ECO FRIENDLY PRODUCT

delvalle®

INDUSTRIAL ENCLOSURE SOLUTIONS

comercial@delvalle.es | www.delvallebox.com

AIR COOLING UNITS (OUTDOOR)

TROPIC SERIES IP54

·WE ARE·
MANUFACTURERS
CERTIFIED

WE PUT AT YOUR DISPOSAL

We offer over **50 years** providing solutions to demanding customers who require very specific characteristics and behaviour according to the sector and their needs.

WHEREVER YOU GO

We are committed to working closely with our customers, providing them with **exceptional service** and offering an advanced and extensive range of products with very competitive prices.

HIGH STANDARD OF QUALITY AND SERVICES

We only use materials provided by companies who offer the very **highest quality**, suitable and certified products. Our success is due to top quality assurance: ISO 9001, SGS, UL, TÜV, ISO 14000 and Ohsas 18001.

CUSTOMIZE TOTALLY YOUR ENCLOSURE

Our production systems can give custom-made solutions **on demand.** Every colour from RAL chart is available to be personalized. A variety of protection standards thanks to our own painting facilities.

EU

100%
Entirely designed and manufactured in Europe

CONTACT US

Confidentiality, reliability & quality

www.delvallebox.com
comercial@delvalle.es
+34 945 601 381

ALSO ONLINE

Please contact our technical sales department

A team of professionals with high experience and ability to solve all your queries

AIR COOLING UNITS (OUTDOOR) TROPIC SERIES IP54

Examples of air coolings mounted on enclosures

Optimal Cooling

The high temperatures and heat to which our outdoor cabinets are subjected and the heat that the components themselves generate, are responsible for faults and malfunctions that will be increasingly repeated in the future, and will soar the costs of maintenance.
Thinking on the adverse environmental conditions, Delvalle has high quality cooling systems without filter which provides many advantages:
The cabinet internal air is sucked from the top, cooled within the cooling unit and returned inside the cabinet with a high flow rate. This ensures optimum cooling of the entire cabinet interior and counteracts any hot electronic components protected by the cooling unit.
The Tropic cooling units can keep the cabinet in a level of protection IP54, due to the special internal configuration that keeps the outside air flow separately of the indoor air - tight and due to the special airtight enclosure adhesive coupling.
These units require almost no maintenance and are designed to prevent clogging by solid contaminants that might be found in the environment. The Tropic cooling units keep high efficiency even under adverse environmental conditions; this important advantage reduces drastically the maintenance of these units, making possible that the cooling unit can work without the filter in the external air grillage.
Most models have rotative compressors that enhance the performance of the refrigerator.
Quick mounting, reliable, low maintenance and optimum design. Adaptable to any part of the enclosure: doors, back or on the side. Installation is quick and with all elements included in the package. All are predisposed for easy and safe electrical connections.
Delvalle provides a wide range of reference based on the voltage, which ranges from 350 to 4000 W and the type of thermostat (manual or digital). On request we can supply up to 10000W.
The Tropic cooling units are designed to minimize noise and to ensure a pleasant workplace. Also to protect the environment, all units are CFC free, thanks to the R134a refrigerants.

FOR MORE INFORMATION CLICK HERE

AIR COOLING UNITS (OUTDOOR) TROPIC SERIES IP54

APPLICATIONS

- When choosing the power of the cooling unit has to be considered a safety margin of at least 10% of the power measured considering the adverse conditions that have to work.
- Seal the door. The cuts and openings can cause condensation drips in the unit.
- Install the cooling unit on a wall or door but always as high as possible, so the air is taken from the top of the cabinet, where it is the hottest air.
- The cooling unit is preset up to 35°C, which is the optimum temperature for any application. Attention¡ Never decrease the temperature below 30°C, because it will leave the unit out of warranty due to incorrect use.
- Place the electronic components within the cabinet in order to facilitate the air circulation. Do not obstruct the entrance or exit of air with the installed components. All the components that have their own internal ventilation, must take into account so the flow direction not obstruct the air flow cooling unit.
- Unplug the cooling unit if the cabinet doors are open in order to prevent excessive condensation. At this point install a limit switch and door open security alarm (you can see them in accessories section) and plug them into the door.
- The power line refrigeration unit must be protected by a time delay fuse a short calibrated according to the information of the technical unit.

