



CPS25 - CUBIC PANEL SYSTEM

CPS25 is a panel system designed from a standard platform solution for electrical switchboards. CPS25 has been developed and designed with the demands, wishes and needs of the end-users in mind. The solution is thus the most innovative, competitive and affordable panel system in the market.

The CPS25 is the ideal solution up to 800 A.

CPS25

The CPS25 - CUBIC Panel System - is the new cost competitive system providing our partners the advantage when it comes to main- & distribution panels up to 800 A.

CPS25 is the fastest mounted solution in the market for smaller switchboards. Easy configuration and quick mounting provide the builder with competitive advantages when it comes to costs and time.

Standard inserts for the most common components brands ensure quick and easy design and assembly, as well as a unique and uniform look of the final assembly.

In this way, CPS25 also secures that the panel builder is independent of a specific component brand.

The competitive price combined with easy configuration and quick mounting make a perfect platform to create competitive advantages for success in the market.

The CPS25 is the ideal solution up to 800 A.



APPLICATION

The CPS25 can be used in any situation, where electrical panels are needed for main or distribution purposes.

CPS25 is used in a.o. the following locations:

- Office buildings
- Shops
- Shopping malls
- Schools
- Public buildings
- Airports
- Hospitals
- Industry



MAXIMUM SPACE!

The complete panel can be finished within a day due to easy access in general during assembly.

The deep platform facilitates mounting, and gives plenty of room for many cables.

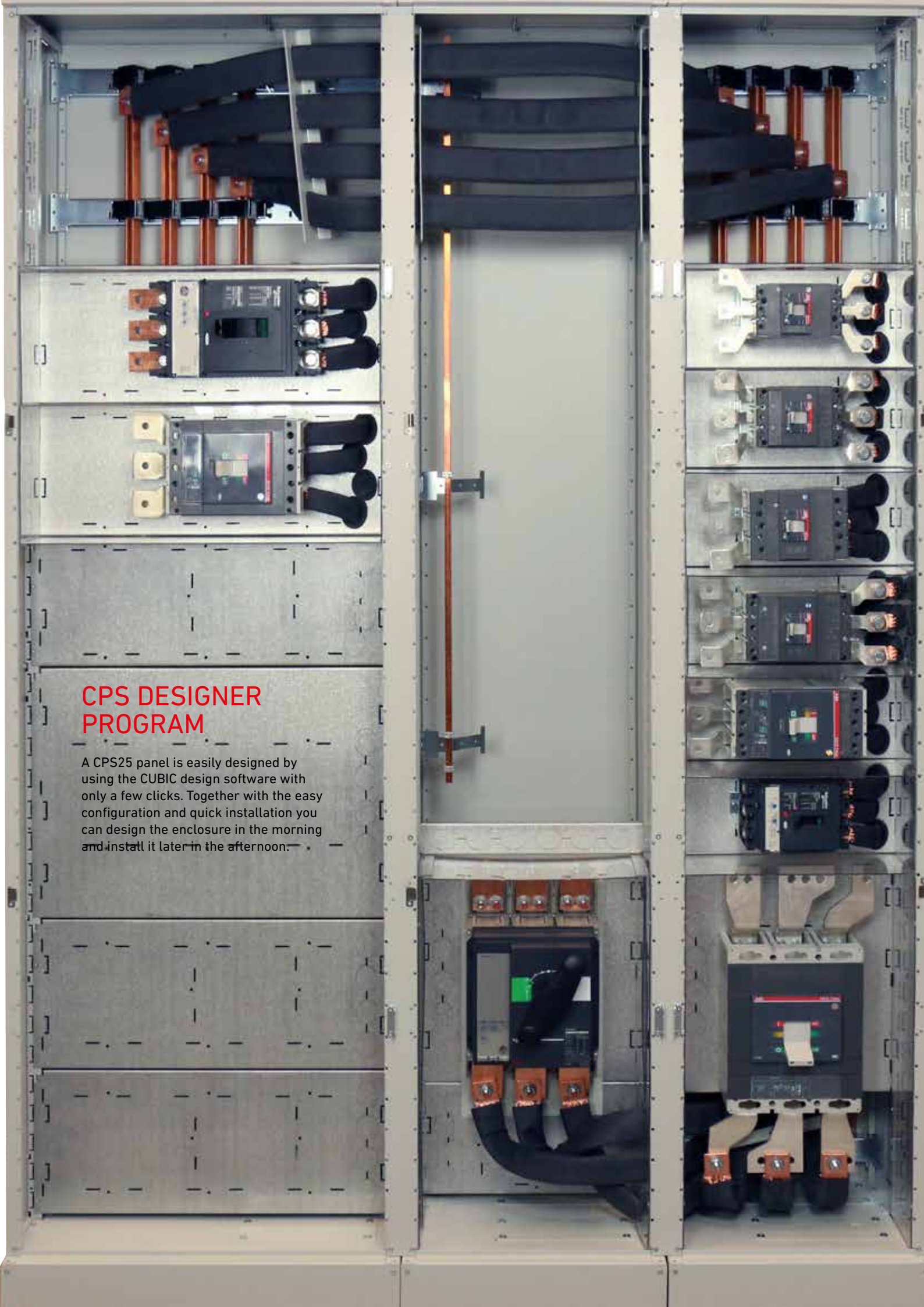
The large flange holes render so much space for cables at the top and bottom that a cable field may in some cases be saved.

