

CFRTU61-R48/R96 UPS 1kVA – 5kVA

Alphapower



The CFRTU61 is a heavy duty, high temperature, low frequency, on-line UPS that is specially designed for rigorous applications where a standard commercial UPS could not survive.

This UPS can be used in a range of industries including rail, mining, steel, petrochemical, traffic management and has various applications other outdoor infrastructure.

The CFRTU61 has an isolation transformer with the ability to withstand and hold back short circuit current from the UPS, keeping it safe from damage. Before shutting down, 15 attempts to re-start are made and if in that time the short circuit is removed, the UPS will automatically resume normal operation.

Some key features include:

- Online double conversion technology
- Operating temperature to 60°C
- Outstanding overload capability
- Generator compatible
- Automatic temperature compensated charging
- Integrated static bypass switch
- Short circuit protection with auto recovery
- Smart current sharing technology supporting a 1+1 redundancy system
- RS232 or RS485 interface & dry contact
- Built-in SNMP
- LCD, LED display & control panel
- Optional bypass isolation transformer for full input isolation
- Higher power available
- External high power charger available for longer backup
- High voltage range at generator input



**Type approved for use in
VIC and NSW rail networks**

Product Specifications

Model		CFRTU61-R48/R96 110V _{AC} / 120V _{AC} / 230V _{AC}			48V _{DC} / 96V _{DC}
		6101	6102	6103	6105
Capacity		1kVA	2kVA	3kVA	5kVA
AC Input	Phase	Single			
	Voltage	110V _{AC} / 120V _{AC} / 230V _{AC} ± 15%			
	Frequency	50Hz ± 10%			
AC Output	Phase	Single			
	Voltage	110V _{AC} / 120V _{AC} / 230V _{AC} ±2%			
	Frequency	50Hz ± 0.5%			
	Power Factor	0.8			
	Wave form	Pure Sine			
	THD	<2% - linear load , <4% - nonlinear load			
	Dynamic Response	< 20ms			
	Crest Factor	1.414			
	Overload	≤ 125% for 10 Minutes , ≤ 150% for 1 Minute			
	Rated DC Voltage	48V _{DC} (R48) / 96V _{DC} (R96)			
Battery & Charger	Charger	6A (R48) / 5A (R96)			
	Charging Stages	Two stages – Constant current & floating			
	Floating	54V _{DC} (R48) / 108V _{DC} (R96)			
	LVD	42V _{DC} (R48) / 84V _{DC} (R96)			
	Temp Compensation	Automatic temperature compensation charging			
	System	Efficiency	≥ 80% at full load		
Transfer Time		From Line mode to Battery mode (due to AC input failure): 0ms From Inverter mode to Bypass mode (due to inverter failure): 0.9ms			
Protection		Overload, battery low, high voltage, over-temp and short circuit auto restart shuts down after 15 attempts			
Display	LED	Status – AC input, DC input, Bypass, Inverter, Output Alarm – Overload, DC low, Fault			
	LCD	AC input, DC input, Battery, Alarm, UPS info, etc			
	Communication	RS232 or RS485 + Dry contacts			
Standards	LVD	EN60950-1:2006 + A11:2009			
	EMC	EN55022:2006 + A1:2007 EN61000-3-2:2006 + A1:2009 + A2:2009 EN61000-3-3:2008			
	Vibration	IEC 60068-2-6:1995			
Environment	Ambient Operation	Full Load -10°C ~ 60°C , 20% ~ 95% humidity non-condensing			
	Noise	< 55dB			
	Altitude	< 1500m			
	Cooling	Thermal controlled fan			

Dimensions and Weights

Model	CFRTU61-R48/R96 110V _{AC} / 120V _{AC} / 230V _{AC} 48V _{DC} / 96V _{DC}			
	6101	6102	6103	6105
Capacity	1kVA	2kVA	3kVA	5kVA
Dimensions W x D x H (cm) Weight (kg)	R48 (110/120V_{AC})			
	48 x 52 x 27 (6U) 60kg	48 x 52 x 27 (6U) 66kg	48 x 52 x 27 (6U) 74kg	48 x 53 x 32 (7U) 90kg
	R48 (230V_{AC})			
	48 x 52 x 27 (6U) 60kg	48 x 52 x 27 (6U) 66kg	48 x 52 x 27 (6U) 74kg	48 x 53 x 32 (7U) 95kg
	R96 (110/120V_{AC})			
	---	---	48 x 52 x 18 (4U) 50kg	48 x 52 x 27 (6U) 67kg
	R96 (230V_{AC})			
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Protection	IP20			