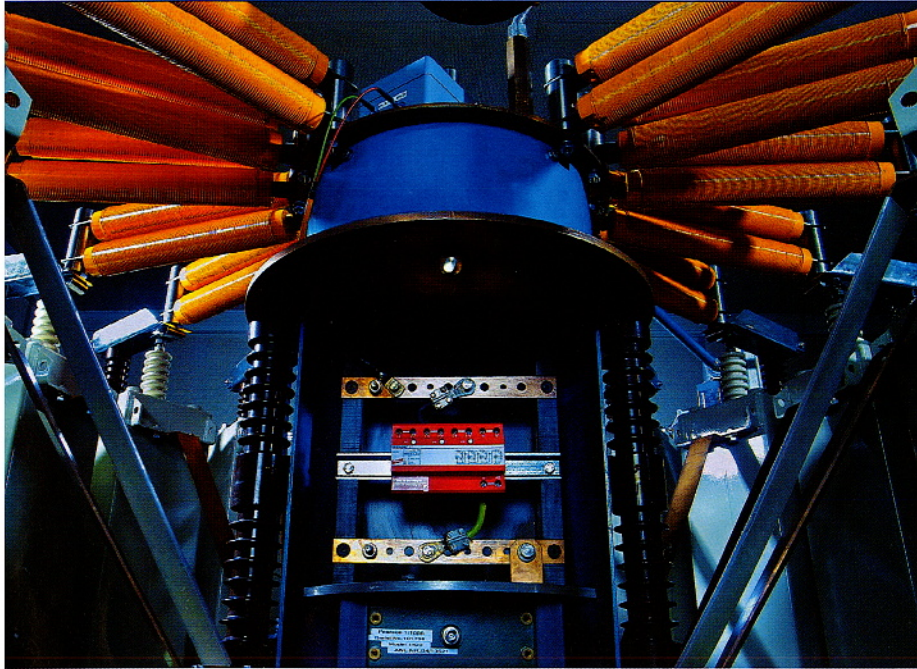
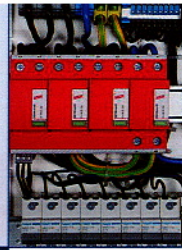


Text: MARJOLEIN ROGGEN
Photography: DEHN



It is no bigger than a house brick, but it performs a vitally important function. A Surge Protective Device (SPD) is a device that protects cell phone base stations, wind turbines, industrial installations and offices against sudden surges in voltage and current caused by lightning strikes. DEHN + SÖHNE a leading producer of SPDs, has their reliability tested and certified by KEMA. Certification also gives DEHN easy access to the international market.

Well Protected against Lightning

Millions of people have mobile phones, and expect to be able to use them wherever they go. So the failure of a cell phone base station is highly undesirable. In the event of a failure, none of the relevant network's users can make calls in the area served by that station. And, if that happens with any regularity, users will switch to another network. So network operators have a major incentive to protect their equipment from external threats.