THE BENEFITS

- Easy configuration
- Easy assembling
- Easy access for in- and outgoing cables
- Easy access during assembly
- Few standard parts
- Standard system
- Only one standard screw type for assembly
- Great quality / solid structure
- Competitive price
- Minimum of structural parts
- Requires limited training for assembly

CPS DESIGNER PROGRAM

A CPS25 panel is easily designed by using the CUBIC design software with only a few clicks. Together with the easy configuration and quick installation you can design the enclosure in the morning and install it later in the afternoon.



FLOOR OR WALL-MOUNTED SOLUTION

The panel builder may choose between a floor or wall-mounted solution, depending on the task.

The floor model has an open base making cable lead-in possible without the use of flanges etc., and a top with cabling facilities through flanges.

The wall model applies the same type of plate at the top and bottom, and with cabling facilities through flanges.

Both solutions are designed and constructed from a basic platform containing merely the most necessary features for making the complete panel.



ADDITIONAL OPTIONS

In addition to the standard CPS25 system CUBIC offers a number of options, including i.a. meter inserts, form covers, lift brackets etc.

Specifications not covered by the standard solution are easily met by the range of additional options available, and may thus be customised to the special demands and needs of the end-user.

- Meter inserts
- Form covers
- Lift brackets
- Other accessories

The complete range of additional options is available in the CPS25 catalogue.



STANDARDS, TESTS AND APPROVALS

CUBIC have carried out all necessary verifications to ensure that a minimum is the left to customer.

Design verification on temperature rise test is selected to match the "catalogue selection" of sections, chosen for the CPS25 system .

The panel builder can select already verified solutions based on sections, and just make a simple assessment to justify his design

Design verification on short circuit is carried out using the current limiting ability of the SCPD, if possible.

The busbar system can be designed cost effectively, when it does not need to fulfil unrealistically high SC values. The cost price can thereby be kept to a minimum.

The CPS25 is designed and verified according to IEC61439-1, -2, -3.



PLATFORMS

The clear 4 step platform configuration is equal to competitive advantages and low prices.



1. Assembly of platform



2. Mounting of busbars



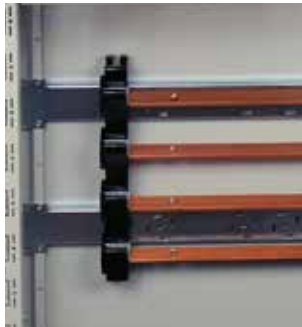
3. Mounting of inserts



4. Mounting of sheathing

The platform is characterized by:

- 2 standard widths (400 / 600mm) - 6 parts
- Self bearing construction with integrated plinth and top
- Easy access to components during construction
- Notch fixing inserts during assembly
- Painted - RAL 7035
- No sharp edges
- Corrosion protection



Platform for floor consists of merely 6 parts.

BUSBAR SYSTEM

The busbar system is characterized by:

- Standard 1 or 2 pcs. 5x20mm copper
- Inclined copper for improved assembly
- Vertical or horizontal mounting
- Click-in solution
- Easy busbar assembly
- FORM 2 - no additional cut-outs
- Traditional busbar or distribution block
- Own compartment or behind components



COVERING

The covering is characterized by:

- Unique siteplates mounted at the end
- Door with integrated hinges
- Quick mount/demount of doors
- No tools needed for mounting/demounting of doors on site

INSERTS

The inserts are characterized by:

- DIN busbars with/without mounting plate
- MCCB inserts
- Vertical or horizontal MCCB mounting
- Inserts for incoming sections
- Fittings for busbar section
- Self-adjusting parts until secured in correct position
- Mounting- and cover plates are guided to correct position
- Brand specific mounting bracket
- Standard inserts fit various brands without re-work
- Front covering in metal with snap-mounting
- Unique front covering independent of component brand
- Insert for meter with transformer field
- Insert for meter – direct measuring

CUBIC PANEL SYSTEM (CPS25)

Standards: IEC 61439-2:2011, IEC 61439-3:2012, EN 61439-2:2011 and EN 61439-3:2012.

Overall dimensions of the floor model: 2000 mm high, 330 mm deep, and up to 3 sections of 400 and 600 mm width respectively.

Overall dimensions of the wall model: 1200 mm high, 330 mm deep, and up to 2 sections of 400 and 600 mm width respectively.

Max. weight for the wall model is 75 kg per section.

Parts can be mounted in steps of 50 mm, and the total internal mounting height is 1150 mm (wall) and 1850 mm (floor).

MATERIAL SPECIFICATION:

External enclosure: 1.5 mm iron phosphating steel painted in a light grey colour, RAL 7035.

Mounting plates: 1.5 mm hot-galvanized steel.

Busbar holder: PC in a black and light grey colour. - Flammability: UL 94 V0, non-flammable.

Busbar covering: PC, transparent.

Internal separation: PC, transparent.

MCCB flex cover: PA6 in grey colour.

Closing device: Zinc + PA6.

Hinge: Stainless steel.

CONSTRUCTION AND PERFORMANCE VERIFICATION

Characteristics to be verified	Test / verification results
Strength of material and parts: - Resistance to corrosion	Indoor use
Lifting	Transport of sections up to 250 kg with crane or forklift
Mechanical impact	IK05
Marking	Marking is the responsibility of the assembly manufacturer
Degree of protection of enclosures	Enclosure: IP3X Internal separation: IP2X, Form 2A, 2B, 3A, 3B, 4A
Clearances	Rated impulse withstand voltage of 6 kV (Rated voltage of the assembly (Un) and/or rated operational voltage (Ue) of up to 240/415 VAC, 50 Hz)
Creepage distances	Rated insulation voltage [Ui] of 500 V and pollution degree 3, material group III
Protection against electric shock and integrity of protective circuits: - Effective continuity between the exposed conductive parts of the ASSEMBLY and the protective circuit - Short-circuit withstand strength of the protective circuit	Resistance < 0.1 Ω Outgoing devices up to 630A
Incorporation of switching devices and components; internal electrical circuits and connections plus terminals for external conductors	Incorporation has been inspected and found in accordance with the standard
Dielectric properties: - Power-frequency withstand voltage - Impulse withstand voltage	Up to 1890 VAC. (Ui up to 500 VAC, 50Hz) Up to 6 kV, depending on the installed components (Altitude of installation: up to 2000 meters)
Temperature rise limits at 35 °C ambient temperature	Busbar 1 - 5x20 mm: 440A Busbar 2 - 5x20 mm: 800A Cu-flex 1 - FB240 mounted between busbars: 440A Verification of temperature rise of functional units, see page 25
Short-circuit withstand strength	Busbar 1 - 5x20 mm with 200 mm between busbar holders is tested to I _{cw} 30 kA for 0.3 sec / I _{pk} 63 kA Busbar 2 - 5x20 mm with 200 mm between busbar holders is tested to I _{cw} 30 kA for 1 sec. / I _{pk} 63 kA Busbars protected by devices with a cut-off current maximum 17kA should be supported by at least 2 busbar holders / e.g. 3 holders for one section Cu-flex 1 - FB240 is tested to I _{cw} 30 kA for 0.3 sec / I _{pk} 63 kA The neutral bar is verified to 60% of the above
Short-circuit withstand strength	Incoming units equipped with respectively Schneider and ABB devices up to 800 A are tested to I _{cp} 42 kA Test of other brands of devices with a cut-off current of maximum 17 kA is not required Wall model: Up to 630A and max. short-circuit level I _{cw} / I _{cc} = 10 kA
Short-circuit withstand strength	Outgoing units equipped with respectively Schneider and ABB devices up to 630 A are tested to I _{cp} 42 kA Test of other brands of devices with a cut-off current of maximum 17 kA is not required Wall model: Up to 630A and max. short-circuit level I _{cw} / I _{cc} = 10 kA
Electromagnetic compatibility (EMC)	The panel system is verified by assessment for environment A and B Electrical components should be installed according to the component manufacturer's recommendation
Mechanical operation	> 200 times

