## Electrical equipments

## Modular circuit breakers

- 1P, 2P, 3P, 4P circuit breakers, residual current circuit breakers, differential circuit breakers;
- rated voltage $127 \div 500 \mathrm{Vac}, 50 / 60 \mathrm{~Hz}$, rated current $2 / 4 / 6 / 10 / 16 / 20 / 25 / 32 / 40 / 50 / 63 / 80 / 100 / 125 \mathrm{~A}$;
- short-circuit current $3 \div 60 \mathrm{kA}$, earth-leakage sensitivity $30 \div 1000 \mathrm{~mA}$, life 20000 cycles;
- standards EN 61009, EN 60898, IEC 60947-2, IEC 60898-1, protection IP20;


## Power circuit breakers

- operational voltage $220 \div 750 \mathrm{Vac} / \mathrm{Vdc}$;
- insulation voltage 690, $800 \mathrm{Vac} / \mathrm{Vdc}$;
- rated current $16 \div 3200 \mathrm{~A}$;
- breaking capacity $8 \div 150 \mathrm{kA}$;


Thermal overload relays

- adjustment range $0.10 \div 630 \mathrm{~A}$;
- differential or non differential;
- voltage 690/1000Vac, 250Vdc;
- insulation voltage $600 \div 1000 \mathrm{~V}$;



## Motor starters

- rated current $3 \div 250 \mathrm{~A}$;
- power $1.1 \div 90 \mathrm{~kW}$;
- operational voltage $110 \div 690 \mathrm{~V}$;
- control voltage $24 \div 400 \mathrm{Vac}$;



## Contactors

- control voltage $12 \div 690 \mathrm{Vac}, 5 \div 440 \mathrm{Vdc}$;
- operational voltage $220 \div 1000 \mathrm{~V}$;
- rated current $6 \div 2100 \mathrm{~A}$;
- contacts NC, NO, NC + NO;

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Circuit breaker thermal-magnetic

- adjustment range $0.10 \div 220 \mathrm{~A}$;
- voltage $220 \div 690 \mathrm{~V}$;
- life $40000 \div 100000$ cycles;
- operating rate $25 \mathrm{cyc} / \mathrm{h}$;



## Cam switches

- $\varnothing 16 \div 22 \mathrm{~mm}$ hole, $1 \div 6$ poles;
- rated current $10 \div 150 \mathrm{~A}$;
- switching angle $0 \div 330^{\circ}$;
- protection IP 20, IP 40 or IP 65;


## Soft starters

- soft starters $0,37 \div 75 \mathrm{~kW}$;
- rated voltage $110 \div 690 \mathrm{Vac}$;
- rated current $3 \div 85 \mathrm{~A}$;
- analog or discret inputs and outputs;

- control voltage $24 \div 230 \mathrm{Vdc}, 24 \div 400 \mathrm{Vac}$;
- operational voltage $250 / 400 \mathrm{Vac}$;
- 5A for output control relay;
- contacts $1 \mathrm{NC}, 1 \mathrm{NC}+1 \mathrm{NO}, 2 \mathrm{O} / \mathrm{C}$;



## Motor protection circuit breaker

- single or three phase circuit breaker, $2 \div 4$ poles;
- operational voltage $440 \div 690 \mathrm{Vac}$, rated current $0.25 \div 80 \mathrm{~A}$;
- life $10000 \div 100000$ cycles depending on model;
- miniature or compact construction, thermal-magnetic or magnetic protection;



## Switch disconnector

- nominal voltage 690V;
- versions 2,3 and 4 poles;
- rated current $40 \div 6300 \mathrm{~A}$;
- life15 000 cycles



## Source changeovers

- operating voltage $125 \div 750 \mathrm{Vac}$;
- rated current $40 \div 6300 \mathrm{~A}$;
- version 3 or 4 poles;
- interpact, compact or masterpact;



## Protection relays SEPAM

- relays for standard or usual applications, distribuition systems, demanding application;
- input for current, voltage, logic signal and temperature sensors;
- relay outputs, logic, logic equation editor, modbus comunication port;
- parameters and protection settings saved on removable memory cartridge;
- software programming on specific functions (Logipam);



## Modular surge arrester

- charge current $5 \div 65 \mathrm{kA}$;
- voltage $440 \mathrm{~V}, 275 \mathrm{~V}$;
- protection for TT, TN-S, TN-C, IT;
- voltage protection $0.9 \div 1.5 \mathrm{kV}$;



## Modular safety transformer

- operational voltage 230 Vac
- output voltage $8 \div 12 \mathrm{~V}$ or $12 \div 24 \mathrm{~V}$;
- rated power $4 \div 63 \mathrm{VA}$;
- modular safety or bell transformer;