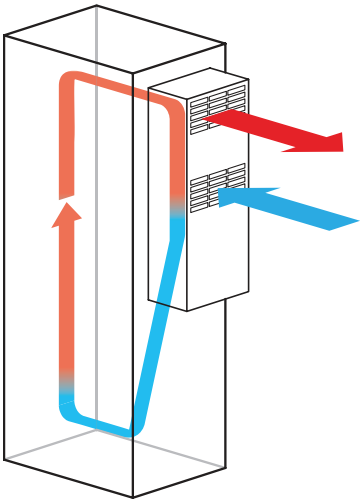
ADVANTAGES

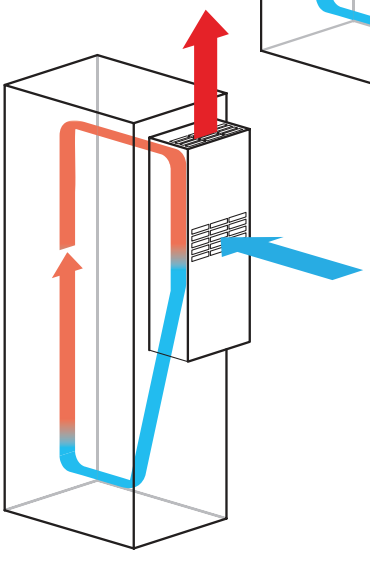
- High efficiency and low consumption.
- No maintenance.
- Quick installation.
- Option: digital thermostat.
- Less weight, less vibrations and better efficiency through the rotative compressor.
- Ecofriendly product: silent and CFC free.
- Ideal cooling and optimal protection of the enclosure (IP54).
- By request up to 10.000W.
- By request UL normative.

FUNCTIONING

Depending on the air cooling units, it has different types of operation.

Operation of models MVOUT0350, MVOUT0850, MVOUT1450 and MVOUT2000





Operation of models MVOUT3000 and MVOUT4000

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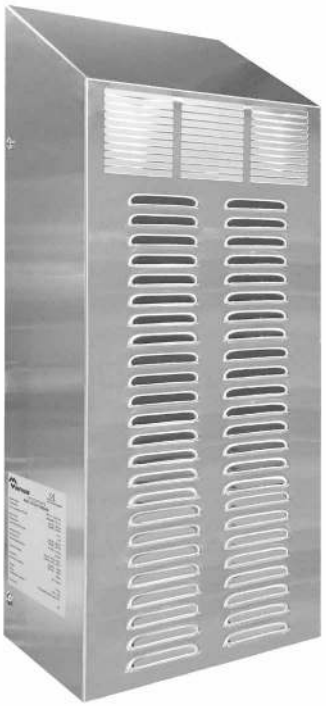
AIR COOLING UNITS (OUTDOOR) TROPIC SERIES IP54

VERSION WITH CASE STAINLESS STEEL



All air cooling units Tropic Series (outdoor) can be supplied verion with case in AISI 304L or AISI 316L stainless steel; manufactured with stainless steel housing, with a very functional and innovative slim design.
Specially designed to be installed in our stainless steel cabinets and stainless steel outdoor cabinets.
In certain sectors such as the food sector, it is required a high level of hygiene to avoid infections; and in sectors as the microbiological, chemical or petrochemical sector is vital the resistance to the chemicals and environmental extremes agents.
In Delvalle, we are specialist on this issue and we recommend the use of our air conditioning and ventilation systems in stainless steel AISI 304L or option also in stainless steel AISI 316L.

