

Liquid cooling system • Especially suitable for DTV high power filters and combiners

RYMSA RF manufactures liquid cooling systems especially designed to enhance the power admission of DTV high power coaxial filters and channel combiners.

Our liquid-cooled high power DTV bandpass filters, FLDV series, are provided with a tubed cold plate integrated in the filter frame, and with the necessary thermostats. The cooling system supplies a coolant's constant flow that removes the heat from the filter body, allowing the operation at the highest RMS power handling with no impact on the radioelectrical response.

Two different models of cooling system are commercialized by RYMSA RF, CS00-001 and CS00-002.

CS00-001 consists of an external dry cooler and of a central unit, which integrates the coolant's tank, the electrical pump and a control /signalling circuit. It allows to supply liquid cooling to a maximum of twelve filters (six constant impedance cells).

CS00-002 is a simplified version, integrating the coolant's tank, the electrical pump and the dry cooler all of them within a unitized rack. This system allows to cool a maximum of four filters (two constant impedance cells).

**General Specifications**

	CS00-001	CS00-002
Maximum number of cooling outlets:	12 filters / 6 CIB cells	4 filters / 2 CIB cells
Coolant type	Mix of water and glycol (50% / 50%)	
Coolant's working pressure	< 5 bar	
Coolant's flow	4 l/min (2 l /min per filter)	
Hydraulic connections between central unit and filter cold plates	1/2" hose	
Power supply	230V / 50Hz, 115V / 60Hz, 230V / 60Hz	
Dissipation capacity	7.5 kW at 20°C T <sub>AMB</sub>	3.8 kW at 20°C T <sub>AMB</sub>
Temperature range	Central unit (-15°C to +40°C) External dry cooler (-25°C to +40°C)	-15°C to +40°C

