

CoolPro

Cathodic Converter™

Impressed Current Cathodic Protection (ICCP)



The **CoolPro CATHODIC CONVERTER™** is a highly efficient and reliable high current DC-DC converter for impressed current cathodic protection (ICCP). Its high efficiency makes it perfect for use in solar powered applications.

This efficient power electronics design also minimizes component operating temperature and thermal cycling prolonging the lifetime of the controller even when operating in high ambient temperatures.

The CoolPro is a robust and integrated cathodic protection controller which can be operated in parallel to protect even the largest metallic structure. The durable weatherproof enclosure makes the product an excellent choice for the harsh environments in which cathodic protection is often deployed.

Optional extras such as automatic Reference Cell Control and the AERL “Surge Buster” help to protect your investment and get the most out of your corrosion protection system.

Why choose the CoolPro?

- Super High Peak Power Efficiency > 98%
- Ultra-low heat Thermal Design
- Passive Cooling – Fan-less Design (CP15, CP30)
- High Speed ON/OFF Control
- On-board Surge Protection
- Suitable for Conditions from -20 and +50°C
- Reliable Design with IP67 Rating

Models

- CP15
- CP30
- CP40

Options

- Surge Buster
- Structure/Ref Cell Potential Control

General Specifications	
Parameter	Typical
Weight	1.5 kg
Dimensions (L x W x H)	240 x 160 x 90 mm
Input / Output Power Cable Size	25mm ²

CoolPro CP15		
Maximum Ratings		
T _{amb}	Maximum Ambient Air Temperature	50°C
I _{batt}	Maximum Output Current	15A
V _{MIN}	Minimum Battery Input Voltage	11V
V _{MAX}	Maximum Battery Input Voltage	60V
Electrical Characteristics		
V _{OUT}	Output Voltage (Adjustable)	0 - V _{IN}
I _q	Standby Current Consumption	35mA
η	Efficiency @ 10V, 15A, 25°C Amb	97.00%
	Output Current Variation w/ Load	< ±0.50%
	Output Current Variation w/ Temp	< ±0.50%
	Current Interruption Fall Time	1-2 ms (typ)

CoolPro CP30		
Maximum Ratings		
T _{amb}	Maximum Ambient Air Temperature	50°C
I _{batt}	Maximum Output Current	30A
V _{MIN}	Minimum Battery Input Voltage	11V
V _{MAX}	Maximum Battery Input Voltage	60V
Electrical Characteristics		
V _{OUT}	Output Voltage (Adjustable)	0 - V _{IN}
I _q	Standby Current Consumption	35mA
η	Efficiency @ 10V, 30A, 25°C Amb	97.00%
	Output Current Variation w/ Load	< ±0.50%
	Output Current Variation w/ Temp	< ±0.50%
	Current Interruption Fall Time	1-2 ms (typ)

CoolPro CP40		
Maximum Ratings		
T_{amb}	Maximum Ambient Air Temperature	50°C
I_{batt}	Maximum Output Current	40A
V_{MIN}	Minimum Battery Input Voltage	11V
V_{MAX}	Maximum Battery Input Voltage	60V
Electrical Characteristics		
V_{out}	Output Voltage (Adjustable)	0 - V_{IN}
I_q	Standby Current Consumption	35mA
η	Efficiency @ 10V, 40A, 25°C Amb	97.00%
	Output Current Variation w/ Load	< $\pm 0.50\%$
	Output Current Variation w/ Temp	< $\pm 0.50\%$
	Current Interruption Fall Time	1-2 ms (typ)

Specifications are subject to change without notice.

Optional Extras

Surge Buster

Please Note: To validate AERL's COOLPRO CATHODIC CONVERTER™ product Warranty in lightning prone applications (ie. All pipelines and structures longer than 100 meters or higher than 10 meters.), this 50KA/500 Joule "Surge Buster" lightning protection buffer module must be used to supplement the on-board surge protection in the CATHODIC CONVERTER™).

The lightning protection module with a total of 110,000 Amps of MOV surge protection provides common mode and differential surge protection for all Inputs, Outputs, local cabinet earth and Interrupt Control connections to the COOLPRO CATHODIC CONVERTER™. It also contains the optically isolated ON/OFF control and a surge protected opto-coupler for buffered/isolated ON/OFF interrupt control if permanently connecting an interrupt sequencer.