

E-CONTAINER-CV



SGN-E-CON CV2010MAD (2010Wp-2kWe)



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Technical Specifications

1 PHASE AC INLET- Standard

2(1X25A 1P)	Plug-1 Network (Optional)
2(1X25A 1P)	Plug-2 Generator (Optional)
230/240VAC 6kA 1P+N+PE	Surge Protection Switch
2(1X25A 1P)	Moulded Case Circuit Breaker -bypass
2(1X25A 1P)	Moulded Case Circuit Breaker -1 Network (Optional)
2(1X25A 1P)	Moulded Case Circuit Breaker -2 Generator (Optional)
2(1X25A 1P)	Automatic Transfer Power Contactor -1 Network (Optional)
2(1X25A 1P)	Automatic Transfer Power Contactor -1 Generator (Optional)

1 PHASE AC OUTLET- Standard

2(1X25A 1P)	Plug-1 bypass
2(1X25A 1P)	Plug-1 Current Supply
2(1X25A 1P)	Plug-1 Current Supply (Optional)
230/240 6kA 1P+N+PE	Surge Protection Switch
2(1X25A 1P)	Moulded Case Circuit Breaker -bypass
2(1X25A 1P)	Moulded Case Circuit Breaker -1 Current Supply (Optional)
2(1X25A 1P)	Moulded Case Circuit Breaker -2 Current Supply (Optional)

1 PHASE SOLAR INVERTER (230/240 VAC 1P 50/60Hz - 24VDC/48VDC) -(Available)

Continuous Working (Load Condition)	2kWe
Instant Peak Resistance	4kWe
2(1X25A +/- 1P)	AC Moulded Case Circuit Breaker
Amps @ 230VAC	25A
2(1X100A +/- 1P)	Intranet Remote Monitoring Module (Optional)
	Battery Charge Controller (Available-including)

SOLAR TYPE BATTERY - (Available)

Amp @ 12VDC Solar gel	Pieces 110Ah=24Vdc 440Ah/ C10
4(1X50A +/- 2x2P)	DC Moulded Case Circuit Breaker

PHOTOVOLTAIC SOLAR PANEL (320/335Wp) - (Available)

Total input (kiloWatt)	2kWp PP/MP – with MC4 Connection
120/150VDC 6kA +/- PE	Surge Protection Switch
2(1X25A +/- 1P)	DC Moulded Case Circuit Breaker
4mm2 0.6/1Kv LSFOH PV-1	Solar Power Cable

TRANSPORTATION DIMENSION

INSTALLATION DIMENSION- (Optional)

Height	2.800mm
Length T.Bady	6.060mm
Width T.Bady	2.440mm
Weight T.Bady	000kg Battery Excluded



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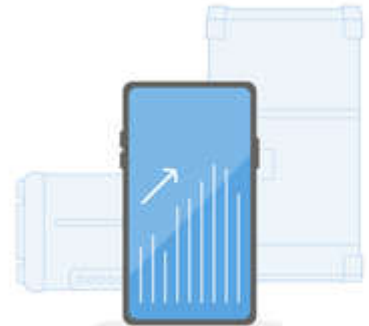


MultiPlus
500 / 800 / 1200 / 1600 VA

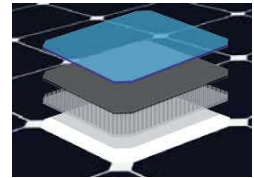
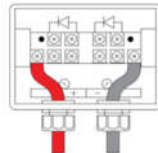
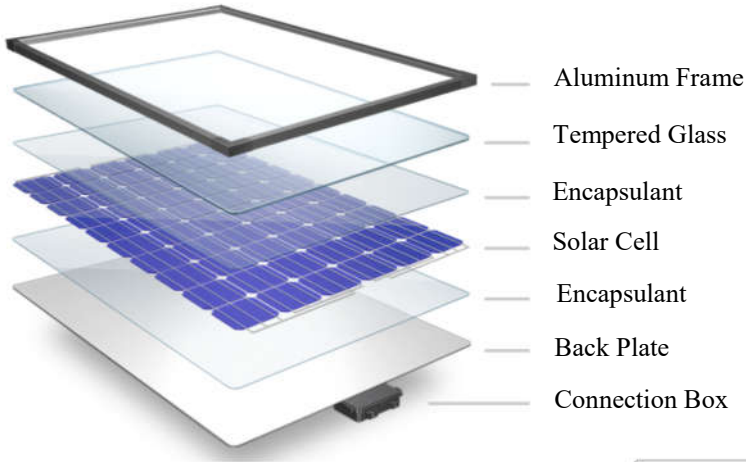