VERSION WITH ROOF

At Delvalle, we are committed to providing high-quality solutions that guarantee the safety and optimal performance of your electrical systems.

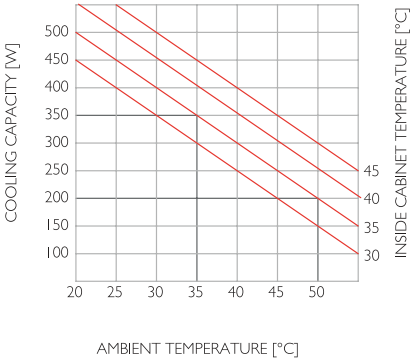
Through our stainless steel AISI 304L or optionally AISI 316L roof, your electrical enclosure will receive significant benefits in terms of protection against weather conditions, thanks to the reduction of internal temperature and prevention of water accumulation on the doors. This will result in greater durability and resistance for your enclosure.

NORMS

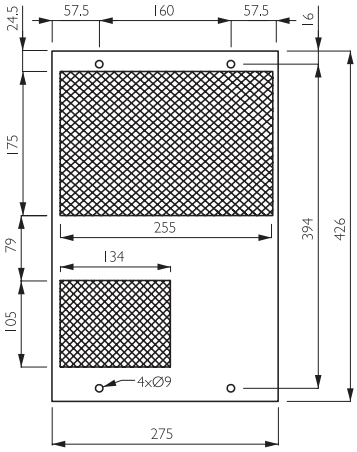
- IP54 Norm IEC 60529
- 2006/42/CE (machinery directive)
- 2006/95/CE (low voltage directive)
- 97/23/CE (ped directive)
- 2004/108/CE (electromagnetic compatibility directive)
- EN 61000: 6-2; 6-3 (electromagnetic compatibility normative)
- CEI EN 60335 (electrical equipement of machines normative)
- EN 378 (refrigerating sytems and heat pumps normative)

AIR COOLING UNITS (OUTDOOR) TROPIC SERIES IP54

MODEL MVOUT0350 IP54



DRILLING TEMPLATE

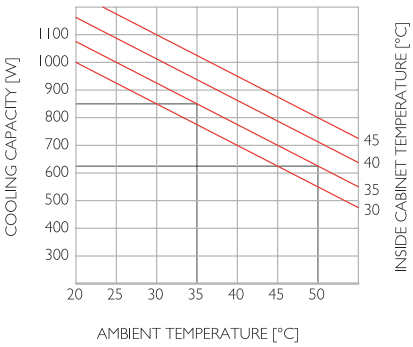


REFERENCES	MVOUT0350A	MVOUT0350B	MVOUT0350C
Temperature controller	Thermostat digital integrated		
Cooling capacity	350/370 W		
Air flow rate	600/625 m^3/h		
Power supply	230V / 50-60Hz / 1ph	115 V / 50-60Hz / 1ph	400 V / 50-60Hz / 2ph
Max. current	1,8/1,9 A	3,6/3,8 A	1,0/1,1 A
Delayed fuse	4A	6A	4A
Absorved electric power	260/270 W		
Refrigerant (type/charge)	R134a		
Maximum pressure	25 bar		
Operating Temperature (ambient)	+ 20 / +55°C		
Operating Temperature (enclosure)	+ 20 / +45°C		
Compressor type	Rotative compressor		
Noise level	60 dB(A)		
Electrical connection	3-pole connector		
Dimensions (Mm)	430 (high) x 280 (width) x 170 (depth)		

Version with case stainless steel	Add to the reference MVPTROPIC0350 (AISI 304L) or MVPTROPIC0350/16 (AISI 316L)
Version with roof stainless steel	Add to the reference MVPTROPICVIS0350 (AISI 304L) or MVPTROPICVIS0350/16 (AISI 316L)