## Pushbutton and pilot lights

- plastic or metal construction, round or square head, $\varnothing 8 \div 30 \mathrm{~mm}$, usually $\varnothing 22 \mathrm{~mm}$;
- operational nominal voltage $110 \div 600 \mathrm{Vac}, 19 \div 30 \mathrm{Vdc}$, isolation $250 \div 600 \mathrm{Vac}$;
- LED or bulb lighting, white, red, green, orange or blue pilot light;
- live 100000 ours, degree of protection IP 66;



## Fuse disconnector

$-1 P, 1 P+N, 2 P, 3 P, 3 P+N$;

- current 6, 25, 32, 50, 125 A ;
- contacts $1 \mathrm{NO}, 2 \mathrm{NO}, 1 \mathrm{C} / \mathrm{O}, 2 \mathrm{C} / \mathrm{O}$;
- max. voltage 690Vac/dc;


Push buttons, changeover switches

- operated by switch or pushbutton;
- 2 or 4 poles, 2 or 3 positions;
- current 10 / 20A, voltage 250 / 415Vac;
- contacts $2 \mathrm{C} / \mathrm{O}, 1 \mathrm{C} / \mathrm{O}, 1 \mathrm{NO}+1 \mathrm{NC}$;



## Vacuum circuit breaker

- operation and protection $7.2 \div 24 \mathrm{kV}$, rated current $630 \div 2500 \mathrm{~A}$, short-circuit current $25 \div 40 \mathrm{kA}$; - optimised width to facilitate cubicle integration through four phase-to-phase distances;
- electrical operating mechanism, earthing switch, multi-performance current sensors LPCT;
- fixed, with drawable in cradle, frontal or lateral versions;
- keylock for locking the circuit breaker in open position;


## Fuse

- high breaking capacity $120 \mathrm{kA} / 500 \mathrm{~V}$ and $80 \mathrm{kA} / 690 \mathrm{~V}$ (depending on the fuse used);
- range of currents $0.3 \div 250 \mathrm{~A}$, high capacity disconnection and current limitation;
- combined type (striker), indoor and outdoor (depending on type), medium and low voltage;
- for devices public and industrial electrical distribution networks;
- provide protection for consumer power (industrial and household equipment, transformers, motors, etc);


Industrial plugs and sockets

- voltgage $110 \div 480 \mathrm{Vac}, 3 / 4 / 5$ poli;
- current 16/32/63/125A, IP 44/67;
- plug or socket version, screw connections;
- easy installation, high performance;


Enclosures for housing

- nominal current 63A;
- degree of protection IP 40, IK 07;
- high resistance insulation;
$-4,6,8,12,18,24$ or 36 modules;


Switchboard, panelboards, modular enclcosures, universal enclosures

- metal, tehnoplast, polycarbonate, ABS, crystal, titan construction, color or colorless doors;
- fire, heat, UV, chemical and atmospheric agents resistance, self extinguishing;
- insulation class 1, total insulation class 2, IP 30/31/40/43/55/65, IK 07/08/09/10;
- terminal blocks for insulation voltage 800V and test pulse 8kV, SR EN 60947-7-1;
$-2 P, 3 P, 4 \mathrm{P}$ distribution block, $40 \div 630 \mathrm{~A}$, configuration distribloc, polybloc, multiclip;
- wide range of accesories necessary for installation of switchboards, panelboard, enclosures;


## Acccesories for interconnection

- string clamps with DIN rail mounting, cable glands, clips for fixing cables, sealing plugs;
- rigid or flexible copper bars, rails DIN, NULL bars, tinned copper bars, isolate bar;
- barets of interconnection, copper lugs, cable terminals, terminal pines, clips, connectors;
- Insulators octagonal, industrial insulators, insulators dead end, insulators for copper bars;


## Equipment for homes, buildings, spaces

- single or double switches and sockets for interior, 16A/250V, various forms of design;
- sockets and switches for outdoor, resistant to external factors, degree of protection IP44;
- power, data, telephone socket-outlets, extension sokets, suitable for all applications;
- programming sockets, timers, programmers, variable intensity - dimmers, thermostats;
- industrial lighting, street, the neon and flourescent lamps bodies in various constructive forms ;
- saving light sources, incandescent bulbs, higher wattage bulbs, mercury lamps;
- starters, ballasts, simple lamp holder or with short skirt, ceramic or bakelite lamp holder, E14, E27, E40;
- connection and ramification doses embedded and applied, cables, Copex tubes, cable channels:


