MIKOS TECHNOLOGY

Telecomm & Power

CIRRUS COMPACT INVERTERS

FEATURES

- 19” Rackmount Design
- Pure Sine Wave Output
- Advanced Microprocessor Design (DSP)
- Powers Reactive Loads
- RS232C Interface With Selectable Baud Rate
- Optional SNMP Management
- Temperature Controlled Cooling Fan
- Wide -30°C To +60°C Operating Temperature
- Programmable Output Voltage And Frequency
- Bypass Function (Static Transfer Switch -STS)
- Optional low power sleep mode
- Protections: Output Overload, Output Short Circuit, Input Under Voltage, Input Over Voltage, Over Temperature, Input Reverse Polarity (Fuse)
- LED Digital display shows: Output Voltage and Current, Output Power, Output Frequency, Input Voltage, Temperature and Alarms

APPLICATIONS

- Computers, communications & control equipment, SCADA, test equipment, field instrumentation, factory automation systems, networking and telecomm equipment.
- Power Tools, drills, air compressors
- Lamps, fluorescent lights, vacuum cleaners, microwave ovens, refrigerators
- Televisions, home theaters, game consoles, satellite equipment

OPERATION

CIRRUS inverters operate normally on-line, supplying clean, pure sine wave AC voltage to the load. In case the DC input fails, the STS will transfer the AC input to the AC output.

The CIRRUS Family of rack mounted inverters provide pure sine wave AC power from a DC source.

The pure sine wave output is produced by a DSP controlled power circuit, using high power PWM, which allows efficiency higher than 90%, and very low distortion, even with reactive loads. The inverter isolates the load from voltage swings and transients present in the AC utility, therefore increasing reliability and life of sensitive equipment.

The very low distortion power factor corrected pure sine wave offers clean and reliable AC power, which allows powering of sensitive and highly reactive loads. As well, the low EMI levels avoid interference to data/signal processing equipments like computers, navigational or control equipments.

The CIRRUS Family of inverters has a standard built-in Static Transfer Switch, which allows connection of a utility or other AC power source which can be switched to the load automatically in the event of DC input failure.

MODEL	OUTPUT POWER	OUTPUT VOLTAGE (VAC)	INPUT VOLTAGE RANGE (VDC)
CI-1121	1 KVA 850 W	Selectable: 100, 110, 115, 120	10 - 16
CI-1241			20 - 32
CI-1481			42 - 62
CI-1122		Selectable: 200, 220, 230, 240	10 - 16
CI-1242			20 - 32
CI-1482			42 - 62
CI-2121	2 KVA 1700 W	Selectable: 100, 110, 115, 120	10 - 16
CI-2241			20 - 32
CI-2481			42 - 62
CI-2122		Selectable: 200, 220, 230, 240	10 - 16
CI-2242			20 - 32
CI-2482			42 - 62
CI-3241	3 KVA 2550 W	Selectable: 100, 110, 115, 120	20 - 32
CI-3481			42 - 62
CI-3242		Selectable: 200, 220, 230, 240	20 - 32
CI-3482			42 - 62

MIKOS TECHNOLOGY

CIRRUS COMPACT INVERTERS
1 KVA, Specifications

	MODEL					
	CI-1121	**CI-1241**	**CI-1481**	**CI-1122**	**CI-1242**	**CI-1482**
ELECTRICAL						
Continuous Output Power	1 KVA / 850 W					
Surge Rating	900 W for 1 minute 950 W for 3 seconds 1000 W for 1 second					
Input Voltage	10-16 VDC	20-32 VDC	42-62 VDC	10-16 VDC	20-32 VDC	42-62 VDC
Input Current (No Load)	0.75 A	0.4 A	0.3 A	0.7 A	0.35 A	0.25 A
Efficiency (full load)	86%	88%	89%	87%	90%	92%
Output Voltage	100, 110, 115, 120 VAC (Switch Selectable)			200, 220, 230, 240 VAC (Switch Selectable)		
Peak Output Current	15 A			9 A		
Ouput Voltage Regulation	± 3.0%					
Output Frequency	50/60Hz ± 0.05% (Switch Selectable)					
Power Factor	0.85					
Output Waveform	Pure Sine Wave					
THD	<3%, Reactive Load					
Protections	Output Overload, Output Short Circuit, Input Under Voltage, Input Over Voltage, Over Temperature, Input Reverse Polarity (Fuse) , AC Input Breaker					
Digital Display	Output Voltage, Output Current, Output Power, Output Frequency, Input Voltage, Temperature, Alarms					
Interface Control Port	RS-232C , Switch Selectable Baud Rate: 2400, 4800, 9600, 19200					
Alarm Relay	Dry Contacts, Form-C					
Remote Control	Optional					
SNMP Management	Optional					

BYPASS (STATIC TRANSFER SWITCH)		
AC Input Range	90 - 130 VAC	180 - 260 VAC
AC Input Frequency	50 – 60 Hz ± 3 Hz	50 – 60 Hz ± 3 Hz
Transfer Time	4 – 6 ms	4 – 6 ms

PHYSICAL			
Operating Temperature	-30°C to +60°C		
Storage Temperature	-30°C to +70°C		
Cooling	Temperature Controlled Cooling Fan		
Dimensions	417 (L) × 424 (W) × 44 (H) mm / 16.42” (L) x 16.70” (W) x 1.735” (H)		
Weight	16.5 lbs / 7.5 Kg		
Rack Units	1 Rack Unit		
Available AC Output Sockets (Add Designator to Model)	**Type** Terminal Strip 4 x North American NEMA 5-20 2 x North American GFCI 2 x Universal Socket	**Designator** -A -B -C -D	**Other Types Available Under Request**

COMPLIANCE		
Safety	UL 60950-1	EN60950-1
EMC	FCC Class B	EN 55022, EN 55024, EN 61000 IEC 61000-4

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CIRRUS COMPACT INVERTERS
2 KVA, Specifications

	MODEL					
	CI-2121	**CI-2241**	**CI-2481**	**CI-2122**	**CI-2242**	**CI-2482**
ELECTRICAL						
Continuous Output Power	2 KVA / 1700 W					
Surge Rating	1870 W for 1 minute 2040 W for 20 seconds					
Input Voltage	10-16 VDC	20-32 VDC	42-62 VDC	10-16 VDC	20-32 VDC	42-62 VDC
Input Current (No Load)	1.45 A	0.7 A	0.45 A	1.47 A	0.8 A	0.47 A
Efficiency (full load)	86%	88%	90%	87%	90%	92%
Output Voltage	100, 110, 115, 120 VAC (Switch Selectable)			200, 220, 230, 240 VAC (Switch Selectable)		
Peak Output Current	25 A			11 A		
Ouput Voltage Regulation	± 3.0%					
Output Frequency	50/60Hz ± 0.05% (Switch Selectable)					
Power Factor	0.85					
Output Waveform	Pure Sine Wave					
THD	<3%, Reactive Load					
Protections	Output Overload, Output Short Circuit, Input Under Voltage, Input Over Voltage, Over Temperature, Input Reverse Polarity (Fuse) , AC Input Breaker					
Digital Display	Output Voltage, Output Current, Output Power, Output Frequency, Input Voltage, Temperature, Alarms					
Interface Control Port	RS-232C , Switch Selectable Baud Rate: 2400, 4800, 9600, 19200					
Alarm Relay	Dry Contacts, Form-C					
Remote Control	Optional					
SNMP Management	Optional					

BYPASS (STATIC TRANSFER SWITCH)

AC Input Range	90 - 130 VAC	180 - 260 VAC
AC Input Frequency	50 – 60 Hz ± 3 Hz	50 – 60 Hz ± 3 Hz
Transfer Time	4 – 6 ms	4 – 6 ms

PHYSICAL

Operating Temperature	-30°C to +60°C		
Storage Temperature	-30°C to +70°C		
Cooling	Temperature Controlled Cooling Fan		
Dimensions	417 (L) × 424 (W) × 44 (H) mm / 16.42” (L) x 16.70” (W) x 1.735” (H)		
Weight	19.8 lbs / 9 Kg		
Rack Units	1 Rack Unit		
Available AC Output Sockets (Add Designator to Model)	**Type** Terminal Strip 4 x North American NEMA 5-20 2 x North American GFCI 2 x Universal Socket	**Designator** -A -B -C -D	**Other Types Available Under Request**

COMPLIANCE

Safety	UL 60950-1	EN60950-1
EMC	FCC Class B	EN 55022, EN 55024, EN 61000 IEC 61000-4

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CIRRUS COMPACT INVERTERS
3 KVA, Specifications

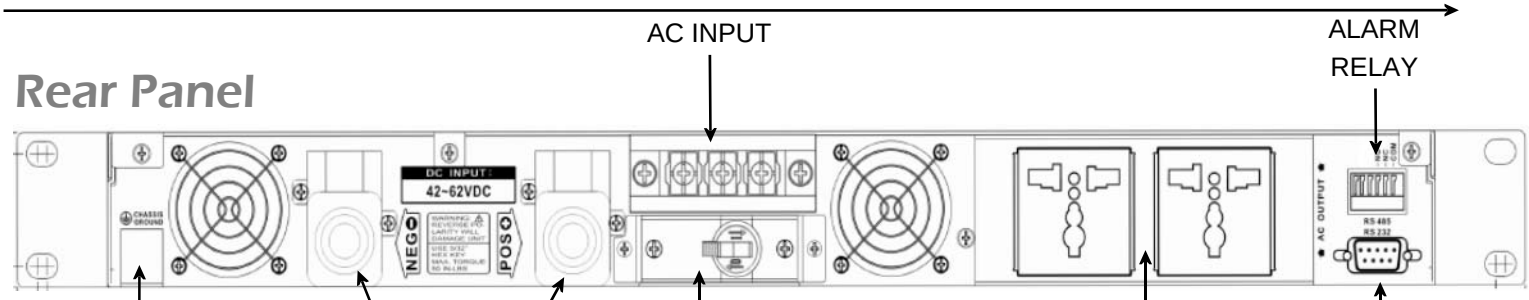
	MODEL			
	CI-3241	**CI-3481**	**CI-3242**	**CI-3482**
ELECTRICAL				
Continuous Output Power	3 KVA / 2500 W			
Surge Rating	3060 W for 1 minute 3260 W for 20 seconds			
Input Voltage	20-32 VDC	42-62 VDC	20-32 VDC	42-62 VDC
Input Current (No Load)	1.0 A	0.55 A	1.1 A	0.58 A
Efficiency (full load)	87%	89%	88%	90%
Output Voltage	100, 110, 115, 120 VAC (Switch Selectable)		200, 220, 230, 240 VAC (Switch Selectable)	
Peak Output Current	30 A		15 A	
Ouput Voltage Regulation	± 3.0%			
Output Frequency	50/60Hz ± 0.05% (Switch Selectable)			
Power Factor	0.85			
Output Waveform	Pure Sine Wave			
THD	<3%, Reactive Load			
Protections	Output Overload, Output Short Circuit, Input Under Voltage, Input Over Voltage, Over Temperature, Input Reverse Polarity (Fuse) , AC Input Breaker			
Digital Display	Output Voltage, Output Current, Output Power, Output Frequency, Input Voltage, Temperature, Alarms			
Interface Control Port	RS-232C , Switch Selectable Baud Rate: 2400, 4800, 9600, 19200			
Alarm Relay	Dry Contacts, Form-C			
Remote Control	Optional			
SNMP Management	Optional			

