



santon
superior switch solutions

ENERGY SOLUTIONS



santon

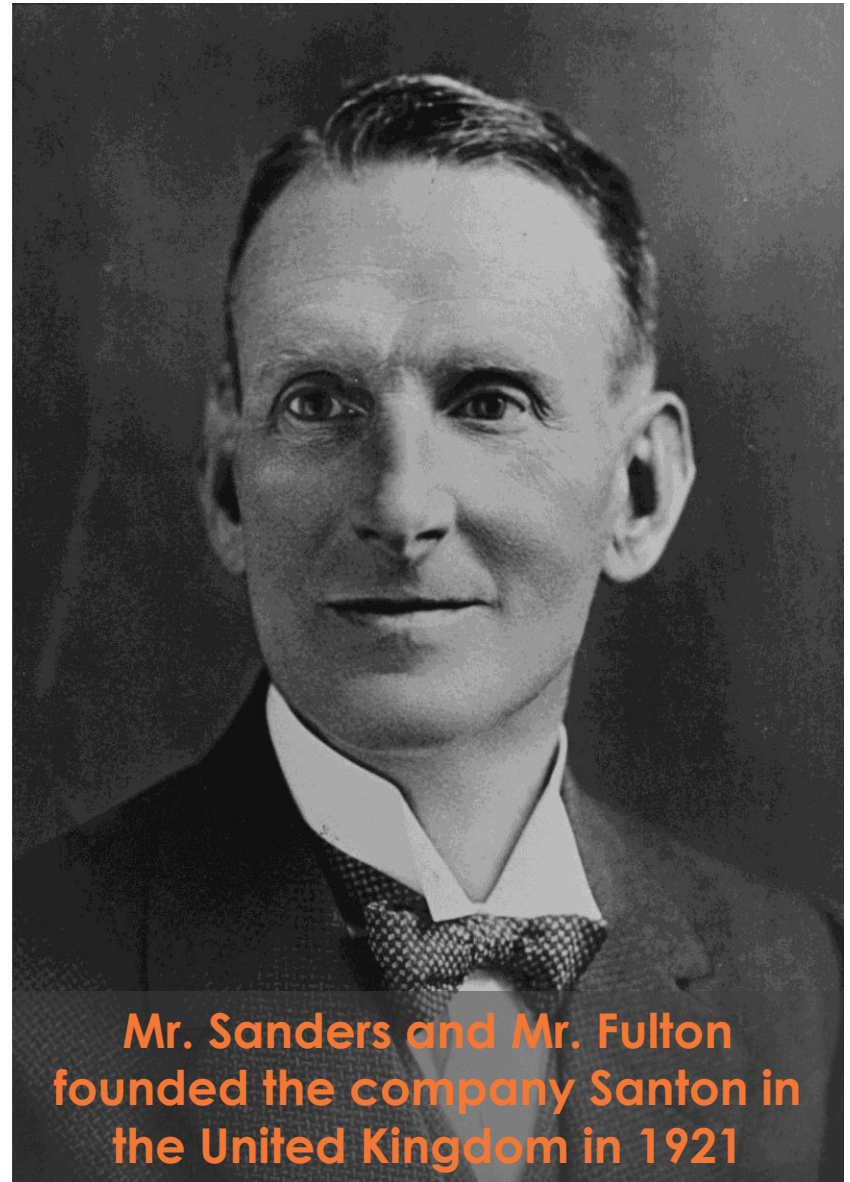
superior switch solutions

COMPANY

PRODUCTS

CASES

COMPANY



**Mr. Sanders and Mr. Fulton
founded the company Santon in
the United Kingdom in 1921**



In 1950 a Dutch – UK joint venture started for making the switches in the Netherlands



In 1970 Santon Switchgear became a 100 % Dutch company



- **Offices**
- **Distributors**



In-house R&D department



Production, highly automated



ISO 9001-2008 certified



Turnover levels around € 20 M



100 people focused core group



Over 90 years of experience



Experience with wide range of AC and DC switches



100% Production in Rotterdam (NL)



Focused on high quality



Efficient due to lean management



Highly automated machinepark



SUPERIOR SWITCH SOLUTIONS

With a Santon switch you are guaranteed to have purchased the very best switch available with maximum continuity and safety precautions for your installations and your employees.

