Outdoor Power Solutions

Ventev's Outdoor Power Solutions are engineered to enable the extension of wireless networks typically found in Utility, Oil & Gas and Railroad applications. These outdoor power systems protect sensitive wireless equipment and provide clean, reliable power whether AC mains are available or not. Ventev's line of Outdoor Power systems, UPS systems and Solar systems are engineered to easily integrate other components, completing a turnkey enclosure system. Don't let power be the weak link in your network.



Dependable Power:

Ventev's Outdoor Power Solutions are designed for Remote Monitoring and Control applications that require critical information in real-time such as Smart Grid, AMI/AMR, SCADA networks, well head monitoring, railroad communications, signaling and Positive Train Control, broadband networks, and security and surveillance systems.

Engineering, Support & Development:

Ventev, a division of TESSCO Technologies, is an engineeringdriven business focused on design, configuration, and fabrication of outdoor power systems for wireless networks. Utilizing leading edge components from TESSCO's portfolio combined with Ventev's engineering expertise we collaborate with our customers to design a solution that enables the deployment of wireless networks quickly and reliably.



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Systems Overview & Core Components

Ventev's Outdoor Power Solutions are pre-configured solutions enabling engineers and technicians to easily deploy remote monitoring and control systems in the field. The Ventev engineers have selected components that are excellent for long, reliable operation. Systems are designed with common DIN rail and aluminum backplates making it easy to integrate other components. Each system comes wired for power with extra terminal blocks for connecting additional components.

Aluminum & Polycarbonate Enclosures

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- NEMA 4X, gray polycarbonate or white powder coated aluminum
- Includes mounting flanges for bands or U-bolts • Aluminum back
 - plate and DIN rail for equipment installation

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Pad-lockable doors for security

Power Supplies with AC protection

- Ruggedized power supplies up to 1000w
- Broad operational temp ranges from -25C to +70C
- 12, 24 or 48 VDC output options with high efficiency
- Protections include: Overload, over voltage, over temp
- UL Listed
- Includes AC surge arrestor (APD type), UL Listed

Solar Chargers

- PWM type solar charge controller
- 12 or 24 VDC options
- Includes green charging LED and LVD

Terminal Blocks

• Accepts broad wire range of 24 to 12 AWG for both solid and stranded wire

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- Unique cage clamp connections and integrated ground contact
- Includes knife blade switch in each assembly for easy maintenance.
- Modular solutions allow for color coding via multi-colored terminal slices

Battery Charger with Low Voltage Disconnect

- Fast recharge two stage battery charger providing 10 Amps of current @ 12V
- Broad input voltage of 90-264VAC and 120-370VDC
- Maximum output load current of 25Amps DC
- Low voltage disconnect to extend the battery life
- Constant current limiting, auto recover and power factor correction >0.94
- Temperature rated from -30 to +70C for outdoor conditions

Batteries

- Sealed lead acid or gelled electrolyte batteries
- Reliable, maintenance-free power designed for deep cycle applications typical for UPS and Solar systems
- Top terminal, valve regulated designs
- Battery brackets included with AC/UPS systems
- Batteries sold separately

Solar Modules & Mounts

- Broad range of Small Area Modules up to 130 watt panels
- Ideally suited for batterycharging applications such as remote monitoring, oil and gas, smart grid and railroad
- A portfolio of mounts for a variety of module array installations







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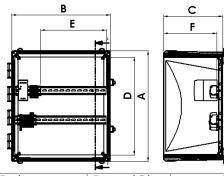
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Enclosure Specifications

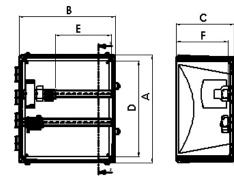
Ventev's Outdoor Power Solutions utilize various enclosure options allowing system designers to configure a solution that meets their exact need. The NEMA 4X enclosures are made of either gray polycarbonate, powder-coated steel or powder-coated aluminum. The enclosures include mounting flanges for stainless steel bands or U-bolts. Each enclosure includes an aluminum back plate and DIN rail for equipment installation. The enclosures are secure solutions for outdoor environments with pad-lockable doors.

