Smart control. Simplified.

For Precision Timing, Monitoring, and Automation.

NEW



Modular

electronic device

electrahertz
electrical suppliers

ELKO ep®



Modular electronic devices

ELKO EP is a global leader in automation solutions, specialising in relays, wireless, and IoT products for residential, commercial, and industrial use.

30 years of innovations



Single-function time relays

Precision DIN-rail relays dedicated to a single task such as ON/OFF delay or pulse control. Ideal for straightforward automation where simplicity and reliability are paramount.



Multifunction time relays

Versatile DIN-rail relays featuring up to 10 selectable functions and broad time ranges. A universal solution for complex automation in both commercial and industrial sectors.



Digital time switches

Sophisticated switches for real-time control of lighting, heating, and machinery. Features include Wi-Fi connectivity, astronomical programs, and a 10-year data reserve.



Thermostats / Hygrostats

High-accuracy monitors for regulating temperature and humidity in switchboards or HVAC systems. Designed to maintain optimal environments and protect sensitive equipment.



Plug-in time relays

11-pin terminal relays designed for rapid installation and maintenance-free operation. Combines multi-function versatility with the convenience of a plug-in format.



Voltage / Current monitoring relays

Comprehensive protection relays that monitor TRMS values to detect over/under voltage or current. Essential for safeguarding equipment against phase failures and electrical faults

Annex-1

Function		Description of function	Certification	Applications
		on applying supply voltage:	EAC, CE, cULus	Timers, Voltage relays, Current relays, Thermostats
A	**On Delay**	*relay remains open and only closes after preset time period.*		
B	**Interval On**	*relay closes for preset time then resets/opens.*		
C	**Flasher -** *(Off first)*	*equal repeating (starting with selectable Off time first) repeats until supply is removed.*		
D	**Flasher -** *(On first)*	*equal repeating (starting with selectable On time first) repeats until supply is removed.*		
E	**Off Delay**	*relay remains open, closing a control contact activates the relay which remains closed but only starts the time period after release of the control contact, if the control contact is closed during timing, the time is reset and the relay remains closed.*		
F	**Single Shot**	*relay remains open, closing of control contact activates the relay for the preset time period, closing the control contact during timing is ignored.*		
G	**Single Shot** *(falling edge)*	*relay remains open even on closing of control contact, opening the control contact activates the relay for the preset time period, closing the control contact during timing is ignored.*		
H	**On/Off Delay**	*relay remains open, closing of control contact starts the preset delay period whereafter the relay closes, opening the control contact closes the relay once again for the delay period, if the control contact is opened during timing the relay remains closed for another delay period opening when timing is complete, any change of control contact status during timing is ignored.*		
I	**Memory Latch**	*relay remains open, closing a control contact activates the relay until receipt of another pulse which opens the relay, each time the control contact is closed, the relay changes status.*		
J	**Pulse Generator** *(0.5s)*	*relay remains open and the preset time delay begins, on completion the relay closes for a fixed time (0.5s) and then resets.*		
K	**Memory Latch** *(with delay)*	*relay remains open, closing control contact (regardless of how long) activates the relay starting the preset time period, on completion the relay opens, if the control contact is closed during timing the relay opens immediately. Each time the control contact is closed the relay changes status.*		
L	**On Delay** *(pulse controlled)*	*relay remains open and the preset time delay begins, on completion the relay closes for a fixed time (0.5s) and then resets.*		

Above ZAR prices do not include VAT. E&OE

Catalogue

Selection Chart

Modular timing devices

- Wide range of functions, time scales and supply voltages.
- High accuracy and repeatability time settings.
- Modular DIN rail mounting, compact *(one module 17.6 mm wide)*
- Access to instruction manual/technical information via QR code printed on each product

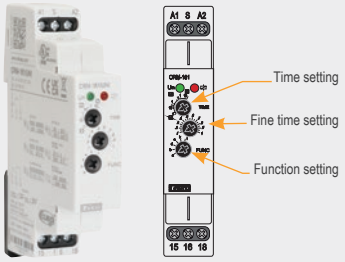
Multi-function - Multi-voltage - Multi-time range

- Time selection by rotary selector, fine setting by potentiometer
- LED indication: **Green** - *(supply indication)* / **Red** - *(relay output status)*
- Multi-time range: 0.1...1 / 1...10 - seconds, minutes, hours, days, permanent On (or) Off



