

The new System pro E Power main distribution switchboard family. Your new key resource

ABB's Low Voltage Products Division is proud to present System pro E Power, the new main distribution switchboard family for installations up to 6300A. Result of ABB's many years of experience in switchboard construction, System pro E Power is the product of a pioneering project developed in collaboration with the many different professionals involved in the building and installation of switchboards.

All ABB's low voltage apparatus, such as System pro M modular circuit-breakers, Tmax T and XT moulded-case circuit-breakers and Emax 2 air circuit-breakers, can be installed in the new switchboards since a full range of accessories ensures that all components are perfectly compatible. ABB can provide complete solutions for electric power distribution in infrastructures and industries, in accordance with the principal regulations. Following stringent tests involving the entire configuration (structure, circuit-breakers and busbar system), the switchboard has:

- obtained certification in compliance with new international standards IEC 61439-1-2 and IEC 60439-1-2.
- passed the vibration tests required by standard IEC 60068-2-57.
- passed the seismic withstand capability test required by standard IEEE Std 693.

Flexibility, velocity and simplicity combine perfectly in the System pro E Power switchboard range, which effectively fulfils all application requirements.

Flexibility

Ultra-high technological standards can be achieved thanks to System pro E Power since the vast array of



accessories and configurations available allow tailor-made solutions to be created. The key features are:

- innovative way of supplying uprights and cross-pieces in kits, with depth and width measurements able to create up to 120 configurations of varying sizes using a limited number of different part numbers
- vast range of functional dimensions available: height 1800 or 2000mm, width from 300 to 1250mm and depth from 200 to 900mm.
- protection classes for all types of applications, i.e. from IP30 to IP65, the only switchboard to reach such a high value
- uprights and crosspieces featuring important innovations that ensure sturdy, stable structures:
 - ABB's patented new three-way coupling for fixing uprights and crosspieces together.
 - identical laser-beam welded box profile for error-free assembly
- mounting surfaces at two levels allowing different accessories to be assembled. Alternating surface holes 25mm away from each other meet the DIN standards used by the German market.
- new patented plinth with anti-rotation device. Can be fixed from the outside and from the inside of the structure
- the switchboard can also be used without plinth
- incoming and outgoing cable combinations can be created thanks to new blank or sliding flange solutions for the roof and base of the structure
- new asymmetric glass or blind door with 135° degree opening hinges, that can be extended to 180° with the dedicated accessory so as to facilitate wiring operations inside the switchboard. Door opens towards the right or left thanks to the new "turnable" ergonomic handle, which houses different opening and closing inserts (double fin, Ronis, etc.). The RAL7035 colour panels are fastened with Torx screws.

Velocity

System pro *E* Power speeds up the work required prior to switchboard commissioning. Whatever the configuration may be, each component has been designed for ultra-fast assembly and wiring thanks to quick and effective methods for mounting the kits and distribution systems. The key features are:

- System pro *M*, Tmax XT1 and XT3 kits include the new quick click-in spring connection system. The kits are fixed straight onto the uprights, which feature two assembly positions, one for modular circuit-breakers and one for moulded-case circuit-breakers. They can also accommodate vertical wiring ducts
- kits for Tmax XT (from XT1 to XT4) and Tmax T (from T4 to T7) with the new click-in quick spring connection system in the vertical, horizontal, fixed, plug-in, withdrawable or accessorized versions. The kits are fixed straight onto the uprights and can house circuit-breakers with both rear and front connections. The depth can be adjusted to suit the circuit-breaker used. Horizontal kits 150mm and 200mm in height are available, allowing both 3-pole and 4-pole circuit-breakers to be housed in a single kit.
- sturdy, simple to assemble kits for E1.2 to E6.2 Emax2 fixed and withdrawable circuit-breakers
- kits for up to 1600A OT with the new quick click-in spring connection system in the horizontal and vertical versions
- supplementary kits for assembling apparatus with recessed, vented panels and instrument panels in the switchboard

- both fixed and swing frames for front panels are now available. The same front panels are used for both versions. They are fastened with the new ¼ turn screws and can be converted from the screw-fitted to hinged version with the addition of a simple hinges kit. As well as the 200mm panel height, there is a 150mm version that creates headroom in the switchboards, which can then house more kits than the 200mm version
- kits for all the different internal segregation Forms. The same basic kit can be used for Form 1 through to Form 4b with the addition of accessories in sequence, both for moulded-case and air circuit-breakers. Also available, Form 2b with front connections and front access, is another of the innovations worthy of note.

Simplicity

System pro *E* Power simplifies the assembly operations thanks to pioneering solutions both for the circuit-breaker and main distribution busbar installation kits. The key features are:

- same construction philosophy for the busbar system in all applications up to 6300A
- linear and scaled solutions for busbar holders allowing the busbars to be installed in any position: at the rear and at the side, vertically and under the roof, on the floor and on any horizontal level
- the linear system comprises:
 - bearing crosspieces in galvanized steel for applications below 4000A and in stainless steel for applications from 4000 to 6300A to limit stray currents

- tie rods for assembling the busbar holders
- ABB's patented modular and linear insulating supports. Available in three different sizes (50, 75 and 100mm) and reversible, they can be simply turned through 180° to house both 5mm and 10mm busbars. The supports can accommodate both flat and shaped section busbars and, since they are modular, the distance between the busbars can be changed as required.
- the scaled system comprises:
 - galvanized steel bearing crosspieces for applications up to 2000A
 - tie rods for assembling the busbar holders
 - ABB's patented reversible insulating supports that can be simply turned through 180° to house both 5mm and 10mm busbars. The supports can be fitted with both flat and shaped section busbars.
- availability of flat or shaped section busbars that use the same type of insulating supports for fixing to the busbar holders
- copper busbars and Cuponal busbars (obtained by means of an aluminium and copper coextrusion process) are both available.

For more information please contact:

ABB SACE

A division of ABB S.p.A.

Automation and Distribution Boards
Via Italia, 58
23846 Garbagnate Monastero (LC)
Tel.: +39 031 3570.111
Fax: +39 031 3570.228

www.abb.com/lowvoltage

Power and productivity
for a better world™

