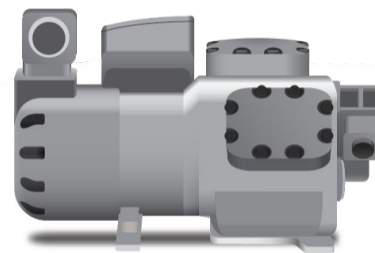
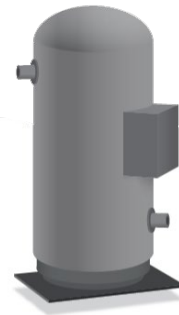


## COMPRESSOR GUARD

New compressor guard function

PN 10/20 July



Dear Customer,

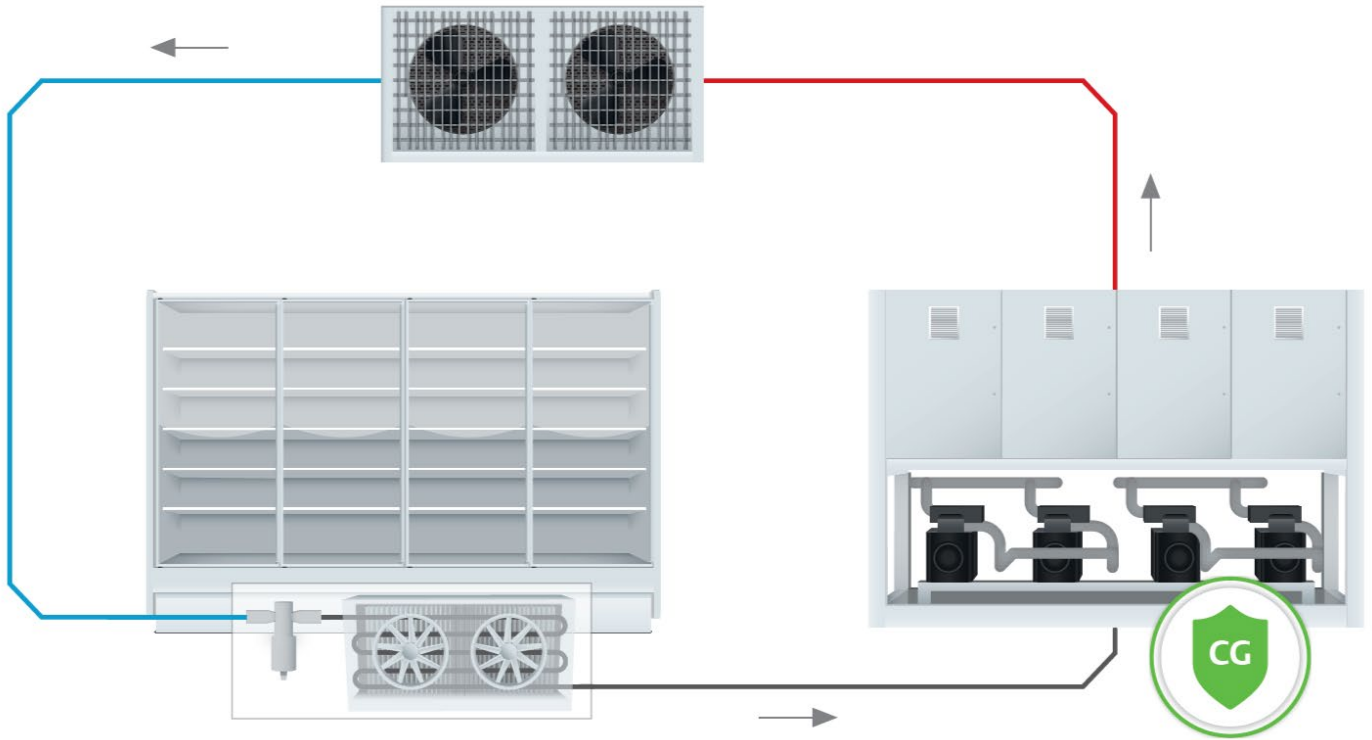
With the aim of continuously improving our solutions and focusing on our customers' needs, Emerson's Dixell is pleased to inform you that a new system has been developed to increase the safety of the plant and to ensure the compressor safety against liquid returns.

The "Compressor Guard" function is present in regulator, supervisor and monitoring system families dedicated to the control of compressor racks, motor-condensing units and devices such as cabinets or refrigerated rooms.

# 1. The “Compressor Guard” solution

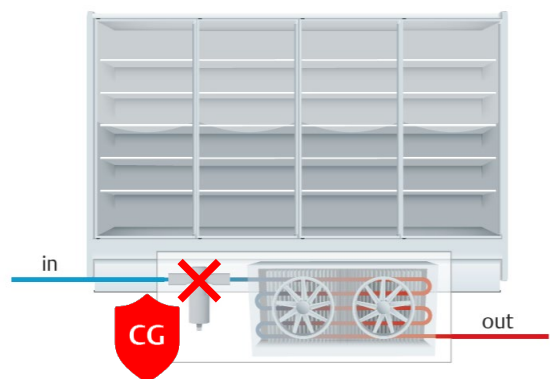
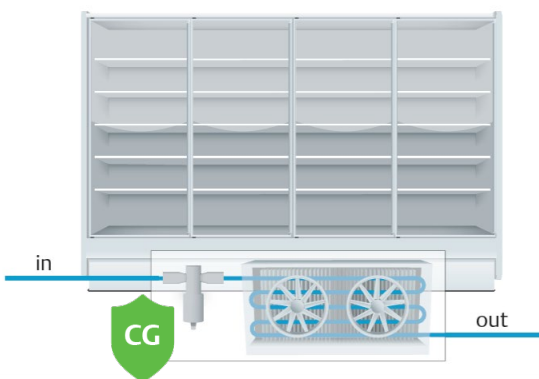
In centralized systems and in standard condensing units as well, the liquid formation in suction line can cause the compressor break.

The “Compressor Guard” function ensures compressor protection against flood infiltration. If the compressors cannot be switched ON because they are blocked due to safety times or for active alarms, the system temporarily blocks the liquid injection to the evaporators until the compressors become available again.



If compressors are available, the cabinet or cold room controller can activate the liquid injection valve of the evaporator in case of temperature control demand.

If the compressors aren't available, the “Compressor Guard” function blocks the liquid injection to the evaporators protecting the compressors.



The “Compressor Guard” function is available in 2 “versions” depending on its use: in a XeCO2 system or in a Dixell rack controller.



If the function is used with XeCO2 system, it is based on ModBUS communication among the XWEB PRO supervisor and monitoring system, the iProRACK compressor rack or motor-condensing controller and the XM600 cabinets or rooms controllers.

Controllers are equipped with special algorithms to safeguard the regulation also in case of lack of ModBUS communication, restoring the main regulation functioning.



If the function is used only in a compressor rack or motor-condensing controller, it can have a dedicated relay output that is enabled when controllers aren't available. The installer can provide a dedicated connection to block the liquid injection to the evaporators if the compressors aren't available.

In both cases, the use of expensive electromechanical solution is avoided excluding further investments and complications of the system layout, while ensuring stability, safety and decreasing maintenance services.

## 2. Compatible families

The "Compressor Guard" function is available for the following families.

Family/System	Availability
iProRACK	Available
XM600	Available
XC400/600	Under development
XWEB500/1000/5000 PRO	Under development

## 3. Availability and orders

The "Compressor Guard" function is available for all above-listed families with the relative notes. Please contact our sales department for delivery time.