

### RENEWABLE ENERGY STORAGE SOLUTIONS



## WHEN YOU RELY ON RENEWABLE ENERGY THERE IS NO ALTERNATIVE TO...



#### PROVEN POWER STORAGE.







That's why savvy businesses, homeowners and those who count on wind, photovoltaic or solar power systems to run their facilities, houses — and lifestyles – turn to Crown for renewable power storage products. We've been at the forefront of renewable energy storage innovation for many years, offering an array of batteries to meet the varying requirements of today's RE system owners while continually developing and testing new products with an eye on tomorrow's needs.

# STORE. DELIVER. REPEAT.

While we employ the most advanced equipment and technologies, highly efficient processes and dedicated team of experts, our array of high-performance energy storage solutions were also developed the old-fashioned way – **by listening to the customer**. We carefully evaluated market needs, staying acutely aware of findings and voice-of-customer feedback during the design phase – unlike some competitors that simply repackage existing batteries into an array and label it an RE line.

The result? A wind and solar power storage array that's second-to-none, keeping things light and energized when the sun sets and moving along when the breeze dies down.

- ▶ The most comprehensive, dedicated line of RE batteries vs. other manufacturers
- ▶ Battery capacity ratings ranging from 80 to 2550 ampere-hours (20 Hour Rate)
- ▶ Exclusive C-Force™ Active Mass, heavy-duty plates and construction add up to superior performance and longevity
- ▶ Recognized by serious experts and users as "Best Available" and "Most Reliable"

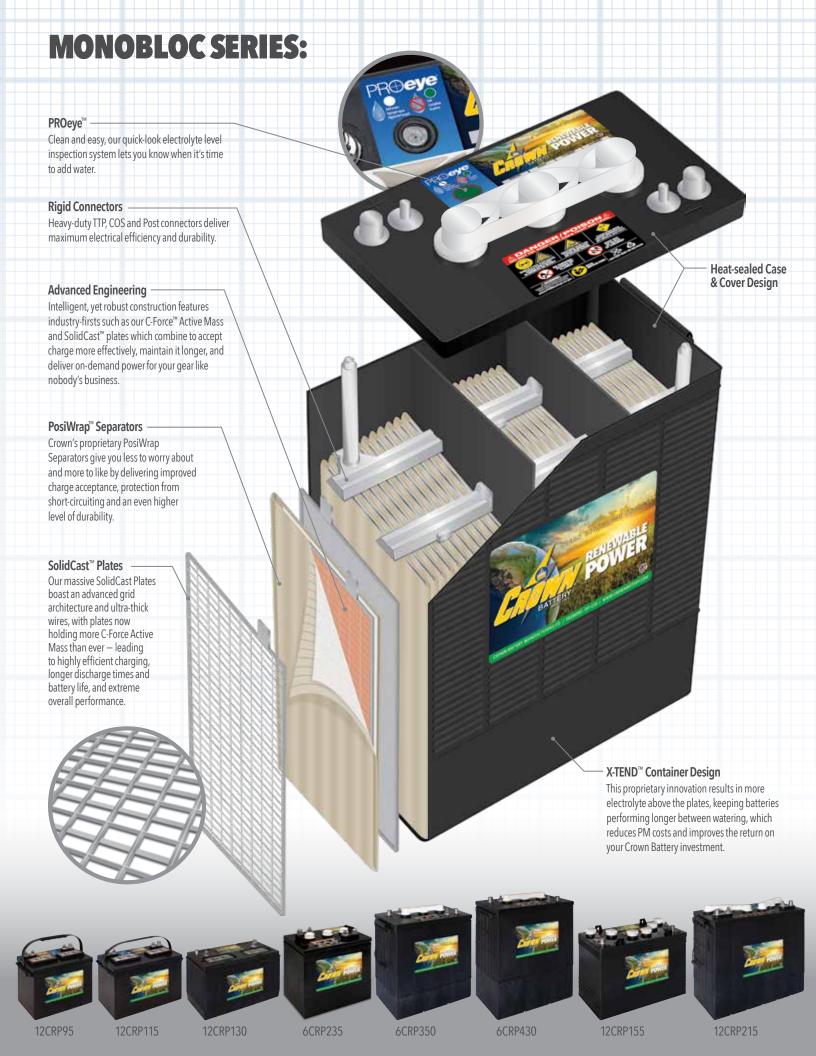
#### Common Design Features of Monobloc & Power Module Series:

**Rugged Cell Construction** Signature heavy-duty cast-on strap and terminal post structures manufactured in a highly automated production process deliver unmatched electrical efficiency and durability.

