

Metal panels for suspended radiant ceilings

Datasheet
0995EN 05/2019

K60



K120



Panels GK Top are designed for installation of suspended ceiling heating and cooling radiant systems for laying on parallel or crossed structure.

The panels consist of an oven-varnished galvanized steel sheet, thermal activation with 4 or 6 anodized aluminum thermal diffusers wide 75 mm and factory-glued to the panels, and a 12 mm copper pipe. The thermal insulation can be provided using polyester-fiber thermoacoustic panels K820.

The variety of panel profiles make the system modular and flexible; inactive panels, with no hydraulic circuits, complete the radiant surfaces when combined to the adjoining structural elements.

➤ Versions and product codes

SERIES	PRODUCT CODE	PANEL FINISH	COLOR	TYPE	ACTIVATION	MODULE DIMENSIONS [mm]	PANEL DIMENSIONS [mm]	EMPTY WEIGHT [kg]
GK Top	K60X501	Perforated R2516	White RAL 9010	Inactive	-	600 x 1200	596 x 1030	4,6
	K60CX501	Perforated R2516	White RAL 9010	Active	Type C75 4 diffusers	600 x 1200	596 x 1030	8,0
	K60LX501	Smooth	White RAL 9010	Inactive	-	600 x 1200	596 x 1030	4,9
	K60LCX501	Smooth	White RAL 9010	Active	Type C75 4 diffusers	600 x 1200	596 x 1030	8,3
	K120X501	Perforated R2516	White RAL 9010	Inactive	-	1200 x 1200	1030 x 1030	6,7
	K120CX501	Perforated R2516	White RAL 9010	Active	Type C75 6 diffusers	1200 x 1200	1030 x 1030	12,3

NOTE. The panels and structure type are customizable based on the technical and architectural requirements of the system.

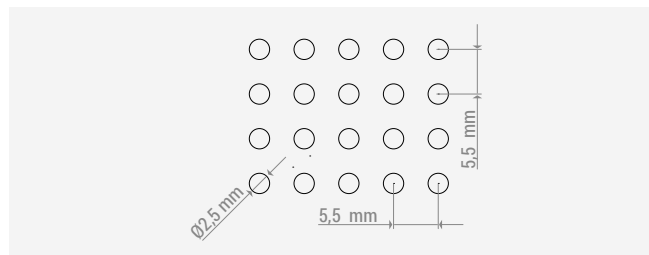
Technical data

Technical characteristics

- Galvanized steel sheet panel, RAL 9010 post-varnishing, thickness 0,8 mm
- Activation type: C75 with 4 or 6 anodized aluminum thermal diffusers
- Copper pipe coil Ø 12 mm
- Anchoring to exposed suspension parallel structure (K60) or exposed crossed structure (K120)
- Reaction to fire class: B-s1-d0
- Hydraulic circuit Kv: K60C: 0,86
K120C: 0,73
- Panel water content: K60C: 0,29 l
K120C: 0,43 l

Standard perforation

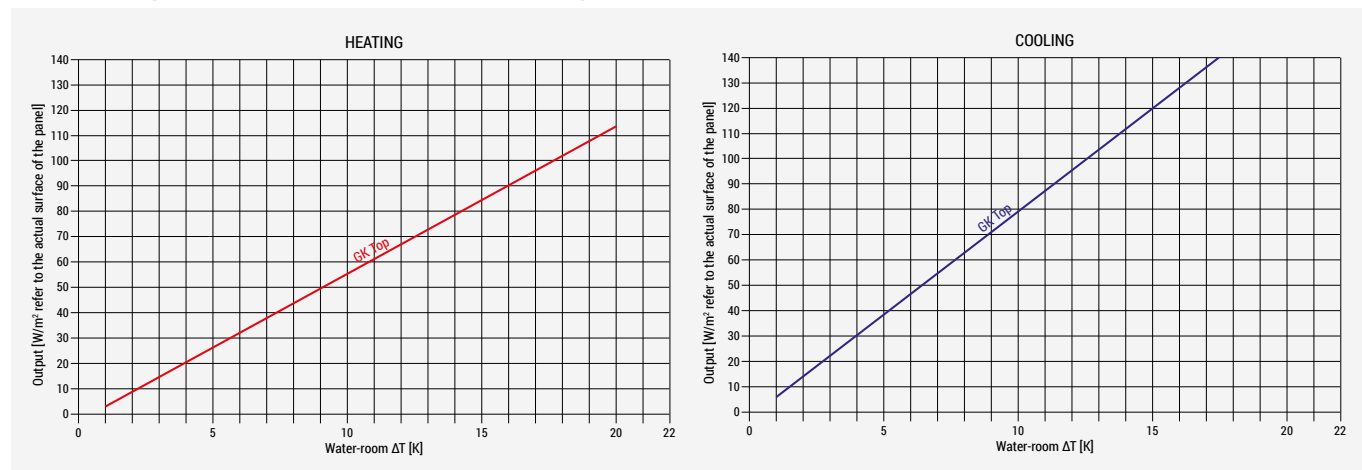
Available as smooth and perforated; the latter features Ø 2,5 mm holes on the entire surface, except for the 22 mm-wide perimetric zone (16% hole percentage).



