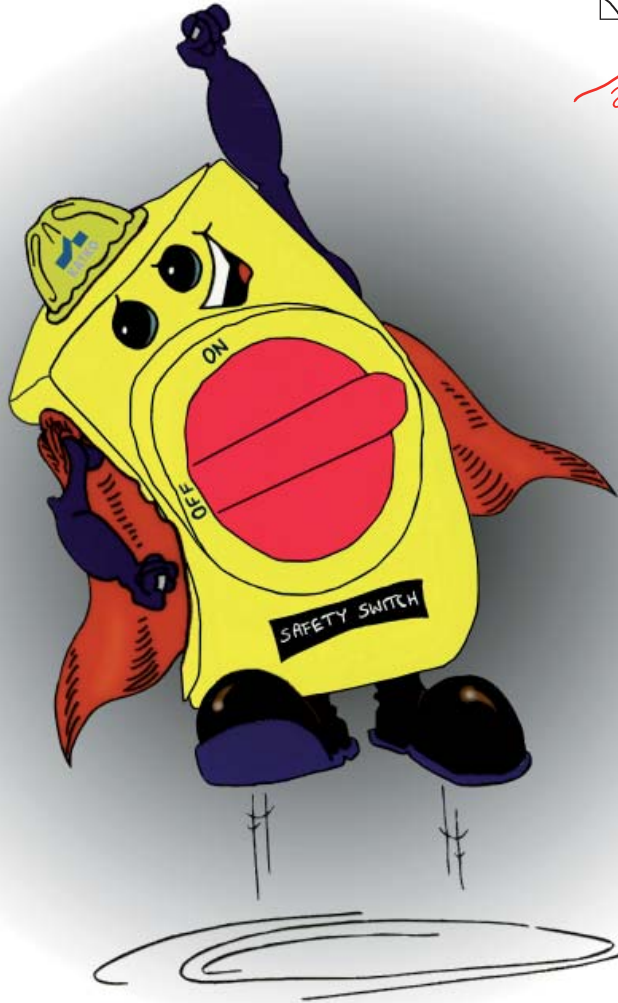


WHY BUY KATKO?

- HIGH-QUALITY PRODUCTS
- LATEST TECHNOLOGY
- WIDE RANGE OF PRODUCTS
- WELL-KNOWN BRAND
- CUSTOMER SUPPORT
- PRODUCTS COMPLY WITH RELEVANT STANDARDS

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>
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approved



KATKO IS AN ELECTRICAL SWITCH MANUFACTURER BASED IN FINLAND THAT SPECIALISES IN SAFETY SWITCHES, LOAD BREAK SWITCHES AND SWITCH FUSES. OUR GOAL IS, AND ALWAYS HAS BEEN, TO USE THE MOST UP-TO-DATE MATERIALS TO PRODUCE THE BEST QUALITY SWITCHES AT A COMPETITIVE PRICE, AND TO PRODUCE THE WIDEST POSSIBLE RANGE TO SUIT CUSTOMER REQUIREMENTS.

SAFETY SWITCHES

At KATKO we do not call our range “maintenance switches” or “isolator switches” for the specific reason that they are **SAFETY SWITCHES**.



WHY ARE THEY SO SAFE?

All of our Safety Switches have a door interlock system, which not only prevents the cover from being removed when the switch is in the “ON” position, but also when the switch is “PADLOCKED OFF”.

To be fair, most of our competitors also have an interlock in the “ON” position, but we believe KATKO is unique in having an interlock in the “PADLOCKED OFF” position. When the switch is padlocked off, we have to assume that the person who fitted the padlock does not want anyone to interfere with

the switch – but unless you have the KATKO Safety Switch, the cover can be unscrewed and removed, leaving the switch vulnerable to tampering. KATKO switches are mounted inside

KATKO IS UNIQUE IN HAVING AN INTERLOCK IN THE PADLOCKED OFF POSITION

enclosures made of various materials to suit specific applications: ABS, Polycarbonate, Aluminium, Steel and Stainless Steel. The minimum IP rating for all enclosures is IP65.

The switches inside the enclosures are Load Break Switches, not no-load isolators.

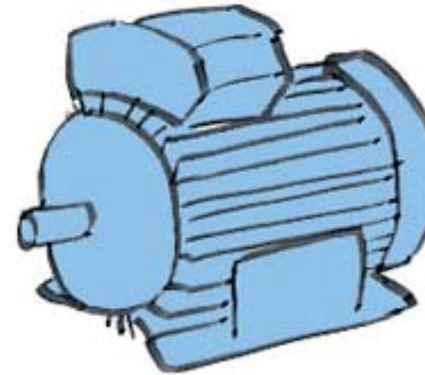
The standards give the following utilisation categories:

AC-20	Connecting and disconnecting under no-load
AC-21	Switching of resistive loads including moderate overloads
AC-22	Switching of mixed loads, inductive and resistive loads including moderate overloads
AC-23	Switching of motor loads or other highly inductive loads

No-load isolators have a utilisation category of AC-20.

