NHP ELECTRICAL ENGINEERING PRODUCTS

CUBIC
A ROCKWELL AUTOMATION COMPANY

NHP

Outdoor Modular System

The power of modular thinking and design

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CUBIC Outdoor Modular System

The CUBIC Outdoor Modular System allows you to move the well-known and trusted CUBIC Modular System to outdoor environments.

All the benefits of the Modular System are also built in to the design of the Outdoor Modular System, including the numerous possibilities for construction of tested and verified panels, as well as the freedom to independently choose electrical components.

Adding side covers and a protection sealing effectively protects against weather conditions, corrosion, impact damage and ingress of foreign elements, making the Outdoor Modular System the optimal enclosure solution for outdoor environments.

The white RAL9010 colour used for the Outdoor Modular System provides optimal reflection of sunlight - ideal for environments with high UV radiation. The white colour also segregates outdoor parts from the grey indoor parts of the Modular System.

The Outdoor Modular System is delivered as a compact flat-pack, allowing for fast delivery and low transporting and storage costs.

The CUBIC Outdoor Modular System is based on the idea of converting the well-known CUBIC Modular System into an outdoor solution without compromising on the quality and versatility of the Modular System.

Advantages of using the CUBIC Outdoor Modular System:

- Extremely durable in outdoor environments
- Roof and side covers protecting approximately 95% from sun
- Ingress protection
- Toe-out plinth enabling easy outside mounting
- Corrosion protected surface
- White RAL9010 color providing optimal reflection of sunlight
- Freedom to choose electrical components and switchgear from the your component manufacturer
- Thorough documentation – design software, technical assembly instruction, projecting

Roof and side covers

Roof and side covering has been added to the Outdoor Modular System to protect the enclosure from weather conditions.

Placing the covering in optimal distance to the inner enclosure ensures efficient reflection of sunlight and rain protection while also creating shadow and room for natural ventilation of inner surfaces. Thermal heat dissipation curves show the covering design protects approximately 95% from sun.

Limited unauthorised access

The Outdoor Modular System is designed to be placed in public areas. To limit unauthorised access, the doors are fitted with a universal 90° swing handle and padlock bracket with the possibility to add multiple key configurations, while minimising the risk of mechanical impact damage.

Ingress protection

The Outdoor Modular System is designed with an ingress protection sealing to resist ingress of foreign elements. When closed, the door-mounted rubber strip creates a tight seal effectively preventing the ingress of dust, water, insects and other elements up to IP56.

Internal possibilities

Most internal parts known from the Modular System are applicable in the Outdoor Modular System. S2000 busbars, MPI inserts, DIN rails, mounting plates and more can all be used and assembled according to the projecting and instruction manuals used for the Modular System.

A Grizz-Bar distribution rail (commonly used in Australia and New Zealand can be mounted with standard brackets and with a deep pan front cover as the inner door.

Toe-out plinth

The toe-out plinth enables easy mounting on base by providing outside access for the panel builder, even when the enclosure is blocked for inside access by gear and bottom plates.

Dimensions and assembly

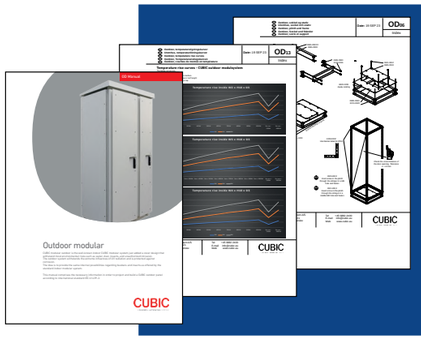
The main module size of 192mm makes a single module of the Outdoor Modular System dividable by 12 figures without decimals, ensuring a maximum of versatility and possibilities to meet individual requirements and demands.

The Outdoor Modular System comes with a fixed height of 10 modules, resulting in a total height of 2.1 m including plinth and roof cover.

The system is available in width of 2, 3, and 4 modules while the roof cover is available for up to 10 modules.

Corrosion protected surface

The roof and side cover also serve as additional surface protection, providing maximum durability in outdoor environments. Covers are made by HDG zinc coated steel plates covered by a two-layer polyester powder coating to ensure corrosion protection up to class C4h.



Projecting and instruction manuals

A combined projecting and instruction manual is available for the Outdoor Modular System to assist and ease external assembly, while the existing projecting and instruction manuals for the Modular System is to be used for internal parts. Little to no additional training is needed. The Outdoor Modular System is available to be designed in the Galaxy software.

Tested for outdoor environments

The Outdoor Modular System has been extensively tested in simulated extreme weather conditions to provide easy design verification and ensure maximum durability in outdoor environments.

To simulate extreme exposure of sunlight, the Outdoor Modular System has been tested under UV radiation according to IEC 61439-2:2020. The test included external exposure of 14.000 W of infrared light performed at present temperature rise curves of 100-1000 W, enabling easy verification of resistance to UV radiation and temperature rise limits. To test durability in extreme rainfall, the Outdoor Modular System has been submitted to ingress protection testing.

Tested with a pressure of 100 litres of water per minute, the Outdoor Modular System provides ingress protection up to IP56 and great durability in wet environments. The test enables easy verification of degree of protection according to IEC 61439-2:2020.

In addition to the extensive test programme performed on the well-known indoor CUBIC Modular System, the above-described testing leaves a minimum of verification to be done by the assembler when using the CUBIC Outdoor Modular System.

Move the power of modular thinking outdoors with the CUBIC Outdoor Modular System.

Technical data:

- Colour: White RAL9010
- Corrosion class: C4h
- Degree of protection: IP56
- Rated operational voltage: Up to 1000 W
- Power loss per section: Up to 1000 W
- Height: 10 modules
- Depth: 3 or 4 modules
- Width: 2-10 modules
- Intended for outdoor use: UV resistant
- Standard: IEC 61439-2

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