

Product Description

The challenge of needing to mount surveillance equipment in remote locations where a network cannot be established using traditional methods has been a niche for which KBC has provided solutions for over 25 years. Many of those same applications also lack available and constant power. Arranging to get power to remote locations can be a very costly endeavor. A clean, easy, and affordable alternative is an engineered solar power kit that is specifically designed to support all the devices needing power. Our kits are conservatively specified and built to eliminate the threat of power outages in the shorter days of the winter months because we size the kit to the need. Because all needed components are built-in, there is no lost tech time on site trying to figure out how to assemble and wire the various items to complete the solution.

Product Features

- Fully assembled power kits ready to apply batteries and mount.
- Backplate with DIN Rail provided to mount additional equipment.
- Advanced MPPT controller included and integrated; compatible with sealed lead acid or lithium iron phosphate batteries.
- Two different sizes of lockable enclosures available; supports up to several days of stored power (variable based on power draw and battery bank installed).



Included in the Kits

- Solar panel array and pole mounting kit
- Battery enclosure with integrated power assembly including charge controller
- Low voltage (12-24VDC) output
- Mobile device battery and solar input diagnostic application
(Available to download from app stores)

Part Numbers

Click the link: www.kbcnetworks.com/support/solar-estimator to determine your zone.

Kit Model No.	Solar Array*	Max Wattage by Solar Zone**					Battery Space (in)			Fits***
KBC-AL2-100W	(1) 40 x 27"	1 14	2 12	3 9	4 6.5	5 3.5	12.5 d x 13.5 w x 9.5 h			2x 100AH
KBC-AL2-200W	(2) 40 x 27"	1 28	2 25	3 18	4 13	5 7	12.5 d x 13.5 w x 9.5 h			2x 100AH
KBC-AL2-300W	(1) 65 x 39"	1 45	2 35	3 27	4 18	5 10	12.5 d x 13.5 w x 9.5 h			2x 100AH
KBC-AL2-400W	(4) 40 x 27"	1 56	2 50	3 36	4 26	5 14	12.5 d x 13.5 w x 9.5 h			2x 100AH
KBC-AL5-400W	(4) 40 x 27"	1 56	2 50	3 36	4 26	5 14	13 d x 21 w x 19 h			4x 100AH
KBC-AL2-600W	(2) 65 x 39"	1 90	2 70	3 54	4 36	5 21	12.5 d x 13.5 w x 9.5 h			2x 100AH
KBC-AL5-600W	(2) 65 x 39"	1 90	2 70	3 54	4 36	5 21	13 d x 21 w x 19 h			4x 100AH
KBC-AL5-800W	(8) 40 x 27"	1 112	2 99	3 72	4 52	5 28	13 d x 21 w x 19 h			4x 100AH
KBC-AL5-1200W	(4) 65 x 39"	1 180	2 140	3 108	4 72	5 42	13 d x 21 w x 19 h			4x 100AH
KBC-AL5-1600W	(4) 78 x 39"	1 224	2 200	3 144	4 104	5 56	13 d x 21 w x 19 h			4x 100AH

*Side of pole mount kits supplied with 100-800W kits. No poles or batteries included. A pole is included with the two largest kits (i.e., KBC-AL5-1200W and KBC-AL5-1600W) to mount the top-of-pole mounting assembly for the solar array. The 1200 and 1600 solar kits are (4) 5ft x 3.5ft solar panels mounted to form a vast array. Due to the clearance needed around the panels, KBC suggests pouring a concrete slab for the supplied pole while fencing off the area for safety. Alternatively, we also offer a stacked solar array option (different kit model number) to be mounted on a customer provided utility pole. Contact KBC for details.

**Figures based on solar output from minimum average peak sun hours on the shortest day of the year.

***Most battery manufacturer's sealed lead-acid battery; refer to dimensions of your chosen battery to ensure correct fit within capacity dimensions shown. Enclosure will also fit and operate lithium iron phosphate batteries (typically equivalent amp hour spec)

