# **Mobile and Industrial Products**



# Industrial TruSine™ Wave Inverter Chargers

Liberty



Industrial grade PWM / true sine wave static inverters and inverter/chargers for heavy-duty applications. Excellent power source for operating motors, timing devices, and sophisticated electronics.



#### Inverter

Model	Continuous Watts	3 Second Surge Amps	Charger Amps	DC Input Voltage	Weight
IT12-1600	1600	23.8	_	11.0-16.6	46 lb.
IT12-1800	1800	24.7	_	11.0-16.6	46 lb.
IT12-2000	2000	25.6	_	11.0-16.6	48 lb.
IT12-2200S	2200	41.1	_	11.0-16.6	57 lb.
IT12-2400	2200	41.6	_	11.0-16.6	57 lb.
IT12-2600	2600	42.1	_	11.0-16.6	70 lb.
IT12-3200	3200	43.7	_	11.0-16.6	75 lb.
IT12-3600PL	3600 (for 30 min)	43.7	_	11.0-16.6	76 lb.
IT24-3500	3500	83.0	_	22.0-33.2	75 lb.

AC Output Voltage 120 ffl 5%

**Output waveform:** True sine wave featuring  $TruSine^{TM}$  technology

**Mounting:** Shelf or wall mounted **Dimensions:** 8.0"H x 13.75"W x 15.75"D



### Inverter/Charger

Model	Continuous Watts	3 Second Surge Amps	Charger Amps	DC Input Voltage	Weight
ITC12-2100	2100	53.3	80	22.0-33.2	59 lb.
ITC12-3200	3200	53.3	80	22.0-33.2	59 lb.
ITC24-3600	3600	53.3	60	22.0-33.2	59 lb.

AC Output Voltage 120 ffl 5%

Output waveform: True sine wave featuring TruSine™ technology

Mounting: May be mounted in any orientation with

reversible mounting brackets

**Dimensions:** 8.00"H x 19.25"W x 14.00"D

### Industrial TruSine™ Wave Inverter Chargers



Sentinel

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Industrial grade PWM / true sine-wave static inverters and inverter/chargers.

Designed for back-up power applications to provide either 120V or 240V clean sine-wave AC output as required.



Model	Continuous Watts	3 Second Surge Amps	AC Output Voltage	Charger Amps	DC Input Voltage	Weight
TSC24-4500D	4500	83.3/41.65	120V/240V	100	21.0-34.0	83 lb.
TSC24-4500	4500	83.3.7	120V	100	21.0-34.0	83 lb.

AC output/input: Hardwired | Optional remote operator interface panel - TSR **Output waveform:** True sine wave featuring  $TruSine^{TM}$  technology

Mounting: Shelf or wall mounted
Dimensions: 8.44"H x 19.03" W x 17.49" D

### **Commercial Sine Wave Inverters**

TruWave VLT Series Commercial grade pure sine wave static inverters for medium to light-duty applications.

16 V DC input range for compatibility with higher voltage alternators on newer vehicles.







Model	Continuous Watts	Surge Power Amps	DC Input Voltage	Dimensions	Weight
VLT12-300	300	3.3	11.0 -16.0	2.8"H x 6.1"W x 9.5"D	7.7 lb.
VLT12-600	600	6.6	11.0 -16.0	3.0"H x 7.3"W x 11.0"D	6.6 lb.
VLT12-1000	1000	16.0	11.0 -16.0	4.1"H x 10.8"W x 15.4"D	15.1 lb.
VLT12-1500	1500	16.7	11.0 -16.0	4.1"H x 10.8"W x 15.4"D	15.4 lb.
VLT12-2000	2000	33.3	11.0 -16.0	6.5"H x 8.2"W x 16.6"D	22 lb.
VLT12-3000	3000	50.0	11.0 -16.0	6.5"H x 8.2"W x 17.8"D	24 lb.
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VLT24-600	600	6.6	21.0-32.0	3.0"H x 7.3"W x 11.0"D	6.6 lb.
VLT24-1000	1000	16.0	21.0-32.0	4.1"H x 10.8"W x 15.4"D	15.1 lb.
VLT24-1500	1500	16.7	21.0-32.0	4.1"H x 10.8"W x 15.4"D	15.4 lb.
VLT24-2000	2000	33.3	21.0-32.0	6.5"H x 8.2"W x 16.6"D	22 lb.
VLT24-3000	3000	50.0	21.0-32.0	6.5"H x 8.2"W x 16.6"D	24 lb.

AC Output Voltage 120 ffl 5% **Output waveform:** True sine-wave

Mounting: May be mounted in any orientation



# Industrial Quasi Sine Wave Inverters and Inverter Chargers

### **Patriot**



Industrial grade modified sine/quasi-sine wave static inverters and inverter/chargers for heavy-duty applications. Specifically designed for pump, compressor, and inductive load starting, when high surge power is required.



Model	Continuous Watts	3 Second Surge Amps	Charger Amps	DC Input Voltage	Weight
IQ12-2600	2600	65	N/A	0.5-16.0	74 lb.
IQ12-3600	3600	80	N/A	10.5-16.0	84 lb.
IQC12-2600	2600	65	120	10.5-16.0	79 lb.
IQC12-3600	3600	80	120	10.5-16.0	88 lb.
IQC24-3600	3600	80	60	21.0-32.0	88 lb.

