

**E-CONTAINER-CV
(MOBILE SOLAR-POWERED COLD STORAGE)**



**SGN-E-CON CV20KMAD COLD STORAGE
(16-20kWp-15-20kWe) 24 hours continuous feeding**



E-CONTAINER-CV (MOBILE SOLAR-POWERED COLD STORAGE)

1/3 PHASE AC INLET- (Optional)

Technical Specifications

8(1X25A 1P)	Plug-1 Network (Optional)
8(1X25A 1P)	Plug-2 Generator (Optional)
230/240VAC 6kA 1P+N+PE	Surge Protection Switch
8(1X25A 1P)	Moulded Case Circuit Breaker -bypass
8(1X25A 1P)	Moulded Case Circuit Breaker -1 Network (Optional)
8(1X25A 1P)	Moulded Case Circuit Breaker -2 Generator (Optional)
8(1X25A 1P)	Automatic Transfer Power Contactor -1 Network (Optional)
8(1X25A 1P)	Automatic Transfer Power Contactor -1 Generator (Optional)

1/3 PHASE AC OUTLET- (Optional)

8(1X25A 1P)	Plug-1 bypass
8(1X25A 1P)	Plug-1 Current Supply
8(1X25A 1P)	Plug-1 Current Supply (Optional)
4(2X25A) 30mA 1P+N	Reducible Current Device
8(1X25A 1P)	Moulded Case Circuit Breaker -bypass
8(1X25A 1P)	Moulded Case Circuit Breaker -1 Current Supply (Optional)
8(1X25A 1P)	Moulded Case Circuit Breaker -2 Current Supply (Optional)

1/3 PHASE SOLAR INVERTER (230/380 VAC 1/3P 50/60Hz-24VDC/48VDC)- (Optional)

Continuous Working (Load Condition)	3-4 pcs. 5kWe inverter - Parallel working (15-20kWe)
Instant Peak Resistance	8kWe
8(1X25A +/- 1P)	AC Moulded Case Circuit Breaker
Amps @ 230VAC	25A
	Intranet Remote Monitoring Module (Optional)
16(1X100A +/- 1P)	Battery Charge Controller (Available-including)

SOLAR TYPE BATTERY - (Available)

Amp @ 12VDC Solar gel	Pieces 110Ah=48Vdc 1.880Ah / C10
16(1X50A +/- 2x2P)	DC Moulded Case Circuit Breaker

PHOTOVOLTAIC SOLAR PANEL (330/400Wp) - (Available)

Total input (kiloWatt)	16-20kWp PP/MP – with MC4 Connection
120/150VDC 6kA +/- PE	Surge Protection Switch
8(1X25A +/- 1P)	DC Moulded Case Circuit Breaker
4mm2 0.6/1Kv LSFOH PV-1	Solar Power Cable

TRANSPORTATION DIMENSION

INSTALLATION DIMENSION- (Optional)

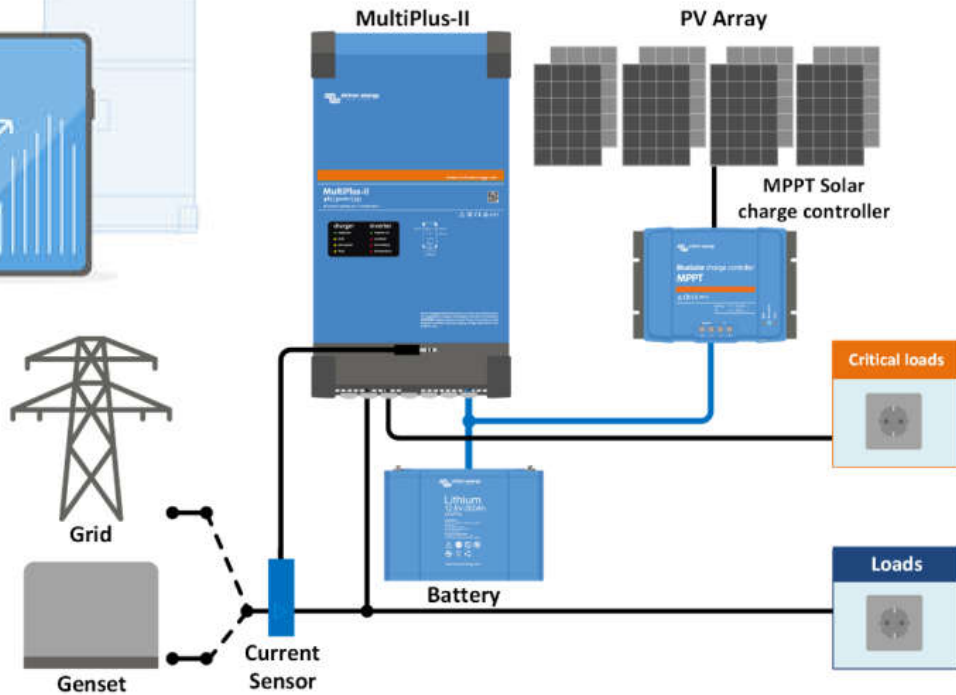
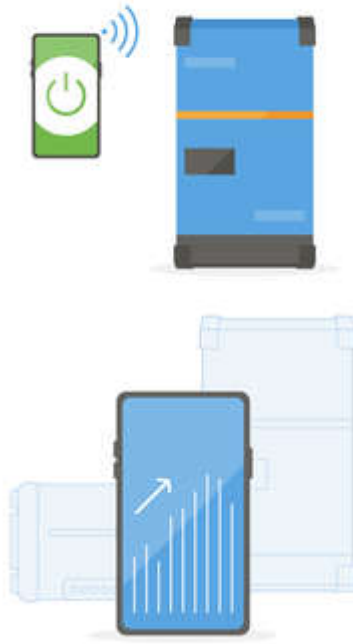
Height	2.800mm
Length	12.120mm
Width	2.440mm
Weight	000kg Battery Excluded



