VPS Remote Power Kits
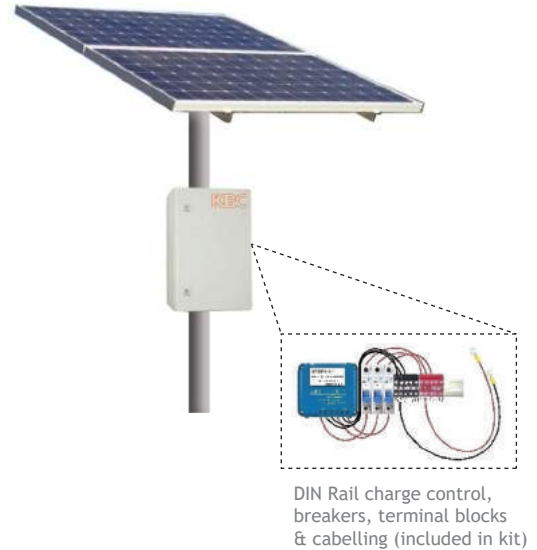## Plug-and-Play Solar Power Kits

Product Description

The VPS plug-and-play remote power kits provide everything you need to generate power where it is not available on-site. Compatible with the complete KBC wireless range, the kits include pole-mount solar panel/s; an aluminum, power-coated, NEMA 4X-rated enclosure with integrated universal mounting system; PWM or MPPT charge controller; breakers; terminal blocks; DIN rail and cabling.

The kits are wired and ready to connect to batteries.

The solar panels have a 20-25 year power output guarantee and come with a specific pole-mount bracket that can be afixed to a 7.6mm-152.4mm / 3"-6" diameter pole depending on the model.

Optional accessories to enable conversion and different output voltages and a 12/24V battery array are available separately. The optional fan for the VPS2 series is recommended for kits in zones 0-2.

DIN Rail charge control, breakers, terminal blocks & cabelling (included in kit)
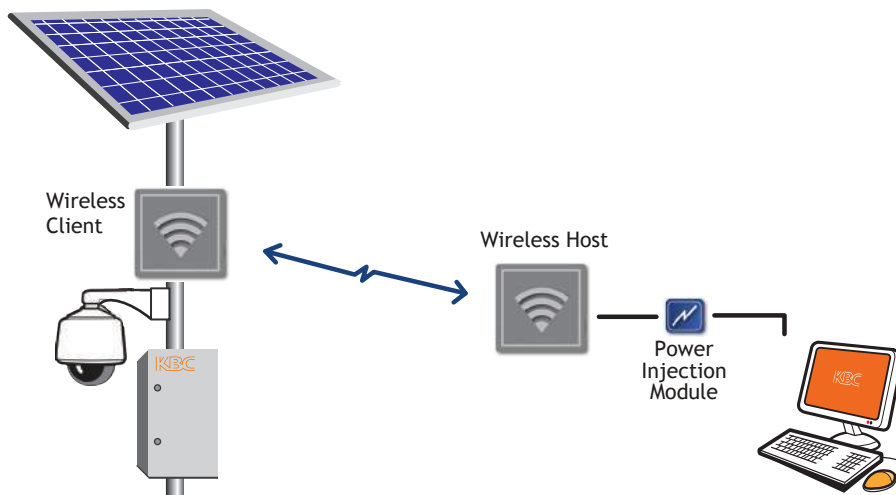
Product Features

- Turnkey power solution - simply mount and connect to battery
- 24 hours of continuous power with up to 7 days of stored backup power
- Weatherproof & UV resistant, powder coated aluminium & steel enclosures
- Accessory options for different voltages & outputs (PoE, terminal, etc.)
- Pole or wall-mounted (mounts included)
- Advanced charge controls to protect against over-charge/discharge
- 20-25 year power output guarantee

Powder-coated, IP66-rated, steel enclosure with pole-mount for 3-6" pole included in kit

