

## CP500 – Impressed Current Cathodic Protection



- The CP500 power modules are ideal for single-zone with high output requirements
- Standard options available 25V 20A and 50V 10A.
- Custom outputs on request.
- In-built interrupter supplied as standard
- Ultra-low ripple for enhanced accuracy
- Contact Voltage, current and potential control modes
- Optional upgrade for remote monitoring and control
- Simple to use multi-functional display (VFD standard, LCD optional)
- Parallel solutions for higher outputs with hot swappable power modules
- Switch mode power supplies allowing control of all outputs

### INPUT

AC Voltage : 230VAC (85-264) Single Phase\*  
 \*can be configured for 3-phase+N operation if required  
 Current : 6.5A rms maximum at 85VAC  
 Frequency : 45 – 66Hz  
 Power Factor : >0.98 at 40-100% load  
 Efficiency : >90% at >50% output power  
 Inrush current : <8A peak at nominal mains voltage  
 Soft start : power on ramp-up time <5 secs  
 Protection : Surge protection varistors  
 : Inrush current limiting circuit

### OUTPUT

Standard Outputs  
 : 50V 0-10A  
 : 25V, 0-20A  
 Voltage range : 100mV to full volts (10mV steps)  
 Current range : 10mA to full current (10mA steps)  
 Potential range : 0V to -5V structure wrt ref cell  
 Ripple : <20mV or 0.2% at full load  
 Dynamic Resp. :Set point change controlled by software ramp

### PROTECTION

Input : Surge protection varistors  
 : Inrush current limiting circuit  
 : 8A Internal fuse (Slow blow)  
 Output : Surge suppression on line  
 : EMC filtering  
 Over temperate : Output power reduced

### INDICATORS AND ALARMS

All Alarms are indicated by an LED. Relay contact/closure and/or digital comms to external monitoring

Mains too low	: Always active
Output open circuit	: Always active
High temperature	: Always active
Low output volts	: User select/program
High output volts	: User select/program
Voltage out of range	: User select/program
Low output current	: User select/program
Under protection	: User select/program

### SYSTEM OPERATION

- Constant potential mode
- Constant current mode
- Constant voltage mode
- Interrupter mode (standard)
- User programming module
- Digital metering

### COMPLIANCE

Safety	: IEC 60950
EMC	: EN55081-2
	: EN55082-1

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### MECHANICAL

Size; Can be provided in a variety of cabinets and enclosures, to meet client requirements.  
Painted Mild Steel  
GRP

Weight : Dependent on enclosure and power requirements

### ENVIRONMENTAL

Cooling : Natural Convection  
Temperature : -20°C to +55°C operational  
: -40°C to +70°C transport/storage  
Relative Humidity: 0-90% non-condensing  
Altitude : to 3,000 metres

### INTERFACES

Main power input : Single-phase line connection  
Main power output : Anode drive (wrt Structure)  
Potential Input : For connection to reference cell  
Discrete Control : For external shutdown  
Options modules : For system enhancement

### OPTION MODULES/UPGRADES

GPS : For Interrupter synch  
EEPROM : Expansion module  
USB Port : For local communication  
TCP/IP : For remote communication  
GSM \* : For remote communication  
SMS \* : Remote Alerts  
\*2 years standard SIM contract

**SINGLE CP500 INSTALLATION – 50V 10A**



**PARALLEL CP500 INSTALLATION – 50V 20A**



### CUSTOM BUILT SOLUTIONS

We are able to supply custom-built systems with higher current outputs, alternative voltages, multiple zones and a range of different enclosures.