BYPASS (STATIC TRANSFER SWITCH)		
AC Input Range	90 - 130 VAC	180 - 260 VAC
AC Input Frequency	50 – 60 Hz ± 3 Hz	50 – 60 Hz ± 3 Hz
Transfer Time	4 – 6 ms	4 – 6 ms

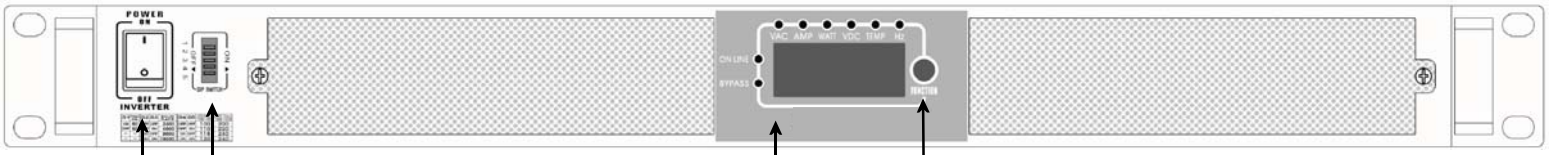
PHYSICAL			
Operating Temperature	-30°C to +60°C		
Storage Temperature	-30°C to +70°C		
Cooling	Temperature Controlled Cooling Fan		
Dimensions	417 (L) × 424 (W) × 44 (H) mm / 16.42” (L) x 16.70” (W) x 1.735” (H)		
Weight	19.8 lbs / 9 Kg		
Rack Units	1 Rack Unit		
Available AC Output Sockets (Add Designator to Model)	**Type** Terminal Strip 4 x North American NEMA 5-20 2 x North American GFCI 2 x Universal Socket	**Designator** -A -B -C -D	**Other Types Available Under Request** NEMA & GFCI outlets are not recommended on 3KVA inverters

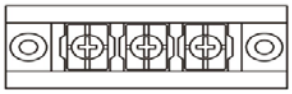
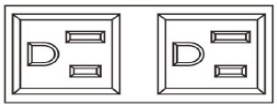
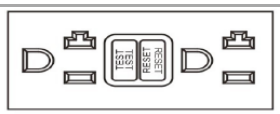
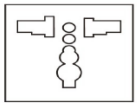
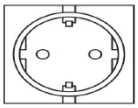
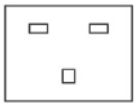
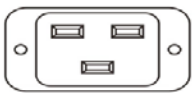
COMPLIANCE		
Safety	UL 60950-1	EN60950-1
EMC	FCC Class B	EN 55022, EN 55024, EN 61000 IEC 61000-4

Rear Panel



Front Panel



Drawing	Description	Recommended Power	Designator
	Terminal Strip	1 KVA, 2 KVA, 3 KVA	-A
	North American NEMA 5-20	1 KVA, 2 KVA	-B
	North American GFCI	1 KVA, 2 KVA	-C
	Universal Socket	1 KVA, 2 KVA, 3 KVA	-D
	Continental European (SCHUKO)	1 KVA, 2 KVA, 3 KVA	-E
	United Kingdom	1 KVA, 2 KVA, 3 KVA	-F
	Australia / New Zealand	1 KVA, 2 KVA, 3 KVA	-G
	Q723-CQ	1 KVA, 2 KVA, 3 KVA	-H

- Please add Designator to model number
- Please contact us if a low current outlet socket (North American, GFCI, Schuko, Universal, etc.) is required on High Power inverters (3KVA)
- Please contact us for further information if GFCI is required
- Other types and configurations available, please conatct us wth your specific requirements

Additional Options

Option	Description
SNMP	SNMP Management module with 10/100 Base T interface
EXT-ALM	Extended set of five dry contacts for signalling 5 alarm conditions