VA 100 Series AC Power System



Enclosure	External Dims	Internal Dims			
Material	AxBxC	D	F		
Polycarbonate	12 x10 x6	10.75	4.75	4.62	
	14 x 12 x 6	12.75	6.75	4.62	
	18 x 16 x 10	16.75	11.25	8.62	
Steel	12 x 10 x 6	10	4	4	
	14 x 12 x 6	12	6	4	
Aluminum	18 x 16 x 12	17	10.5	9	

VA 500 Series AC Power System



Enclosure	External Dims	Ir	nternal Dim	s
Material	AxBxC	D	E	F
Polycarbonate	18 x 16 x10	16.75	9.75	8.62
Aluminum	18 x 16 x12	17	9	9
Aluminum	26 x 16 x12	25	9.5	9
Aluminum	26 x 27 x 12	25	20	9

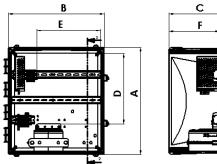
Note:

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- Batt Ref #'s can be found on page 6.
- All dimensions are in inches.
- Enclosure diagrams are for reference only. Please consult sku datasheets on TESSCO.com for exact placement.

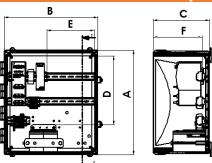
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VL 100 Series UPS Power System



Enclosure	External Dims	Battery	Inte	ernal Di	ims
Matterial	AxBxC	Reference #	D	E	F
Polycarbonate	12 x 10 x 6	B1, B3, B13	6.5	4.5	4.62
	14 x 12 x 6	B1, B3, B13	8.38	6.38	
		B4	5.88		
	18 x 16 x 10	B1, B13	12.5	11.25	8.62
		B14, B21			
		B4, B5, B15	9.75	1	
Aluminum	18 x 16 x 12	B1, B13	17	10.5	9
		B5, B7	10.75	1	
		B15, B22			
		B14, B21	13.75	1	
Steel	12 x 10 x 6	B1, B2	6.25	3.62	4
	14 x 12 x 6	B1, B2	7.5	5.75	

VL 500 Series UPS Power System



Enclosure	External Dims	Battery	Inte	ernal D	ims
Matterial	AxBxC	Reference #	D	E	F
Polycarbonate	18 x 16 x 10	B5, B15	9.75	8.5	8.62
		B21	12.5		
Aluminum	18 x 16 x 12	B5, B15	10.75	6	9
		B21	13.5		
		B7,B16, B22	10.5		
Aluminum	26 x 16 x 12	B5	18	8.12	9
		B6	16		
		B7, B15, B16, B22	18.5		
		B21	21		
Aluminum	26 x 27 x 12	B5, B15,	18	19	9
		B17, B22, B23			
		B8, B11, B19	15.5		

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AC Power Rail Assembly Specifications & Ordering Guide

VA 100 Series AC Power Rail

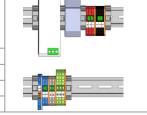
The VA 100 Series rail assemblies are an economical, lower power (55W) solution for basic AC power conversion. The rail assembly includes a 55W power supply, DIN rail, knife switch AC disconnect, and AC & DC terminal blocks.

VA 100 Series Power Supply

Input	Nominal Voltage	115 VAC @ 60Hz	Output	Power Supplies	12 VDC	24 VDC	48 VDC				
	Current	1.8 A		Output Current	5.0 A	2.5 A	1.25 A				
	Voltage Range	85 to 264 VAC		Ripple & Noise	120 mVp-p	150 mVp-p	200 mVp-p				
	Temp Range -20 to + 70C										

VA 500 Series AC Power Rail

These rail assemblies offer greater power capability (120W) and include AC surge protection for a more robust design. Each power rail includes 120W power supply, AC surge protector, DIN rail, knife switch AC disconnect, and AC & DC terminal blocks



VA 500 Series Power Supply

1											
	Input	Nominal Voltage	115 VAC @ 60Hz	Output	Power Supplies	12 VDC	24 VDC	48 VDC			
		Current	1.4 A		Output Current	10.0 A	5 A	2.5 A			
		Voltage Range	88 to 264 VAC		Ripple & Noise	100 mVp-p	100 mVp-p	120 mVp-p			
ĺ	Temp Range -25 to + 70C										

Ordering AC Power Systems

From the tables below, select the sku at the intersection of the enclosure and power rail you desire.