CRM-91H/UNI

type	supply voltage	function	time range	output contact	price
CRM series - Advanced multifunction timers					
Popular multi-functional time relay for universal use in automation, control and regulation applications. Includes all commonly used functions and time ranges.					
• Multi-function:	*(10 functions)*	**A, B, C, D, E, F, G, H, I, J**	*(see **Annex-1**)*		
• Multi-time:	*(10 ranges)*	0.1s - 10 days			
• Multi-voltage:	universal	12-240 VAC/DC			
CRM-91H/UNI	12-240 VAC/DC	multifunction	0.1s...10 days	16A CO	**718.20**
*With **"push-in"** terminals for ease of wiring*					
CRM-91H/UNI-SL	12-240 VAC/DC	multifunction	0.1s...10 days	16A CO	**788.55**
*With **(supplied)** external panel mount potentiometer (Ø 22 mm)*					
CRM-91H/UNI-E	12-240 VAC/DC	multifunction	0.1s...10 days	16A CO	**1 065.75**



CRM-161

CRM series - Basic multifunction timers					
Base version of CRM-91H with 6 most commonly used functions: on-delay, Interval, pulse control, on-delay, off-delay, flasher, memory latch *(with delay)*					
• Multi-function:	*(6 functions)*	**A, B, D, E, K, L**	*(see **Annex-1**)*		
• Multi-time:	*(6 ranges)*	0.1s...10 hours			
• Multi-voltage:	universal	AC 24…240V and DC 24V			
CRM-161	24-240 VAC / 24 VDC	multifunction	0.1s...10 hrs	8A CO	**674.10**



CRM-2H

CRM series - Unequal repeat timer *(asymmetric recycler)*					
Repeat timer with independently adjustable ON and OFF times. Used for cyclic ventilation, lighting control, circulating pumps, illuminated advertising, etc.					
• Asymmetric recycler - On first *(Off first by bridging terminals A1 and S)*					
• Time range:	*(10 ranges)*	0.1s - 100 days			
CRM-2H	12-240 VAC/DC	unequal repeat	0.1s - 100 days	16A CO	**777.00**
CRM series - Delay on de-energisation *(true off-delay)*					
Relay energises on applying supply and remains energised for the preset time period after removal of supply.					
• Multi-function:	True off-delay, single shot, interval on, interval on/off *(1/2)*				
• Multi-time:	*(4 ranges)*	01s...1s / 1s...10s / 0.1m...1m / 1m...10min			
CRM-71TO/UNI	12-240 VAC/DC	multifunction	0.1s...10 min	16A CO	**1 148.70**



PTRM-216TP/UNI

PTRM series - Panel mount electronic devices *(48 x 48 mm)*					
Panel mounting, mounts *(through hole)* on panel door exposing facia for easy access to timing and function controls. All functions initiated by the supply voltage *(except flasher function)*, control input can be used to inhibit/pause the delay.					
• Multi-function:	*(10 functions)*	**A, B, C, D, E, F, G, H, I, J**	*(see **Annex-1**)*		
• Multi-time:	*(12 ranges)*	50ms - 30 days, permanent On *(or)* Off			
• Multi-voltage:	universal	12-240 VAC/DC			
• 11pin plug-in rear termination *(socket to be ordered separately)*					
• Potential-free control input *(control switch trigger)*					
• 2 x changeover relays *(one configurable for timed or instantaneous switching)*					
• Panel mount:	(H) 48 x (W) 48 x (D) 79 mm *(panel cut-out 45 x 45 mm)*				
PTRM-216TP/UNI	12-240 VAC/DC	multifunction	50ms - 30 days	16A 2x CO	**1 071.00**
Socket - for *(above)* **PTRM...** panel mount timer *(socket to be ordered separately)*					
AZ511	11 pin socket with reversed terminals for connecting from rear				**178.50**

Catalogue

Dedicated special application timing relays

Designed for specific energy conservation and overall comfort control conditions in domestic and commercial living environments.