Typical System Configuration

Wireless Client

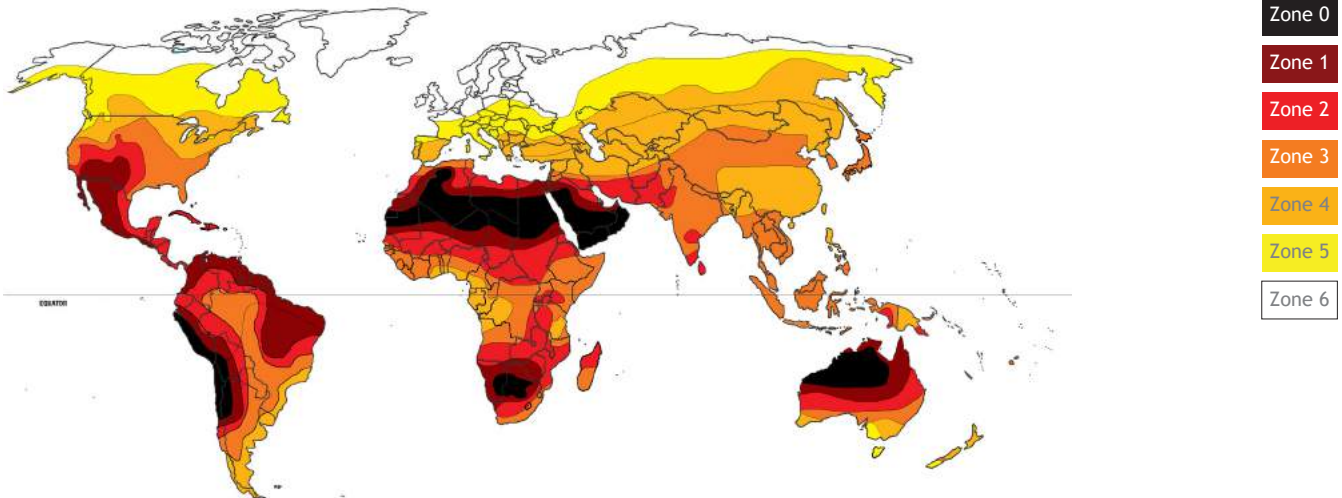Wireless Host

Power Injection Module

Applications

- Perimeter / intrusion detection
- Surveillance & access control
- Electric fences, gates & barriers
- Remote wireless transmission
- Traffic, highway & railway sensors
- Petrochemical sites

Kit Selection

Step 1: Determine the load power required
Step 2: From the map below, determine which zone the equipment will be in
Step 3: Refer to the color-coded table below with the determined zone and load in Watts to select the appropriate kit

Zone 0
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5
Zone 6

The map shows average peak sun hours for the year. If equipment is required to run only from late spring to early fall (autumn), please jump ahead up to 2 Zones to calculate output. E.g in the USA, Zone 3 with a requirement for power only from May - September, then use Zone 1 in the chart below.

This product is currently available in North America and Latin America.

Part Numbers

Below is a selection of the most popular kits. If you can't find what you need, or for equipment in Zones 0 & 6, please contact us.

Part Number	Solar Array (Watts)	Battery Voltage (Vdc)	Battery Space Available (Ah)	Enclosure	Load in Watts 24hr Continuous Watts Available to Use				
				Powder Coated Steel (hxwxd)	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
KBC-VPS1-100W-12	100	12	100	400 x 400 x 210mm / 15.75 x15.75 x 8.27"	14	12.5	9.5	6.5	3.5
KBC-VPS1-150W-12	150	12	100	400 x 400 x 210mm / 15.75 x15.75 x 8.27"	20	18	14	10	5
KBC-VPS1-200W-12	200	12	100	400 x 400 x 210mm / 15.75 x15.75 x 8.27"	27	25	19	13	7
KBC-VPS1-200W-24	200	24	100	400 x 400 x 210mm / 15.75 x15.75 x 8.27"	27	25	19	13	7
KBC-VPS1-250W-12	250	12	100	400 x 400 x 210mm / 15.75 x15.75 x 8.27"	35	30	22	15	8
KBC-VPS1-250W-24	250	24	100	400 x 400 x 210mm / 15.75 x15.75 x 8.27"	35	30	22	15	8
KBC-VPS1-300W-12	300	12	100	400 x 400 x 210mm / 15.75 x15.75 x 8.27"	45	35	27	18	10
KBC-VPS1-300W-24	300	24	100	400 x 400 x 210mm / 15.75 x15.75 x 8.27"	45	35	27	18	10
				Powder Coated Steel (hxwxd)					
KBC-VPS2-100W-12	100	12	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	14	12.5	9.5	6.5	3.5
KBC-VPS2-150W-12	150	12	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	20	18	14	10	5
KBC-VPS2-200W-12	200	12	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	27	25	19	13	7
KBC-VPS2-200W-24	200	24	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	27	25	19	13	7
KBC-VPS2-250W-12	250	12	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	35	30	22	15	8
KBC-VPS2-250W-24	250	24	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	35	30	22	15	8
KBC-VPS2-300W-12	300	12	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	45	35	27	18	10
KBC-VPS2-300W-24	300	24	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	45	35	27	18	10
KBC-VPS2-500W-12	500	12	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	70	60	44	30	16
KBC-VPS2-500W-24	500	24	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	70	60	44	30	16
KBC-VPS2-600W-12	600	24	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	90	70	54	36	20
KBC-VPS2-600W-24	600	24	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	90	70	54	36	20
KBC-VPS2-900W-12TP	900	12	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	130	105	81	54	30
KBC-VPS2-900W-24TP	900	24	200	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"	130	105	81	54	30