Product capacity:

- 1 Piece 9.000btu split unit (summer)
- 1 Piece 750W electric panel radiator (winter)
- 3 LED indoor & outdoor lighting fixtures
- 1 Piece 300W refrigerator
- 1 x 300W electronic device
- with socket outlet in feeding capacity



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Item 1: Production detail of photovoltaic solar panel



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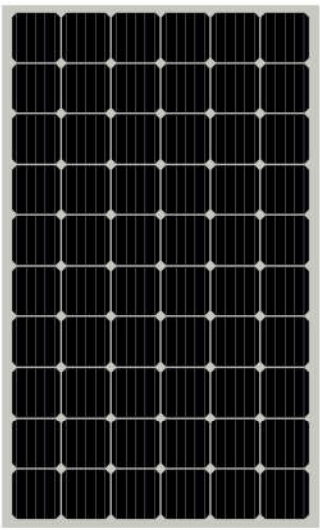


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Product details

60 Cells Monocrystalline Panels

- Electroluminescence:** Quality control for small microcracks with infrared radiation.
- Hot Spot Test:** 1000 W/m² radiation, 25 °C temperature, +15 positive power imbalance and dissipation according to power imbalance.
- Salt Wet Test:** According to IEC 61701 M2 Salt Resistance.
- Shine Load Test:** Under 3400 Pa snow load resistance according to IEC 61709.
- Acemannan Corrosion Test:** Corrosion resistance according to IEC 62716.
- PID:** Potential Induced Degradation (PID) resistance according to IEC 61215.
- Wind Load Test:** Under 2400 Pa wind load resistance according to IEC 61215.
- Thermal Cycle:** Ramp Heat Test: 1000 Hours, 50°C Heat and 25°C Thermal cycles according to IEC 61215.
- High Performance in Low Radiation:** 0.8 cloudy dark, morning or evening over 70 performance (25°C AM02).
- FF %:** Fill Factor: High FF factor value, increased power.
- Cell Power:** First loss test, with high power.
- Q1 Code System:** Real power measurement at module and in field, 15 power tolerance level of meeting with Q1 Code.
- JIT:** Just in Time Production: Production date to 10 panels given, unchanged and warranty of selling production in field are included in last one year.



ISO 9001 ISO 14001 ISO 18001
IEC 61215-1 IEC 61215-1-1 IEC 61215-2
IEC 61730-1 IEC 61730-2 IEC 61701
IEC 62804 IEC 62716 OHSAS 18001

"LOCAL ITEM" MENTIONED IN NUMBER 5346 YEK LAW

TURKEY
Discover the potential.

Technical Specifications

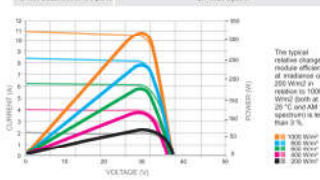
Model	SGN-E-CON	SGN-E-CON
Maximum Power	325	330
Module Efficiency	19.35	19.84
Maximum Power Current	9.57	9.87
Short Circuit Current	10.26	10.81
Maximum Power Voltage	33.88	34.15
Open Circuit Voltage	40.02	40.28

Subject	Specification
Dimensions	1667 ± 0.5 mm (L) x 1058 ± 0.5 mm (W) x 35 ± 0.5 mm (D)
Weight	20 Kg
Solar Cell	60 Monocrystalline Mono Type P Silicon Cells (156.75 mm x 156.75 mm)
Front Glass	Tempered / Tempered AGC Glass
Encapsulant	Ethylene Vinyl Acetate (EVA)
Backsheet	Composite Film, Color White
Junction Box	Type / Output Certificate
Frame	Aluminum Frame (Electro Coating)

Subject	Specification
Mechanical Strength	5400 Pa (Certified by KEMA NE-102)
Maximum System Voltage	DC 1500 V / 1500 V
Series Fuse Rating	15 A
Operating Temperature	-40 to 85 °C

