


# XEC supercap (v. 1.0)



## 1. Installation notes

-  symbol alerts the user of important operating and maintenance (assistance) instructions found in the documentation attached to the device.
- This manual forms part of the product and must always be kept near the device for easy and quick reference. The device cannot be used as a safety device. Verify the limits of application before using the device.

XEC Supercap must be installed in environments that have the following characteristics:

- Environment temperature and humidity must be within the range stated in this document
- XEC Supercap should not be exposed to direct sunlight and protected from water and high atmospheric humidity in order to prevent condensation from forming
- XEC Supercap must not be subjected to mechanical stress (vibration and/or direct hits)
- Sulfur, ammonia, smoke and salt can cause corrosion and oxidation
- XEC Supercap must not be installed in environments containing flammable or explosive gases
- XEC Supercap must not be installed in dusty environments
- XEC Supercap must not be installed near devices that can generate electromagnetic interference
- XEC Supercap module must be installed inside electrical panels; pay attention to:
  - guarantee adequate distance between the module and power electrical devices
  - ensure sufficient air circulation around the device



**Warning:**

- XEC Supercap has to be installed, operated and serviced only by qualified personnel
- do not disassemble, repair or modify this device
- before removing XEC Supercap from the electrical panel, switch off the electrical panel to discharge the capacitors (device connected to XEC Supercap must remain connected to force closing procedure of the valve). After switching off, wait at least 1 minute before removing XEC Supercap.

No responsibility is assumed by Dixell S.r.l. in case of non-compliance with the above recommendation.

### 1.1 General rules

XEC Supercap is designed to be used with Dixell products (XEV, IEV and others); compatibility with Dixell devices has to be verified in the user manual/technical sheet of the device connected to the XEC. In case of doubt, please contact Dixell Service department.

Before connecting the device, verify that the power supply is compliant with the rating.



**Separate the power of the device from the rest of the electrical devices connected inside the electrical panel; XEC Supercap requires a dedicated transformer.**

**The secondary of the transformer must never be connected to the ground.**

**The failure of the observance of this rule may result in damage to the XEC Supercap and / or the connected device.**

Dixell Srl reserves the right to modify this manual without prior notice. The documentation can be downloaded from [www.dixell.com](http://www.dixell.com) even prior to purchase.

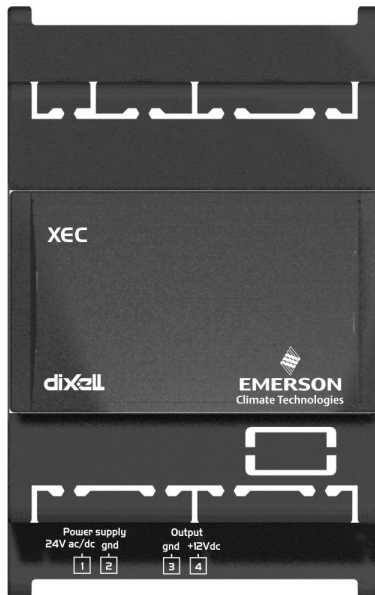
Dixell Srl reserves the right to change the composition of its products, even without notice, ensuring the same and unchanged functionality.

## 1.2 Product disposal (WEEE)

With reference to Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 and to the relative national legislation, please note that:

- There lies the obligation not to dispose of electrical and electronic waste as municipal waste but to separate the waste.
- Public or private collection points must be used to dispose of the goods in accordance with local laws. Furthermore, at the end of the product's life, it is also possible to return this to the retailer when a new purchase is made.
- This equipment may contain hazardous substances. Improper use or incorrect disposal can have adverse effects on human health and the environment.
- The symbol shown on the product or the package indicates that the product has been placed on the market after 13 August 2005 and must be disposed of as separated waste.
- Should the product be disposed of incorrectly, sanctions may be applied as stipulated in applicable local regulations regarding waste disposal.