AIR COOLING UNITS (OUTDOOR) TROPIC SERIES IP54

MODEL MVOUT0850 IP54



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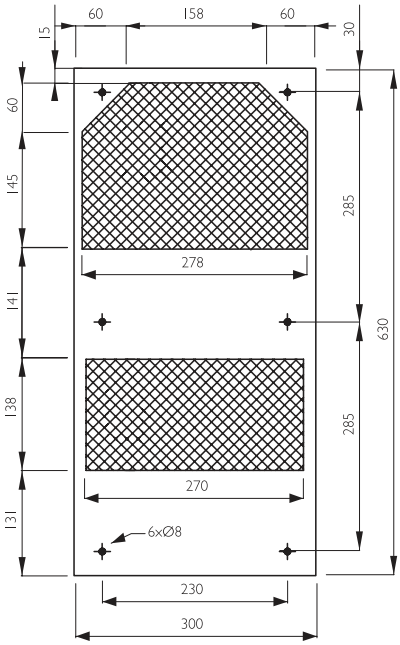
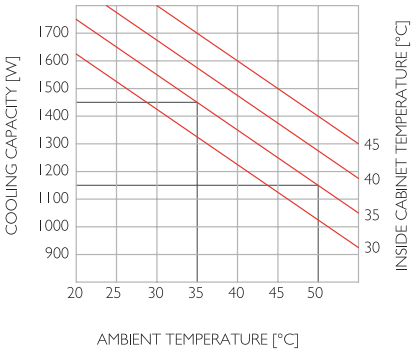


REFERENCES	MVOUT0850A	MVOUT0850B	MVOUT0850C
Temperature controller	Thermostat digital integrated		
Cooling capacity	850/900 W		
Air flow rate	600/625 m^3/h		
Power supply	230V / 50-60Hz / 1ph	115 V / 50-60Hz / 1ph	400 V / 50-60Hz / 2ph
Max. current	2,65/2,75 A	5,30/5,40 A	1,65/1,75 A
Delayed fuse	6A	10A	4A
Absorved electric power	450/470 W		
Refrigerant (type/charge)	R134a		
Maximum pressure	25 bar		
Operating Temperature (ambient)	+ 20 / +55°C		
Operating Temperature (enclosure)	+ 20 / +45°C		
Compressor type	Rotative compressor		
Noise level	62 dB(A)		
Electrical connection	3-pole connector		
Dimensions (mm)	635 (high) x 305 (width) x 210 (depth)		

Version with case stainless steel	Add to the reference MVPTROPIC0850 (AISI 304L) or MVPTROPIC0850/16 (AISI 316L)
Version with roof stainless steel	Add to the reference MVPTROPICVIS0850 (AISI 304L) or MVPTROPICVIS0850/16 (AISI 316L)

AIR COOLING UNITS (OUTDOOR) TROPIC SERIES IP54

MODEL MVOUT1450 IP54



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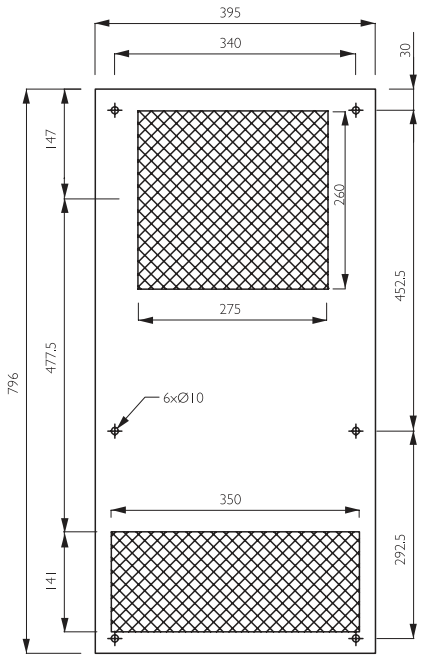
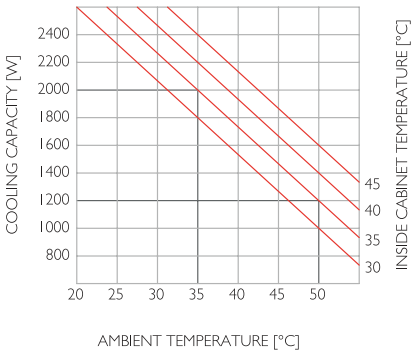


