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## Market Research News Application



Application: **ESS20 in Well Controls, Public Services Munich**  
Produkt: ESS20  
Client: Public Services, Munich

Formerly the Public Services of Munich used to use standard transformer power supplies for well controls in their pump stations. However, they affected the control cabinet design by the system-caused high temperatures, size and pertaining weight. Therefore the transformer power supplies were replaced by smaller and lighter switch-mode power supplies which at the same time featured better efficiency and less power loss. However, it became necessary to adjust the protection concept, which had been based on MCCBs, to the new technical conditions.

As the Public Services in Munich are using more and more automated equipment, they were strongly interested in selectively disconnecting faults on the DC24V level and to receive corresponding signals via the PLC. Therefore the use of switch-mode power supplies in pump stations led to protection of loads through the E-T-A electronic circuit breaker ESS20. In this specific application it is being used in combination with the power distribution module 17plus. The SMPS is a S7 power supply from Siemens. One more particularity here is that an additional battery buffer, also from Siemens, is used. The PLC is protected by a 3A ESS20, most of the loads are protected by 1A/2A circuit breakers. Protected loads are transducers, signal contacts of actuators, indicator lights in control cabinets and heatings. The active limitation of short circuit current through the ESS20 made it possible to change cable cross sections. Because of the small width of the ESS20, despite its integral auxiliary contacts, there is now much more space available in the control cabinet.

### How did we win this business?

Our sales person in Southern Germany had previously worked for the Public Services in Munich. He talked the problem over with his ex-colleagues there and drew their attention to the ESS20.

### Competition

None. Personal contacts and tests carried out with the ESS20 have convinced our customer.