

GENERATOR STARTING SOLUTIONS: 2-TERMINAL SERIES

FEATURES AND BENEFITS

- Uses ultracapacitor technology. No lead. No acid.
- Consistent power from -40°F to +149°F (-40°C to +65°C)
- No electrolyte maintenance, ever
- Configurable for generator sets from 15kW to 2 MW+

TYPICAL APPLICATIONS

- Ensures starting reliability for generator sets in critical/Level 1 sites such as hospitals, hotels, data centers, server farms and more



PRODUCT SPECIFICATIONS

ELECTRICAL	GEN 31-0900-12V-2T	GEN 31-1800-12V-2T	GEN 31-0900-24V-2T	GEN 31-0980-24V-2T
Number of Terminals	2	2	2	2
Charger Type	External	External	External	External
Starter Voltage	12 V	12 V	24 V	24 V
Operating Voltage - Min/Max	7.2 V/16.2 V	7.2 V/16.2 V	14.4 V/27.0 V	14.4 V/27.0 V
Module Capacitance	500 F	1,000 F	300 F	340 F
ESR	0.004 Ω	0.002 Ω	0.004 Ω	0.004 Ω
Peak Power ¹	16.4 kW	32.8 kW	45.6 kW	45.6 kW
Total Energy ²	18.2 Wh	36.5 Wh	30.4 Wh	34.4 Wh
Cold Cranking Amps ³	900 CCA	1800 CCA	900 CCA	980 CCA
Weight per Module	13.0 lbs/5.9 kg	18.5 lbs/8.4 kg	16.5 lbs/7.5 kg	17.5 lbs/7.9 kg
Terminals Type and Number	SAE 3/8"-16UNC, 2 each	SAE 3/8"-16UNC, 2 each	SAE 3/8"-16UNC, 2 each	SAE 3/8"-16UNC, 2 each
Environmental	SAE J1455, RoHS 2002/95/EC	SAE J1455, RoHS 2002/95/EC	SAE J1455, RoHS 2002/95/EC	SAE J1455, RoHS 2002/95/EC
Safety	UL2200	UL2200	UL2200	UL2200
BCI Group Size/Dimension	Group 31 / 13" L x 6 13/16" W x 9 7/16" H (330mm L x 173mm W x 240mm H)	Group 31 / 13" L x 6 13/16" W x 9 7/16" H (330mm L x 173mm W x 240mm H)	Group 31 / 13" L x 6 13/16" W x 9 7/16" H (330mm L x 173mm W x 240mm H)	Group 31 / 13" L x 6 13/16" W x 9 7/16" H (330mm L x 173mm W x 240mm H)
Operating Temperature Range	-40°F to +149°F (-40°C to +65°C)	-40°F to +149°F (-40°C to +65°C)	-40°F to +149°F (-40°C to +65°C)	-40°F to +149°F (-40°C to +65°C)

GENERATOR STARTING SOLUTIONS: 3-TERMINAL SERIES

FEATURES AND BENEFITS

- Uses ultracapacitor technology. No lead. No acid.
- Consistent power from -40°F to +149°F (-40°C to +65°C)
- No electrolyte maintenance, ever
- Internal charger keeps GSS module fully charged

TYPICAL APPLICATIONS

- Ensures starting reliability for towable generator sets up to 16 liters displacement



PRODUCT SPECIFICATIONS

ELECTRICAL	ULTRA 31/900	ULTRA 31/1800	ULTRA 31/900/24V	ULTRA 31/1100/24V
Number of Terminals	3	3	3	3
Charger Type	Internal	Internal	Internal	Internal
Starter Voltage	12 V	12V	24 V	24V
Operating Voltage - Min/Max	7.2 V/16.2 V	7.2 V/16.2 V	14.4 V/27.0 V	14.4 V/28.5 V
Module Capacitance	500 F	1,000 F	300 F	340 F
ESR	0.004 Ω	0.002 Ω	0.004 Ω	0.004 Ω
Peak Power ¹	16.4 kW	32.8 kW	45.6 kW	50.8 kW
Total Energy ²	18.2 Wh	36.5 Wh	30.4 Wh	38.4 Wh
Cold Cranking Amps ³	900 CCA	1800 CCA	900 CCA	1100 CCA
Weight per Module	13.5 lbs/6.2 kg	19.0 lbs/8.7 kg	17.0 lbs/7.8 kg	18.0 lbs/8.2 kg
Terminals Type and Number	SAE 3/8"-16UNC, 3 each	SAE 3/8"-16UNC, 3 each	SAE 3/8"-16UNC, 3 each	SAE 3/8"-16UNC, 3 each
Environmental	SAE J1455, RoHS 2002/95/EC	SAE J1455, RoHS 2002/95/EC	SAE J1455, RoHS 2002/95/EC	SAE J1455, RoHS 2002/95/EC
BCI Group Size/Dimension	Group 31 / 13" L x 6 13/16" W x 9 7/16" H (330mm L x 173mm W x 240mm H)	Group 31 / 13" L x 6 13/16" W x 9 7/16" H (330mm L x 173mm W x 240mm H)	Group 31 / 13" L x 6 13/16" W x 9 7/16" H (330mm L x 173mm W x 240mm H)	Group 31 / 13" L x 6 13/16" W x 9 7/16" H (330mm L x 173mm W x 240mm H)
Operating Temperature Range	-40°F to +149°F (-40°C to +65°C)	-40°F to +149°F (-40°C to +65°C)	-40°F to +149°F (-40°C to +65°C)	-40°F to +149°F (-40°C to +65°C)

FOOTNOTES

1. Peak Power = $V_{max}^2 / 4 \times ESR$

2. Total Energy = $1/2 \times C \times V_{max}^2 / 3,600$

3. CCA = $C \times (V_{max} - V_{min}) / (T + C \times ESR)$ where T = 3 seconds

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