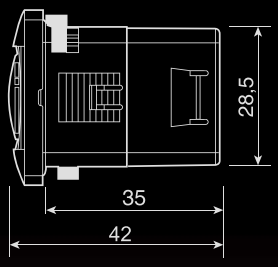
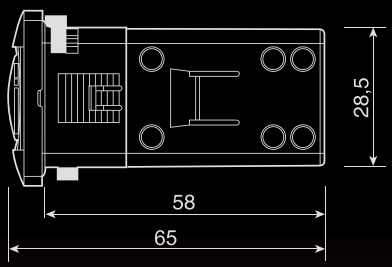
plug-in

powersplit ...the network evolution!

CAREL

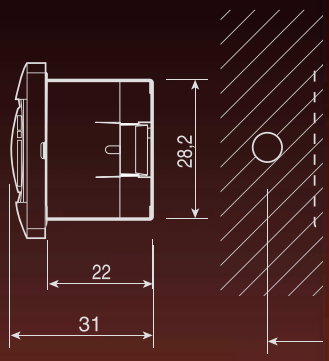
Technology & Evolution





PST00VR100,
PST00SR300, PJC 2HP

PJS,Y 2HP



PTS00LR200

powersplit is the new controller for multiplexed cabinets with on-board compressors.

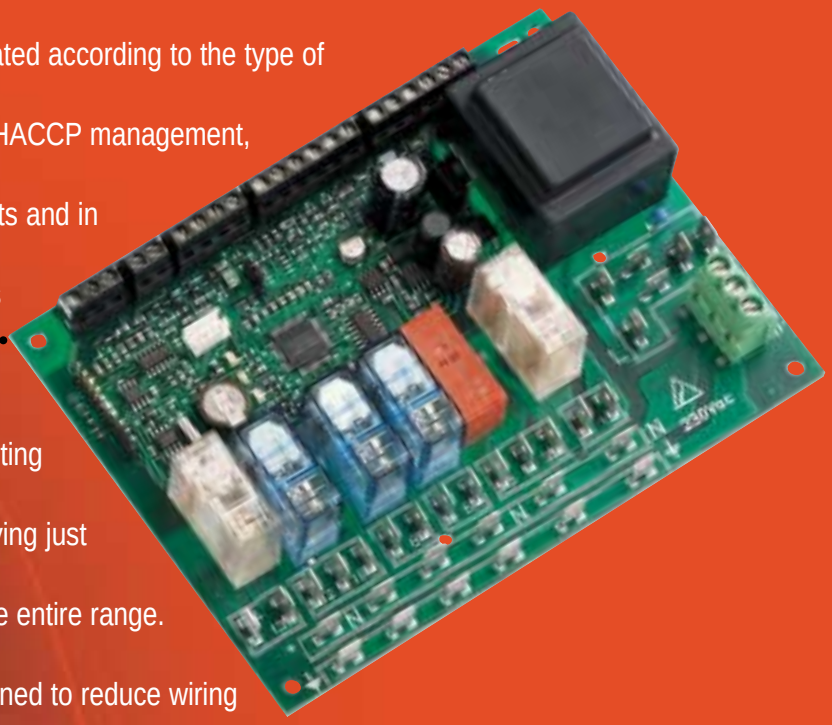
Thanks to the continuous monitoring of critical events (HACCP), the local network, the connection to the supervisory and telemaintenance systems, the power relay outputs, the auxiliary terminal block on the board, the light sensor and etc... this controller represents the TOP of the range for the management of the entire unit!

plug-in

powersplit ...total control!

powersplit is not just a controller, but rather a range of products.

It is available in configurations with 4 or 6 outputs, and with or without built-in clock. This means flexibility, the possibility to adapt the controller not only to a type of cabinet, but also to a series of cabinets that can then be differentiated according to the type of interface display, the HACCP management, the time-based defrosts and in general all the options featured on the controller, while exploiting the advantages of having just one intelligence for the entire range.



powersplit is designed to reduce wiring and the related power components, with a consequent reduction in the management of product codes and inevitably costs.