SOLAR PRODUCTS

X-TYPE





Specially designed for the DC industry



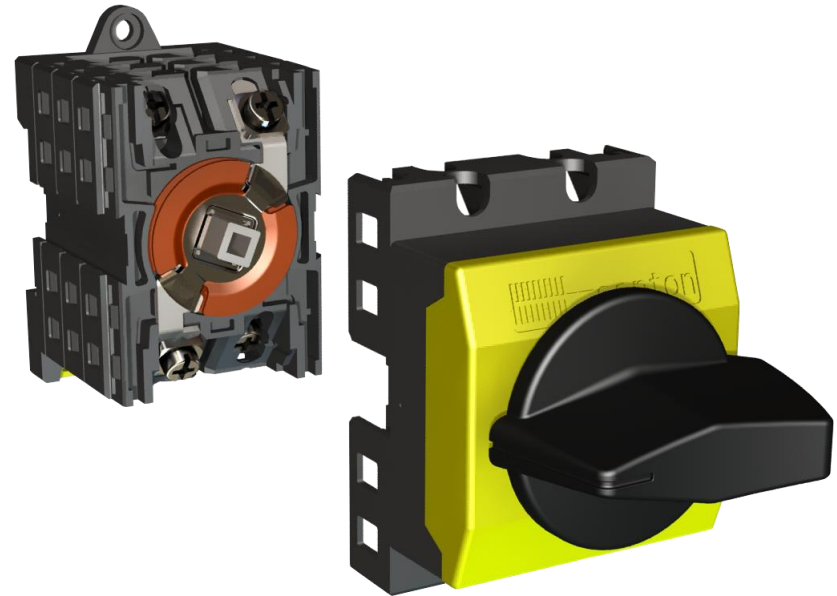
Smallest design possible



Extremely short power shut off time of approx. 3ms



Wide electrical range up to 45 amp per pole





Multi-pole solutions (AC and DC) due to modular concept



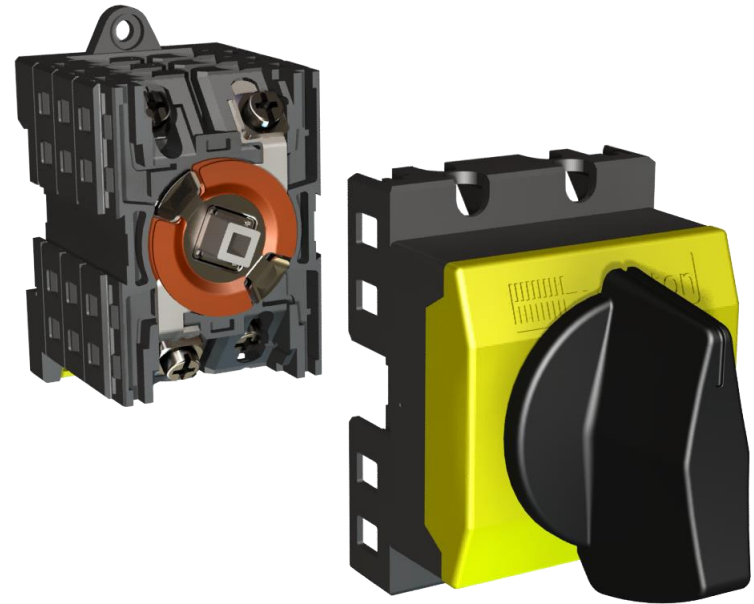
Models available for Dinrail mounting as well as for single hole mounting



Many accessories available



Meets standards IEC60947-1/3, UI508i and CCC





Multi-pole solutions (AC and DC) due to modular concept



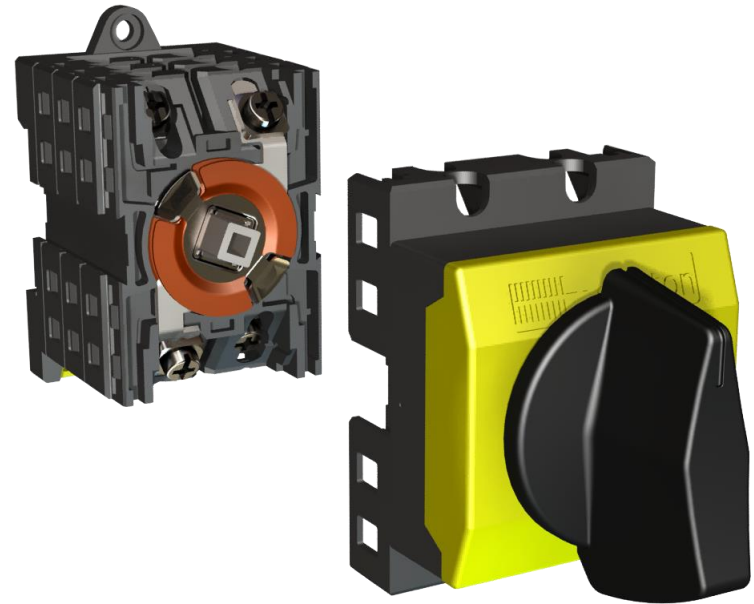
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X-type ratings

| Voltage (DC21) / Amp ratings | XA | XB | XC (IEC) | XB HP (High Performance) |
|------------------------------|------|------|----------|----------------------------|
| 1500 V | | | 20A | |
| 1100 V | | | | 10 A |
| 1000 V | 16 A | 16 A | 50A | 20 A |
| 850 V | 20 A | 20 A | | |
| 800 V | 25 A | 25 A | | 30 A |
| 650 V | 32 A | 30 A | | |
| 500 V | | | | 45 A |
| 400 V | | 45 A | | |

