



Moving Traffic

UPS SOLUTIONS FOR TRAFFIC CONTROLLERS

ATC has developed two strategies to deal with the loss of power to traffic lights these products have been developed to maintain traffic signals in operation during power outages, brownouts and AC Mains Frequency variance at a critical time when continuous traffic management achieved by maintaining the operation of traffic signals can ensure safe and reliable traffic flow

LARGE INTERSECTIONS

1. The traditional solution for delivering an uninterruptable Power Supply (UPS) strategy is to provide an additional external cabinet adjacent to the traffic signal controller
2. This UPS cabinet (ECUPS) will maintain power to all signal groups for intersections up to 24 Signal Groups and supporting a maximum total load of 2000VA (1400W) for up to 4.5 hours.
3. The additional ECUPS cabinet has the same dimensions as the Australian standard cabinet and controller footing. The cabinet is fitted out with the necessary UPS management hardware and batteries.
4. The system has been designed using GEL batteries that work over a wide temperature range due to a sophisticated temperature sensing system that adjusts charging according to the battery temperature.
5. There is a seamless changeover system from mains to battery and then back to mains without any interruption to the operation of the traffic signals

SMALLER INTERSECTIONS

1. To cater for smaller intersections ATC has developed the first Internal UPS traffic signal controller. This is an ATSC4 cabinet with the UPS and batteries installed within the cabinet.
2. The Internal Controller UPS (ICUPS) model is designed as a compact, integrated single cabinet solution
3. Used for maintaining power for intersections with 4 or 8 Signal Groups and supporting a maximum total load of 650VA (450W) for up to 4.5 hours
4. The ICUPS model includes the same GEL batteries used for the ECUPS model.
5. The system UPS panel is available alongside the main Logic Rack for ease of access by maintenance personnel and includes an LCD screen and keys to navigate the various functions of the UPS.



INTERNAL UPS



EXTERNAL UPS

STANDARDS

- SCATS® compatible.
- IP Compliance.
- EMC Compliance.
- ACMA Compliance.

UPS

- Automatic Voltage Regulation.
- ECUPS 2000VA Load Capacity.
- ICUPS 650 VA Load Capacity
- Real Time Clock.
- Temperature compensated Battery charging algorithm.
- Temperature Range: -40o to +74oC (-40oF to 165oF).
- GEL based battery for durability and low maintenance.
- Input Voltage Range (230VAC): 150 to 328VAC Without going to batteries
- Input Voltage Range (120VAC): 85 to 175VAC Without going to batteries
- 50/60Hz Operation – Auto Selected.
- Electrical Safety; UL1778, NEMA 3R
- EMI: Class A FCC/CISPR [EN50091-2:1995]
- Laptop Windows Application link to view UPS status locally.

UPS POWER FEATURES

- 240v ac 50Hz -10/+20%
- 110v ac 60Hz.
- Industrial Temperature Grade UPS (-40 to +74 degrees Celsius).

FUNCTIONALITY

- Continuous operation in the event of a Main AC failure.
- ECUPS backup time of up to 4.5 hours on a maximum load of 1400 Watts.
- ICUPS backup time of up to 4.5 hours on a maximum load of 450 Watts.
- ECUPS dual cabinet solution
- ICUPS Single Cabinet Solution.
- Monitored UPS status contacts for reporting.
- Bypass Switch with Auto Transfer for maintenance purposes.
- The UPS provides an independent event and alarm log in addition to the ATSC4 controller's own event and alarm log.

CONTROLLER

- Solid State switching of LED Lantern Loads.
- 3G (UMTS) Communications Connectivity.
- Redundant Lantern Drive.
- Logging of all events in Fault Log Accessible by Laptop.
- Fail to Flash capability.
- Manual Test Switch to test flashing facility.
- Flasher independent of Logic Rack CPU operation.

UPS SPECIFICATIONS

CABINETS:	850(W) x 1430(H) x 500(D) mm.
OPERATING TEMP:	-10oC to +50oC (External) +70oC (Internal) 1KW/m2 insolation
EMC	AS61000.6.2.2006 – General Standards C-Tick Approval #17700
ENVIRONMENTAL:	AS60529 IP45
WIRING:	AS3000 - 2000 Certificate Suitability Office Fair Trading 9002N
UPS:	VicRoads TCS-058-1-2008 VicRoads TC-1203 – Foundations. VicRoads TCS-011-1-1999 Cabinets.

ATSC4 SPECIFICATIONS

CONFIGURATIONS:	4 or 8 Groups standard (Phases)
COMMUNICATIONS	DIDO Modem (RTA Type Approved). SCATS Compatible protocol.
APPROVALS:	VicRoads Type Approval.
OUTPUT POWER:	5 – 1200VA per Signal Output (Phase).
DETECTORS:	8, 16, 24 up to 32 detector channels.
EXTERNAL INPUTS:	16 or 32 channels with 8 selectable drive outputs.
DIMMING:	Selectable or 10% 20% of Nominal Mains Voltage.

ATC

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