CRM-101

type	supply voltage	description	delay time	contacts	price
CRM series - Energy saving time relay					
Typically used for energy saving in hotels, guesthouses or wellness centres, automatically disconnecting supply to room and/or airconditioner when unoccupied. Combined with sensors - magnetic door/window contacts, conventional card switch and motion detector *(to detect presence in monitored room)* • 2 x control inputs - potential-free contacts: IN1 (MD) - motion detector; IN2 (MC) - magnetic door contact • 1 x control input - voltage dependent contact S (MD) - motion detector • Configurable for NO *(or)* NC *(according to type of connected sensors)* • Time delay (t1) *(supply disconnection delay)* 1…60 min • Time delay (t2) *(timed motion detector override)* 0.5…120 sec					
CRM-101	12-240 VAC/DC	energy saving time relay	1 - 60 min	16A CO	**1 051.05**



CRM-47

type	supply voltage	description	delay time	contacts	price
CRM series - Smart staircase timer *(programmable)*					
Enables delayed switching OFF of lighting on stairways, in corridors, entrances, common areas or ventilation fans in bathrooms. *(6 selectable functions)* • Extend delay time by repeatedly pressing the control button S *(max.30 min)* • End delay time prematurely by long press of control button • Multi function: Staircase switch *(a)* with indication *(b)* without indication; Memory latch press on / press off *(c)* without delay *(d)* with delay; Override func. permanent ON *(or)* permanent OFF					
CRM-47	230 VAC	staircase timer	0.5 - 10 min	16A CO	**603.75**



SHT-13/2

type	supply voltage	time range	min time setting	power reserve	contact config.	price
SHT-13 - Multifunction digital time switches *(Wi-Fi connection)*						
For real-time control of lighting, heating, pumps, appliances and many other applications programming for improved comfort and energy saving. **SHT-13 series** *(backlit LCD display)* - for real-time control of various appliances with the possibility of daily, weekly, monthly and yearly programs. • Modular DIN rail mounting *(2 module wide 36 mm)* • All programs on one device *(daily, weekly, yearly and astronomical)* • Pulse/cycle output mode *(can be used for school or factory period bell ringing)* • Astronomic program: manual entry of coordinates or selection of a preset city • 1 *(or)* 2 channel *(each individually programmable with operating hour counter)* • Replaceable battery for time back-up in the event of power failure • Password protection *(preventing unauthorized program changes)* • Built-in web server for setup and control from anywhere via Wi-Fi connection • Wireless firmware update						
SHT-13/1	24-240 VAC/DC	half year	1 sec	10 years	16A CO	**2 076.90**
SHT-13/2	24-240 VAC/DC	half year	1 sec	10 years	16A 2x CO	**2 467.50**



SOU-3

type	supply	time delay	description	lux setting	contact	price
SOU series - Twilight switches *(day/night switches)*						
For programmed control of lighting i.e switching street, garden, advertising signs and shop window lighting, etc. • Ambient light level monitored by external sensor *(supplied with switch)* • Output switches when ambient drops below preset light level on the device • *Input for additional control A1-S (time switch, pre-switch intervention)* • Adjustable illumination level *(1…100 lux / 100…50000 lux),* selectable TEST function • Adjustable time delay 0…2 min *(eliminating short term illumination fluctuations)*						
SOU-1/UNI	12-240 VAC/DC	0...2 min	twilight sw.	1…100k lux	16A CO	**856.80**
Surface mounting - with integrated sensor IP65 - *(external wall mounting)* • Dual function: 1) twilight sw: switches on decrease in ambient light *(1...100 lux)*; 2) light switch: switches on increase in ambient light *(100…100k lux)* usually sunshine *(closing blinds, shutters or activation of solar panels)* • Built-in high resolution light sensor *(adjustable lux settings)*						
SOU-3	230 VAC	0 - 1 - 2 min	twilight sw.	1…100k lux	12A 1xNO	**910.35**

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Catalogue

Voltage monitoring devices

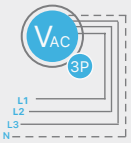
- Monitors its supply voltage, TRUE RMS *(root mean square)* voltage values
- Monitors voltage exceeding the upper *(Umax)* and/or falling below the lower *(Umin)* voltage levels
- Modular DIN rail mounting, compact *(one module 17.6 mm wide)*
- Adjustable trip delay *(mitigating issues caused by short spikes or dips)*


