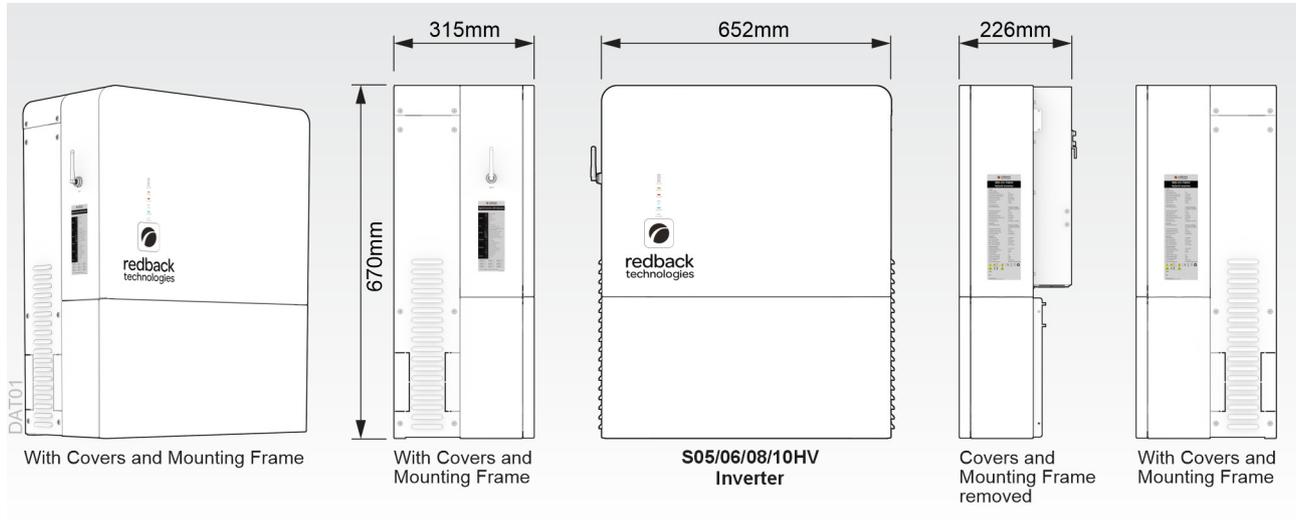


Product Data Sheet

Redback 1-Phase HV Hybrid Inverter



INVERTER MODEL (PREFIX: RED-H3-)	S05HV	S06HV	S08HV	S10HV
System rating	5kW	6kW	8kW	10kW

PV PORT				
Number of MPPTs	3			
Strings per MPPT Input	1/1/1			
MPPT Operating Voltage (range)	DC 90 – 550V			
Startup Voltage	DC 100V			
MPPT Full Load (Range)(DC V)	110-550	130-550	180-550	220-550
Maximum Input Voltage (Vmax)	DC 600V			
Maximum Current (Imp)	DC 16/16/16A			
Short Circuit Current (Isc) ¹	DC 19.2/19.2/19.2A			
Maximum PV Input Power (Wp) ²	7500	9000	12000	15000
Maximum Back Feed Current	0A			
Decisive Voltage Class (DVC)	DVC-C			

¹ Manufacturer's declared and tested Max Short Circuit Current (Isc Max) ²Over-panelling benefits vary by location

GRID INTERACTIVE PORT	S05HV	S06HV	S08HV	S10HV
Nominal Voltage	AC 220/230/240V			
Nominal Frequency	50Hz			
Rated Current (AC A)	21.7	26.1	34.8	43.5
Max. Output Current (AC A)	21.7	28.7	38.3	43.5
Rated Active Power (AC W)	4999	6000	8000	9999
Rated Apparent Power (VA)	4999	6000	8000	9999
Max Output Apparent Power (VA)	4999	6600	8800	9999
Max Input Current (AC A)	43.5	52.2	69.6	69.6
Max Input Apparent Power (VA)	10000	12000	16000	16000
Power Factor (range)	0.8 lagging to 0.8 leading			
Output Current THD	<3%			
Inrush Current (A)	150			
Maximum Output Fault Current (A)	120			
Maximum Output Overcurrent Protection (A)	63	75	100	100
Decisive Voltage Class (DVC)	DVC-C			