Thermal outputs according to EN standards referred to active area

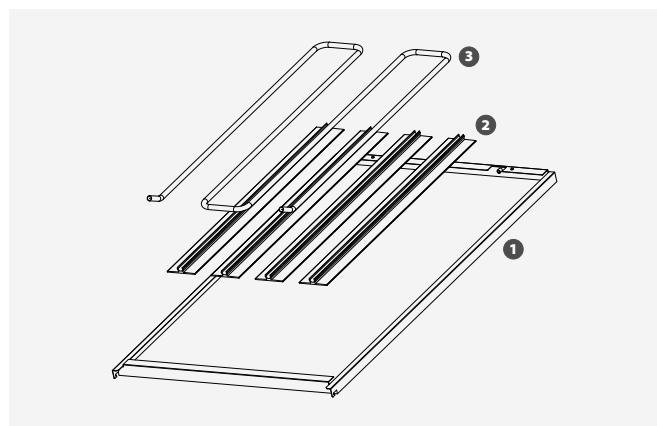
HEATING (ACCORDING TO EN14037)	COOLING (ACCORDING TO EN14240)
132 W/m ² with water-room ΔT 15 K	97 W/m ² with water-room ΔT 8 K

Thermal outputs referred to actual surface of the panel



NOTE. Thermal outputs according to thermostatic chamber tests. Outputs refer to actual surface of the panel.

Components



LEGEND

- Galvanized steel panel
- 75x700 mm aluminum thermal diffusers
- Ø 12 mm copper pipe coil