Worldwide solutions

This idea has since the early start developed CUBIC into a global and recognised partner within electromechanics and with a product range that comprises any type of enclosure for switchboards.



DENMARK

(Head office)

CUBIC-Modulsystem A/S
Skjoldborgsgade 21
DK-9700 Broenderslev
Denmark
Tel. +45 9882 2400
info@cubic.eu

NORWAY

CUBIC-Norge A/S
Postboks 33
Jeksleveien 55
3300 Frogner
Norge
Tel. +47 6386 7100
info@cubic-norge.no

SWEDEN

CUBIC Svenska AB
Box 353
Hantverksgatan 5 B
S-571 24 Nässjö
Sweden
Tel. +46(0)380 741 70
info@cubicsvenska.se

POLAND

CUBIC Polska Sp. Z o.o.
North West Logistics Park
Kniewska Street 5
PL-70-846 Szczecin
Poland
Tel. +45 9882 2400
info@cubic.eu

U.K.

CUBIC Modular Systems
(U.K.) Ltd
Unit 1, Queensmead Place
Textilose Road, Trafford Park
Manchester, M17 1PH
U.K.
Tel. +44 161 876 4742
info@cubic-uk.co.uk

IRELAND

CUBIC-Modulsystem A/S
Units 64 & 65
Parkwest Enterprise Centre
Parkwest Industrial Park
IRL-Dublin 12
Ireland
Tel. +353 16 215 288/289
info@cubic.ie

CHINA

CUBIC Electromechanical
System (Tianjin) Co., Ltd
30 Xin Ye 3rd Street
TEDA West Building 17
Tianjin, 300462
China
Tel. +86 (22) 5983 2158
info@cubic.asia

BELGIUM

CUBIC-Modulsystem A/S
Chaussée de Namur 85A
B-1400 Nivelles
Belgium
Tel. +32 6721 2979
info@be.cubic.dk

INDIA

CUBIC Modular System India
Private Limited
No. B01, ESR Industrial and
Logistics Park, Varanavasi
Village, Oragadam, Walajabad
Taluk, Kanchipuram District
TamilNadu, India - 631 604.
Tel. +91 44 4028 2506
info@cubic.eu

SPAIN

CUBIC Modular System
España SL.
Ronda Maiols, 1 - Ed.,
BMC, local 349
08192 Sant Quirze del Vallès
Barcelona, Spain
Tel. +34 684 259 748
info@es.cubic.eu

THE NETHERLANDS

CUBIC Nederland BV
Kelvinring 54
2952 BG Alblasserdam
The Netherlands
Tel. +31 (0) 627 064 567
info@nl.cubic.eu