REFERENCES	MVOUT1450A	MVOUT1450B	MVOUT1450C
Temperature controller	Thermostat digital integrated		
Cooling capacity	1450/1500 W		
Air flow rate	880/950 m^3/h		
Power supply	230V / 50-60Hz / 1ph	115 V / 50-60Hz / 1ph	400 V / 50-60Hz / 2ph
Max. current	3,70/4,2 A	7,4/8,4 A	1,35/2,1 A
Delayed fuse	6A	10A	4A
Absorved electric power	650/700 W		
Refrigerant (type/charge)	R134		
Maximum pressure	25 bar		
Operating Temperature (ambient)	+ 20 / +55°C		
Operating Temperature (enclosure)	+ 20 / +45°C		
Compressor type	Rotative compressor		
Noise level	65 dB(A)		
Electrical connection	3-pole connector		
Dimensions (mm)	800 (high) x 400 (width) x 240 (depth)		

Version with case stainless steel	Add to the reference MVPTROPIC1450 (AISI 304L) or MVPTROPIC1450/16 (AISI 316L)
Version with roof stainless steel	Add to the reference MVPTROPICVIS1450 (AISI 304L) or MVPTROPICVIS1450/16 (AISI 316L)

AIR COOLING UNITS (OUTDOOR) TROPIC SERIES IP54

MODEL MVOUT2000 IP54



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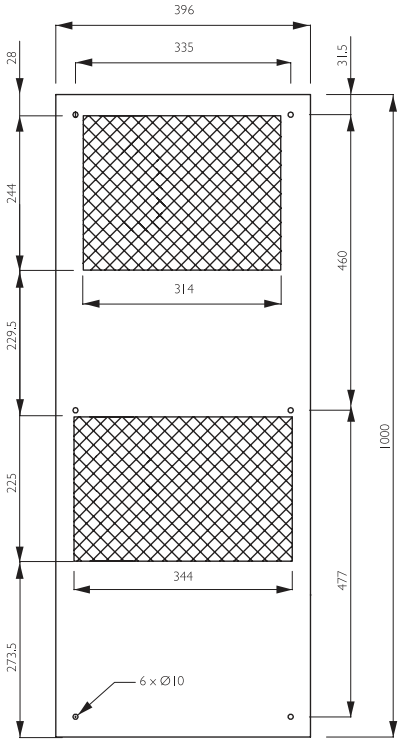
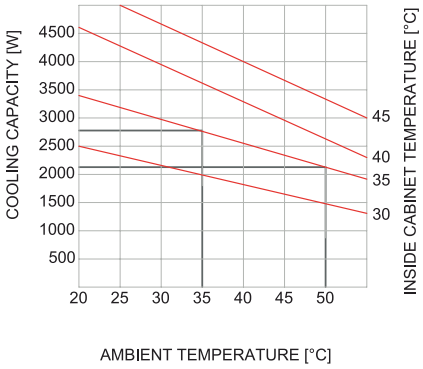


REFERENCES	MVOUT2000A	MVOUT2000B	MVOUT2000C
Temperature controller	Thermostat digital integrated		
Cooling capacity	2000/2100 W		
Air flow rate	880/950 m³/h		
Power supply	230V / 50-60Hz / 1ph	115 V / 50-60Hz / 1ph	400 V / 50-60Hz / 2ph
Max. current	6,6/6,9 A	13,8/13,8 A	3,3 / 3,5 A
Delayed fuse	10A	16A	6A
Absorved electric power	1060/1100 W		
Refrigerant (type/charge)	R134a		
Maximum pressure	27 bar		
Operating Temperature (ambient)	+ 20 / +50°C		
Operating Temperature (enclosure)	+ 20 / +45°C		
Compressor type	Alternative compressor		
Noise level	70 dB(A)		
Electrical connection	3-pole connector		
Dimensions (mm)	1000 (high) x 400 (width) x 240 (depth)		