➤ Connection and distribution system

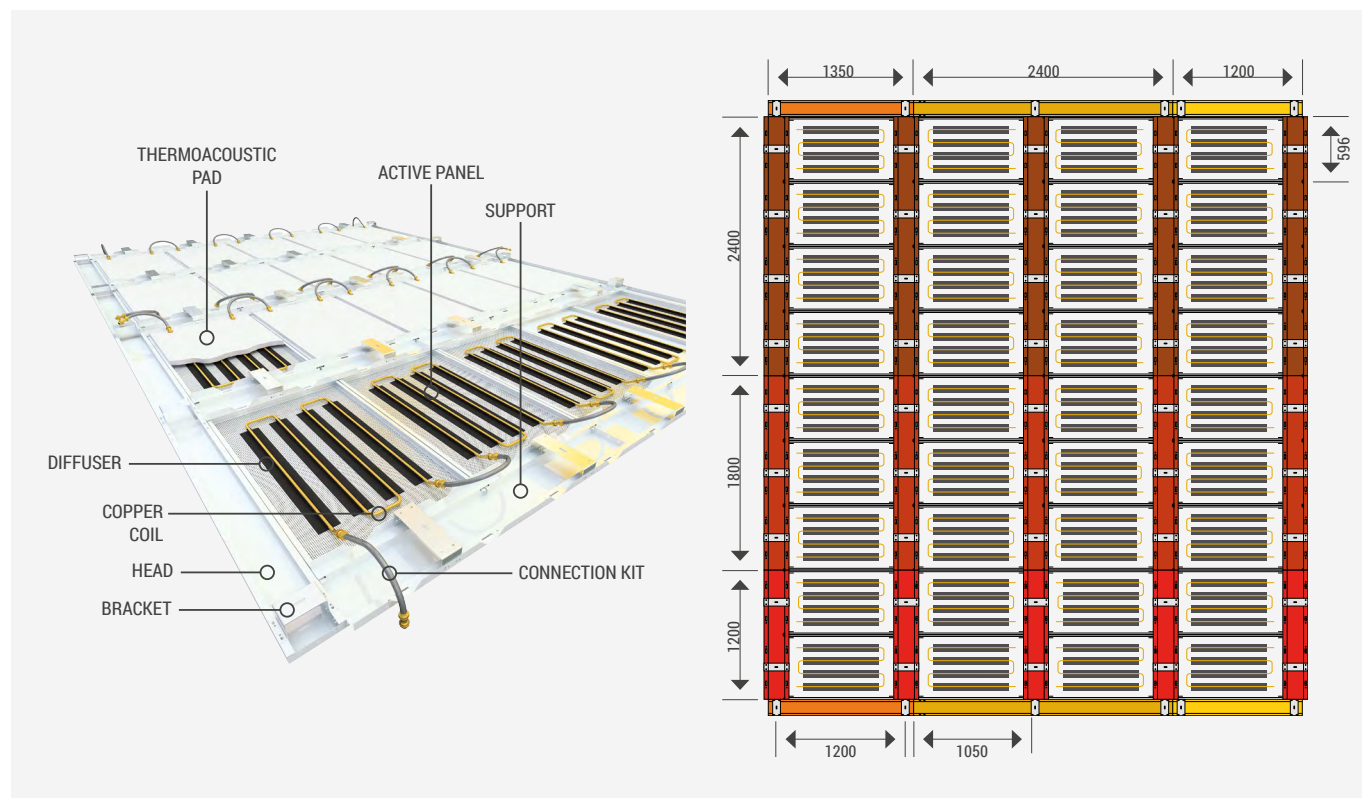
Anchoring to parallel structure: panels K60

The parallel structure features 150 mm-wide primary supports that are installed following parallel directrices with a 1200mm center distance and crosswise to which the panels are fitted.

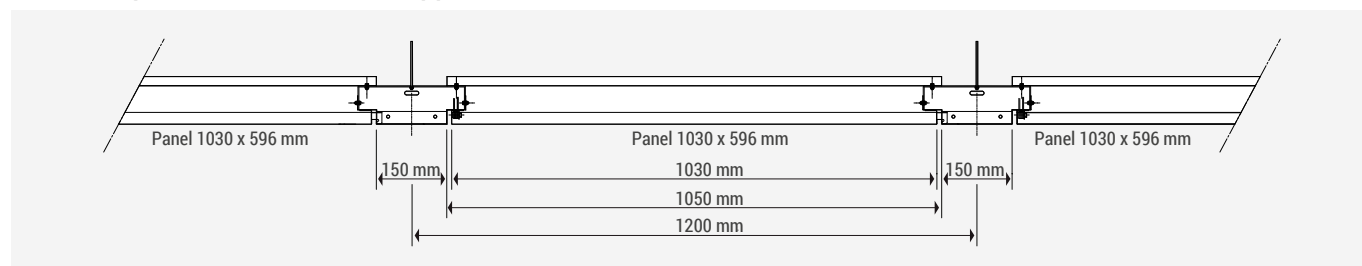
The head supports complete the layout for a pleasant final look.

A 10 mm opening is left between the supports and the panel to make access to the same easier.

Head semi-supports are recommended to reduce the dimensions when there is limited space available.