Part Number	Solar Array (Watts)	Battery Voltage (Vdc)	Battery Space Available (Ah)	Enclosure	Load in Watts 24hr Continuous Watts Available to Use				
				Powder Coated Steel (hxwxd)	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
KBC-VPS5-100W-12	100	12	500	762 x 610 x 368mm / 30 x 24 x 14.5"	14	12.5	9.5	6.5	3.5
KBC-VPS5-150W-12	150	12	500	762 x 610 x 368mm / 30 x 24 x 14.5"	20	18	14	10	5
KBC-VPS5-200W-12	200	12	500	762 x 610 x 368mm / 30 x 24 x 14.5"	27	25	19	13	7
KBC-VPS5-200W-24	200	24	500	762 x 610 x 368mm / 30 x 24 x 14.5"	27	25	19	13	7
KBC-VPS5-250W-12	250	12	500	762 x 610 x 368mm / 30 x 24 x 14.5"	35	30	22	15	8
KBC-VPS5-250W-24	250	24	500	762 x 610 x 368mm / 30 x 24 x 14.5"	35	30	22	15	8
KBC-VPS5-300W-12	300	12	500	762 x 610 x 368mm / 30 x 24 x 14.5"	45	35	27	18	10
KBC-VPS5-300W-24	300	24	500	762 x 610 x 368mm / 30 x 24 x 14.5"	45	35	27	18	10
KBC-VPS5-500W-12	500	12	500	762 x 610 x 368mm / 30 x 24 x 14.5"	70	60	44	30	16
KBC-VPS5-500W-24	500	24	500	762 x 610 x 368mm / 30 x 24 x 14.5"	70	60	44	30	16
KBC-VPS5-600W-12	600	12	500	762 x 610 x 368mm / 30 x 24 x 14.5"	90	70	54	36	20
KBC-VPS5-600W-24	600	24	500	762 x 610 x 368mm / 30 x 24 x 14.5"	90	70	54	36	20
KBC-VPS5-900W-12TP	900	12	500	762 x 610 x 368mm / 30 x 24 x 14.5"	130	105	81	54	30
KBC-VPS5-900W-24TP	900	24	500	762 x 610 x 368mm / 30 x 24 x 14.5"	130	105	81	54	30
KBC-VPS5-1200W-12TP	1200	12	500	762 x 610 x 368mm / 30 x 24 x 14.5"	180	140	108	72	40
KBC-VPS5-1200W-24TP	1200	24	500	762 x 610 x 368mm / 30 x 24 x 14.5"	180	140	108	72	40

Specifications
VPS1 Series

Kits include a powder-coated, IP66-rated, steel enclosure with pole mount, solar panel/s, advanced charge controller and power assembly with all necessary breakers, terminal blocks, DIN rail and cabling. Different output voltage options (24, 48 & 56Vdc PoE converters / injectors are available separately and can be connected into the power assembly blocks. Enclosure has space for 1 x 100Ah battery for 12Vdc or 2 x 50Ah batteries for 24Vdc systems (batteries & pole not included).

KBC-VPS1-	100W-12	150W-12	200W-12 200W-24	250W-12 250W-24	300W-12 300W-24
Power					
Max continuous power (W)					
Zone 1	14	20	27	35	45
Zone 2	12.5	18	25	30	35
Zone 3	9.5	14	19	22	27
Zone 4	6.5	10	13	15	18
Zone 5	3.5	5	7	8	10
Solar panel power (W)	1 x 100	1 x 150	2 x 100	1 x 250	2 x 150
Solar panel dimensions (LxW) (each)	40 x 27	59 x 27	40 x 27	65 x 39	59 x 27
Solar panel connection	NA	NA	Series	NA	Series
Electrical					
Voltage output (Vdc)	12	12	12/24	12/24	12/24
Battery capacity (Ah)	100	100	100	100	100
Battery type required	Sealed lead acid (SLA) / Absorbent Glass Matt (AGM)				
Battery connection	Parallel	Parallel	Series or Parallel	Series or Parallel	Series or Parallel
Solar Charge controller	Max power point tracking (MPPT)				
Mechanical					
Solar pole mount	Side of pole				
Recommended pole size	76.2~152mm / 3~6" Schedule 40 ridged metal				
Enclosure size (ext.)	400 x 400 x 210mm / 15.75 x15.75 x 8.27"				
Enclosure weight	7.71kg / 17lbs				
Environmental					
Operating temperature	-40 ~ +60°C / -40 ~ 140°F Batteries can lose up to 50% power below -17.8°C / 0°F				