VA 100 Series AC Power Systems											
Material	Ext Dimensions (inches)	12V , 55W	24V, 55W	48V, 55W							
Polycarbonate	12x10x6	VA01120055	VA01240055	VA01480055							
	14x12x6	VA08120055	VA08240055	VA08480055							
	18x16x10	VA09120055	VA09240055	VA09480055							
Steel	12x10x6	VA13120055	VA13240055	VA13480055							
	14x12x6	VA12120055	VA12240055	VA12480055							
Aluminum	18x16x12	VA03120055	VA03240055	VA03480055							

VA 500 Serie	VA 500 Series AC Power Systems											
Material	Ext Dimensions (inches)	12V, 120W	24V, 120W	48V, 120W								
Polycarbonate	18x16x10	VA09120120	VA09240120	VA09480120								
Aluminum	18x16x12	VA03120120	VA03240120	VA03480120								
	26X16X12	VA04120120	VA04240120	VA04480120								
	26X27X12	VA05120120	VA05240120	VA05480120								

Note: Power Rails with output of 240W, 360W, and 480W are available. Please contact Ventev for a guote.

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AC/UPS Power Rail Assembly Specifications

VL 100 Series AC/UPS Power Rail

The VL 100 Series AC/UPS power rail assemblies are an economical, low-power (55W) solution providing AC-to-DC power conversion. This series includes a battery charger for keeping the battery bank charged, when AC power fails. The rail assemblies include a 55W power supply & battery charger unit, DIN rail, knife switch AC disconnect, and AC & DC terminal blocks

VL 100 Series Power Supply

1											
Input	Nominal Voltage	115 VAC @ 60Hz	Output	Power Supplies	12 VDC	24 VDC	48 VDC				
	Current: 12 & 24 VDC	1.6 A		Output Current	3.5 A	1.8 A	2.7 A				
	Current: 48 VDC	2.5 A		Ripple & Noise	100 mVp-p	100 mVp-p	240 mVp-p				
	Voltage Range 88 to 264 VAC										
	Temp Range -10 to $+$ 60C										

VL 100 Series Battery Charger

		chicigei								
Input	Nominal Voltage	115 VAC @ 60Hz	Output	Charger	13.4 VDC	26.5 VDC	53.5 VDC			
	Current: 12 & 24 VDC	1.6 A		Output Current	0.23 A	0.16 A	0.5 A			
	Current: 48 VDC	2.5 A		1 Stage Charger	C	onstant Voltag	e			
		Ve	oltage Ran	ge 88 to 264 VAC						
	Transfer Time 20 to 25 µsec @ 12 & 24 VDC / 5 to 10 µsec @ 48 VDC									
	Temp Range -10 to + 60C									

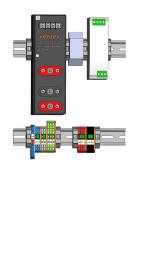
VL 500 Series AC/UPS Power Rail

The VL 500 Series AC/UPS rail assemblies are an excellent power solution for outdoor communications applications. With broader power handling capability (120W), these systems include a two-stage battery charger with integrated low voltage disconnect that is independent from the power supply providing fast and scalable battery charging. Each power rail includes 120W power supply, battery charger w/ LVD, AC surge protector, DIN rail, knife switch AC disconnect, and AC & DC terminal blocks

VL 500 Series Power Supply

Input	Nominal Voltage	115 VAC @ 60Hz	Output	Power Supplies	12 VDC	24 VDC	48 VDC				
	Current	1.4 A		Output Current	10.0 A	5.0A	2.5 A				
	Voltage Range	90 to 264 VAC		Ripple & Noise	100 mVp-p	100 mVp-p	120 mVp-p				
	Temp Range -25 to + 70C										

VL 500 Series Charger 115 VAC @ 60Hz 13.6 VDC 27.2 VDC 54.4 VDC Input | Nominal Voltage Output Power Supplies Current 1.85 A Output Current 10.0 A 5.89 A 2.95 A 10.5 VDC Voltage Range 90 to 264 VAC LVD Disconnect 22.5 VDC 45 VDC LVD Reconnect 12.5 VDC 25 VDC 50 VDC Two-Stage Charger Stage 1: Const. Current, Stage 2: Const. Voltage Transfer Time ~ 0.1 µsec Temp Range -10 to + 60C



Note: Power Rails with output of 240W, 360W, and 480W are available. Please contact Ventev for a quote.