Version with case stainless steel	Add to the reference MVPTROPIC2000 (AISI 304L) or MVPTROPIC2000/16 (AISI 316L)
Version with roof stainless steel	Add to the reference MVPTROPICVIS2000 (AISI 304L) or MVPTROPICVIS2000/16 (AISI 316L)

AIR COOLING UNITS (OUTDOOR) TROPIC SERIES IP54

MODEL MVOUT3000 IP54



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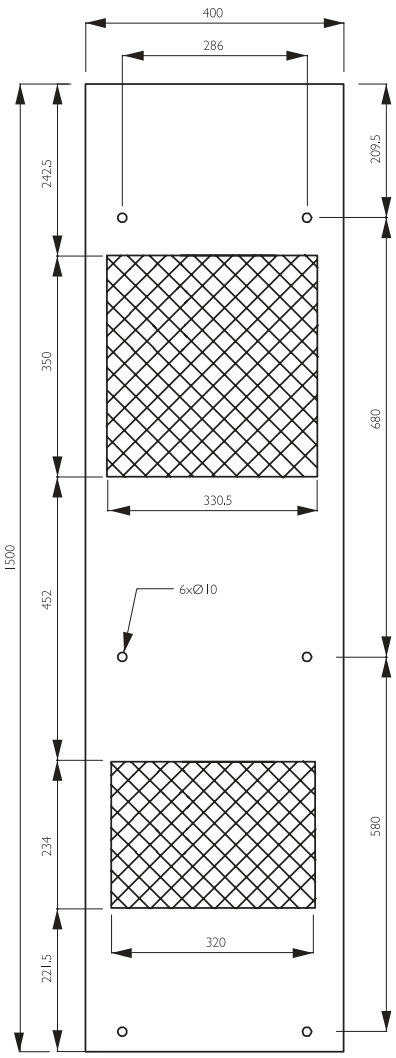
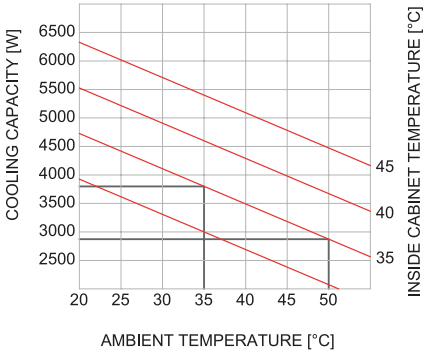


REFERENCES	MVOUT3000C
Temperature controller	Thermostat digital integrated
Cooling capacity (A35A35)	2800 / 2950 W
Power supply	400 V / 3ph / 50-460V / 3ph / 60
Max. current	2,2 A
Delayed fuse	11 / 11,8 A
Absorved electric power (A35A35)	1550 / 1790 W
Refrigerant (type/charge)	R134a
Operating Temperature (ambient)	+5 -20 / +55°C
Operating Temperature (enclosure)	+ 20 / +45°C
Compressor type	Alternative compressor
Noise level	70 dB(A)
Electrical connection	3-pole connector
Dimensions (mm)	1500 (high) x 400 (width) x 250 (depth)

Version with case stainless steel	Add to the reference MVPTROPIC3000 (AISI 304L) or MVPTROPIC3000/16 (AISI 316L)
Version with roof stainless steel	Add to the reference MVPTROPICVIS3000 (AISI 304L) or MVPTROPICVIS3000/16 (AISI 316L)