KATKO switches have ratings of AC-21, AC-22 and AC-23 for each switch.

As AC-22 is the most commonly used, KATKO uses this rating as the basis for parts numbering. For example, the KEM 316 is a 3-pole 16A switch with an AC-22 rating. The AC-21 rating of KEM 316 is 25A, and most our competitors use code 325 for a corresponding switch.



SHORT-CIRCUIT RATING

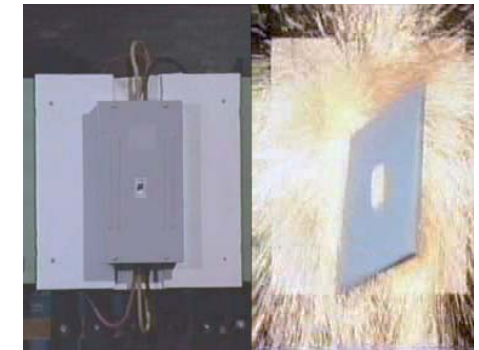
Most manufacturers claim a 50kA short-circuit rating for their switches, but the important point is the size of the back-up fuse recommended to maintain the 50kA short-circuit level. The lower the fuse rating, the quicker

KATKO TESTS SHORT-CIRCUIT RATINGS WITH THE FUSE RECOMMENDED BY THE MOTOR MANUFACTURERS

the fuse will blow under short-circuit conditions – and will thus reduce the time the switch has to withstand 50kA. KATKO tests short-circuit ratings with the fuse recommended by the motor manufacturers to protect their motor, but without nuisance tripping. For example, on the 25A switch KATKO uses a 63A back-up fuse on short-circuit tests, whereas most other manufacturers use a 25A fuse. So, what difference does this make?

AC-23 RATING

The AC-23 rating of KATKO switches ensures that the switch can break 8 times the full-load motor current, so the switch can break a stalled motor load. Most other manufacturers allow 2.5 times the full-load motor current – and hope that the end customer fits other motor protection devices between the switch and the motor. If the customer does not, then the switch could weld if attempting to break a stalled motor load.



EMC-PROTECTED POLYCARBONATE



ABS



ALUMINIUM



STAINLESS STEEL



SIDE-OPERATED ALUMINIUM



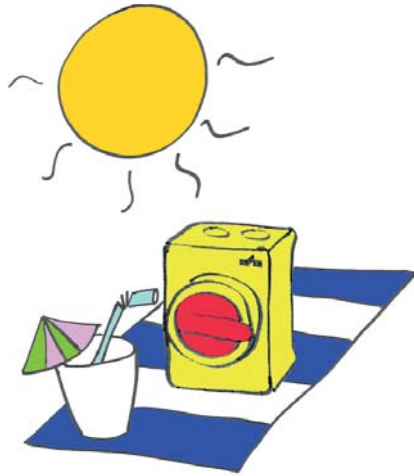
POLYCARBONATE



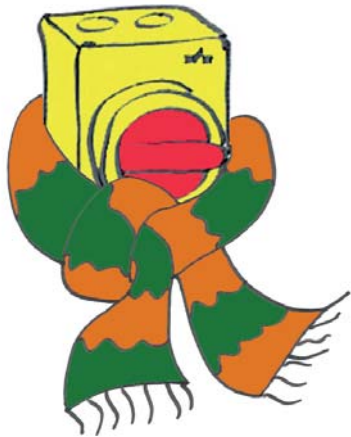
STEEL



The difference is this. Virtually all switch manufacturers claim that their 25A switch is suitable for use with an 11kW motor, but the motor manufacturers recommend a 63A back-up fuse. The reason for this is that the full-load current of an 11kW motor is up to 22A, and the starting current is up to 8 times this value, i.e. 176A. Therefore, if you have a 25A back-up fuse, the chances are it will blow, causing nuisance tripping. To overcome this nuisance tripping the customer must fit a 63A fuse, and by doing so the 50kA short-circuit rating no longer applies unless a switch with a short-circuit rating of 50kA with a 63A fuse is applied.



OPERATING TEMPERATURE



The operating temperature for KATKO switches ranges from below -40°C to over $+80^{\circ}\text{C}$.