P-TYPE





In production since 1930



Over 10,000,000 AC and DC units in use



Extremely short power shut off time of approx. 3ms



Switching without flame arc





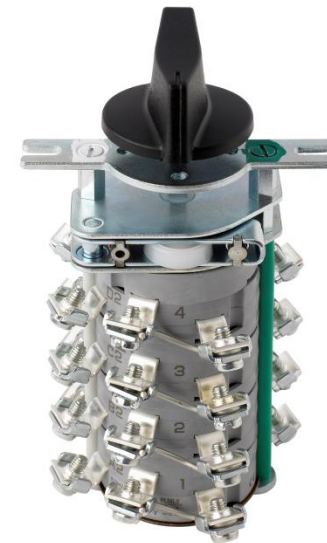
Suitable for switching low current control signals (due to internal low resistance and self cleaning contacts)



Many accessories available



Customer specific assemblies



| Size | Small | Medium | Big |
|--------------------------------|---------------------|----------------------|------------------------------|
| Current Range (Amperes) | 16A, 25A, 40A | 40A, 63A, 100A, 200A | 250A, 300A, 350A, 500A, 800A |
| Voltage AC 22/23 | 440 Volt, 690 Volt | 440 Volt, 690 Volt | 440 Volt, 690 Volt |
| Voltage DC 21 | 600 Volt, 1000 Volt | 600 Volt, 900 Volt | 600 Volt, 1000 Volt |
| Number of positions | 4 | 4 | 4 |

CITADEL





In production since 1975



IP 66, 67, 68 and 69K available
(Nema 4X)



Chemical resistant material
Noryl GFN2-SE1



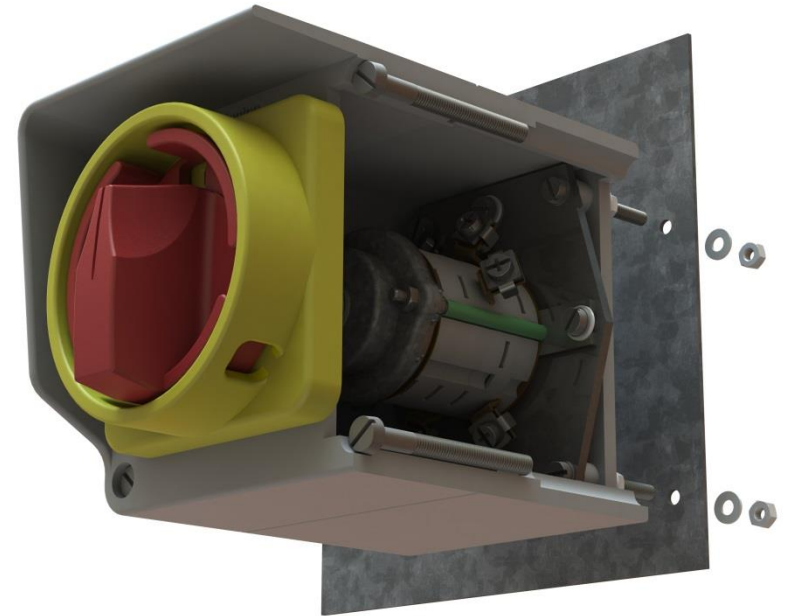
AC/DC currents from 16A up to
250A



IEC 947-3 and UL508* certified



Many accessories available





Extreme robust for heavy duty industries like mining, defense and steel work industry