VPS2 Series

Kits include a powder-coated, IP66-rated, steel enclosure with integrated pole mount, solar panel/s with pole mount/s, advanced charge controller and power assembly with all necessary breakers, terminal blocks, DIN rail and cabling. Different output voltage options (24, 48 & 56Vdc PoE converters / injectors are available separately and can be connected into the power assembly blocks. Enclosure has space for 2 x 100Ah batteries (batteries & pole not included).

KBC-VPS2-	100W-12	150W-12	200W-12 200W-24	250W-12 250W-24	300W-12 300W-24	500W-12 500W-24	600W-12 600W-24	900W-12 900W-24
Power								
Max continuous power (W)								
Zone 1	14	20	27	35	45	70	90	130
Zone 2	12.5	18	25	30	35	60	70	105
Zone 3	9.5	14	19	22	27	44	54	81
Zone 4	6.5	10	13	15	18	30	36	54
Zone 5	3.5	5	7	8	10	16	20	30
Solar panel power (W)	1 x 100	1 x 150	2 x 100	1 x 250	2 x 150	2 x 250	2 x 300	3 x 300
Solar panel dimensions (LxW) (each)	40 x 27	59 x 27	40 x 27	65 x 39	59 x 27	65 x 39	77 x 39	77 x 39
Solar panel connection	NA	NA	Series	NA	Series	Parallel	Parallel	Parallel
Electrical								
Voltage output (Vdc)	12	12	12/24	12/24	12/24	12/24	12/24	12/24
Battery capacity (Ah)	200	200	200	200	200	200	200	200
Battery type required	Sealed lead acid (SLA) / Absorbent Glass Matt (AGM)							
Battery connection	Parallel	Parallel	Series or Parallel	Series or Parallel	Series or Parallel	Series or Parallel	Series or Parallel	Series or Parallel
Solar Charge controller	Max power point tracking (MPPT)							
Mechanical								
Solar pole mount	Side of pole	Side of pole	Side of pole	Side of pole	Side of pole	Side of pole	Side of pole	Top
Recommended pole size	76.2~152mm / 3~6" Schedule 40 ridged metal							203mm / 8" Schedule 40
Enclosure size (ext.) (H x W x D)	500 x 400 x 300mm / 19.69 x 15.75 x 11.81"							
Enclosure weight	10.89kg / 24lbs							
Environmental								
Operating Temperature	-40 ~ +60°C / -40 ~ 140°F Batteries can lose up to 50% power below -17.8°C / 0°F The VPS2 Series has a vent fan option which is highly recommended for zones 0 -2							

VPS5 Series

Kits include a powder-coated, IP66-rated, steel enclosure with pole mount, solar panel/s with pole mount/s, advanced charge controller and power assembly with all necessary breakers, terminal blocks, DIN rail and cabling. Different output voltage options (24, 48 & 56Vdc PoE converters / injectors are available separately and can be connected into the power assembly blocks. Enclosure has space for up to 2 x 250Ah (batteries & pole not included).

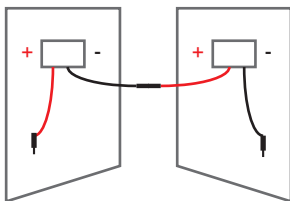| KBC-VPS5-	100W-12	150W-12	200W-12 200W-24	250W-12 250W-24	300W-12 300W-24	500W-12 500W-24	600W-12 600W-24	900W-12 900W-24	1200W-12 1200W-24
Power									
Max continuous power (W)									
Zone 1	14	20	27	35	45	70	90	130	180
Zone 2	12.5	18	25	30	35	60	70	105	140
Zone 3	9.5	14	19	22	27	44	54	81	108
Zone 4	6.5	10	13	15	18	30	36	54	72
Zone 5	3.5	5	7	8	10	16	20	30	40
Solar panel power (W)	1 x 100	1 x 150	2 x 100	1 x 250	2 x 150	2 x 250	2 x 300	3 x 300	4 x 300
Solar panel dimensions (LxW) (each)	40 x 27	59 x 27	40 x 27	65 x 39	59 x 27	65 x 39	77 x 39	77 x 39	77 x 39
Solar panel connection	NA	NA	Series	NA	Series	Parallel	Parallel	Parallel	Parallel
Electrical									
Voltage output (Vdc)	12	12	12/24	12/24	12/24	12/24	12/24	12/24	12/24
Battery capacity (Ah)	500	500	500	500	500	500	500	500	500
Battery type required	Sealed lead acid (SLA) / Absorbent Glass Matt (AGM)								
Battery connection	Parallel	Parallel	Series or Parallel	Series or Parallel	Series or Parallel	Series or Parallel	Series or Parallel	Series or Parallel	Series or Parallel
Solar Charge controller	Max power point tracking (MPPT)								
Mechanical									
Solar pole mount	Side of pole	Side of pole	Side of pole	Side of pole	Side of pole	Side of pole	Side of pole	Top	Top
Recommended pole size	76.2~152mm / 3~6" Schedule 40 ridged metal							203 / 8" Schedule 40	
Enclosure size (ext.) (H x W xD)	762 x 610 x 368mm / 30 x 24 x 14.5"								
Enclosure weight	32.66kg / 72lbs								
Environmental									
Operating Temperature	-40 ~ +60˚C / -40 ~ 140˚F			Batteries can lose up to 50% power below -17.8˚C / 0˚F					
	The VPS3 Series has a vent fan option which is highly recommended for zones 0 -2								

