

# DRIVES • SPECIAL CONFIGURATIONS

## ADV200 LC - LIQUID COOLED CABINET SOLUTION

For harsh environment applications



The ADV200-LC modules are used in applications that demand robustness, long life, maximum reliability and operation in harsh environments.

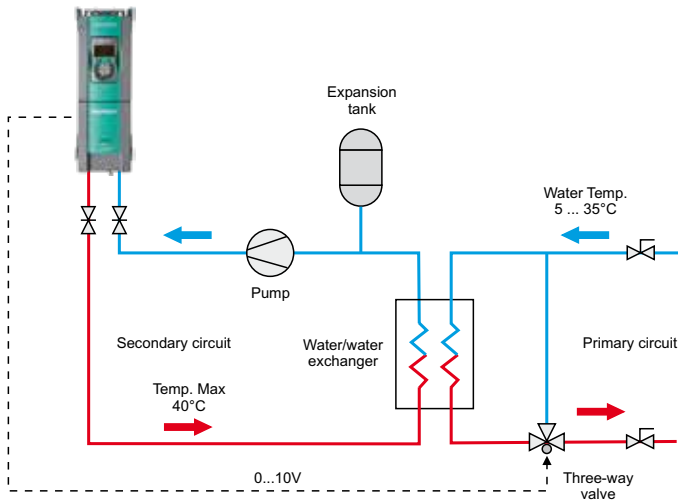
Thanks to their smaller dimensions and higher permissible ambient temperature (50°C) compared to an air-cooled inverter, the ADV200-LC allows smaller cabinets to be designed directly on board the machine.

Water and Oil can both be used as cooling liquids, to dissipate 90% of the drive's total heat loss, thus enabling the engineering of totally enclosed cabinets with a high degree of protection.

Excellent corrosion protection allows the use of a water-glycol mixture, of clean water or of industrial water, either in "open" or "closed" hydraulic systems.

Embedded probes controlling ambient humidity and the ambient and liquid cooling temperature enable the "anti-condensation" feature to define the "dew point" and protect the drive.

In the event of a “closed” hydraulic system, the ADV200-LC can manage the mixing valve and adjust the cooling liquid temperature, thus avoiding trips due to the condensation alarm.



*Closed circuit cooling system (example)*

Each panel-mounted ADV200-LC module is designed as a compact and ready-to-use solution, and is fully compatible with the maximum operating condition of the drive.

The liquid cooled cabinet are designed for industries such as Plastic, Metal, Cement, Mining, Paper, Test Benches and in all those applications where the classic air cooling is complex due to the environment condition, the reduced available space, the installation altitude or the need to reduce the noise.

The main advantages of the GEFran cabinet solutions include savings in terms of installation space, assembling and commissioning times, as well as a guarantee of functionality and certified compliance with legal requirements.

The range is available with a power rating from 90 to 800kW in the “basic” version, which only includes the power section from the line circuit breaker to the output bars in order to connect the motor.

In addition, a “ready-to-use version” serves as a complete panel comprising the power section and the auxiliary circuit and commands.

The GEFran’s Technical-Commercial Office is also to be able to develop “customised” solutions upon request.



*Heatsink with an innovative cooling system.*

*Liquid cooling provides perfect heat dissipation and optimizes the drive in the electrical panel.*

*Wide cooling liquid temperature range (up to +45 °C).*

**SPECIFICATIONS**

<b>AC Power supply</b>	380Vac -15% ... 480Vac +10%, 50/60Hz
<b>Type of system</b>	Panels suitable for TT/TN systems IT systems on request
<b>Power Range</b>	90 ... 800kW, higher on request
<b>Overload</b>	High Duty & Low Duty
<b>Ambient Temperature</b>	0° ... 50°C
<b>Cooling liquid temperature</b>	0 ... 35°C (up to 45°C with derating)
<b>Protection degree</b>	IP54- IP55
<b>Applicable standards</b>	CEI EN 50178

**PANEL CONFIGURATION**

	Ready to Use	Basic
<b>Automatic line circuit breaker</b>	X	X
<b>Integrated EMC filter (compliant with EN61800-3)</b>	X	X
<b>Line choke or DC choke</b>	X	X
<b>Fast-acting protection fuses (from 500kW HD)</b>	X	X
<b>Emergency circuit with safety relay</b>	X	
<b>Auxiliary circuits</b>	X	
<b>Inverter programming keypad on panel door</b>	X	X
<b>Controls and indicators</b>	X	



**GEFRAN DRIVES AND MOTION S.R.L.**

Via Carducci, 24  
21040 GERENZANO (VA) ITALY  
Ph. +39 02967601  
Fax +39 029682653  
info.motion@gefran.com

**Technical Assistance**  
technohelp@gefran.com  
**Customer Service**  
salesmotion@gefran.com