Different (pad lockable) knobs available



Shock and vibration resistant



Many switch diagrams possible due to the modular build up of the switch



Endless possibilities due to own R&D department

CASES



SOLAR



Number one switch supplier to inverter manufactures





NUCLEAR POWER PLANTS



Used inside the powerplants, built for heavy shock and vibrating environments



Guaranteed safety during the entire lifetime



Protocol contacts, guaranteed making / breaking on requested switching angle



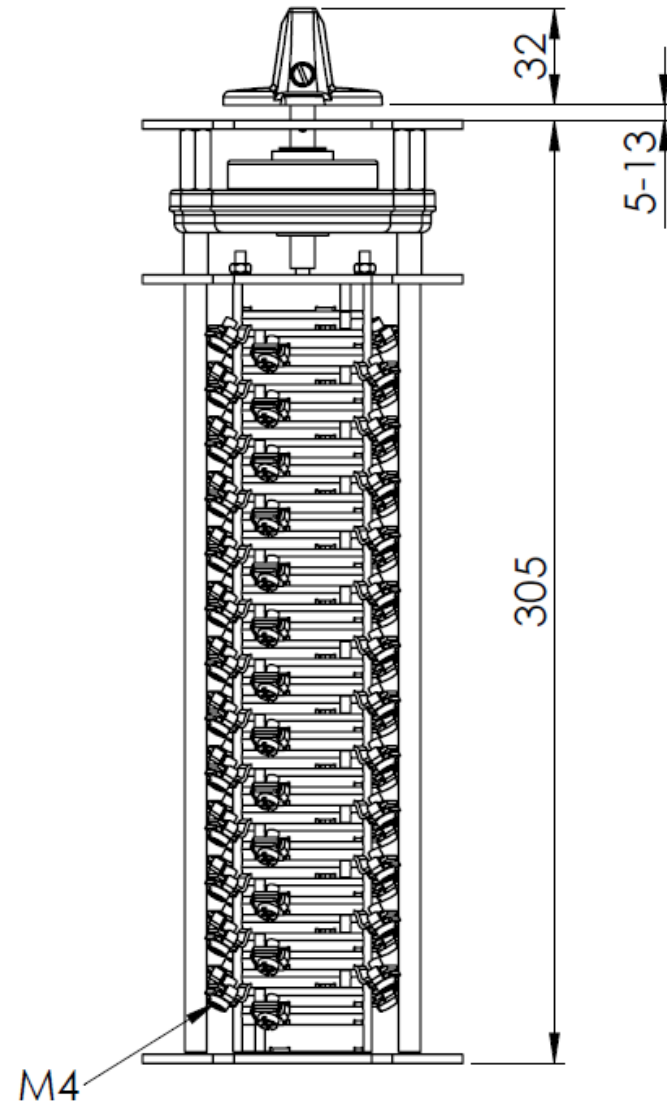
Designed for emergency applications



Manual and motor driven switch for remote operations



Long life cycle, low maintenance cost guaranteed





ENERGY DISTRIBUTION / INFRASTRUCTURE



Selected as 'standard' switch in many large industrial and distribution companies



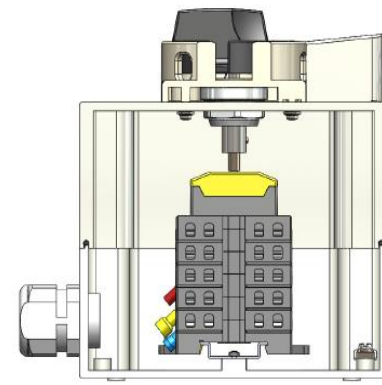
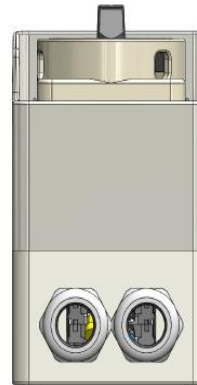
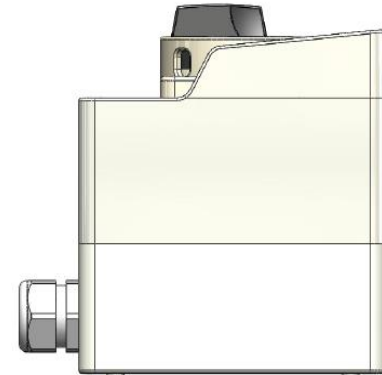
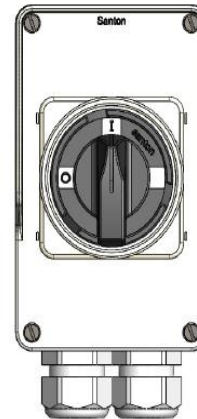
Installed base of more than 500,000 switches in the most adverse conditions.



Resistant against falling coal, oxidation, steel dust, heat, chemicals and so on.



Value for money: some switches are installed and used for almost 40 years without replacement!!!



| Feature | Benefit | Value |
|-----------------------|----------------------------------|---|
| Self cleaning contact | Longer lifetime | Less investment on long-term base |
| Experience | Proven and reliable technologies | Safety for employees |
| Robust enclosures | One time fit | lower maintenance costs |
| Own R&D department | Creating every solution needed | One partner for all solutions, less vendors |

Let's discuss how we can create value for you and your company!



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