Enclosure Pole-mounts

- Galvanised steel
- Include 2 circular mounting strips with mounting accessories
- Fit on pole diameters from 3.15 ~ 9.84" / 80 ~ 250mm
- Hold up to 198lbs

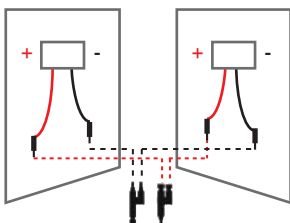| Enclosure	Enclosure Width	Part Number
VPS1	15.75"	VPS1-3-PM
VPS2	15.75"	VPS1-3-PM
VPS5	31.5"	VPS5-PM

Due to the weight of the 250Ah batteries, the VPS5 series enclosures require additional bracing or can rest on the ground.
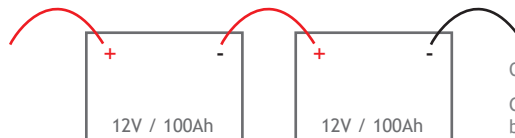
Solar Panel Connections

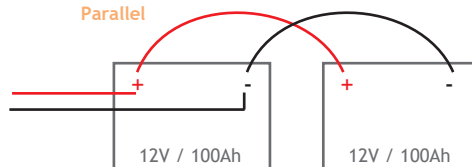### Series

Parallel

Battery Connections

Series

12V / 100Ah   12V / 100Ah

Output = 24V/100Ah

Connecting in series doubles the voltage but the current, hence Ah, stays the same.

Parallel

12V / 100Ah   12V / 100Ah

Output = 12V/200Ah

Connecting in parallel doubles the current, (and therefore Ah), but the voltage stays the same.

Solar Panel Pole-mounts

Side of pole mount for solar panels up to 27" wide

Solar Panel Pole Mount Part Number	Wind Rating	Kits Where Included		
VE-SPM27	90mph	KBC-VPS1-100W	KBC-VPS2-100W	KBC-VPS5-100W
		KBC-VPS1-200W	KBC-VPS2-200W	KBC-VPS5-200W

Single arm adjustable angle mount
(Pole not included)

1 100W solar panel

2 x 100W solar panels

Side of pole mount for solar panels up to 27" wide

Solar Panel Pole Mount Part Number	Wind Rating	Kits Where Included		
VE-SPM27A	100mph	KBC-VPS1-150W	KBC-VPS2-150W	KBC-VPS5-150W

Double arm adjustable angle mount
(Pole not included)

1 150W solar panel

Side of pole mount for solar panels up to 55" wide

Solar Panel Pole Mount Part Number	Wind Rating	Kits Where Included		
VE-SPM55X	115mph	KBC-VPS1-250W	KBC-VPS2-250W	KBC-VPS5-250W
		KBC-VPS1-300W	KBC-VPS2-300W	KBC-VPS5-300W
			KBC-VPS2-600W	KBC-VPS5-600W

Four arm, adjustable angle mount
(Pole not included)

1 x 250~300W solar panel

2 x 150W solar panels

Top of pole mount for 900 ~1200W solar arrays

Solar Panel Pole Mount Part Number	Wind Rating	Kits Where Included		
VE-TPM4	100mph		KBC-VPS2-900W	KBC-VPS5-900W
				KBC-VPS5-1200W

Top-of-pole adjustable angle mount
(Pole included)

3 x 300W solar panel

4 x 300W solar panels

KBC
Powered By
VORPENERGY

Peak sun hours map and table courtesy of Vorp Energy