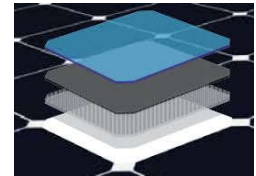
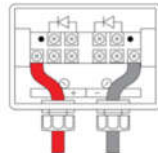
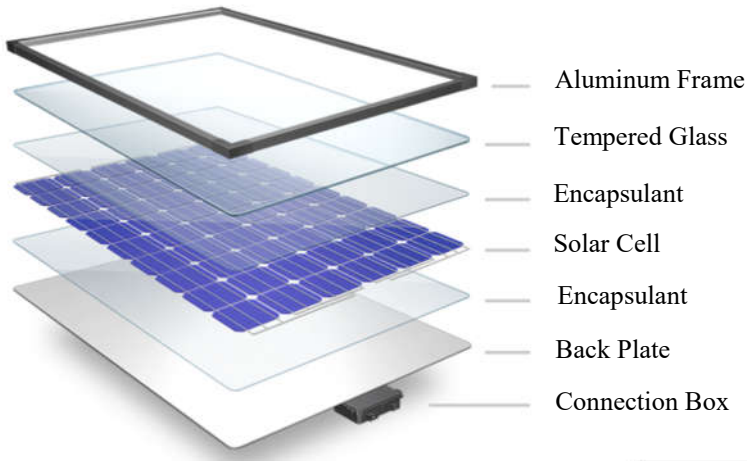
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Product capacity:

- 1 Piece 5-7,5kW cooling unit
- 4 LED indoor lighting fixtures
- 1 Piece 10kW with socket outlet in feeding capacity
- 24 hours continuous feeding



E-CONTAINER-CV (MOBILE SOLAR-POWERED COLD STORAGE)



Item 1: Production detail of photovoltaic solar panel



**E-CONTAINER-CV
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Product details

Electrical Data

	MODEL	A3S60M 325	A3S60M 330
P _{max}	Maximum Power	325	330
%	Module Efficiency	19,35	19,64
I _{mp} (A)	Maximum Power Current	9,57	9,67
I _{sc} (A)	Short Circuit Current	10,29	10,31
V _{mp} (V)	Maximum Power Voltage	33,98	34,15
V _{oc} (V)	Open Circuit Voltage	40,92	40,98

Mechanical Data

Subject	Specification
Dimensions	1667 ± 2 mm (L) x 1008 ± 2 mm (W) x 35 ± 0,5 mm (D)
Weight	20 Kg
Solar Cell	60 Monocrystalline Perc Type 6" Silicon Cells (158.75 mm x 158.75 mm)
Front Glass	Tempered / Tempered ARC Glass
Encapsuland	Ethylene Vinyl Acetate (EVA)
Backsheet	Composite Film, Color White
Junction Box	Tyco / Ekinler Certificate
Frame	Aluminium Frame (Eloxal Coating)