AIR COOLING UNITS (OUTDOOR) TROPIC SERIES IP54

MODEL MVOUT4000 IP54



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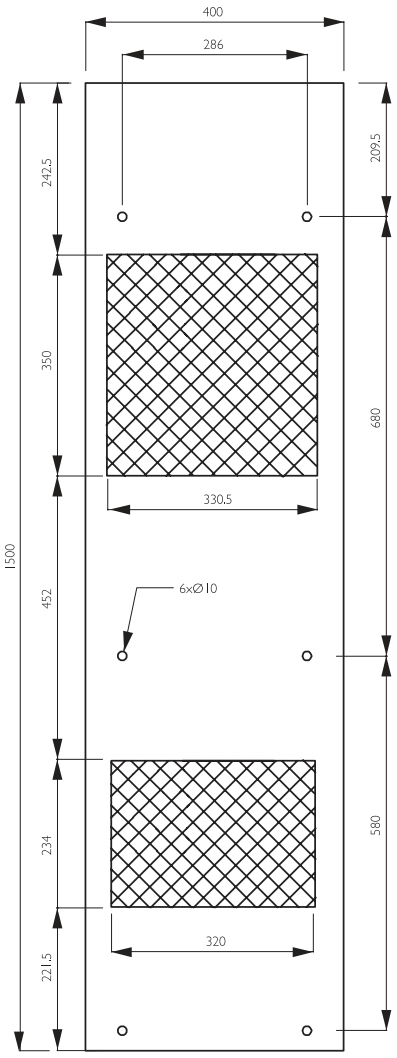

REFERENCES	MVOUT4000C
Temperature controller	Thermostat digital integrated
Cooling capacity (A35A35)	3800/3950 W
Power supply	400 V / 3ph / 50-460V / 3ph / 60
Max. current	2,7 A
Delayed fuse	14,5 / 15,1 A
Absorved electric power (A35A35)	2080 / 2440 W
Refrigerant (type/charge)	R134a
Operating Temperature (ambient)	+5 -20 / +55°C
Operating Temperature (enclosure)	+ 20 / +45°C
Compressor type	Alternative compressor
Noise level	70 dB(A)
Electrical connection	3-pole connector
Dimensions (mm)	1500 (high) x 400 (width) x 250 (depth)

Version with case stainless steel	Add to the reference MVPTROPIC4000 (AISI 304L) or MVPTROPIC4000/16 (AISI 316L)
Version with roof stainless steel	Add to the reference MVPTROPICVIS4000 (AISI 304L) or MVPTROPICVIS4000/16 (AISI 316L)

FOR MORE INFORMATION CLICK HERE

OTHER ELEMENTS OF VENTILATION AND CLIMATE CONTROL

DELVALLE, EXPERTS IN VENTILATION AND CLIMATE CONTROL

One solution for every need. Our engineers equipment will find the best climate control installation and get a better performance and greater energy and cost savings

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TEMPERATURE CONTROL

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FOR MORE INFORMATION CLICK HERE

CUSTOMIZED ENCLOSURE SOLUTIONS DELVALLE

Delvalle has more than 50 years of experience using the latest technology to implement and obtain the most innovative products on offer to all our customers. Delvalle is an ideal partner, combining an advanced and wide range of products at very competitive prices.

The customized manufacture of all electrical enclosures and cabinets Delvallebox is carry out with the most advanced technical methods and with the precision and consciousness of a craftsman. This makes the difference from competitors and is the best way to gain our customers´ trust.
In Delvallebox we bear in mind that customers perceive the quality very clearly. In every product (for instance, in the cabinets here presented) safety and useful solutions are what customers value most.

