## CSR Parallel Inverter (SD Series)

3 PHASE, N+1 SINGLE PHASE, WITH IN BUILT TRANSFER



The CSR Parallel Inverter combines all the capabilities you expect from modern power electronics.

Each Inverter module can be used stand alone or combined in parallel or 3 phase configuration to give up to 10kW of pure sine-wave output from a 12V, 24V or 48V battery supply.

Compact size, light weight and high efficiency make it suitable for applications where payload and space are at a premium on specialist vehicles or as the basis for a PV, wind or water off-grid solution.

External control and data export via an RS232 port allows the unit to be fully integrated into complex vehicle or system architectures found in modern professional applications.

#### **FEATURES**

- 2500W and 3500W Modules
- Parallel to create higher power systems with N+1 redundancy
- 3 phase capability for industrial applications.
- 12V, 24V or 48V versions
- Creates 230VAC or 110VAC mains at 50 or 60Hz
- Built-in transfer switch to provide UPS facility and AC circuit breaker for safe connectivity
- Starts up heavy duty loads such as motors or compressors with high initial power draw
- True sine wave inverter
- 16A mains pass through capability
- Compatible with a range of Antares external system control vehicle interfaces.
- Built-in control panel can be remote mounted
- Power saving "sleep" mode
- Offline-support feature
- Comprehensive input and output protection
- Applications engineering and inservice support from a UK company

#### Optional

- High speed synchronous transfer (4ms) for specialist applications
- Ethernet control
- Remote control Display

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OUTLINE SPECIFICATION				
Power	<b>2500W</b> 3000W (Peak3s), 4000W (Surge<0.2s)		<b>3500W</b> 4500W (Peak3s), 6000W (Surge<0.2s)	
Battery voltage	12V	24V	12V	24V
230 AC voltage—Pn	91150	91153	91160	91162
115 AC voltage—Pn	91152	91155	91161	91163
DC voltage	10.0-16.0V	20.0-32.0V	10.0-16.0V	20.0-32.0V
AC output	110, 115, 120 VAC ± 3%, 50/60Hz, 220, 230, 240 VAC ± 3%, 50/60Hz			
Socket Type (Alternative Hardwire)	230V=UK 110V=Nema 5-15R		230V=Nema 5-15R 110V=Nema 5-15R	
Efficiency full load	>88%	>89%	>90%	>91%
Dimensions	436 x 283 x 128mm		496 x 283 x 128mm	
Weight	8Kg		10Kg	
No-load current	<3.6A	<1.8A	<3.6A	<1.8A
Power Save Mode	<1.1A	<0.7A	<1.4A	<0.5A
Output waveform	Pure Sine wave , $<$ 3% Total harmonic distortion			
Transfer Switch	Standard ATS : Inverter to utility AC:8~10ms.; Utility AC to inverter: 16~50ms			
	Optional Synchronised Transfer (STS): <4ms			
Climatic data	Full Load -20 to 60°C, De-rating 40 to 60°C, Storage –40 to 70°C, RH 90% Non condensing			
Protection	Overload, short circuit, reverse polarity (fuse), over/under input voltage, high temp, load dump			
Safety Approvals	110V = UL458, 230V = Certified EN60950-1			
EMC Approvals (230V)	Certified EN 55014, EN 61000-3-2, EN 61000-3-3 EN 61000-4-2, 3, 4, 5, 6, 11			
EMC Approvals (110V)	FCC Class B			
Cooling	Load and thermal control fan			
Control & Signal	LED Indicator	Input voltage level, output load level and faulty status		
	Remote Display	12V = 91072 24V = 91073		
	Antares Widgets	12V Battery Skimmer Controller Auxiliary Battery Protect		
Communication Port	RS-232 (RJ-11 type connector), Ethernet (optional)			

#### **3 Phase Setup**

This feature allows three inverters to be accurately synchronised to provide a 10kW 3 phase supply to motors, compressors and other heavy duty loads

#### Parallel N+1

Up to 15 CSR parallel inverters can be connected in series to give higher powers. The N+1redundancy allows a single failed unit to safely drop from the circuit whilst allow the remaining units to power the load without interruption.

#### Interface

A fully featured RS232 port allows control commands and information to be exchanged through it's **data connection** to other systems or equipment supplied by Antares or centralised on the vehicle.

### Interested?

Please speak to our applications engineering team about your requirements on telephone no. 01628 535440



Due to our policy of continuous product development, specifications are subject to change without notice