BACKUP PORT	S05HV	S06HV	S08HV	S10HV
Nominal Output Voltage	AC 220/230/240V			
Nominal Output Frequency	50 Hz			
Rated Current AC (A)	21.7	26.1	34.8	43.5
Rated Active Power (AC W) ¹	4999	6000	8000	9999
Nominal Apparent Power (VA)	4999	6000	8000	9999
Rated Apparent Power (VA)	4999	6000	8000	9999
Peak Apparent Power (VA, 60 seconds)	6000	7200	9600	12000
Power Factor (range)	0.8 lagging to 0.8 leading			
Output Voltage THD	<3%			
Inrush Current (A)	150			
Maximum Output Fault Current (A)	120			
Maximum Output Overcurrent Protection (A)	63	75	100	100
Decisive Voltage Class (DVC)	DVC-C			
BATTERY PORT	S05HV	S06HV	S08HV	S10HV
Voltage (nominal)	DC 85-450V			
Max. Current (charge)	DC 50A			
Max. Power (charge) (DC W)	4999	6000	8000	9999
Max. Current (discharge) (DC A)	DC 50A			
Max. Power (discharge) (DC W)	4999	6000	8000	9999
Battery Type	LiFePO4			
Battery Depth of Discharge	95%			
Short Circuit Current	400A			
Decisive Voltage Class (DVC)	DVC-C			
GENERAL INFORMATION				
Operating Temperature	-40°C to 60°C			
Operating Temperature Derated Output	Above 45°C			
Operating Relative Humidity	0 - 100%			
Operating Altitude	0-4000m (derated above 3000m)			
Protective Class	I			
Ingress Protection Rating	IP66			
AC Overvoltage Category	OVC III			
DC Overvoltage Category	OVC II			
Active Anti-islanding Method	Active Frequency Shifting			
Moisture Location Category	4K4H			
External Environment Pollution Degree	Grade 1, 2 and 3			
Inverter Topology	Non-isolated			
Country of Origin	China			
Demand Response Modes	DRM 0			
Standby Self-Consumption (Night)	40w			
Noise Emissions (Inverter only)	<35 dBm♦			
Warranty	5 years or 10 years (additional conditions apply)♦			
♦Measured in Redback laboratory at 1m in front of Inverter. ♦ Additional internet connection conditions apply to achieve 10-year warranty. Please see the applicable Redback Product Warranty document.				
EFFICIENCY				
Maximum Efficiency	97.6%			
European Efficiency	97%			
INVERTER PHYSICAL DATA				
Dimensions (W x D x H mm)	652 x 226 x 670			
Weight (Bare, as lifted onto wall mount during installation)	34 kg			
Weight (installed, with covers and wall mount, excluding AC cables)	37 kg			
Materials	Aluminium; Stainless steel fittings			
Finish	Powdercoat and internal sealant			

ISOLATORS	PV PORT	GRID INTERACTIVE PORT	BACKUP PORT	BATTERY PORT
Manufacturer Part Number	PROJOY PEDS150R-HM32R-6	NOARK B1E-1P-100	NOARK B1E-1P-80	PROJOY PEDS150R-HM55R-2
Rated Insulation Voltage	1500V	500V	500V	1500V
Rated Impulse Withstand Voltage	8000V	8000V	8000V	8000V
Rated Operational Current	32A	100A	80A	55A
Rated Short-time Withstand Current (I _{cw})	780A	640A	512A	780A
Rated Short-circuit Making Capacity (I _{cm})	1200A	960A	768A	1200A
Rated Breaking Capacity (I _{sc})	-	6000A	6000A	-

COMMUNICATIONS PORTS AND PROTOCOLS

Ethernet	RJ45; Straight-through; for LAN connection.
Meter	RJ45 (shared); RS485 MODBUS
DRED	RJ45 (shared); DRMO
BMS	RJ45; straight-through; For comms to Battery Enclosure
PART1	Reserved for future use
PART2	Reserved for future use
Wi-Fi	802.11b/g/n/ac; 2.4GHz; For LAN connection if Ethernet not used; External antenna required
4G	Optional; External 4G module required
Bluetooth (on EMS)	BLE, for inverter configuration using Installer app
NFC (on EMS)	For starting Installer app
Relay	Controllable via connection to Redback power meter
Interlock	Not supported

USER INTERFACE

Front Panel Display	Coded, coloured LEDs
Communications	Bluetooth for commissioning; Wi-Fi, ethernet or 4G for remote access
Remote Access	Web Portal; MyRedback app
Remote Firmware Updates	Supported
Power/Energy Monitoring	Includes 1 x utility grade Power Meter (class 1)

CERTIFICATIONS AND APPROVALS

AS/NZS 4777.2:2020	IEC 62116:2014	IEC 60529	RCM
IEC 62109-1:2010	IEC 62040-1:2017	EN 61000	CE Mark (LVD, EMC, RoHS directives)
IEC62109-2:2011	IEC 62477-1:2012		

DESIGNED WITH INSTALLATION STANDARDS CONSIDERED

AS/NZS 3000:2018	AS/NZS 5139:2019	AS/NZS 5033:2021
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CONTACT INFORMATION

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