Subject	Specification
Normal Operating Cell Temperature	44 °C ± 2 °C
Temperature Coefficient of P (NOV)	-0.37 % / °C
Temperature Coefficient of Voc	-0.87 % / °C
Temperature Coefficient of Isc	-0.31 % / °C

Subject	Specification
Product Warranty	10 Years
Linear Performance Warranty	15 Years, over 94% (25 Years, over 90%)
JIT Product	Warranty of selling panels that are produced in last one year.
Power Tolerance	Positive (+) 0 Watt
Online DataSheet on the panel	Q1 Code System



The typical relative change in module efficiency at maximum of 250 W/m² in relation to 1000 W/m² (25 °C and AM 1.5 spectrum) is less than 5%.

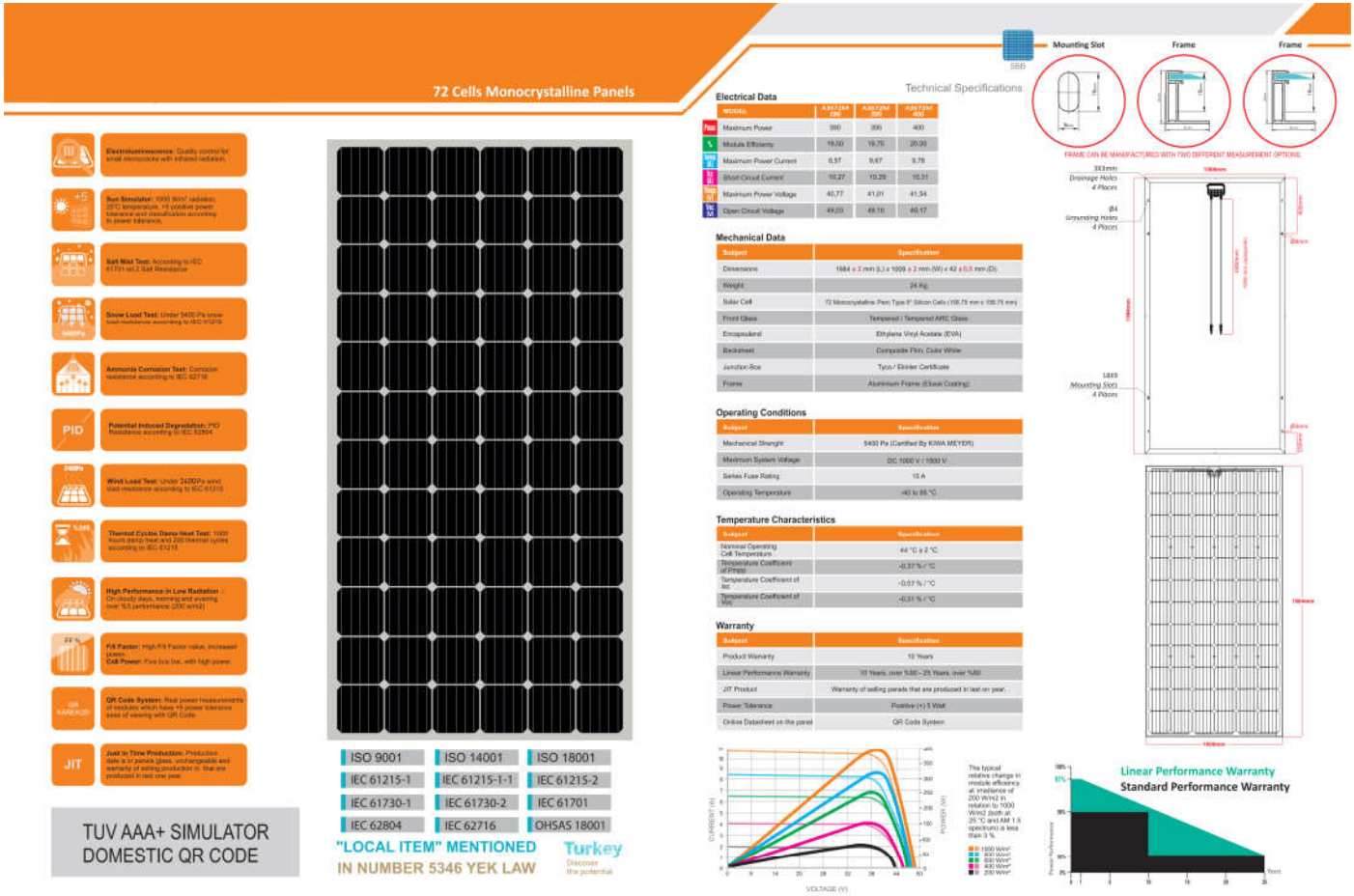
Linear Performance Warranty
Standard Performance Warranty