Section of parallel structure with supports base 150 mm



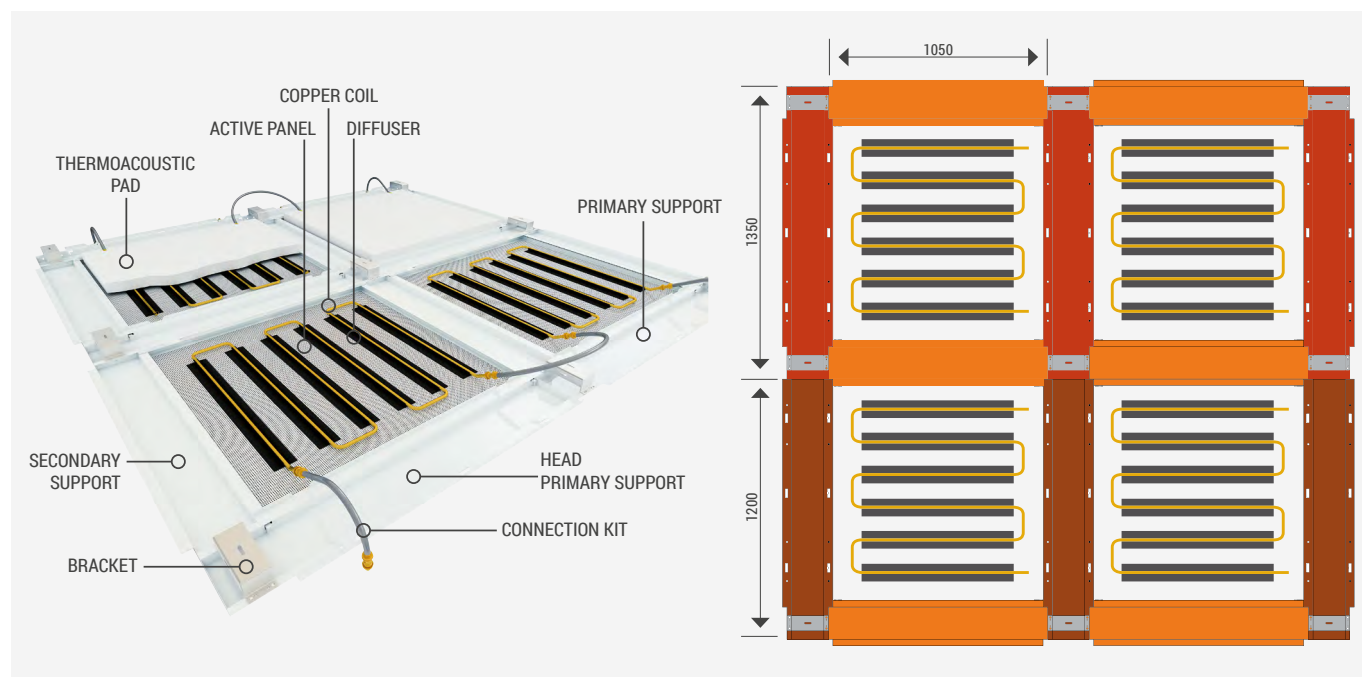
Closing the radiant surface

Once the hydraulic connection and the seal test are completed (as described in datasheet 0414EN), the radiant surface must be closed with inactive compensation panels.

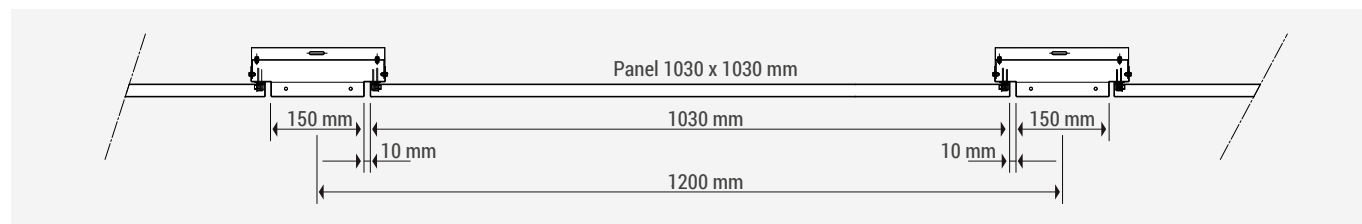
Anchoring to crossed structure: panels K120

The crossed structure features two series of supports. The primary supports, wide 150 mm and installed following parallel directrices with a 1200 mm center distance, are the backbone of the suspended ceiling; the secondary supports, with a 1200 mm center distance, are fitted crosswise to the primary ones to complete the system and make it firmer.

A 10 mm opening is left between the supports and the panel to make access to the same easier.



Section of crossed structure with supports base 150 mm



Closing the radiant surface

Once the hydraulic connection and the seal test are completed (as described in datasheet 0414EN), the radiant surface must be closed with inactive compensation panels.

▶ Panel-panel hydraulic connections

Type 1 connection

The panels are connected one to the other through RC102 straight push-fittings or RC122 curve push-fittings and a 12x1,5 mm plastic pipe with anti-oxygen barrier R986-1.