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2 X 7 AHr

2 X 12 AHr

2 X 17.2 AHr

4 X 17.2 AHr

2 X 36 AHr

2 x 84 AHr

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AC/UPS Battery Selection Charts

Because applications and requirements for battery back up time vary greatly, Ventev has developed the charts below to enable you to select the battery bank that will meet your needs. These sizing charts are intended to provide you with an estimated battery backup time based upon the System DC voltage (12, 24, or 48) and the power rail (100 or 500 series).

To determine the best battery bank for your application:

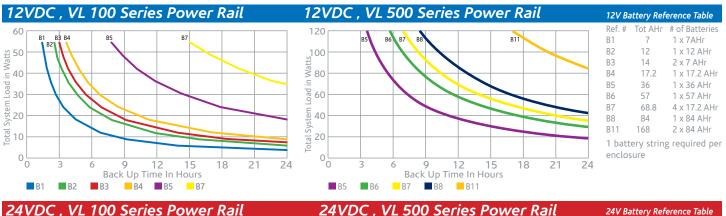
Step 1: Identify the system voltage (12V, 24V, 48V)

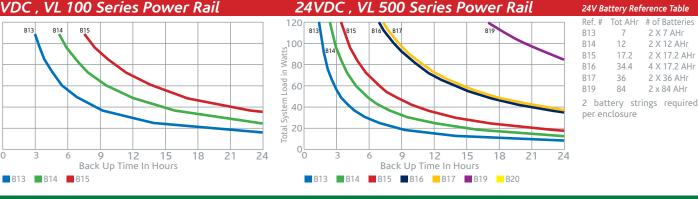
Step 2: Determine system power requirements using the charts y-axis

Step 3: Determine the backup time required using the charts x-axis

Step 4: Identify the corresponding battery curve and note the Battery Ref #

Step 5: Use the Battery Ref # to select the final product sku on page 7.





48VDC, VL 100 Series Power Rail 48VDC, VL 500 Series Power Rail 48V Battery Reference Table 120 Ref. # Tot AHr # of Batteries B22 4 X 7 AHr B23 B21 B2' B22 7 50 Matts 10 Matts 100 B22 4 X 17 2 AHr B23 36 4 X 36 AHr ^{at} ≥ 80 4 battery strings required DE 20 per enclosure p6 60 System 02 40 01 of 20 Total 0 0 6 12 15 18 21 24 6 12 15 18 21 24 Back Up Time In Hours Back Up Time In Hours B21 B22 B22 B23 B21

These backup battery charts help you cross reference the optimum battery, power rail and enclosure combination. Please consult Ventev if you require a configuration not listed in these charts. Ventev UPS systems can be designed with higher power levels (typically up to 1,000W) and greater backup battery time. It is typical for sealed lead acid batteries to vary their capacity with temperature and

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degrade over time. The backup battery chart capacity calculations are based upon the typical, warranted battery temperature at 25C. It is important that battery health is monitored over their life cycle of the system and Ventev recommends a battery maintenance schedule is employed to ensure battery capacity is available when needed.

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Ventev Innovations reserves the right to make changes to the products and information contained in this document without notice.

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Ordering AC/UPS Power Systems

Enclosure Options: See Pg 3 Battery Ref #: See Pg 6

- 1. From the battery selection charts on page 6, identify the battery ref # you desire.
- 2. From the tables below, select the sku at the intersection of the enclosure and battery ref # previously identified.

12VDC, VL 100 Series Power Rail (55W)											
Battery Ref (AHr)		B1 (7AHr)	B2 (12AHr)	B3 (14AHr)	B4 (17.2AHr)	В5 (З6АНг)	B7 (68.8AHr)				
Polycarbonate	bonate 12x10x6 VL0112005500		-	VL01120055014	-	-	-				
	14x12x6	VL08120055007	-	VL08120055014	VL08120055017	-	-				
	18x16x10	VL09120055007	-	-	VL09120055017	VL09120055036	-				
Steel	12x10x6	VL13120055007	20055007 VL13120055012 -		-	-	-				
	14x12x6	VL12120055007	VL12120055012	-	-	-	-				
Aluminum	18x16x12	VL03120055007	-	-	-	VL03120055036	VL03120055069				

12VDC, VL 500 Series Power Rail (120W)										
Battery Ref (AHr)		В5 (36АНг)	Вб (57АНг)	B7 (68.8AHr)	B8 (84AHr)	B11 (168AHr)				
Polycarbonate	18X16X10	VL09120120036	-	-	-	-				
Aluminum	18X16X12	VL03120120036	-	VL03120120069	-	-				
	26X16X12	VL04120120036	VL04120120057	VL04120120069	-	-				
	26X27X12	VL05120120036	-	-	VL05120120084	VL05120120168				

24VDC, VL 100 Series Power Rail (55W)										
Battery Ref (AHr)		B13 (7AHr)	B14 (12AHr)	B15 (17.2AHr)						
Polycarbonate	12X10X6	VL01240055007	-	-						
	14x12X6	VL08240055007	-	-						
	18X16X10	VL09240055007	VL09240055012	VL09240055017						
Aluminum	18X16X12	VL03240055007	VL03240055012	VL03240055017						

24VDC, VL 500 Series Power Rail (120W)									
Battery Ref (AHr)		B15 (17.2AHr)	В16 (34.4АНг)	B17 (36AHr)	B19 (84AHr)				
Polycarbonate	18X16X10	VL09240120017	-	-	-				
Aluminum	18X16X12	VL03240120017	VL03240120034	-	-				
	26X16X12	VL04240120017	VL04240120034	-	-				
	26X27X12	VL05240120017	-	VL05240120036	VL05240120084				

48VDC, VL 100 Series Power Rail (55W)							
Battery Ref (AHr)		B21 (7AHr)	B22 (17.2 AHr)				
Polycarbonate	18X16X10	VL09480055007	-				
Aluminum	18X16X12	VL03480055007	VL03480055017				

48VDC, VL 500 Series Power Rail (120W)									
Battery Ref (AHr)		B21 (7AHr)	B22 (17.2 AHr)	B23 (36AHr)					
Polycarbonate	18X16X10	VL09480120007	-	-					
Aluminum	18X16X12	VL03480120007	VL03480120017	-					
	26X16X12	VL04480120007	VL04480120017	-					
	26X27X12	-	VL05480120017	VL05480120036					

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Solar Power System Sizing

Ventev solar power systems are designed using the same basic building blocks as Ventev's other AC and UPS products. If solar power systems are the only power generation source for your application, it is critical that system sizing is done properly. This requires a balance of the total system load with the charge capacity provided by the battery bank and the capability of the solar modules to replace the power depleted by the load. Primary power comes from the battery bank. The system's autonomy (the # of days the battery bank can support the load without being recharged) must be considerate to the region of the country where the system is deployed. Typically, northern regions of the country have colder temperatures, less direct sunlight, and environmental conditions that require more autonomy. Our simple system sizing calculation helps you select a system that considers the final deployment location.

System Sizing Steps

Step 1. Calculate System Load

A total system load (TSL) of 1.25 Amp continuous (24 hours/day) at 12 Volts DC requires a solar system that can deliver 30 amp-hours per day (Ah/day) @ 12VDC. All TSL's must be normalized to a common 12VDC reference because the batteries employed with systems are 12V base components. Many radios transmit at their high power

Step 1									
DC Voltage	12VDC	24							
Toal System Load (in Amps)	1.25 Amps	x 1.25							
Duty Cycle	24 Hours	30 Amp Hours Per Day							

specification but remain in standby mode for the majority of the day, drawing much less current than during transmit periods. The greater the accuracy of the duty cycle of all equipment, the easier it is to select a solar power system that is appropriate for the load and environment.

Step 2. Select Deployment Zone

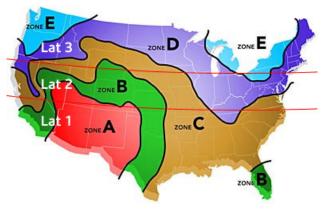
Reference the solar sizing map to the right to determine in which zone of the country your system(s) will be deployed.

