

# CRESSALL EV2 & EVT ADVANCED WATER data sheet COOLED MODULAR RESISTORS



## Compact, water cooled resistors for low and medium voltage applications, especially severe conditions in automotive, traction or marine systems.

Manufactured from advanced materials the EV2 and EVT use a patented design that encapsulates and totally separates the resistor elements from the coolant providing a modular, light weight, low volume, high power solution for water cooled applications. Typically our new resistors are 10% of the volume and 15% of the weight of the equivalent conventional convection cooled DBR.

Units can be combined together to handle from 10kW to 600kW and supplied as individual components, frame mounted assemblies for integration in customer's systems or completely enclosed multi-banked systems that include inlet/outlet manifolds, flow and temperature monitoring.

The latest hybrid/electric vehicle developments mean there is an urgent need for a new approach to regenerative braking. Our EVT resistor with its lower 10kW power rating and reduced pressure drop provides the higher reliability, mechanical simplicity and low weight demanded. The EVT is the most cost effective way to ensure any excess energy the vehicle produces is safely and efficiently recycled within the car itself.

The need for three independent braking systems in hybrid/electric vehicles means that regenerative braking using the EVT is the greenest way for these vehicles to dissipate energy.

---

### Features:

Continuous operating voltage to 1.5kV per module.

Available in 1, 2, 3 or 4 module assemblies to meet most power and connection requirements.

Low time constant – achieves operating temperature < 5 seconds.

### Applications:

- Electric & Hybrid vehicles
- Winches and cranes
- Cable laying vessels
- Propulsion drives on ships and oil rigs
- Dummy loads
- Discharge resistors













# CRESSALL EV2 & EVT advanced water cooled modular resistors

## Recommended accessories for EV resistors



### 1 Flow Meter

- Low pressure drop flow meter
- 0 to 100 l/m input
- Pulsed NPN transistor output
- Supply Voltage: 4.5-24Vdc
- 2 x 1" BSP Male pipe connections

### 2 Pressure Sensor

- 0 to 5 Bar input
- 4-20mA output
- G1/4 Male threaded connection
- Supply Voltage: 9-32Vdcβ

### 3 Filter

- In-line Y-strainer Filter
- Filtration to 100µm
- 2 x 1" BSP Female pipe connections



### Temperature Sensor

- -40°C to 275°C temperature input
- PT100 or PT1000 type
- M14 x 1.5mm mounting thread

### Flow & Temperature Monitor

- 8 x flow sensor inputs
- 8 x temperature sensor inputs
- 8 x per channel status output contact
- 1 x overall flow status output contact
- 1 x overall temperature status output contact
- Supply Voltage: 24Vdc
- Programmable trip points based on EV2 module size(s)

## Cressall – power resistors designed and manufactured in the UK for a global market

With more than 100 years' experience designing and manufacturing resistors in the UK, Cressall can supply high power resistors for use in:

- Electricity generation, transmission and distribution
- Renewable energy
- Marine and offshore electrical systems
- High power electrical testing
- Rail traction
- Drives and Automation
- Telecoms
- Oil and Gas
- Automotive

Our equipment is used in some of the most demanding locations around the world for applications such as:

- Neutral earthing resistors for MV and HV electrical supplies
- Dynamic braking resistors for braking inverters and motors
- Portable load banks for testing batteries, generators and UPS systems
- High voltage filter resistors for SVC, capacitor damping networks and HVDC applications
- Load banks for load testing diesel generators and large gas turbines
- Pre-insertion resistors for transformers and high voltage networks
- Braking resistors, control resistors and trackside resistors for rail traction
- Liquid cooled resistors



[www.cressall.com](http://www.cressall.com)

# CRESSALL

Evington Valley Road, Leicester, LE5 5LZ, U.K.

Tel: +44 (0) 116 273 3633 • Fax: +44 (0) 116 273 7911

email: [sales@cressall.com](mailto:sales@cressall.com)

© Cressall Resistors Ltd, Evington Valley Road, Leicester, LE5 5LZ, United Kingdom.  
Cressall reserve the right to change and improve products and specifications.