Operating Conditions

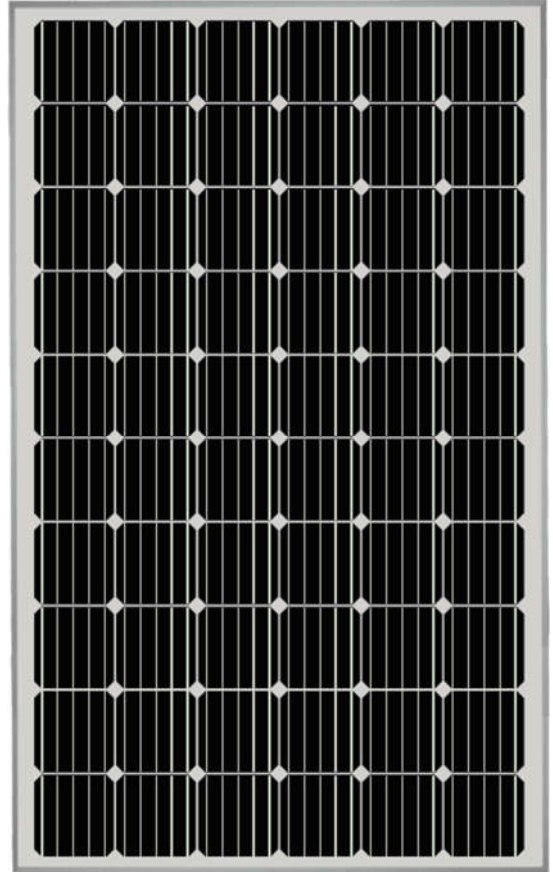
Subject	Specification
Mechanical Strenght	5400 Pa (Certified By KIWA MEYER)
Maximum System Voltage	DC 1000 V / 1500 V
Series Fuse Rating	15 A
Operating Temperature	-40 to 85 °C

Temperature Characteristics

Subject	Specification
Nominal Operating Cell Temperature	44 °C ± 2 °C
Temperature Coefficient of P _{mp}	-0,37 % / °C
Temperature Coefficient of I _{sc}	-0,07 % / °C
Temperature Coefficient of V _{oc}	-0,31 % / °C

Warranty

Subject	Specification
Product Warranty	10 Years
Linear Performance Warranty	10 Years, over %90 - 25 Years, over %80
JIT Product	Warranty of selling panels that are produced in last on year.
Power Tolerance	Positive (+) 5 Watt
Online Datasheet on the panel	QR Code System



Item 2: Photovoltaic solar panel detail used for SGN-E-CON CV20KMAD



E-CONTAINER-CV (MOBILE SOLAR-POWERED COLD STORAGE)

Product details

Electrical Data

	MODEL	A3S72M 390	A3S72M 395	A3S72M 400
P_{max}	Maximum Power	390	395	400
%	Module Efficiency	19,50	19,75	20,00
I_{mp} (A)	Maximum Power Current	9,57	9,67	9,73
I_{sc} (A)	Short Circuit Current	10,27	10,29	10,31
V_{mp} (V)	Maximum Power Voltage	40,77	41,01	41,12
V_{oc} (V)	Open Circuit Voltage	49,03	49,10	49,17

Mechanical Data

Subject	Specification
Dimensions	1984 ± 2 mm (L) x 1008 ± 2 mm (W) x 42 ± 0,5 mm (D)
Weight	24 Kg
Solar Cell	72 Monocrystalline Perc Type 6" Silicon Cells (158.75 mm x 158.75 mm)
Front Glass	Tempered / Tempered ARC Glass
Encapsuland	Ethylene Vinyl Acetate (EVA)
Backsheet	Composite Film, Color White
Junction Box	Tyco / Ekinler Certificate
Frame	Aluminium Frame (Eloxal Coating)

