

Case studies

New container SACE Emax 2

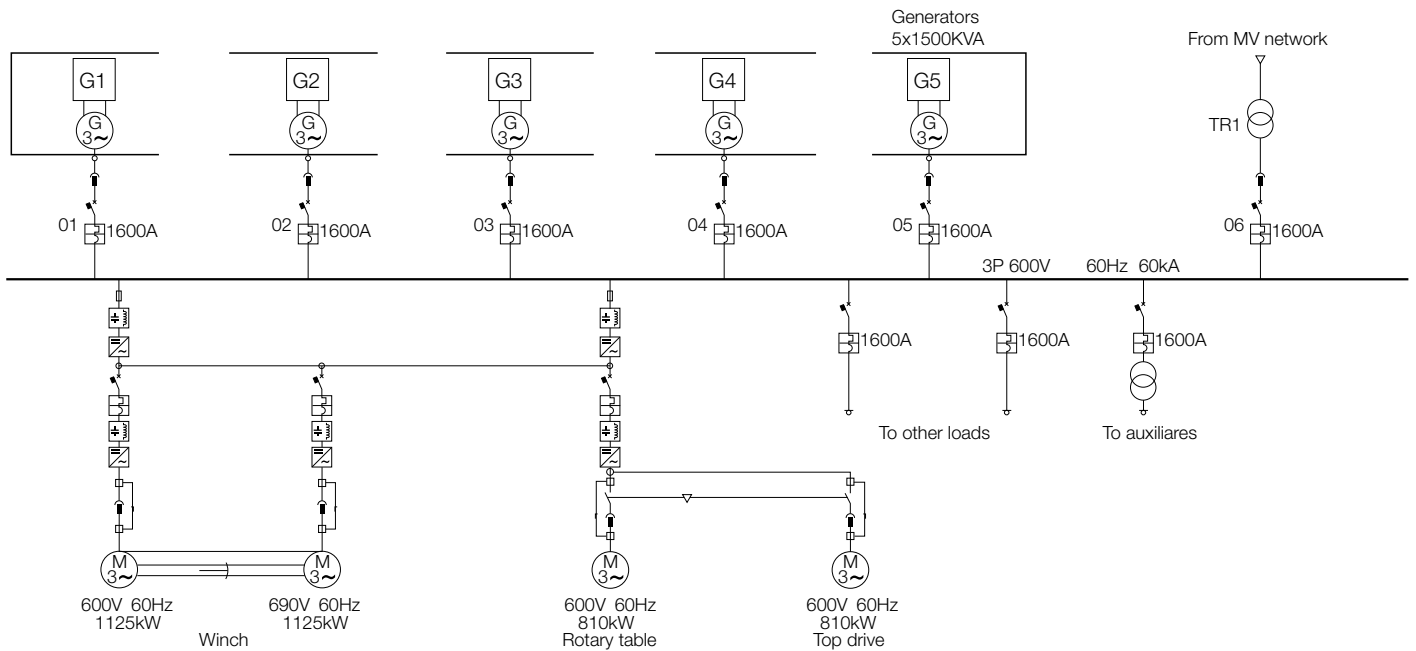
The customer

Drillmec is an international leader in design, manufacture, commissioning and maintenance of oil drilling and workover rigs, both traditional as well as hydraulic ones, for mobile and offshore applications, up to 3,000 hp and depth of 10,000 m.

The challenge

To realize a drilling plant to be located in Southern Italy, in a very short lapse of time: 6 months only, from design and engineering to putting into service, guaranteeing the highest quality, both in terms of system reliability and operation costs.

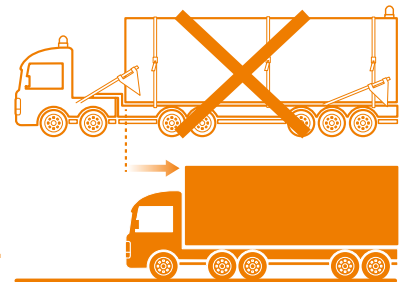
The hydrocarbon extraction plant has the maximum depth of 8000 meters, and is supplied, alternatively, by the grid or by five low voltage generators (1500kVA) in parallel. They allow the downtime risk of the plant to be reduced to the minimum, but increase the short circuit level to 80kA at 600V.



Saving compared to a traditional solutions

33% space saved

The choice of SACE Emax 2 has made it possible to have a container transportable on normal trailer truck, thus reducing transport and installation times.



Thanks to the use of SACE Emax 2 in the new 400mm columns of System Pro E Power, 1000mm linear space have been saved in comparison with all traditional solutions..

The ABB solution

Taking advantage of the know-how and installation expertise of Elettron (a primary panel builder in Northern Italy), components of the highest reliability were used, allowing outstanding flexibility and ease of installation for fitting into the limited space of a container for road transport.

Five circuit-breakers E2.2H 1600A, 3-pole, withdrawable version, equipped with Ekip G Hi-Touch to protect the low voltage generators were used for installation in the 400mm columns of System Pro E Power; a choice that guaranteed 1000mm reduction in linear space in comparison with the traditional solutions.

The orientable terminals, which equip SACE Emax 2 by default, enabled the construction of the switchboard from the very preliminary phases (when the busbar system was still to be defined), making it possible to gain significant time for the construction of the container.



- 30%

The new terminal box allows 30% time saving on auxiliaries and main accessories connection.

The use of Ekip G Hi-Touch allowed the time usually necessary to wire and realize the switchboard to be significantly reduced by eliminating external CTs, VTs and protection trip units, concentrating in a single point the access to all measuring, alarm and protection information about the plant, simplifying and speeding up configuration and testing operations.

Furthermore, thanks to Ekip Com Profinet, external concentrators and converters became unnecessary, and the Ethernet network cable was used to reduce the time necessary for wiring and configuring the network of the SCADA supervision system.

All this, together with the cutting-edge quick push-in cabling system, enabled to connect the auxiliary terminals to the SACE Emax 2 terminal box in half the time in comparison with traditional circuit-breakers, and to increase the reliability of the measuring and protection system thanks to the reduced number of components installed.

E2.2H 1600A, 3 poles, moving part with Ekip G Hi-Touch



The circuit-breaker E2.2H offers 85kA breaking capacity at 690V and is equipped with the generator protection trip unit that integrates all the measuring and protection functions necessary for the correct operation of the plant.

E2.2 fixed part



The fixed parts of SACE Emax 2 are always delivered with orientable rear terminals and plug&play terminal box to speed up the construction of the switchboard.

Ekip Com Profinet



This module enables all SACE Emax 2 circuit-breakers to be integrated in the industrial communication network for remote supervision and control of the circuit-breaker.

Contact us

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