All with the maximum reliability of a standard product.

Comply With
HACCP
93/43/EU

Comply with
UNI EN 441

With programming key

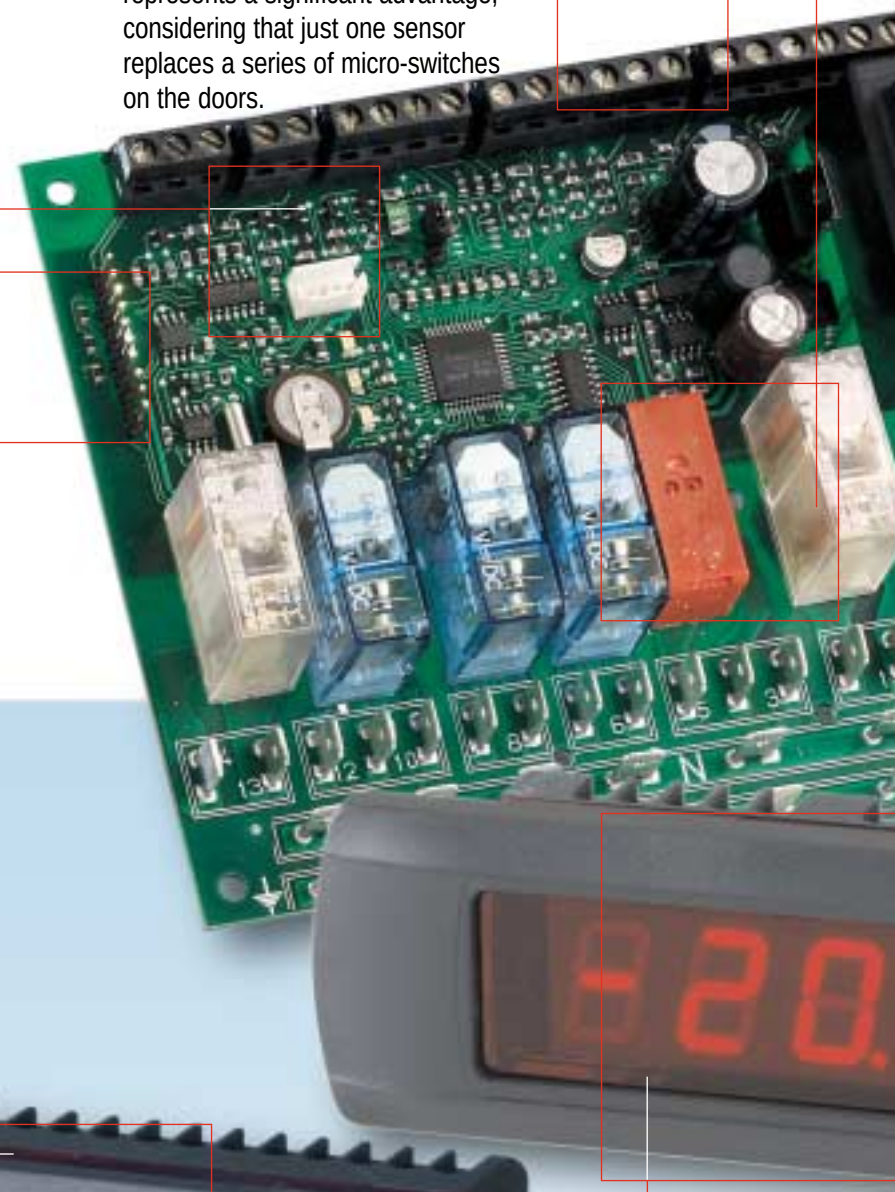
The programming key allows the instrument to be programmed quickly, even when not powered, with the certainty of not having made errors.
It reduces the number of product codes managed and allows the controller to be programmed in just a few seconds, even during the end-of-production testing phase. This is an important tool also for the service network.

Light sensor

An absolutely new feature in refrigeration! This measures the variations in light inside the refrigerated compartments, thus allowing the controller to activate the functions featured as a response to the opening of the door. This represents a significant advantage, considering that just one sensor replaces a series of micro-switches on the doors.