**Low-Maintenance Reliability** Crown Renewable Products' low maintenance design ensures reduced Preventative Maintenance frequency, lower PM service costs, and best-available user ROI:

- Proprietary cell construction that reduces water loss during the charge cycle.
- Additional fluid headspace above the battery plates so batteries can perform longer between watering intervals.
- Water-Saver™ battery cover and high-performance vent components capture gasses emitted during the charge cycle – and return restored fluid to the battery.

**Safe & Easy Handling** CRP Power Module and Monobloc batteries include fixed handles or lifting lugs to enable safe and easy handling as well as the flexibility to be installed with – or without – battery racks.



#### **POWER MODULE SERIES:**

#### **Fortified Steel Module Design**

The Power Module's design couples a powerful range of available capacities with unmatched application flexibility, while the battery's steel tray increases compression of the battery's internal plate group to increase cycle life while providing a better solution for temperature management and electrical isolation.

#### **Element Protector**

Full-width element protector with individual fingers between each plate lug prevents premature failure from mossing short-circuit and prevents separator damage during cell inspection.

#### PosiWrap™ Plate Protection

- A Vertical Double Mat Slyver Wrap becomes embedded into the plate surface to ensure complete active material retention for longevity.
- **B** Horizontal Glass Mat Wrap provides a secondary layer of active material retention.
- C The Koroseal Retainer Wrap is a perforated envelope which tightly binds the two glass mat wraps to the plate while providing a third layer of insulation against mossing and short-circuits.
- **D** The Sleeve Separator is a high-porosity sleeved separator that delivers a final layer of insulation from direct plate-to-plate contact and mossing.



#### **Battery Cover**

Heat-sealed to ensure a permanent, leak-free seal between the cell container and cover. The cover's double O-ring bushing design allows for positive plate growth without cover leakage and eliminates cell cover distortion.



#### **Z**<sup>3</sup> Plate Construction

Power Module batteries Z<sup>3</sup> plate design combines three integrated features for superior electrical performance and longevity.

- 13 vertical plate wires that withstand the rigors of deep cycling service and high-rate discharge.
- Offset internal wires are designed for less internal resistance and maximum active material retention to deliver premium battery life.
- C-Force Active Mass, manufactured with premium lead-oxide from our own oxide mills to exact specifications, applied uniformly and temperature-cured in computer-controlled Curing Ovens that assure optimal product performance and life.

## Freedom Bloc by Crown Battery



## CRIM

## Advanced American Engineering. Globally Proven Performance.











6CRV220

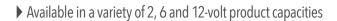
The leading-edge sealed technology behind CROWN1° deep-cycle AGM batteries makes them ideal for renewable energy systems, resulting in the delivery of more power, longer life and performance with less maintenance. Crown combined the newest technology, best-practice manufacturing processes and tough, tested and proven designs, leading to a collection of AGM products that deliver the storage capacity and power RE system owners depend on the world over.





12CRV100

- ▶ Spill-proof, sealed and maintenance-free
- ▶ Ultra clean and no gassing; the safest and most sustainable energy storage option





12CRV110



## REFINED. RECYCLABLE.



#### REMARKABLE.

As a leading innovator and manufacturer of lead-acid batteries, Crown is proudly committed to sustainability and environmental stewardship, helping to conserve resources, reduce our carbon footprint – and yours! — and provide power storage solutions for renewable and traditional energy sources while keeping our planet safe and clean for generations to come.

- Lead batteries are recycled at a rate of 99% of shipments annually in North America
- ▶ For over 150 years, lead batteries have been noted as the safest and most reliable power storage solution
- ▶ 99% of lead battery materials are recycled and reused, compared to less than 15% of alternative storage technologies