AUTOMATIC FRAMING, E.L. TEST, HI-POT TEST

Item 2: Photovoltaic solar panel detail used for SGN-E-CON CV2010MAD

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Product details



Item 3: Photovoltaic solar panel detail used for SGN-E-CON CV2010MAD

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Product details

SB BATTERY

VRLA GEL RECHARGEABLE BATTERY FOR SOLAR ENERGY
SPG110-12 R 12V110Ah

FOR HIGH RATE USE



Specification

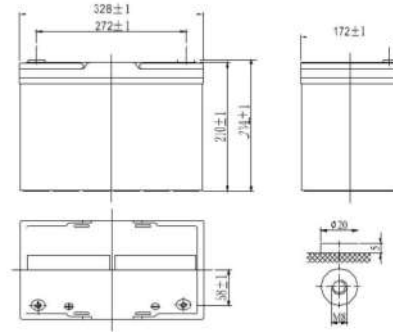
Nominal Voltage	12V
Number of cell	6
Design Life	10 years
Nominal Capacity 77°F(25°C)	
20 hour rate(5.5A, 10.5V)	110Ah
10 hour rate(10.5A, 10.5V)	105Ah
5 hour rate(19.0A, 10.5V)	95.0Ah
1 hour rate(72.6A, 9.6V)	72.6Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	4.3mOhms
Self-Discharge	
3% of capacity declined per month at 20°C(average)	
Operating Temperature Range	
Discharge	-30~60°C
Charge	-20~60°C
Storage	-30~60°C
Max. Discharge Current 77°F(25°C)	950A(5s)
Short Circuit Current	1875A
Charge Methods: Constant Voltage Charge 77°F(25°C)	
Cycle use	14.4-14.7V
Maximum charging current	30A
Temperature compensation	-30mV/°C
Standby use	13.6-13.8V
Temperature compensation	-20mV/°C

General Features

- Silica gel technology for longer cycle life and better performance at cold ambient temperatures.
- Special sheet separator and colloidal or foamed silica.
- Deep discharge cycle increased by 50% as compared with the AGM battery.
- High reliability and quality.
- Excellent recovery from deep discharge.
- Living up prevailing standards.

Dimensions and Weight

Length(mm / inch)	328/12.91
Width(mm / inch)	172/6.77
Height(mm / inch)	234/9.22
Total Height(mm / inch)	239/9.42
Approx. Weight(Kg / lbs)	37.0 / 81.4
Standard Terminal	I

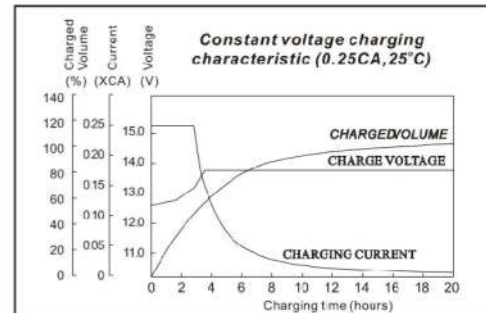
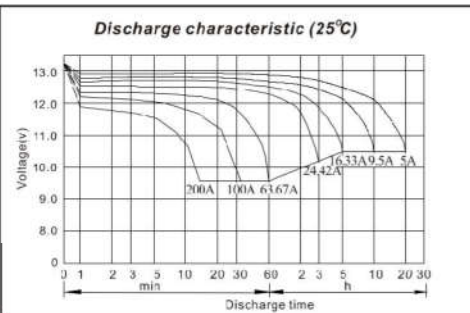


Discharge Constant Current (Amperes at 77°F25°C)