RC102X004 (12 x 12 mm)



RC122X004 (12 x 12 mm)



R986SY100 (12 x 1,5 mm)



RC900Y011 (12 x 1,5 mm)

Type 2 connection

The panels are connected one to the other using pre-assembled kit K85RS (length 750 mm), consisting of a flexible pipe with anti-oxygen barrier, stainless steel mesh sleeve and two 12 mm push-fittings RS.



K85RSY001 (12 x 12 mm - length 750 mm)

▶ Panel-manifold hydraulic connections

Type 1 connection

To connect the distribution manifold to the panels, connect RC109 and RC107 push-fittings to the plastic pipe (diameter 16x1,5 mm).



RC109X014 (12 mm x 1/2" F)



RC107X017 (1/2" M x 16 mm)



R986SY120 (16 x 1,5 mm)



RC900Y016 (16 x 1,5 mm)

Type 2 connection

To connect the distribution manifold to the panels, use pre-assembled kit K85RS (length 400 mm), consisting of a flexible pipe with anti-oxygen barrier and stainless steel mesh, plus an RS 12 mm push-fitting on one side and a 1/2" F fitting on the other. Installation of push-fitting RC107 (1/2" M x 16 mm) enables to connect the plastic pipe (diameter 16x1,5 mm).



K85RSY002
(12 mm x 1/2" F - length 400 mm)



RC107X017 (1/2" M x 16 mm)



R986SY120 (16 x 1,5 mm)



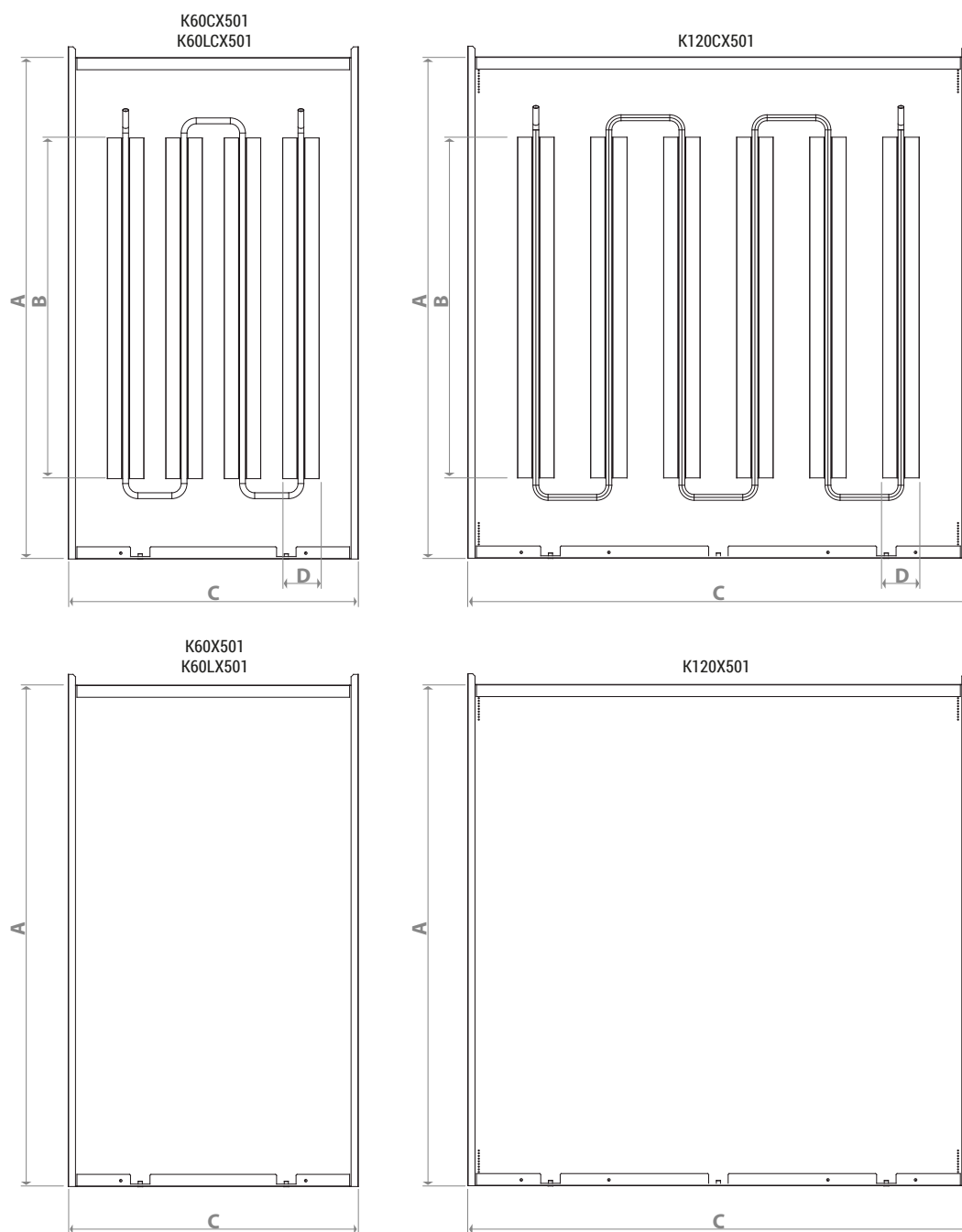
RC900Y016 (16 x 1,5 mm)