STAINLESS STEEL
INDUSTRIAL ENCLOSURES

OUTDOOR ELECTRICAL
ENCLOSURES

GLOBAL ELECTRICAL
SOLUTIONS FOR URBAN AREAS

GALVANIZED STEEL
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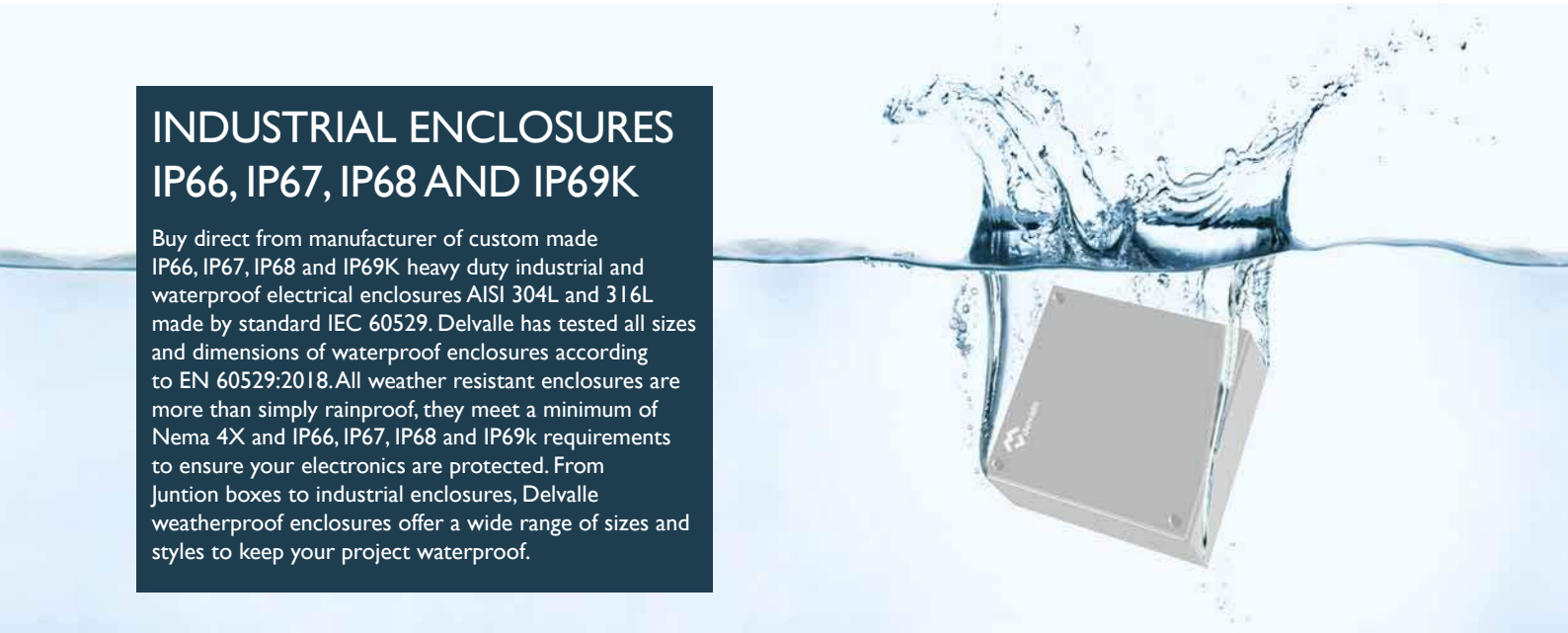
SLOPED ROOF ENCLOSURES - HYGIENIC

ATEX INDUSTRIAL ENCLOSURES



INDUSTRIAL ENCLOSURES IP66, IP67, IP68 AND IP69K

Buy direct from manufacturer of custom made IP66, IP67, IP68 and IP69K heavy duty industrial and waterproof electrical enclosures AISI 304L and 316L made by standard IEC 60529. Delvalle has tested all sizes and dimensions of waterproof enclosures according to EN 60529:2018. All weather resistant enclosures are more than simply rainproof, they meet a minimum of Nema 4X and IP66, IP67, IP68 and IP69k requirements to ensure your electronics are protected. From Juntion boxes to industrial enclosures, Delvalle weatherproof enclosures offer a wide range of sizes and styles to keep your project waterproof.

CABLE GLANDS FOR ELECTRICAL ENCLOSURES

CLIMATE CONTROL COOLING FOR ENCLOSURES

delvalle®

INDUSTRIAL ENCLOSURE SOLUTIONS

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