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	350	240	175	105	72.6	30.2	19.8	11.0	5.80
1.65V	315	219	170	102	72.5	29.9	19.4	10.8	5.70
1.70V	299	211	164	100	72.3	29.8	19.2	10.7	5.65
1.75V	266	195	155	98.0	71.5	29.7	19.0	10.5	5.50
1.80V	240	181	148	95.0	70.6	29.5	18.6	10.3	5.40

Discharge Constant Power (Watts at 77°F25°C)

End Point Volts/Cell	5min	10min	15min	30min	1h	3h	5h	10h
1.60V	577	398	310	198	130	52.4	36.5	21.2
1.65V	547	393	307	194	125	52.3	36.4	20.9
1.70V	511	383	302	189	122	52.2	36.3	20.7
1.75V	476	358	284	184	121	51.0	36.1	20.4
1.80V	427	333	267	179	119	50.9	35.5	20.0



Item 4: Gel Battery detail used for SGN-E-CON CV2010MAD



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Product details

MultiPlus Inverter/Charger 500VA - 2000VA

12 / 24 / 48V

www.victronenergy.com



MultiPlus
500 / 800 / 1200 / 1600 VA



MultiPlus 2000 VA
(bottom cover removed)

Multifunctional, with intelligent power management

The MultiPlus is a powerful true sine wave inverter, a sophisticated battery charger that features adaptive charge technology, and a high-speed AC transfer switch in a single compact enclosure. Next to these primary functions, the MultiPlus has several advanced features, as outlined below.

Parallel operation and three phase capability

Up to six Multis can operate in parallel to achieve higher power output. In addition to parallel connection, three units can be configured for three-phase output.

PowerControl - Dealing with limited generator, shore side or grid power

With the Multi Control Panel a maximum generator or shore current can be set. The MultiPlus will then take account of other AC loads and use whatever is extra for charging, thus preventing the generator or shore supply from being overloaded.

PowerAssist - Boosting the capacity of shore or generator power

This feature takes the principle of PowerControl to a further dimension. It allows the MultiPlus to supplement the capacity of the alternative source. Where peak power is so often required only for a limited period, the MultiPlus will make sure that insufficient shore or generator power is immediately compensated for by power from the battery. When the load reduces, the spare power is used to recharge the battery.

Four stage adaptive charger and dual bank battery charging

The main output provides a powerful charge to the battery system by means of advanced 'adaptive charge' software. The software fine-tunes the three-stage automatic process to suit the condition of the battery, and adds a fourth stage for long periods of float charging. The adaptive charge process is described in more detail on the Phoenix Charger datasheet and on our website, under Technical Information. In addition to this, the MultiPlus will charge a second battery using an independent trickle charge output intended for a main engine or generator starter battery.

High start-up power

Needed to start high inrush loads such as power converters for LED lamps, halogen lamps or electric tools.

Search Mode

When Search Mode is 'on', the power consumption of the inverter in no-load operation is decreased by approx. 70%. In this mode the Multi, when operating in inverter mode, is switched off in case of no load or very low load, and switches on every two seconds for a short period. If the output current exceeds a set level, the inverter will continue to operate. If not, the inverter will shut down again.

Programmable relay

By default, the programmable relay is set as an alarm relay, i.e. the relay will de-energise in the event of an alarm or a pre-alarm (inverter almost too hot, ripple on the input almost too high, battery voltage almost too low).

Remote on / off / charger on

Three pole connector.

On-site system configuring, monitoring and control

After installation, the MultiPlus is ready to go.

Some settings can be changed with DIP switches.

500/800/1200VA models: remote switch / battery charge voltage / inverter frequency / search mode.

1600/2000VA models: battery charge voltage / search mode.

For more settings use VE-Config or the VE.Bus Smart dongle.

Remote configuring and monitoring

Install a Cerbo GX or other GX product to connect to the internet.

Operational data can be stored and displayed on our VRM (Victron Remote Management) website, free of charge.

When connected to the internet, systems can be accessed remotely, and settings can be changed.



GX Touch 50 and Cerbo GX

Provides intuitive system control and monitoring.

Besides system monitoring and control the Cerbo GX enables access to our free remote monitoring website: the VRM Online Portal.



VRM Portal

Our free remote monitoring website (VRM) will display all your system data in a comprehensive graphical format. System settings can be changed remotely via the portal. Alarms can be received by e-mail.



Item 5: Solar Inverter detail used for SGN-E-CON CV2010MAD



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Certificates