Local Network connection and RS485 connection

The PowerSplit has been designed to manage Plug-in showcases, and as standard offers serial connection to a Local Network. The advantages of the Local Network for optimising units with a number of sections are described on the following pages. By adding the RS485 option, the local network can be used for connection to a Carel remote supervisor and remote management system.



Small display

This terminal has the same appearance and drilling template (32x74) as all the Plug-in series controllers.The innovations have been introduced with this new-concept controller with the aim of maintaining the same feel for those who use the Plug-in range of instruments. This is important both from an aesthetic and functional point of view, in that the users of this controller require very little time to fully exploit all the functions.

Large display

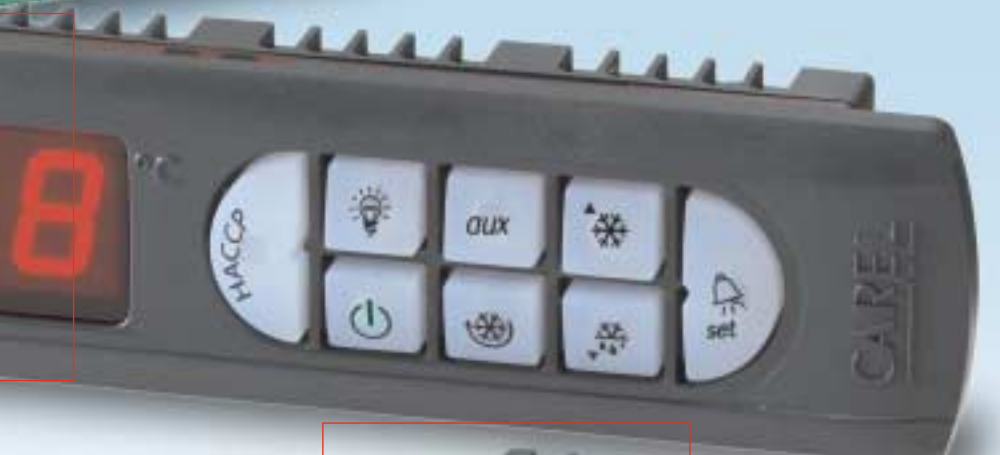
As well being aesthetic it is also very powerful digits, the keypad is m and is thus more ergon than the classic polyca are back-lit and easy t direct access to the fu light, defrost and conti display too can be eas customised using the r One very important de just 22mm.

Power relay

Power is the key word for this controller. The figures speak for themselves: 2 HP compressor, 3200W defrost, 70A peak for the light output, changeover alarm relay and auxiliary relay to control the other general functions.

Built-in auxiliary terminal block

Evolution not only means more software functions but also increasing integration between the electrical panel and control electronics. This is why the board features a complete power terminal block for the direct connection of the loads, including the earth connection, without requiring an external component for relaying the wiring.
This means savings in time and surely less possibility of errors during the production phase.



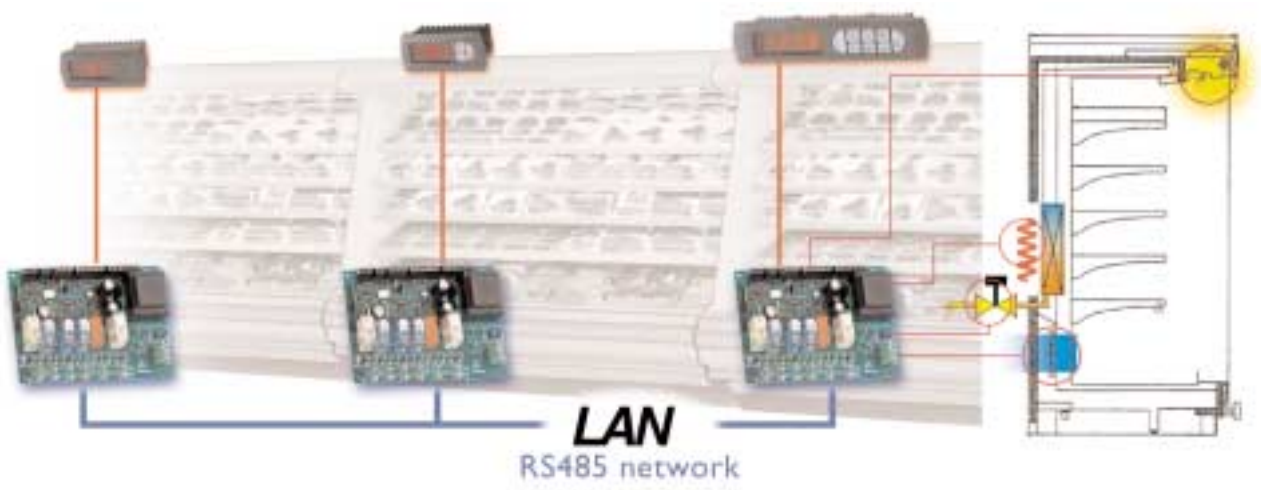
... team work!

