Redback Product Datasheet

3 - Phase Power Conversion System

RED-C1-T100AC

RED-C1-T125AC

RED-P1-BE261KHV

INVERTER Model(RED-C1 series)	RED-C1-T100AC	RED-C1-T125AC
DC SIDE (BATTERY PORT)		
Max. DC voltage	DC 1000 V	DC 1000 V
Min. DC voltage	DC 600 V	DC 600 V
Start up voltage	DC 600 V	DC 600 V
DC voltage range	DC 630-950 V	DC 630-950 V
Rated DC power	100 kW	125 kW
Rated DC current	DC 158.7 A	DC 198 A
Max. DC power	110 kW	137.5 kW
Max. DC current	DC 174.6 A	DC 217 A
Overvoltage Category(OVC)	II	II
AC SIDE (GRID INTERACTIVE PORT)		
Rated AC Input/Output active Power PE	100 kW	125 kW
Rated AC Input/Output current	144.3 A	180 A
Max. AC Input /Output apparent Power PE	110kVA	137.5 kVA
Max. AC Input/Output current	158.7 A	198 A
Nominal AC voltage Ur	3L/N/PE, 400/230 V	3L/N/PE, 400/230 V
AC voltage tolerance	-15%- +15%	-15%- +15%
Nominal frequency/Frequency FNETZ	50 /60 Hz	50 /60 Hz
Harmonic (THDi)	≤3% (at nominal Power), Linear load	≤3% (at nominal Power), Linear load
Power factor	-0.99-+0.99, At nominal Power	-0.99-+0.99, At nominal Power
Adjustable reactive Power range	-100%–100%	-100%–100%
Overvoltage Category (OVC)	III	III
Rated conditional short-circuit current [A a.c.]	AC 10kA	AC 10kA
AC SIDE (OFF-GRID)		
Nominal AC voltage Ur [Va.c.]	AC 3L/N/PE, 400/230 V	AC 3L/N/PE, 400/230 V
AC voltage tolerance	AC 400 V ± 3%	AC 400 V ± 3%
AC rated Input /Output apparent Power PE [kVA]	100 kVA	125 kVA
Max. AC Input/Output current [A a.c.]	AC 158.7 A	AC 198 A
Harmonic THDu	≤3%, Linear load	≤3%, Linear load
DC voltage component	<0.5% , Linear load	<0.5% , Linear load
Unbalance load capacity	100%	100%
Nominal frequency/Frequency FNETZ	50 /60 Hz	50 /60 Hz
GENERAL INFORMATION		
Inverter topology	Non-isolated	Non-isolated
Max. efficiency	>99%	>99%
Communication	RS485, CAN, Ethernet	RS485, CAN, Ethernet
Demand response mode	DRM0 supported	DRM0 supported
Enclosure Dimensions (W * H * D, mm)	520 x 240 x 680	520 x 240 x 680
Weight	70 kg	70 kg
Degree of protection	IP20	IP20
Operating ambient temperature [°C]	-30-60°C (≥50°C for limited load)	-30-60°C (≥50°C for limited load)
Allowable relative humidity	≤95%	≤95%
Cooling method	Forced air cooling	Forced air cooling
Max. operating altitude	4,000 m (derates above 2000m)	4,000 m (derates above 2000m)
Protection class	Class 1	Class 1

Pollution degree	2	2
Country of Manufacture	Made in China	Made in China
Supported battery types	lithium-ion batteries	lithium-ion batteries
Active anti-islanding method	Frequency shift	Frequency shift

Battery Enclosure Data	RED-P1-BE261KHV
Number of Battery Units	5
Storage Capacity	5x 52.2kWh
Maximum Capacity	261kWh
Nominal Voltage	DC 832V
Rated Current	DC 157A
Protective Class	I
Ingress Protection Rating	IP54
Dimensions (W x D x H)	970*1360*2370 mm
Material	Aluminium
Finish	Sealed and powder coated

COMMUNICATIONS PORTS AND PROTOCOLS.			
Ethernet	RJ45; Straight-thru		
BMS	RJ45; Custom configuration		
Meter/DRED	Meter: Shared RJ45; RS485 MODBUS		
	DRED: Shared RJ45; DRED		
Wi-Fi	802.11b/g/n/ac; 2.4GHz		
USER INTERFACE			
Communications	Bluetooth for commissioning		
Remote access	Web Portal or MYRedback app (Android or iOS)		
Remote Firmware Updates	Supported		
Power/energy monitoring	Includes 1 x utility grade energy meter (class 1)		
CERTIFICATIONS, STANDARDS AND APPROVALS			
AS/NZS 4777.2:2020	IEC 62116:2014	IEC 60529	RCM
IEC 62109-1:2010	EC 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	