

RFUSION

TOMORROWS TECHNOLOGY TODAY

5KW INVERTER, 5KWH BATTERY PACK

R AmpiHOME BESS electrical interface provides a simple connection to any residential home or commercial / industrial building. Its compact design achieves a cost effective and market leading energy density which delivers a quicker return on investment. Ampowr ensures that all their products enable simple connectivity, usability and recyclability.



R Power when you need it

SAFE, RESILIENT AND RELIABLE BACK-UP POWER GRID INDEPENDENCE

AVOID YEARLY UTILITY PRICE INCREASES REDUCE ELECTRICITY COSTS

CONNECT UP TO 4 BATTERY PACKS TO A SINGLE INVERTER

CONNECT UP TO 4 INVERTERS IN PARALLEL

EASY INSTALLATION AND SMALL IN SIZE

Rpower www.rfusion.co.uk
www.rfusion.tech

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INVERTER TECHNICAL SPECIFICATIONS

PV STRING INPUT

MAX. DC VOLTAGE	580V
NOMINAL VOLTAGE	400V
MPPT VOLTAGE RANGE	80V-560V
START VOLTAGE	130V
NUMBER OF MPPT TRACKER	2
STRINGS PER MPPT TRACKER	1
MAX. INPUT CURRENT PER MPPT	15A
MAX. SHORT-CIRCUIT CURRENT PER MPPT	18A

AC OUTPUT (GRID)

NOMINAL AC OUTPUT POWER	5000W
MAX. AC APPARENT POWER	7360VA (from grid)
MAX. AC OUTPUT POWER	5000W
NOMINAL AC VOLTAGE	230Vac
AC GRID FREQUENCY RANGE	50 / 60Hz ± 5Hz
MAX. OUTPUT CURRENT	22A
MAX. INPUT CURRENT	32A
POWER FACTOR (COSΦ)	0.8 leading - 0.8 lagging
THDI	<3%

BATTERY INPUT

BATTERY TYPE	Nano Crystal (NCPB)
NOMINAL BATTERY VOLTAGE	48V
CHARGING VOLTAGE RANGE	40-60V
MAX. CHARGING CURRENT	100A
MAX. DISCHARGING CURRENT	100A
BATTERY CAPACITY	100-400Ah
CHARGING STRATEGY FOR NCPB	Depend on the BMS

AC OUTPUT (BACKUP)

MAX. OUTPUT APPARENT POWER	5000VA
PEAK OUTPUT APPARENT POWER	6900VA 10sec
MAX. OUTPUT CURRENT	20A
NOMINAL OUTPUT VOLTAGE	230V
NOMINAL OUTPUT FREQUENCY	50/60Hz
OUTPUT THDV	<3% (Linear Load)

EFFICIENCY

MAX. PV EFFICIENCY	97.6%
EURO. PV EFFICIENCY	97.0%

PROTECTION

DC SWITCH	Bipolar DC Switch (125A/Pole)
ANTI-ISLANDING PROTECTION	Yes
OUTPUT OVER CURRENT	Yes
DC REVERSE POLARITY PROTECTION	Yes
STRING FAULT DETECTION	Yes
AC/DC SURGE PROTECTION	DC Type II; AC Type III
INSULATION DETECTION	Yes
AC SHORT CIRCUIT PROTECTION	Yes

GENERAL SPECIFICATIONS

DIMENSIONS W X H X D	540 x 590 x 240mm 21.3 x 23.2 x 9.5in
WEIGHT	32kg (70.5lbs)
OPERATING TEMPERATURE RANGE	-25°C - +60°C (-13°F - 140°F)
OPERATING TEMPERATURE RANGE	<25
COOLING TYPE	Natural Convection
MAX. OPERATION ALTITUDE	2000m (6561ft)
OPERATION HUMIDITY	0-95% (No Condensation)
IP CLASS	IP65
TOPOLOGY	Battery Isolation
COMMUNICATION	RS485/CAN2.0/ WIFI/4G
DISPLAY	LCD/APP
CERTIFICATION & STANDARD	IEC/EN 62109-1&2; IEC/EN61000-6-1; IEC/EN61000-6-2; EN61000-6-3; IEC/EN61000-6-4; IEC/EN61000-3-11; EN61000-3-12; IEC60529; IEC 60068; IEC61683; IEC62116; IEC61727; EN50549-1; AS 4777.2; NRS 097; VDE-AR-N-4105; CEI 0-21; G98; G99; C10/C11

BATTERY TECHNICAL SPECIFICATIONS

ELECTRICAL

ENERGY CAPACITY	5.12kwh
USABLE CAPACITY	4.6kwh
DEPTH OF DISCHARGE (DOD)	90%
NOMINAL VOLTAGE	51.2V
DC CIRCUIT BREAKER	125A
OPERATING VOLTAGE RANGE	44.8-56.5V
INTERNAL RESISTANCE	<20mΩ
CYCLE LIFE	10000cycle

OPERATION

MAX. CHARGE/DISCHARGE CURRENT	50A/80A
RATED DC POWER	4096W
MAX. CHARGE/DISCHARGE POWER	2825W / 4096W
OPERATING TEMPERATURE RANGE	0°C - 50°C charging (32°F - 122°F charging) -10°C - 50°C discharging 14°F - 122°C discharging
HUMIDITY	0-95% (No condensation)

BMS

MODULES CONNECTION	Max. 4
CAPACITY	100-400Ah
POWER CONSUMPTION	<2W
COMMUNICATION	CAN & RS485
MONITORING PARAMETERS	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement

PHYSICAL

BATTERY TYPE	Nano Crystal™ (NCPB)
SYSTEM WEIGHT	54kg (119lbs)
DIMENSION (W X H X D)	540 x 490 x 240mm 21.2 x 19.3 x 9.5in
IP PROTECTION	IP65
WARRANTY	5 Year Product Warranty, 10 Year Performance Warranty

CERTIFICATE

SAFETY(CELL)	Pack: IEC/EN 62619; UN38.3 Cell: IEC/EN 62619; UN38.3;UL1973
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