D08514 Remote Panel | IQ-SWR (Single wire remote) True RMS 120V ffl 5% Output

**Mounting:** Shelf or wall mounted **Dimensions:** 8.4.H x 17.5.W x 14.0.D



### **Quasi Sine Wave Inverters and Inverter/Chargers**

#### Bravo



Industrial grade modified sine/quasi-sine wave static inverters and inverter/chargers for heavy-duty applications. Small footprint and low profile allows for installation in confined spaces.



### Inverter

Model	Continuous Watts	3 Second Surge Amps	Charger Amps	DC Input Voltage	Weight
BR12-1800SH	1800	30	-	12.0	38 lb.
BR12-1800SG	1800	30	-	12.0	38 lb.
BRC12-1800SH	1800	30	40/80	12.0	38 lb.
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D05039 Remote Panel

True RMS 120V ffl 5% Output / **Dimensions:** 6.1"H x 15.3"W x 12.3"D

### **Coach Charge Battery Chargers**

This battery charger is a high performance three-stage 24V battery charging standard for leading bus OEMs.



M	odel	AC Input Voltage	AC Input Amp	DC Output Voltage Amp	DC Output	Dimensions	Weight
SP	200181	120	15	24	41	9.85" W x 6.70" H x 15.75" D	35 lb.

### StartSentry Ultracapacitors

Assists the 24V cranking batteries during every start and includes a drop-in modular design which includes the contactor, disconnect, and internal controls. The GS model is controlled by a ground signal for dead battery start. The IS model is controlled by an ignition signal.



Model	Stored Energy	Max Output Amps	DC Operating Voltage	Dimensions	Weight
UCS24-80KJ-IS	80KJ	1800	7.0-32.0	12.5"H x 7.5"W x 22.0"D	40 lb.
UCS24-80KJ-GS	80KJ	1800	7.0-32.0	12.5"H x 7.5"W x 22.0"D	40 lb.

### **Battery Equalizers - Volt Master**



Technologically advanced battery equalizers ensure operation of 12V devices on a 24V vehicle and increase battery life. The All aluminum chassis improves safety and durability.



Model	Input Voltage	Output 12V Current Amps	Dimensions	Weight
60-10B	20-35	10	3.2"H x 8.5"W x 4.25"D	2.3 lb.
60-20A	20-35	20	3.2"H x 8.5"W x 9.4"D	5 lb.
66-60	18-32	60	3.2"H x 8.5"W x 10.5"D	6.0 lb.
66-80	18-32	80	3.2"H x 8.5"W x 10.5"D	6.3 lb.
66-100	18-32	100	3.2"H x 8.5"W x 10.5"D	6.3 lb.

### **VANN-Guard Battery Equalizers**

Rugged cast aluminum housing improves environmental protection. Positive post separation and DC cable strain relief increase safety and DC connection integrity. Internal battery monitoring.



Model	Input Voltage	Output 12V Current Amps	Internal EM70 Monitor	Weight
70-60	18-32	60	-	7.0 lb.
70-80	18-32	80	-	7.3 lb.
70-100	18-32	100	-	7.3 lb.
70-60M	18-32	60	Yes	7.3 lb.
70-80M	18-32	80	Yes	7.5 lb.
70-100M	18-32	100	Yes	7.5 lb.

**Dimensions:** 4.0"H x 8.5"W x 10.6"D

### VANN-Bus CAN-Bus Management System (SAE J-1939)

This product has all of the benefits of the Vann-Guard Battery Equalizer with more sophisticated prognostic battery monitoring. The MBBM™ Battery Monitor will report battery state of charge and state of health, battery voltage high, battery voltage low, and out of balance. The J-1939 CANBus Communication communicates with MUX and Telemetry Systems.



Model	Input Voltage	Output 12V Current Amps	Internal Monitor	Weight
70-60CAN	18-32	60	EM70D	7.0 lb.
70-80CAN	18-32	80	EM70D	7.3 lb.
70-100CAN	18-32	100	EM70D	7.3 lb.
80-60CAN	18-32	60	EM70D	7.3 lb.
80-80-CAN	18-32	80	EM70D	7.5 lb.
80-100CAN	18-32	100	MBBM	7.5 lb.

Vanner's patented Model Based Battery Monitor (MBBM™) is used for accurate battery state-of charge Status and electrical system diagnostics and prognostics. It can be used on both 12V and 24V electrical systems, on any make and model vehicle.

**Dimensions:** 4.0"H x 8.5"W x 10.6"D



The M1200 requires use of the vehicle system sensor components listed below. Sensors provide real-time and accurate electrical system information to Vann-Bus and PMEC monitors.





Model	Description
VSS-C600	600A Current Sensor
VSS-C80/600	80A/600A Dual Vann-Bus Current Sensor
VSS-C80	Current Sensor-80 AMP
VSS-VT	Voltage / Temperature Sensor

## VANN-BUS Dual Low Voltage Disconnect

The dual low voltage disconnect is composed of two solid state switches, one for 30 amps, and one for 10 Amps.



Model	DC Input Voltage	DC Output Amp	Dimensions	Weight
DLVD24-3010	12-32	10/30	2.63"H x 4.75"W x 3.50"D	1.6 lb.

### **Hybrid High Voltage DC-DC Converter**

Power for 24V auxiliary loads on hybrid buses. Replaces inefficient conventional alternators, regulators, belts, and pulleys. Ecological - Reduces Fuel Consumption and Exhaust Emissions. Economical - Eliminates Routine Alternator and Belt Maintenance.



Model	DC Input Voltage	DC Output Voltage	Output Amperage	Dimensions	Weight
H600-28-7CAN	500-780	20.0-30.0	250A @ idle	9.9"H x 17.1"W x 24.5"D	73 lb.