Operating Conditions

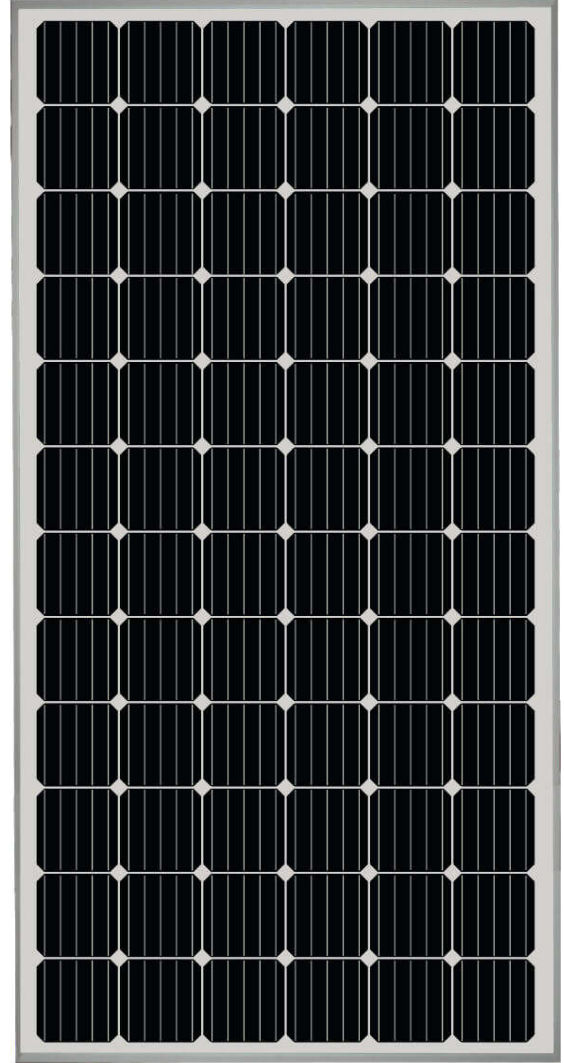
Subject	Specification
Mechanical Strenght	5400 Pa (Certified By KIWA MEYER)
Maximum System Voltage	DC 1000 V / 1500 V
Series Fuse Rating	15 A
Operating Temperature	-40 to 85 °C

Temperature Characteristics

Subject	Specification
Nominal Operating Cell Temperature	44 °C ± 2 °C
Temperature Coefficient of P _{mp}	-0,37 % / °C
Temperature Coefficient of I _{sc}	+0,07 % / °C
Temperature Coefficient of V _{oc}	-0,31 % / °C

Warranty

Subject	Specification
Product Warranty	10 Years
Linear Performance Warranty	10 Years, over %90 - 25 Years, over %80
JIT Product	Warranty of selling panels that are produced in last on year.
Power Tolerance	Positive (+) 5 Watt
Online Datasheet on the panel	QR Code System



Item 3: Photovoltaic solar panel detail used for SGN-E-CON CV20KMAD



E-CONTAINER-CV (MOBILE SOLAR-POWERED COLD STORAGE)

Product details

SB BATTERY

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

FOR HIGH RATE USE



Specification

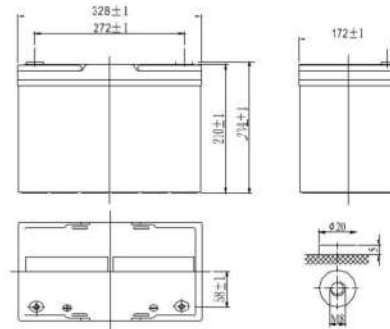
Nominal Voltage	12V
Number of cell	6
Design Life	10 years
Nominal Capacity 77°F(25°C)	
20 hour rate(5.5A, 10.5V)	110Ah
10 hour rate(10.5A, 10.5V)	105Ah
5 hour rate(19.0A, 10.5V)	95.0Ah
1 hour rate(72.6A, 9.6V)	72.6Ah
Internal Resistance	
Fully Charged battery 77°F(25°C)	4.3mOhms
Self-Discharge	
3% of 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

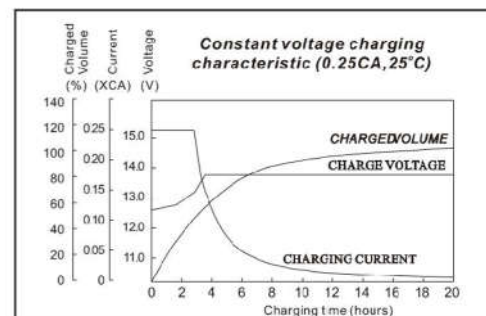
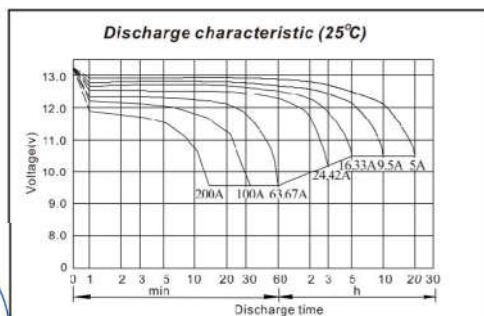


Discharge Constant Current (Amperes at 77°F25°C)

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 CV20KMAD



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Product details



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.