Specifications

	KBC-AL2-100W	KBC-AL2-200W	KBC-AL2-300W	KBC-AL2-400W	KBC-AL2-600W
Enclosure					
Interior dimensions	Height: 21.5 in x Width: 16 in x Depth: 13 in; 54.61 cm x 40.64 cm x 7.62 cm				
Material	Powder coated aluminum				
Weight	13 lbs; 5.9 Kg				
Mounting system	Integrated pole/wall mounting system (included)				
Lockable	Lockable by padlock (not supplied); Upgrade key lock option available: KBC-ENC-LOCK				
Space for batteries	12.5 in x 13.5 in x 9.5 in; 31.75 cm x 34.29 cm x 24.13 cm				
Power Assembly					
Charge controller	Advanced Max Power Point Tracking (MPPT) with pre-installed advanced charge algorithm				
Solar voltage input	12VDC	24VDC	24VDC	24VDC	24VDC
Power output	12VDC	24VDC NOTE: <i>There is no AC or outlet provided – see note below regarding installing aftermarket inverters.</i>			
Mounting surface	The power assembly is pre-mounted to a backplate which also provides DIN Rail to mount additional accessories and other equipment				
Operating temp	-40° ~ +60° Celsius / -40° ~ +140° Fahrenheit NOTE: <i>SLA batteries lose up to 50% of stored energy in temperatures lower than 32° F</i>				
Battery Bank					
Battery type	Sealed Lead Acid (SLA) or Lithium Iron Phosphate (LiFePo); batteries are not included with the solar kits.				
Battery wiring	Parallel (if 2); 12V	All kits 200W and up will use two batteries in series; 24V (room for 2 100AH)			
Solar Panel(s)					
Wattage Array	100W	100Wx2	300W	100Wx4	300W
Number of arrays	1	1	1	1	2
Voltage output	12V				12 or 24V
Panel wiring	N/A	Series	N/A	N/A	Parallel
Wind rating	90 mph		115 mph		
Mounting Kit					
Type of pole mount	All solar kits smaller than 1200W are side-of-pole mount assembly kits (included)				
Pole size	KBC recommends a 3”-6” circular pole that is metal rigid schedule 40				
Pole included	No pole included with solar kits smaller than 1200W				
Winter mount angle	Consult online search for kit deployment area				
Recommended Accessories for AL2 Kits					
Batteries	12V 100AH Sealed Lead Acid (max two in these kits) KBC-B12100; Lithium Iron Phosphate also available, contact KBC for details				
Hardened PoE Switch	To provide 4-ports 802.3af/at (powered via 12-24VDC) ESUGS4-G1-L-B; To provide 8-ports 802.3af/at and fiber uplink: ESUGS8-P2-L-B				
Hardened Injectors	To provide passive 24vdc PoE: KBC-VE-DC/DC-24; to provide 48V 802.3af PoE: KBC-DC/DC-48M; to provide HPOE: KBC-DC/DC-1256P-70W				
Inverter	Inverters are not recommended as power becomes less efficient when converted DC to AC and back to DC with plug-in power supply				
Enclosure					
KBC-AL5-400W KBC-AL5-600W KBC-AL5-800W KBC-AL5-1200W KBC-AL5-1600W					
Enclosure					
Interior dimensions	Height: 30 in x Width: 22 in x Depth: 13 in; 76.2 cm x 55.88 cm x 7.62 cm				
Material	Powder coated aluminum				
Weight	33 lbs; 14.97 Kg				
Mounting system	Integrated pole/wall mounting system (included)				
Lockable	Lockable by padlock (not supplied); Upgrade key lock option available: KBC-ENC-LOCK				
Space for batteries	13 in x 21 in x 19 in; 33.02 cm x 53.34 cm x 48.26 cm				
Power Assembly					
Charge controller	Advanced Max Power Point Tracking (MPPT) with pre-installed advanced charge algorithm				
Solar voltage input	24VDC	24VDC	24VDC	24VDC	24VDC
Power output	24VDC NOTE: <i>There is no AC or outlet provided – see note below regarding installing aftermarket inverters.</i>				
Mounting surface	The power assembly is pre-mounted to a backplate which also provides DIN Rail to mount additional accessories and other equipment				
Operating temp	-40° ~ +60° Celsius / -40° ~ +140° Fahrenheit NOTE: <i>SLA batteries lose up to 50% of stored energy in temperatures lower than 32° F</i>				
Battery Bank					
Battery type	Sealed Lead Acid (SLA) or Lithium Iron Phosphate (LiFePo); batteries are not included with the solar kits.				
Battery wiring	Either 2 sets (each consisting of 2 100AH in parallel) wired to one another in series for 24V; or 2 250AH in series				
Solar Panel(s)					
Wattage Array	100Wx4	300W	100Wx4	300W	100Wx4
Number of arrays	1	2	2	4	4
Voltage output	24V				
Panel wiring	N/A	N/A	Series	2x2 in series; parallel	2x2 in series; parallel
Wind rating	115 mph			100 mph	
Mounting Kit					
Type of pole mount	All solar kits smaller than 1200W are side-of-pole mount assembly kits (included)			Top-of-pole mount assembly kit (included)	
Pole size	KBC recommends a 3”-6” circular pole that is metal rigid schedule 40				
Pole included	No pole included with solar kits smaller than 1200W			6ft tall, 6” diameter pole provided for mount kit	
Winter mount angle	Consult online search for kit deployment area				
Recommended Accessories for AL5 Kits					
Batteries	12V 100AH SLA(max 4) KBC-B12100, or 12V 250AH (max 2) KBC-B12250; Lithium Iron Phosphate also available, contact KBC for details				
Hardened PoE Switch	To provide 4-ports 802.3af/at (powered via 12-24VDC) ESUGS4-G1-L-B; To provide 8-ports 802.3af/at and fiber uplink: ESUGS8-P2-L-B				
Hardened Injectors	To provide passive 24vdc PoE: KBC-VE-DC/DC-24; to provide 48V 802.3af PoE: KBC-DC/DC-48M; to provide HPOE: KBC-DC/DC-1256P-70W				
Inverter	Inverters are not recommended as power becomes less efficient when converted DC to AC and back to DC with plug-in power supply				

Due to ongoing technological improvements, product specifications are subject to change without notice. KBC is not liable for any errors, omissions or changes of any description of the goods contained herein.

This information is for the sole purpose of identifying the products, and KBC makes no warranty that the products conform to any description contained herein. Do not rely solely on any representations, statements, or assertions concerning these products contained herein.