdc continuously adjustable
3. 1.3× overload capability
4. CAN & 485 communication
5. LED digital display
6. Suitable for 5000m altitude

TECHNICAL SPECIFICATIONS

Parameter		BIDC48500
DC input	DC input voltage	300Vdc ~ 800Vdc
	Input current	<40A
DC output	Output voltage	0 ~ 60Vdc continuously adjustable (0.1Vdc step)
	Output current	0 ~ 500A continuously adjustable (0.5A step)
	Rated power	20kW
	Overload capability	Supports 1.3× overload for at least 1 minute
	Voltage regulation accuracy	≤±0.5%
	Current regulation accuracy	≤±0.5%
	Ripple peak-to-peak	≤1%
	Peak efficiency	>95%
Environmental conditions	Operating temp.	-40℃ ~ 60℃ ~ 75℃ (full power below 60℃, derated to 30% at 75℃)
	Altitude	5000m (above 1000m, altitude must be set via protocol)
	Noise	≤60dB
Protection	Over/under-voltage protection	Auto shutdown below 300Vdc or above 800Vdc; operation resumes after recovery
	Output over-voltage protection	Default protection point 65Vdc; after shutdown the unit must be reset outside the system before it can start again
	Over-temperature protection	Auto shutdown when ambient temperature >75℃
	Communication-loss alarm	Communication loss >10s triggers shutdown protection, the panel yellow indicator lights up, and it auto-resets after recovery
Communication display	Communication	CAN & 485
	Address / adjustment method	Address range 0x00 ~ 0x3B; supports automatic/manual address assignment, controlled by messages from the host computer
	Panel display	LED display + 2 buttons (▲/▼); RUN green / ALM yellow / FAULT red indicators
Safety & reliability	MTBF	>1000,000 hours
	EMC / vibration	Complies with GJB151B-2013 · GJB1032-90
Mechanical parameters	Dimensions (W×H×D)	240×87×430mm
	Weight	<13kg

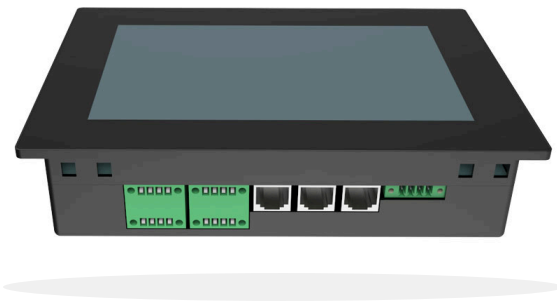
AEMS100

Energy Management System · EMS

The ImaxPWR energy management (EMS) system monitors and optimally dispatches the battery system, converter system and distribution system, providing an intuitive, dynamic and comprehensive view of each unit's operation. It offers operating-data viewing, alarm notifications and report analysis as a decision basis for equipment analysis, fault diagnosis and strategy optimization, and completes information exchange and command delivery with the upper-level monitoring system.

The EMS is integrated inside the STS and, together with the configuration-screen display, forms the EMS system; diesel generator monitoring is optional, and STS + diesel generator + dry-contact control is supported by default.

CORE CAPABILITIES: **Status monitoring** · **Energy dispatch** · **Report analysis**



APPLICATIONS

- C&I Storage
- PV + Storage + EV Charging
- Microgrid
- Telecom Base Stations

OPERATION MODES

1. Self-consumption
2. Economic mode
3. Grid feed-in priority

KEY FUNCTIONS

Ⅰ. FOUR CORE EMS MANAGEMENT FUNCTIONS

Battery management

Charge / discharge protection · Over-temperature · Battery divergence · Over-current protection

Power system management

Peak shaving & valley filling · Economic mode · Full feed-in mode

System loop detection

Temperature management · protection · control

Communication & display management

Station EMS / PCS / BMS / fire & environment / power chain · Cloud platform · Local display

Ⅱ. THREE OPERATING MODES

Self-consumption

Regions with high electricity prices and low or no feed-in tariff (FIT) subsidy; surplus PV energy is stored in the battery and discharged to the load when sunlight is insufficient or at night, improving self-consumption and saving electricity costs.

Economic mode

Scenario with a large peak-valley price difference; charge/discharge periods are set manually — charge at low night-time prices and discharge at high prices, requiring the “Grid Charging” function to be enabled.

Grid feed-in priority

Grid-connected scenario with full feed-in mode; PV feed-in is maximized — surplus beyond the inverter output charges the battery, and when PV is insufficient the battery discharges to ensure full output.

Ⅲ. DISPLAY & MANAGEMENT

- HMI panel / mobile viewing
- Wi-Fi or Ethernet access
- Chinese / English bilingual
- Remote upgrade interface
- Company info customizable

System integration

Local station-level EMS · PCS · BMS · fire & environment · power chain communication · Cloud platform · Local display