Step 3. Find Solar Module Output

Reference the solar sizing table on the next page to select the column corresponding to your deployment zone and find a sku which is equal to or greater than the calculated TSL calculated in step 1. This value represents the solar module array that will provide enough amp-hrs per day to replace your battery bank depleted by your system load.

Step 4. Check Battery Bank Capacity

By referencing the map in Step 2, identify the Latitude Range (1, 2 or 3) that corresponds to the location of your deployment. Verify that the sku found in Step 3 has a battery bank capacity that is equal to or greater than your system load. If it does not, or if you wish to be more conservative, select a sku with a higher battery bank capacity.



Steps 2 - 5

Assuming that the equipment list that yielded 30 Amp-hrs/day in Step 1 is to be deployed in Zone C, then the correctly sized system is sku 337214 which will provide 38.4 Amp-hrs/day of capacity. This system will have a battery bank in latitude range 2 of 59.2 Amp-Hrs/day.

Note about Sizing Calculations:

Ventev utilizes common industry databases for solar insolation. To ensure systems remain operational, our sizing calculations conservatively utilize the average low insolation values in the winter months. Additionally, our solar modules are factored for temperature impacts and typical system losses. For the battery bank, we conservatively size to incorporate the recommended days of autonomy and cold temperature impacts on battery capacity.

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Solar Power Rail Assembly Specifications

VS 100 Series Solar Power Rail

Include: solar charger, low voltag terminal blocks (currently availa							
VS 100 Series Power Rail							
System Voltage	12 Volt	24 Volt					
Rated Solar Input	d Solar Input 6.5/10/20A						
Rated Load	6/10/20A						
25% Current Overload	5 min.						
Regulation Voltage Sealed Battery	14.1 V	28.2 V					
Load Disconnect	11.5 V	23.0 V					
LVD Reconnect	12.6 V	25.2 V					
Temp Comp. (mV/C	-28 to	o -56C					
Operating Temp.	-40 to +85C						
Protection	Class I Div II f	fused disconnects					



How to Order Solar Power Systems

From the table below, find the sku of the system that meets or exceeds your calculated TSL. The system will ship complete with integrated solar enclosure, solar modules, battery bank and conduit wiring harness.

Solar Module Output Amp-Hr/Day Battery Bank Capacity Amp-Hr/Day Array Size Enclosure										
				Amp-Hr/[Battery Ban	Battery Bank Capacity Amp-Hr/Day			Enclosure
SKU	Zone A	Zone B	Zone C	Zone D	Zone E	Lat 1	Lat 2	Lat 3	(Watts)	Size
VS11120390530	92.8	77.7	59.9	43.2	26.0	132.3	74.7	49.1	390	40x27x13 Alum
VS11120260420	59.5	49.8	38.4	27.7	16.6	104.8	59.2	38.9	260	40x27x13 Alum
VS11120170265	37.8	31.7	24.4	17.6	10.6	66.1	37.4	24.6	170	40x27x13 Alum
VS05120085198	30.9	25.9	19.9	14.4	8.6	24.7	14.0	9.2	85	26X27X12 Alum
VS05120130198	30.9	25.9	19.9	14.4	8.6	49.4	27.9	18.4	130	26X27X12 Alum
VS04120085099	19.4	16.2	12.5	9.0	5.4	24.7	14.0	9.2	85	26X16X12 Alum
VS04120130099	19.4	16.2	12.5	9.0	5.4	49.4	27.9	18.4	130	26X16X12 Alum
VS04120065099	14.6	12.2	9.4	6.8	4.1	24.7	14.0	9.2	65	26X16X12 Alum
VS04120050099	11.5	9.6	7.4	5.3	3.2	24.7	14.0	9.2	50	26X16X12 Alum
VS03120020036	9.1	7.6	5.9	4.2	2.5	4.3	2.4	1.6	20	18X16X12 Alum
VS03120040036	9.1	7.6	5.9	4.2	2.5	9.0	5.1	3.3	40	18X16X12 Alum
VS04120040099	9.1	7.6	5.9	4.2	2.5	24.7	14.0	9.2	40	26X16X12 Alum
VS03120010036	4.7	3.9	3.0	2.2	1.3	9.0	5.1	3.3	10	18X16X12 Alum
VS01120040018	4.7	3.9	3.0	2.2	1.3	4.3	2.4	1.6	40	12x10x6 PC
VS01120020018	2.3	1.9	1.5	1.1	0.6	9.0	5.1	3.3	20	12x10x6 PC
VS01120010018	2.3	1.9	1.5	1.1	0.6	4.3	2.4	1.6	10	12x10x6 PC