cally pleasing
. The display has 4
ade using silicon
nomic and reliable
arbonate, the buttons
o use, thanks to the
nctions, HACCP,
nuous cycle. This
ily and economically
removable panel.
tail is the depth:

Display

This can always be connected in parallel with the interface used to set the parameters. It can also display the temperature of the third probe located in the hottest point of the cabinet, as required by the standard EN441-13.

... team work!



A new, powerful tool: the Local Network

With the PowerSplit you will discover the advantages offered by the Local Network in the management of your multi-section units. The PowerSplit Local Network is very simple to use: just connect 2 wires between the controllers that manage the various sections of your units.
The PowerSplit Local Network, included as a standard feature, means less wiring and more rational management of the sections. With the Local Network, all the controllers can be centralised onto just one display. This means that when pressing the light button, the command is sent via serial connection to all the boards, which activate the light relay at the same time, all without additional wiring.

The same is true for the ON/OFF, Manual defrost, Continuous cycle, and AUX commands. The local network allows also the alarms from the different controllers, that is, from the different sections of the cabinet, to be centralised onto just one terminal. Furthermore, it allows defrosts to be synchronised: the defrosting of all sections starts at the same time and ends independently, according to the status of the different sections. The following refrigeration phase is started at the same time for all the sections upon completion of the defrost.

For further information, please refer to the instruction manual or visit the Carel web site under the News section.