## 2. Connections



	Connector Pin number	Description
Power input	1	24 Vac / Vdc (+)
	2	24 Vac / Vdc (gnd)
Power output	3	gnd
	4	+12Vdc

### 3. Connection diagram

Connection diagram of XEC Supercap to XEV20D or IEV 22D driver to control an electronic expansion valve.

XEC Supercap and XEV20D or IEV22D must be powered by two different transformers; the failure of the observance of this rule may result in damage to the XEC Supercap and / or the connected device.

Connection diagram of XEC Supercap to XEV20D or IEV24D driver to control two electronic expansion valves.

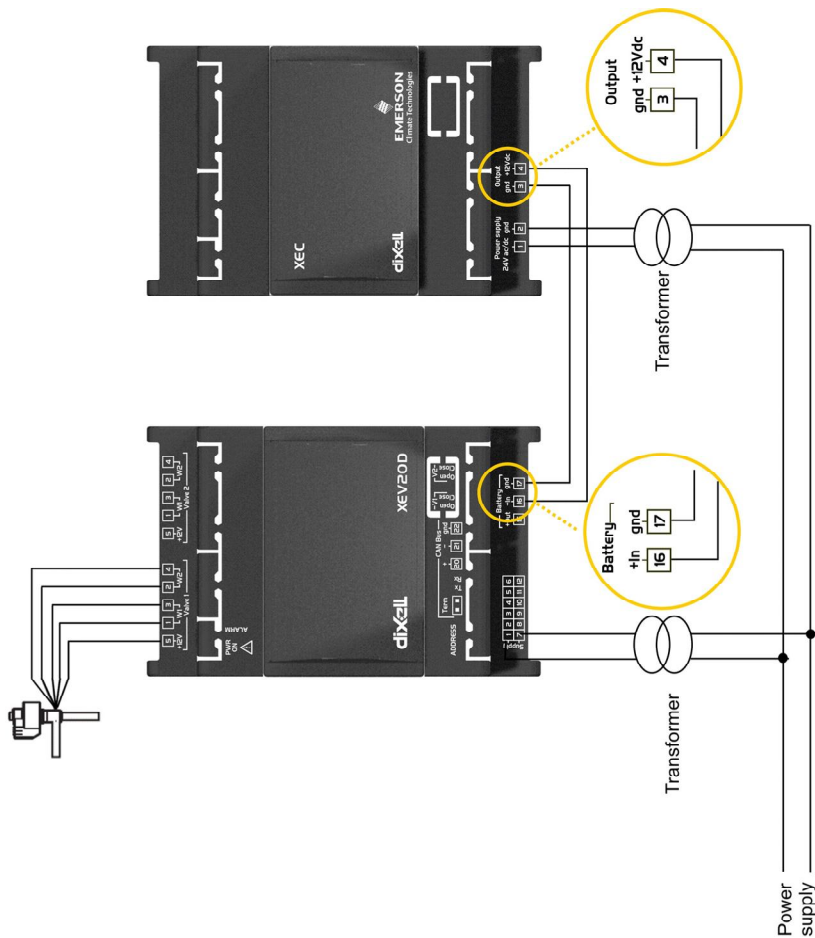
XEC Supercap and XEV20D or IEV24D must be powered by two different transformers; the failure of the observance of this rule may result in damage to the XEC Supercap and / or the connected device.

If the XEV20D or IEV24D driver controls two expansion valves, two XEC Supercap have to be used.

For both XEC Supercap:

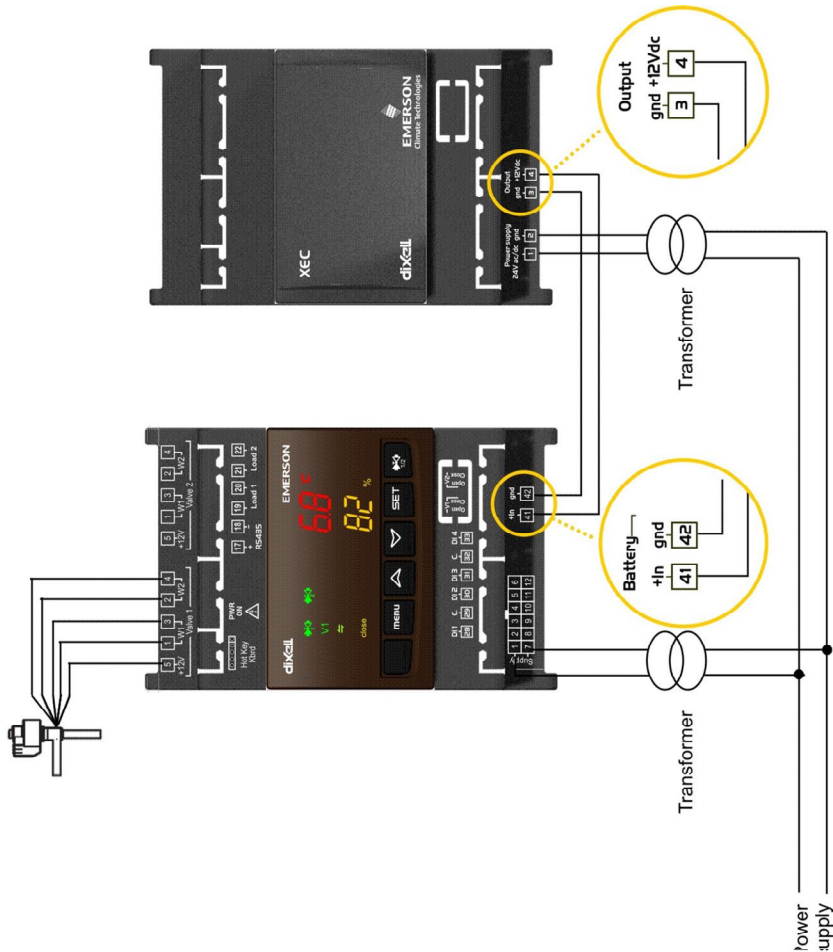
- respect the same power supply connection (terminal 1 of both XEC Supercap has to be connected to the same pole of the transformer; terminal 2 of both XEC Supercap has to be connected to the other pole of the transformer)
- terminal 3 (gnd) of both XEC Supercap has to be connected to the “gnd” of the connected device; terminal 4 (+12V) of both XEC Supercap has to be connected to the “In” of the connected device.

Connection to XEV20D driver and one expansion valve:

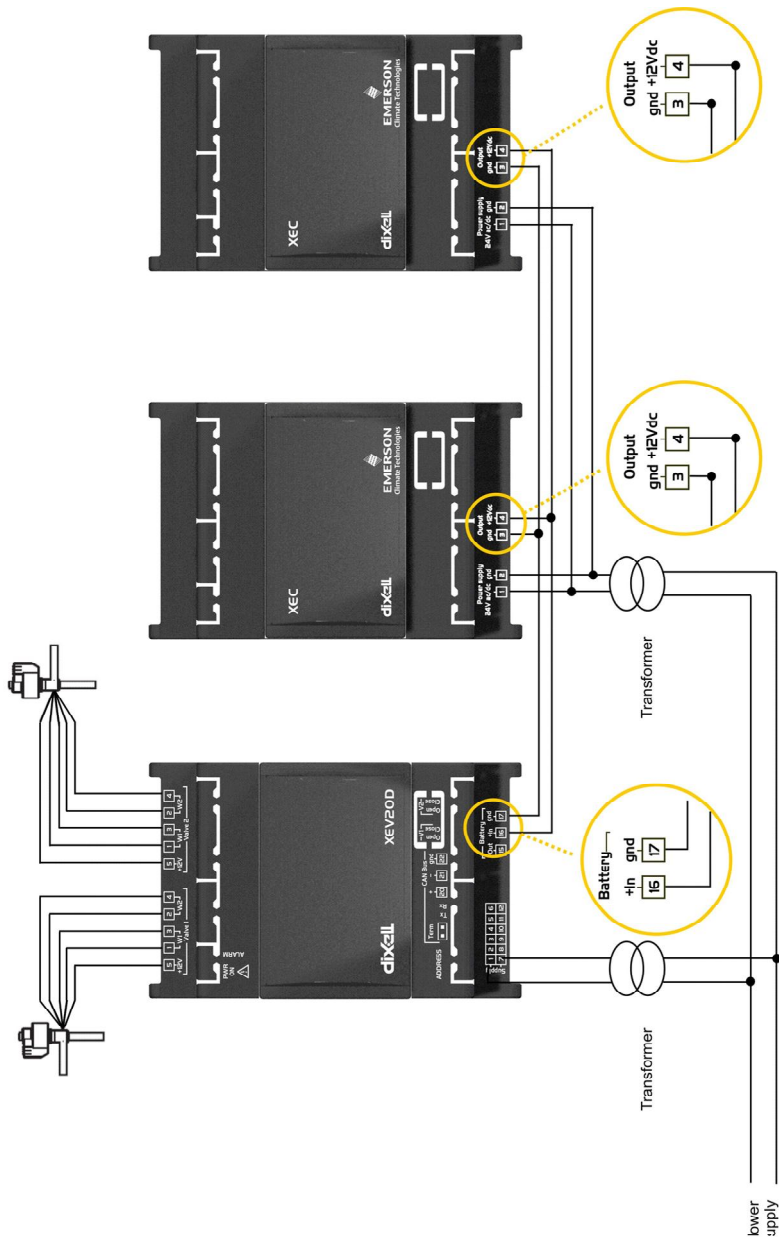




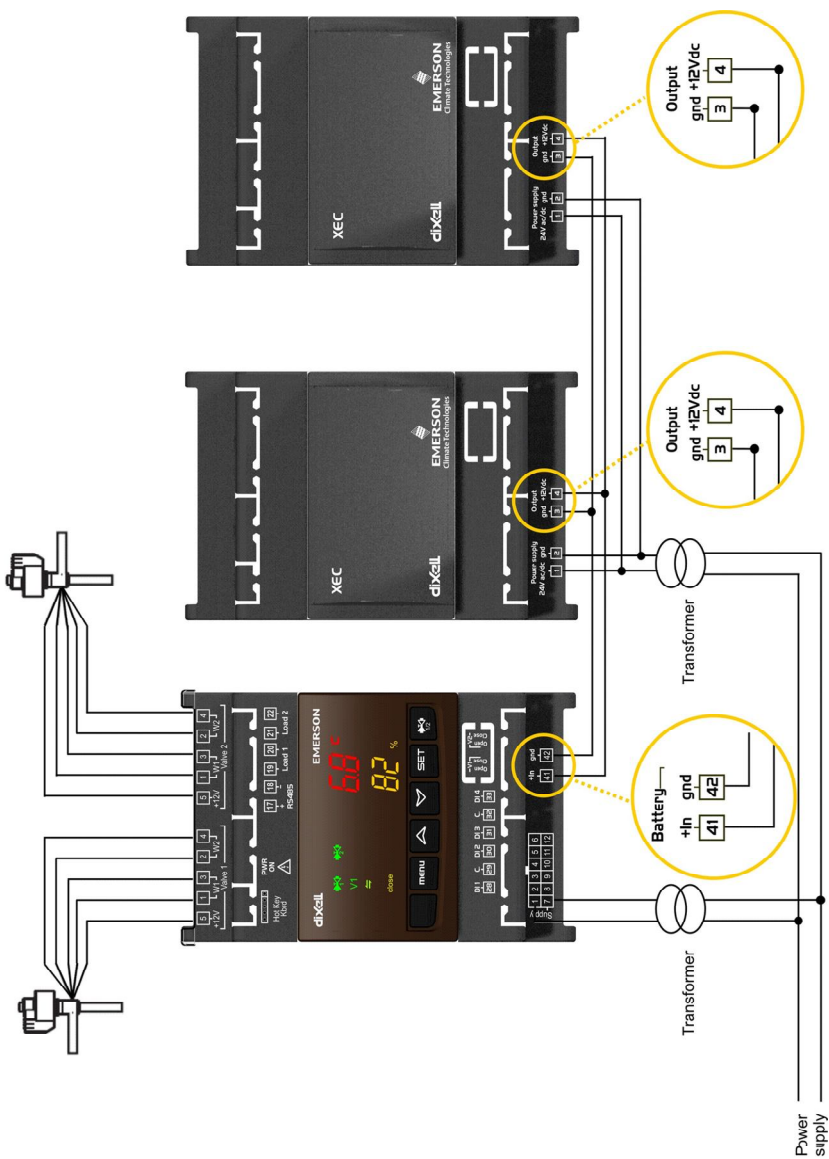
Connection to IEV22D driver and one expansion valve:



Connection to XEV20D driver and two expansion valves:



### Connection to IEV24D driver and two expansion valves:



#### 4. Electrical specification

<b>Power supply:</b>	24 Vac/dc+/-20% Freq.: 50 / 60 Hz
<b>Output voltage:</b>	12 Vdc +15%÷-0%
<b>Power consumption:</b>	12VA
<b>Max. output current:</b>	1.2 A max.
<b>Charging time:</b>	1 minute
<b>Max. current in charging time:</b>	350 mA
<b>Input/output max. lenght:</b>	50 cm. Use AWG18 cables.
<b>Max. number of valves closure after a complete charging time</b>	1
<b>Connectors:</b>	Screw extractable connector (wire $\leq$ 2.5mm <sup>2</sup> )

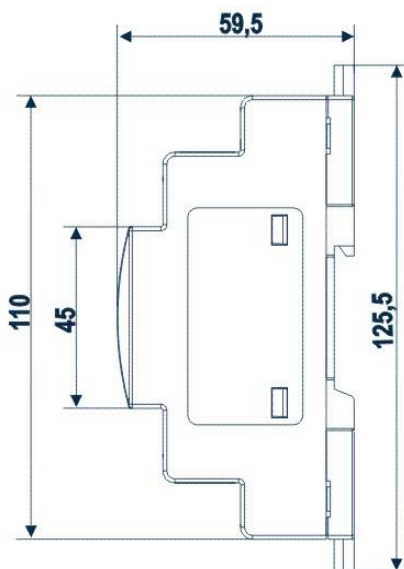
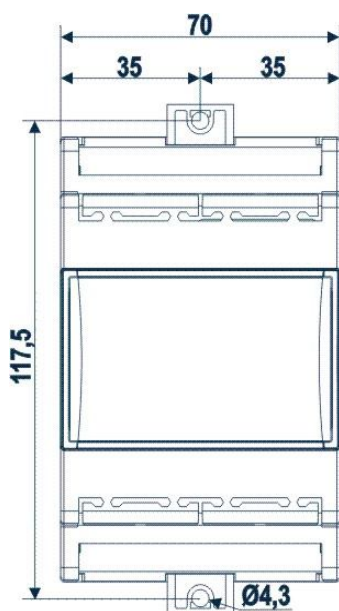
## 5. Plastic case

<b>Assembly:</b>	DIN rail mounting (EN 50022, DIN 43880)
<b>Material:</b>	ABS
<b>Self-extinguishing :</b>	V0 (UL94)
<b>Color:</b>	Black
<b>IP protection:</b>	IP20
<b>Product certification:</b>	Immunity for industrial environments EN61000-6-2, EN61000-6-2/EC, EN61000-6-2/IS1  ----- ----  Emission standard for residential, commercial and light-industrial environments  EN61000-6-3, EN61000-6-3/A1

## 6. Environmental conditions

<b>Operating temperature:</b>	-10°C ÷ 60°C
<b>Storage temperature:</b>	-20°C ÷ 70°C
<b>Relative humidity:</b>	20% ÷ 85% (not condensing)

## 7. Dimensions







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