BCI Group	Model Description	Voltage	Amp-Hour Capacity		Storage		Physical Characteristics								
			20-Hr	100-Hr	kWh¹ 20-Hr	kWh¹ 100-Hr	Length		Width		Height		Weight		Available Terminal
			Rate	Rate			Inches	mm	Inches	mm	Inches	mm	Lbs	Kgs	Terrinia
6 & 12 \	OLT CRP MONO	BLOC S	ERIES – L	OW MAI	NTENAN	CE FLA									
GC2	6CRP235	6	235	260	1.37	1.51	10.25	260	7.06	179	10.94	278	63	28.6	STD
GC2H	6CRP260	6	260	290	1.51	1.70	10.25	260	7.06	179	11.63	295	75	34.0	STD
902	6CRP350	6	350	390	2.04	2.27	12.19	310	7.19	183	14.13	359	101	45.8	STD
903	6CRP390	6	390	435	2.27	2.53	12.38	314	7.19	183	16.13	410	115	52.2	STD
903	6CRP430	6	430	490	2.50	2.85	12.38	314	7.19	183	16.13	410	122	55.3	STD
27	12CRP115	12	115	130	1.34	1.51	12.95	329	6.81	173	9.38	238	58	26.3	STD
30H	12CRP130	12	130	145	1.51	1.69	13.00	330	6.75	171	9.38	238	66	29.9	STD
GC12	12CRP155	12	155	170	1.80	1.98	12.92	328	7.06	179	10.53	267	88	39.9	STD
921	12CRP215	12	215	240	2.50	2.79	15.50	394	7.00	178	14.63	372	120	54.4	STD
2,6&1	2 VOLT CRV MO	<b>NOBLO</b> (	SERIES	– MAINT	ENANCE	<b>FREE AG</b>	М								
903	2CRV1200	2	1200	1660	2.33	3.22	11.62	295	7.01	178	16.10	409	130	59.1	Insert
GC2	6CRV220	6	220	245	1.28	1.43	10.25	260	7.06	179	10.94	278	66	29.9	STD
GC2H	6CRV260	6	260	290	1.51	1.69	10.24	260	7.13	181	11.38	289	79	35.7	STD
902	6CRV330	6	330	367	1.92	2.14	11.62	295	7.01	178	14.59	371	103	46.9	STD
903	6CRV400	6	400	445	2.33	2.59	11.62	295	7.01	178	16.75	430	127	57.5	STD
24	12CRV80	12	80	88	0.93	1.02	11.26	286	6.75	171	9.38	238	51	23.1	STD
27	12CRV100	12	98	108	1.16	1.26	13.00	330	6.75	171	9.38	238	58	25.9	STD
31	12CRV110	12	110	121	1.28	1.41	13.00	330	6.77	172	9.31	236	60	27.2	STD
921	12CRV230	12	230	255	2.68	2.97	15.52	394	7.01	178	14.53	369	145	66.0	STD
2 & 6 V	OLT CRP POWER	MODUL	LE SERIES	5 – LOW N	MAINTEN	IANCE FL	.А								
_	2CRP2500	2	2500	3275	4.85	6.35	12.81	325	6.56	167	33.37	848	313	141.9	HD SS
_	6CRP1000	6	1000	1250	5.82	7.28	19.06	484	7.56	192	25.75	654	410	185.9	Insert
_	6CRP1300	6	1300	1625	7.57	9.46	19.06	484	9.81	249	25.75	654	519	235.4	Insert
_	6CRP1600	6	1600	2000	9.31	11.64	19.06	484	12.06	306	25.75	654	668	303.0	HD SS
_	6CRP2050	6	2050	2580	11.93	15.02	19.06	484	10.56	268	33.25	845	780	353.8	Insert
_	6CRP2500	6	2500	3275	14.55	19.06	19.19	487	12.94	329	33.31	846	941	426.8	HD SS
Freedo	mBloc ESS														
_	FB-LM48V235	48	235	260	10.94	12.11	33.00	838	29.00	737	20.25	514	544	246.8	STD
_	FB-LM48V260	48	260	290	12.11	13.50	33.00	838	29.00	737	20.25	514	640	290.3	STD
_	FB-LM48V430	48	430	490	20.02	22.81	33.00	838	29.00	737	20.25	514	1016	460.8	STD
_	FB-MF48V220	48	220	245	10.24	11.41	33.00	838	29.00	737	20.25	514	568	257.6	STD
_	FB-MF48V400	48	400	445	18.62	20.72	33.00	838	29.00	737	20.25	514	1056	479.0	STD

 $\label{thm:continuous} IS to rage kWh specifications are calculated using a Depth-of-Discharge (DoD) of 50\%, or 1.94 VPC. Specifications effective as of January 1, 2020.$ 

#### **Available Terminals**







Because Crown Battery is continually improving its products, specifications are subject to change without notice. The most current product information is listed on the seller's website at www.crownbattery.com and technical data sheets. The information included on the website or data sheets may amend and supersede the information in the brochure. Purchasers are encouraged to visit the website to view the most current information.

#### The Power Behind Performance



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