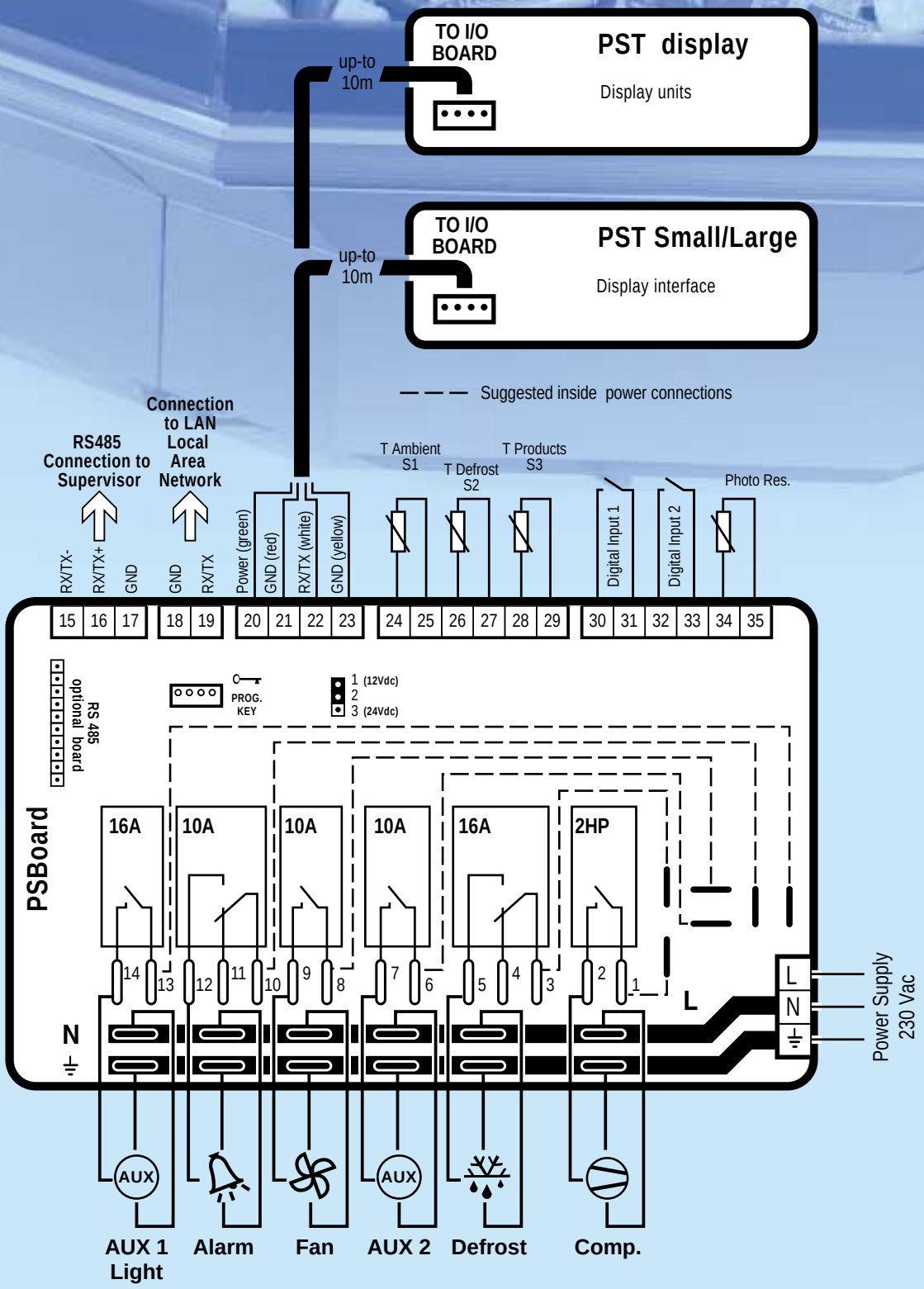
...standards compliance

Comply with
EN 441

The European standard EN441-13 defines the criteria for measuring the temperature of refrigeration units. In particular, it establishes the characteristics of the instrument used to make the measurements in terms of precision, resolution, field of measurement and time constant. In addition, there are precise indications regarding the position of the temperature probe, which must be able to display the 'hot point' (this does not normally coincide with the controlled temperature).
The Plug-in series controllers satisfy the requirements of this standard. The control temperature and "hot point" can be managed separately on the display of the unit.
In the models fitted with a clock, HACCP management is standard!

Comply With
HACCP
93/43/EU

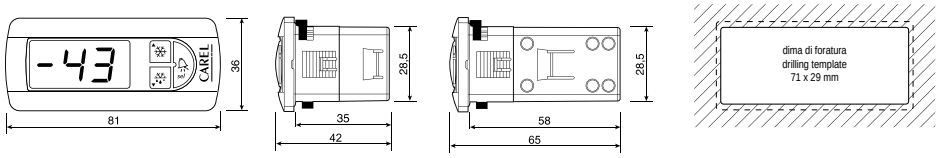
This guarantees the temperature control of stored food products in compliance with the requirements of the HACCP system.
The parameters are set directly in the instrument, and the limits of time and temperature required by the standards for stored food can also be set.
The controller automatically monitors the unit, signalling any critical situations. It provides a warning signal if the set limits are exceeded, saving the main information to EEPROM (permanent memory). Furthermore, it signals power failures in the event where this affects the maintenance of the required temperature.
All the data can be easily read on the instrument, and the alarm events are signalled automatically.