VRM app
Monitor and manage your Victron Energy system from your smart phone and tablet. Available for both iOS and Android.



VE.Bus Smart Dongle
Measures battery voltage and temperature and allows monitoring and control with a smart phone or other Bluetooth enabled device.

MultiPlus-II	12/3000/120-32 24/3000/70-32 48/3000/35-32	24/5000/120-50 48/5000/70-50	48/8000/110-100	48/10000/140-100
PowerControl & PowerAssist	Yes			
Transfer switch	32 A	50 A	100 A	100 A
Maximum AC input current	32 A	50 A	100 A	100 A
INVERTER				
DC Input voltage range	12V - 9,5-17 V	24V - 19-33V	48V - 38-66 V	
Output	Output voltage: 230 VAC ± 2%		Frequency: 50 Hz ± 0,1% (1)	
Cont. output power at 25°C (3)	3000 VA	5000 VA	8000 VA	10000 VA
Cont. output power at 25°C	2400 W	4000 W	6400 W	8000 W
Cont. output power at 40°C	2200 W	3700 W	5500 W	7000 W
Cont. output power at 65°C	1700 W	3000 W	4000 W	6000 W
Maximum apparent feed-in power	3000 VA	5000 VA	8000 VA	10000 VA
Peak power	5500 W	9000 W	15000 W	18000 W
Maximum efficiency	93%/94%/95%	96%	95%	96%
Zero load power	13 / 13 / 11 W	18 W	29 W	38 W
Zero load power in AES mode	9 / 9 / 7 W	12 W	19 W	27 W
Zero load power in Search mode	3 / 3 / 2 W	2 W	3 W	4 W
CHARGER				
AC Input	Input voltage range: 187-265 VAC Input frequency: 45 - 65 Hz			
Charge voltage 'absorption'	14,4 / 28,8 / 57,6 V			
Charge voltage 'float'	13,8 / 27,6 / 55,2 V			
Storage mode	13,2 / 26,4 / 52,8 V			
Maximum battery charge current (4)	120 / 70 / 35 A	120 / 70 A	110 A	140 A
Battery temperature sensor	Yes			
GENERAL				
Auxiliary output	Yes (32A)		Yes (50A)	
External AC current sensor (optional)	50A or 100A			
Programmable relay (5)	Yes			
Protection (2)	a - g			
VE.Bus communication port	For parallel (not for 8k and 10k models) 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%			
ENCLOSURE				
Material & Colour	Steel, blue RAL 5012			
Protection category	IP22			
Battery-connection	M8 bolts		Four M8 bolts (2 plus and 2 minus connections)	
230 V AC-connection	Screw terminals 13 mm² (6 AWG)		Bolts M6	Bolts M6
Weight	19 kg	30 kg	42 kg	49 kg
Dimensions (hwxwd) mm	546 x 275 x 147 499 x 268 x 141 499 x 268 x 141	565 x 328 x 240 560 x 320 x 141	642 x 363 x 206	677 x 363 x 206
STANDARDS				
Safety	EN-IEC 60335-1, EN-IEC 60335-2-29, EN-IEC 62109-1, EN-IEC 62109-2			
Emission, Immunity	EN 55014-1, EN 55014-2 EN-IEC 61000-3-2, EN-IEC 61000-3-3 IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3			
Uninterruptible power supply	Please consult the certificates on our website.			
Anti-islanding	Please consult the certificates on our website.			
1) Can be adjusted to 60 Hz				
2) Protection key:				
a) output short circuit				
b) overload				
c) battery voltage too high				
d) battery voltage too low				
e) temperature too high				
f) 230 VAC on inverter output				
g) input voltage ripple too high				
3) Non-linear load, crest factor 3:1				
4) At 25°C ambient				
5) Programmable relay which can be set for general alarm, DC under voltage or genset start/stop function. AC rating: 230V / 4A, DC rating: 4A up to 35VDC and 1A up to 60VDC				



Connection Area MultiPlus-II 3k



Current sensor 100A:50mA
To implement PowerControl and PowerAssist and to optimize self-consumption with external current sensing. Maximum current: 50A resp. 100A. Length of connection cable: 1 m.



Digital Multi Control Panel
A convenient and low-cost solution for remote monitoring, with a rotary knob to set PowerControl and PowerAssist levels.

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Certificates