⚠ WARNING. Connections made with RC push-fittings are irreversible.

The terminal section with the plastic pipe must be completed with an RC900 reinforcement bush before inserting it into the RC push-fitting.

⚠ WARNING. RS push-fittings must be connected only to hard-drawn or annealed copper pipes.

➤ Dimensions



SERIES	PRODUCT CODE	TYPE	A [mm]	B [mm]	C [mm]	D [mm]
GK Top	K60X501	Inactive	1030	-	596	-
	K60CX501	Active	1030	700	596	75
	K60LX501	Inactive	1030	-	596	-
	K60LCX501	Active	1030	700	596	75
	K120X501	Inactive	1030	-	1030	-
	K120CX501	Active	1030	700	1030	75

➤ Product specifications

K60X501

Inactive perforated panel consisting of a galvanized steel sheet with RAL 9010 post-varnishing, for laying on parallel structure base 150 mm. Pivot opening and spring-fitted closing system. Dimensions of suspended ceiling module 600x1200 mm. Panel dimensions 596x1030 mm. Panel thickness: 0,8 mm.

K60CX501

Active perforated panel consisting of a galvanized steel sheet with RAL 9010 post-varnishing, for laying on parallel structure base 150 mm. Activation consisting of four 75x700 mm anodized aluminum thermal diffusers. Hydraulic circuit with 12 mm copper pipe coil. Pivot opening and spring-fitted closing system. Dimensions of suspended ceiling module 600x1200 mm. Panel dimensions 596x1030 mm. Panel thickness: 0,8 mm.

K60LX501

Inactive smooth panel consisting of a galvanized steel sheet with RAL 9010 post-varnishing, for laying on parallel structure base 150 mm. Pivot opening and spring-fitted closing system. Dimensions of suspended ceiling module 600x1200 mm. Panel dimensions 596x1030 mm. Panel thickness: 0,8 mm.

K60LCX501

Active smooth panel consisting of a galvanized steel sheet with RAL 9010 post-varnishing, for laying on parallel structure base 150 mm. Activation consisting of four 75x700 mm anodized aluminum thermal diffusers. Hydraulic circuit with 12 mm copper pipe coil. Pivot opening and spring-fitted closing system. Dimensions of suspended ceiling module 600x1200 mm. Panel dimensions 596x1030 mm. Panel thickness: 0,8 mm.

K120X501

Inactive perforated panel consisting of a galvanized steel sheet with RAL 9010 post-varnishing, for laying on crossed structure base 150 mm. Pivot opening and spring-fitted closing system. Dimensions of suspended ceiling module 1200x1200 mm. Panel dimensions 1030x1030 mm. Panel thickness: 0,8 mm.

K120CX501

Active perforated panel consisting of a galvanized steel sheet with RAL 9010 post-varnishing, for laying on crossed structure base 150 mm. Activation consisting of six 75x700 mm anodized aluminum thermal diffusers. Hydraulic circuit with 12 mm copper pipe coil. Pivot opening and spring-fitted closing system. Dimensions of suspended ceiling module 1200x1200 mm. Panel dimensions 1030x1030 mm. Panel thickness: 0,8 mm.

⚠ Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

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