TO I/O BOARD
PST display
Display units
up-to 10m
TO I/O BOARD
PST Small/Large
Display interface
up-to 10m
Suggested inside power connections
RS485 Connection to Supervisor
Connection to LAN Local Area Network
RX/TX-
RX/TX+
GND
GND
RX/TX
Power (green)
GND (red)
RX/TX (white)
GND (yellow)
T Ambient S1
T Defrost S2
T Products S3
Digital Input 1
Digital Input 2
Photo Res.
15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
RS 485 optional board
PROG. KEY
1 (12Vdc)
2
3 (24Vdc)
PSBoard
16A
10A
10A
10A
16A
2HP
14 13 12 11 10 9 8 7 6 5 4 3 2 1
N
L
L
N
Power Supply 230 Vac
AUX
AUX
AUX 1 Light
Alarm
Fan
AUX 2
Defrost
Comp.

PowerSplit

I/O boards Terminal

	Vac power supply	OUTPUTS: compressor	defrost	ventilated evaporator	alarm	light	aux	INPUTS: ambient temperature	defrost temperature	product temperature	ON/OFF input	HACCP	PLUS: easy link	quick mounting	back-lit keypad	removable terminals	buzzer	real time clock	LAN connection	RS485 optional
PST00VR100								●							●					●
PST00LR200															●		●			●
PST00SR300								●			●				●		●			●
PSB0000000	230	2 Hp	16A	●	●			●	●	●	●		●						●	●
PSB0001000	230	2 Hp	16A	●	●			●	●	●	●	●	●					●	●	●
PSB0000100	230	2 Hp	16A	●	●	●	●	●	●	●	●		●						●	●
PSB0001100	230	2 Hp	16A	●	●	●	●	●	●	●	●	●	●					●	●	●



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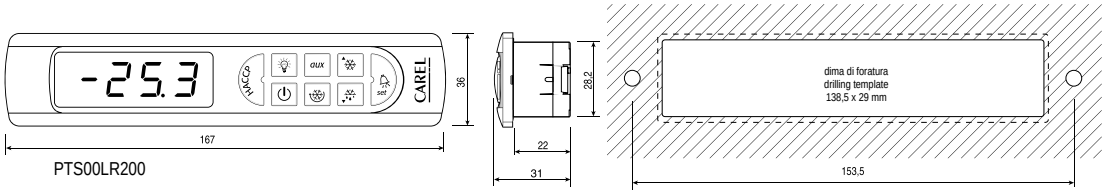
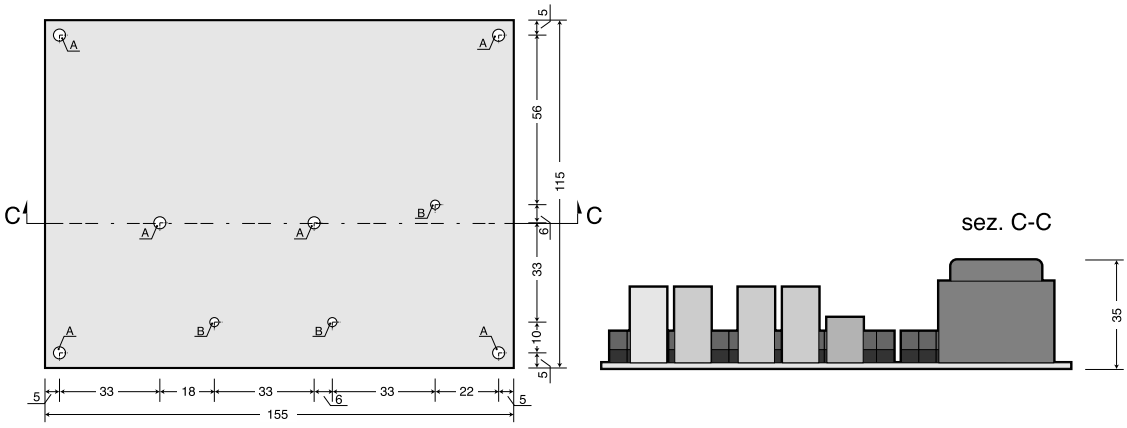


PTS00LR200



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