

Solar residences battery / energy / dashboard packages PK12

X30.02 Dashboard

**Small Home 1.7KW DC Solar/Battery/Energy dashboard package**

3000VA

2.8KWh

Victron Multiplus

K29 Battery

BlueSolar charge controller MPPT 150 I 35

**PK12.02**

X30.01 Dashboard

**Solar residence 4.3KWh Battery/Energy dashboard package**

3000VA

4.3KWh

Victron Multiplus

K29 Battery

X30.01 Dashboard

**PK12.03**

X30.01 Dashboard

**Solar residence 5.6KWh Battery/Energy dashboard package**

5000VA

5.8KWh

Victron Multiplus

K29 Battery

X30.01 Dashboard

**PK12.04**

# Solar residences battery / energy / dashboard packages PK12

## Victron BlueSolar 150/35 Charge Controller Data

BlueSolar Charge Controller	MPPPT 150/35
Battery voltage	12 / 24 / 48V Auto Select (software tool needed to select 36V)
Rated charge current	35A
Nominal PV power 1a, b)	12V: 500W / 24V: 1000W / 36V: 1500W / 48V: 2000W
Max. PV short circuit current 2)	40A
Maximum PV open circuit voltage	150V absolute maximum coldest conditions 145V start-up and operating maximum
Maximum efficiency	98%
Self-consumption	12V: 20 mA 24V: 15 mA 48V: 10mA
Charge voltage 'absorption'	Default setting: 14.4 / 28.8 / 43.2 / 57.6V (adjustable)
Charge voltage 'float'	Default setting: 13.8 / 27.6 / 41.4 / 55.2V (adjustable)
Charge algorithm	multi-stage adaptive (eight pre-programmed algorithms)
Temperature compensation	-16 mV / -32 mV / -64 mV / °C
Protection	Battery reverse polarity (fuse, not user accessible) PV reverse polarity Output short circuit Over-temperature
Operating temperature	-30 to +60°C (full rated output up to 40°C)
Humidity	95%, non-condensing
Data communication port	VE.Direct See the data communication white paper on our website
<b>ENCLOSURE</b>	
Colour	Blue (RAL 5012)
Power terminals	13 mm <sup>2</sup> / AWG6
Protection category	IP43 (electronic components), IP22 (connection area)
Weight	1,25 kg
Dimensions (h x w x d)	130 x 186 x 70 mm

## Victron Multiplus II 48/3000VA & 48/5000VA Data

MultiPlus-II	48/3000/35-32	48/5000/70-50
PowerControl & PowerAssist	Yes	
Transfer switch	32 A	50 A
Maximum AC input current	32 A	50 A
<b>INVERTER</b>		
DC Input voltage range	38 – 66 V	
Output	Output voltage: 230 VAC ± 2% Frequency: 50 Hz ± 0,1% (1)	
Cont. output power at 25°C (3)	3000 VA	5000VA
Cont. output power at 25°C	2400 W	4000W
Cont. output power at 40°C	2200 W	3700W
Cont. output power at 65°C	1700 W	3000W
Maximum apparent feed-in power	2500VA	4000VA
Peak power	5500 W	9000W
Maximum efficiency	95 %	96%
Zero load power	11 W	18W
Zero load power in AES mode	7 W	12W
Zero load power in Search mode	2 W	2W
<b>CHARGER</b>		
AC Input	Input voltage range: 187-265 VAC Input frequency: 45 – 65 Hz	
Charge voltage 'absorption'	57,6 V	
Charge voltage 'float'	55,2 V	
Storage mode	52,8 V	
Maximum battery charge current (4)	35 A	70A
Battery temperature and voltage sensor	VE.Bus Smart dongle (optional)	
<b>GENERAL</b>		
Auxiliary output	Yes (32 A)	
External AC current sensor (optional)	50 A	100 A
Programmable relay (5)	Yes	
Protection (2)	a - g	
VE.Bus communication port	For parallel and three phase operation, remote monitoring and system integration	
General purpose com. port	Yes, 2x	
Remote on-off	Yes	
Operating temperature range	-40 to +65°C (fan assisted cooling)	
Humidity (non-condensing)	max 95%	
<b>ENCLOSURE</b>		
Material & Colour	steel, blue RAL 5012	
Protection category	IP22	
Battery-connection	Two M6 bolts	
230 V AC-connection	Screw terminals 13 mm <sup>2</sup> (6 AWG)	
Weight	18 kg	29 kg
Dimensions (hxwx d)	499 x 268 x 141 mm	560 x 320 x 141 mm