12 VDC Complete Solar Power Systems

24 VDC Complete Solar Power Systems

				Amp-Hr/[Battery Bank Capacity Amp-Hr/Day			Array Size	Enclosure
SKU	Zone A	Zone B	Zone C	Zone D	Zone E	Lat 1	Lat 2	Lat 3	(Watts)	Size
VS11120390530	92.8	77.7	59.9	43.2	26.0	132.3	74.7	49.1	390	40x27x13 Alum
VS11240540265	58.3	48.9	37.6	27.1	16.3	66.1	37.4	24.6	540	40X27X13 Alum
VS11240360210	38.9	32.6	25.1	18.1	10.9	52.4	29.6	19.5	360	40X27X13 Alum
VS05240260099	29.6	24.8	19.1	13.8	8.3	24.7	14.0	9.2	260	26X27X12 Alum
VS05240180099	19.4	16.3	12.5	9.0	5.4	24.7	14.0	9.2	180	26X27X12 Alum
VS05240100099	14.6	12.3	9.4	6.8	4.1	24.7	14.0	9.2	100	26X27X12 Alum
VS03240130036	11.3	9.5	7.3	5.3	3.2	9.0	5.1	3.3	130	18X16X12 Alum
VS05240080099	11.3	9.5	7.3	5.3	3.2	24.7	14.0	9.2	80	26X27X12 Alum
VS03240080036	9.1	7.6	5.9	4.2	2.5	9.0	5.1	3.3	80	18X16X12 Alum
VS03240100036	9.1	7.6	5.9	4.2	2.5	24.7	14.0	9.2	100	18X16X12 Alum
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Ventev designs and manufacturers standard, off-the-shelf power systems for outdoor applications. These pre-configured power systems are designed for ultimate flexibility and ease of implementation. Combined with the broad portfolio of components offered by TESSCO Technologies, they ensure reliable network performance and efficient deployments.

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Ventev products are exclusively sold by TESSCO Technologies. The partnership between Ventev and TESSCO ensure a broad range of components which are available from stock, improving deployment speed. TESSCO is a leader in the wireless industry and a supply chain expert. The partnership between Ventev and TESSCO ensures that a solution is engineered to your needs and delivered with the lowest total cost.

About Ventev Innovations

Ventev Innovations, is an engineering-driven manufacturer, focused on developing high-performing, intelligent, and exciting products for the ever-changing world of wireless. Whether developing fun and interesting accessories to complement the latest in mobile devices or designing, engineering and introducing complex, firstto-market battery backup systems, Ventev Innovations, a division of TESSCO Technologies Incorporated, is changing the way discerning customers think of wireless. In addition to its newest brand, Ventev[™], the company also develops and delivers extraordinary solutions under the TerraWave Solutions[®] and Wireless Solutions[®] brands. TESSCO Technologies, which owns Ventev Innovations, is the exclusive distributor of all three brands.

Where to Buy:

Ventev Outdoor Power Systems are exclusively available from TESSCO Technologies. Please visit www.tessco.com/go/backup or call 800.759.9996.

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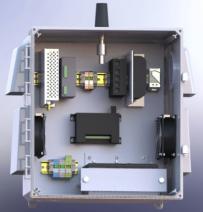
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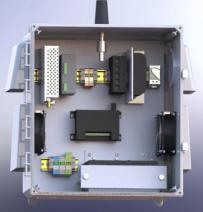
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The Ventev/TESSCO partnership provides expertise in remote monitoring applications such as Smart Grid, Positive Train Control, oil & gas pipeline monitoring, as well as wireless & fiber networking.