For instance, it is quite normal to have these switches mounted outdoors in Finland, where in the winter they are subject to ice, snow and temperatures of -40°C . At the other end of the scale, in the Gulf Area the temperature can easily climb to over $+50^{\circ}\text{C}$.

TESTING

Products can be tested either in-house or by an accredited testing station. All KATKO switches are tested by independent, accredited testing institutes for compliance with the relative standards, and we can supply these independent test certificates if required.

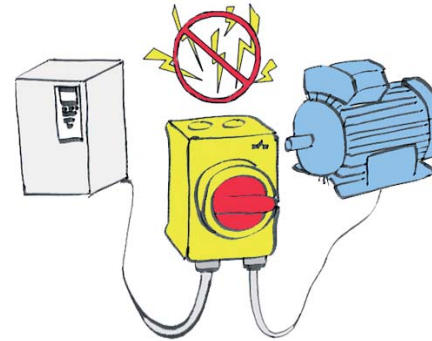
KATKO SWITCHES ARE TESTED BY INDEPENDENT TESTING INSTITUTES

All KATKO switches are designed to comply with both national and international standards, and we have third-party certificates complying with IEC and NEMA standards from FIMKO, KEMA, GOST, UL, etc.



RANGE

As well as all the alternative enclosures, KATKO supplies a full range of load break switches and switch fuses in 1-, 2-, 3-, 4-, 6- and 8-pole versions plus a changeover version, from 16A right up to 800A. That means, whatever your requirements, KATKO can meet them.



EMC-PROTECTED SAFETY SWITCHES

KATKO has a wide range of EMC-protected Safety Switches. In addition to a special copper-plated polycarbonate enclosure range, KATKO has an aluminium-enclosed range, both covering 16A to 125A, as well as a sheet-steel enclosed range of up to 800A. All these come with EN 55011 compliant EMC cable glands.

ATEX SWITCHES

KATKO has now produced a range of switches complying with the new standard EN 61241 that entered into force in June 2007. These switches can be supplied in metal-clad or stainless steel enclosure, and withstand a frontal impact of 7 joules. They are suitable for use in Zone 22 (Category 3D) and have a range of 16A to 160A.



FIRE SWITCHES

KATKO also offers a range of Fireman's Switches in either polycarbonate or metal-clad enclosures covering 25A to 63A.



EASY TO INSTALL

The easier it is to install a product, the less time it takes, and the lower the cost of installation. The handle is integrated with the lid, and does not need to be unscrewed to remove the lid. With smaller switches, the switch can simply be "unplugged" from the base for ease of wiring and then plugged back in. The auxiliary contacts simply snap onto the top of the switch and can be retrofitted without disturbing the main wiring. The switches include knockouts at the top and bottom for ease of cabling. Neutral and earth

terminals are fitted as standard inside the enclosure of the 3-pole switch, and an earth terminal is fitted as standard in the 4-pole switch. The fixing centres are marked on the back of the switch housing.



KATKO - QUALITY AND EXPERIENCE

KATKO has manufactured switches for over 60 years and supplies products to over 50 countries.

KATKO is a partner of proven reliability, and our products are highly valued in various industries all over the world.



Solar dry coolers of a refrigeration system with KATKO switches situated on the roof of a modern sports arena.



Special stainless steel safety switch installed. The switch fulfils the specific requirements of the food industry: strict demands for hygiene and the need to withstand the strong chemicals used in cleaning.

KATKO CARES FOR ENVIRONMENT

Environmental issues are a top priority for KATKO. We shoulder responsibility for the whole lifespan of our products, from selecting the raw materials through to production, packaging and finally recycling.

KATKO only uses well-known suppliers of good repute to ensure high-quality, recyclable raw materials and to avoid the use of heavy metals and other hazardous substances (RoHS Directive).

We aim to continuously develop eco-friendly procedures and to diminish the negative effects of our production activities on the environment. We do this by deploying modern technology and by following a carefully planned environmental programme.

KATKO Oy
Karhunkierros 6, P.O.Box 12
FIN 01641 Vantaa, Finland
Tel. +358 9 849 600
Fax. +358 9 849 60800
www.katko.com

KATKO UK Ltd.
Unit 1 Blacknest Business Park
Blacknest road, Blacknest
Hampshire GU34, 4PX, UK
Tel. +44 (0) 1420 520 530
Fax. +44 (0) 1420 520 560
www.katko.co.uk

KATKO POLAND Sp. z o. o.
Remontowa 10
PL-03-616 Warszawa
Tel. +48 22 678 63 93
Fax. +48 22 678 95 31
www.katko.pl