## ecoCool K29 Battery-Energy Storage Data

Part #	KWh	Nom. Power §	Cycles	Depth D/chrp	AmpHr	Nom. Voltage	Dimensions (mm)	Weight
<b>K29.15.10</b>	1.5	1000W	1250	100%	60	24/48V dc	525x500x250	77kg
<b>K29.29.20</b>	2.9	2000W	1250	100%	120	24/48V dc	625x600x300	143kg
<b>K29.43.30</b>	4.3	3000W	1250	100%	180	48V dc	825x600x300	211kg
<b>K29.58.40</b>	5.8	4000W	1250	100%	240	48V dc	1025x600x300	275kg

## Jinko 275W Poly Solar Panel Data

Module Type	JKM275PP(Plus)		<b>Mechanical Characteristics</b>
	STC	NOCT	
Maximum Power (Pmax)	275Wp	205Wp	Cell Type Poly-crystalline 156x156mm (6 inch)
Maximum Power Voltage (Vmp)	32.0V	29.3V	No. of cells 60 (6x10)
Maximum Power Current (Imp)	8.61A	7.00A	Dimensions 1650x992x40mm (65.00x39.05x1.57 inch)
Open-circuit Voltage (Voc)	39.2V	35.9V	Weight 19.0 kg (41.9 lbs)
Short-circuit Current (Isc)	9.18A	7.37A	Front Glass 3.2mm, High Transmission, Low Iron, Tempered Glass
Module Efficiency STC (%)	16.80%		Frame Anodized Aluminium Alloy
Operating Temperature(°C)	-40°C→+85°C		Junction Box IP67 Rated
Maximum system voltage	1000VDC (IEC)		Output Cables TÜV 1x4.0mm <sup>2</sup> , Length: 900mm or Customized Length
Maximum series fuse rating	15A		
Power tolerance	0→+3%		
Temperature coefficients of Pmax	-0.40%/°C		
Temperature coefficients of Voc	-0.30%/°C		
Temperature coefficients of Isc	0.06%/°C		
Nominal operating cell temperature (NOCT)	45±2°C		

## Victron Color GX (X30.01 Dashboard) Data

Color Control GX			
Power supply voltage range	9 – 70V DC		
<b>Current draw</b>	12V DC	24V DC	48V DC
Switched off	0mA	0mA	0mA
Display off	140mA	80mA	40mA
Display at minimum intensity	160mA	90mA	45mA
Display at maximum intensity	245mA	125mA	65mA
Potential free contact	3A / 30V DC / 250V AC (Normally open)		
<b>Communication ports</b>			
VE.Direct	2 separate VE.Direct ports – isolated		
VE.Can	2 paralleled RJ45 sockets – isolated		
VE.Bus	2 paralleled RJ45 sockets – isolated		
USB	2 USB Host ports – not isolated		
Ethernet	10/100/1000MB RJ45 socket – isolated except shield		
<b>3rd party interfacing</b>			
Modbus-TCP	Use Modbus-TCP to monitor and control all products connected to the Color Control GX		
JSON	Use the VRM JSON API to retrieve data from the <a href="#">VRM Portal</a>		
<b>Other</b>			
Outer dimensions (h x w x d)	130 x 120 x 28mm		
Operating temperature range	-20 to +50°C		

## Victron Venus GX (X30.02 Dashboard) Data

Venus GX			
Power supply voltage range	8 – 70V DC		
<b>Current Draw</b>	210 mA @ 12V	110 mA @ 24V	60 mA @ 48V
<b>Communication ports</b>			
VE.Direct	2 separate VE.Direct ports – isolated		
VE.Can	2 paralleled RJ45 sockets – isolated		
CAN	2 <sup>nd</sup> CAN interface – non isolated		
VE.Bus	2 paralleled RJ45 sockets – isolated		
USB	2 USB Host ports – not isolated		
Ethernet	10/100/1000MB RJ45 socket – isolated except shield		
WiFi Access Point	Use to connect to Remote Console		
WiFi Client	Connect the Venus GX to an existing WiFi network		
<b>IO</b>			
Potential free contact	NO/COM/NC – 6 A 250 VAC/30 VDC		
Tank level inputs	3 x Configurable for European (0 - 180 Ohm) or US (240 - 30 Ohm)		
Temperature level inputs	2 x Requires ASS000001000.		
<b>3rd party interfacing</b>			
Modbus-TCP	Use Modbus-TCP to monitor and control all products connected to the Venus GX		
JSON	Use the VRM JSON API to retrieve data from the <a href="#">VRM Portal</a>		
<b>Other</b>			
Outer dimensions (h x w x d)	45 x 143 x 96		
Operating temperature range	-20 to +50°C		

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