Suggested Specification: MCR3

The Constant Current Regulator shall be full digitally controlled and regulated by microprocessors using thyristors in series with the output transformer for automatic current regulation against load and mains voltage variations. It shall comply strictly with IEC 61822 and FAA specifications L-828 and L-829, when making use of the required monitoring options, of Advisory Circular 150/5345-10 (current edition).

Use: indoor in ambient temperature up to 55°C.

* Design and construction: self-contained, metal sheet, floor standing.
* Cooling: natural air cooled. Forced air cooling shall not be accepted. Degree of protection IP 21.
* Full digital current regulation, optionally crowbar assisted with response time of only 0.5 seconds.
* Brightness control: in 3, 4, 5, 6, 7, 8 brightness steps adjustable over 255 values.
* Operational parameters will be adjustable directly from the front display of the CCR. Via a PC connected to the CCR over a dongle, it shall also be possible to recalibrate the CCR. Software updates will be possible using flash memory.
* Possibility to display the status values.
* Remote control and monitoring with a single or two redundant well established field bus(ses) or multi-wire remote control with either 24 V or 48 to 60 V DC power or any combination thereof.
* Remote monitoring: via potential free N/O contacts.
* Automatic input voltage compensation.
* Permanent monitoring of input voltage with automatic shutdown on low voltage (lower than 0,8 of nominal voltage) and automatic restart when the supply voltage exceeds 0,85 of nominal voltage.
* Tripping in case of output overcurrent and open circuit.
* In case of shutdown, the CCR will be re-energized by a remote or local OFF/ON operation.
* Fused switch in power input (HRC: High Rupture Capacity) and fuses in auxiliary circuits.
* Primary power factor, efficiency, temperature rise: as per FAA L-828 / IEC 61822.
* Local control and monitoring: to be provided for all regular functions.
* True RMS output current digital ammeter.
* Positive back indication of operation such as:
  + Shutdown by output over current
  + Shutdown by output open circuit
  + Discrepancy between actual and selected output current
* The regulator shall be fully compatible with our L-827 monitoring system.
* Taps on the output winding shall allow for matching the regulator output capacity to the actual series circuit load.
* For detailed specification of the options, see paragraph “standard options”. Suggested Specification©