Vulnerable

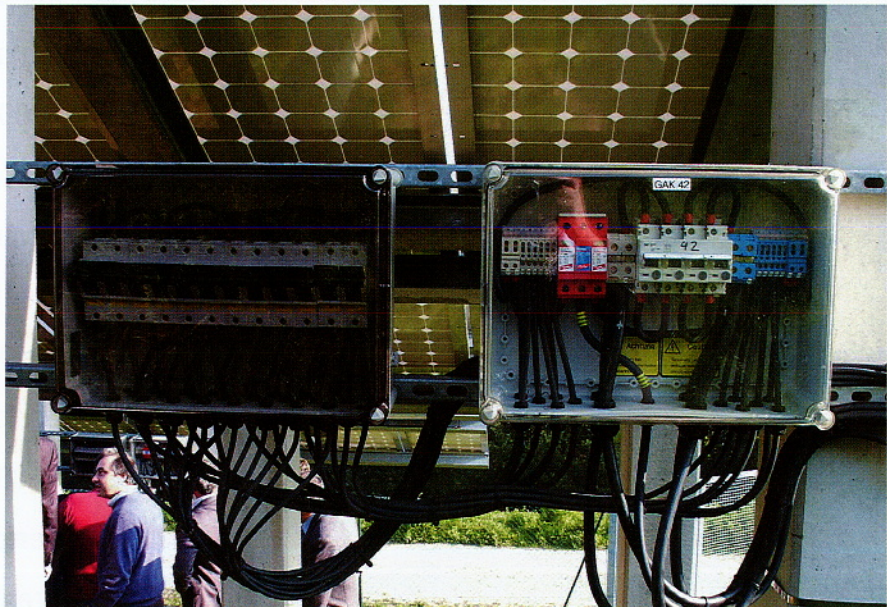
Cell phone base stations are normally in or on tall buildings or attached to their own masts. Being so high up, they are vulnerable to direct or indirect lightning strikes. In Germany alone, there are two to three million lightning strikes a year, estimates J. Birkl, spokesman for DEHN, a leading manufacturer of SPDs. Cellular communications systems are not unique in this respect: wind turbines, solar panels, industrial installations and office blocks are all liable to attract lightning as well. For any such structure, a lightning protection system is therefore absolutely essential. Equally vital is a SPD to protect the sensitive equipment

by diverting the high voltages and currents generated by the lightning.

Top quality

DEHN, which is set to mark its centenary in two years, has been making SPDs for about half a century. The German manufacturer places great emphasis on quality, in order to meet

the expectations of its many clients around the world: not only cell phone network operators, but also many other organizations that use sensitive electrical equipment or have a lot to lose from a power loss or voltage surge. These include wind turbine operators, manufacturers and traders, oil and gas concerns and water companies. 'In



PRODUCT CERTIFICATION

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house tests. Then, one or more KEMA experts travel to Neumarkt to test the item in DEHN's well-equipped laboratories there. The SPD is put through the tests prescribed in the applicable standard, EN 61643-11. These include tests to verify, for example, that the appliance can divert the surge current at least a certain number of times without failing. For each test, the current is increased, up to a maximum of, say, 100 kA. If the appliance passes the type test, it can be sold on the Dutch market without a problem.

One-stop shopping

As a global market player, however, DEHN looks well beyond the Dutch market. KEMA's international reputation as a testing and certification body is such that approval by KEMA means almost automatic European CCA and international IEC-CB certification. These certificates act as passports to the European and world markets, respectively. 'Working with KEMA means one-stop shopping, which is a big plus from our viewpoint, explains Birkel. 'Some countries still have their own national approval systems, but it is never a problem gaining approval on the basis of one of our CCA or CB certificates,' adds Burger. 'In the past it was necessary to have a product tested in each country; KEMA certification does away with the need for duplicate testing.'

Positive

DEHN is very positive about working with KEMA. 'The certification process is very quick and we know we can depend on the people at KEMA,' asserts Birkel. 'That is very important, because we operate in a market where new products are coming out all the time. We are also able to make use of KEMA's international network, thus facilitating access to new markets, such as South Africa. In addition, our technical experts appreciate being able to deal with people with a similar level of know how. This too strengthens our position in negotiations with clients.'

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recent years, there has been an upturn in demand from the renewable energy sector,' reports Birkel. 'There has certainly been a big increase in the number of wind turbines and solar systems in use here in Germany. In this sector, standard products just won't do. So we are constantly developing customized arresters for the renewables industry.' To ensure that its new products match the quality of its tried and tested lines, DEHN has its own impressive laboratory facilities. 'DEHN's lab is excellent,' comments KEMA's Caspar Burger. 'That's clear from their test capabilities and the way they go about their work.'

Independent evidence

Why should a company that has such good facilities of its own use the services of a testing and certification body? 'Many clients insist on independent evidence that our products meet the applicable standards,' explains Birkel. 'So, for the last fifteen years, we have been sending samples to KEMA three to four times a year. The point is that we don't really sell products; we sell security of supply. And KEMA helps us to do so. We have been coming back all these years because it is in our commercial interest to do so.' When DEHN wants to put a new type of SPD on the market, the first step is to subject the product to a range of in-