HRN-32/2



type	monitored voltage range	undervoltage setting	trip delay	monitor	contact config.	price
HRN series - Single-phase voltage monitors						
Multifunction voltage monitor						
Function selection: **(O)** Over / **(U)** Under / **(W)** Window *(over/under)* with or without **(1)** hysteresis *(or)* **(L)** Latch *(fault state memory)*						
• Supply derived from monitored voltage						
• Upper level setting *(Umax):* AC 160-276 V						
• Lower level setting *(Umin):* set as a % of the upper level *(Umax)*						
• **HRN-32/2** has an independent output contact for each voltage level.						
HRN-31	48-276 VAC/DC	30-95% Umax	0.5-10s	over/under voltage	16A CO	**716.10**
HRN-32/2	48-276 VAC/DC	30-95% Umax	0.5-10s	over + under voltage	16A 2x CO	**891.45**
Separate c/o output contact for overvoltage and for undervoltage						
DC voltage monitor - 6...30 VDC						
HRN-36	12-30 VDC	50-95% Umax	0.5-10s	over/under voltage	16A CO	**821.10**


HRN-55N



HRN series - Three-phase voltage monitors

Phase failure/reversal relay - with overvoltage monitoring

Monitors its supply, ensuring all phases are present and in correct sequence and voltage does not exceed monitored parameters *(fixed 75% - 125% Un)* **HRN-55N** also monitors neutral presence.

type	monitored voltage	monitored phases	trip delay	monitor	contact config.	price
HRN-55	3x 400V	L1,L2,L3	0.1-10s	phase failure/reversal	8A CO	**935.55**
HRN-55N	3x 400/230V	L1,L2,L3,N	0.1-10s	ph failure/reversal +N	8A CO	**935.55**
With adjustable **(70-95% Un)** *Undervoltage monitoring*						
HRN-56/400	3x 400V	70-95% Un	0.1-10s	phase fail/rev + u/volt	8A CO	**961.80**


HRN-56/400

HRN series - Over/Under voltage monitors - including phase failure/sequence protection

Monitors supply ensuring voltage is within independently selectable over and under parameters and that all phases are present and in correct sequence.

type	monitored voltage (Umax)	monitored voltage (Umin)	trip delay	monitor	contact config.	price
• Monitors voltage, phase failure/sequence *(HRN-54N also monitors neutral presence)*						
• Independently selectable over voltage *(Umax)* and under voltage (Umin) limits						
• Supply is from all phases so the relay remains functional even in the event of a phase loss						
HRN-54	420-500V	300-380V	0.5-10s	over/under voltage	8A CO	**1 270.50**
HRN-54N	242-288V	3 x 172-287V	0.5-10s	over/under voltage +N	8A CO	**1 270.50**

PRI-34 series - Current monitors - *(Multifunction)*

To monitor and control current values of alternating current in electrical systems. Monitors current exceeding preset upper *(Imax)* level and/or falling below the lower current level *(Imin)*

- Modular DIN rail mounting, compact *(one module 17.6 mm wide)*
- Measures TRMS (true root mean square) value of current
- Extend the current range using an external CT *(current transformer)* ../5A
- Adjustable trip delay *(0.5-10s)* - mitigating issues caused by short term current spikes or dips
- Universal supply: 24 – 240 VAC/DC *(-15%; +10%)*

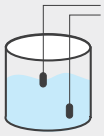

PRI-34...

type	overcurrent setting (% In)	undercurrent setting (% In)	nominal current	current monitor	contact config.	price
Function selection: **(O)** Over / **(U)** Under / **(W)** Window *(over/under)* with or without **(1)** hysteresis (or) **(L)** Latch *(fault memory)*						
• Lower level *(Imin)* set as a % of the upper level *(Imax)*						
PRI-34/5A	10-100% In	5-95% In	5A	over/under current	16A CO	**684.60**
PRI-34/16A	10-100% In	5-95% In	16A	over/under current	16A CO	**684.60**

Catalogue



HRH-5/UNI



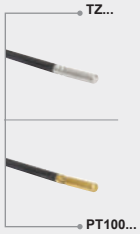
IP65



HRH-7/UNI



TER-7





RHT-1

Liquid level control relay

For monitoring and control of conductive liquid levels in wells, basins, reservoirs, tanks.

- Modular DIN rail mounting, compact *(one module 17.6 mm wide)*
- Configurable for monitoring of one or two levels *(bridge terminals H and D)*
- *Selectable UP (filling) or DOWN (emptying)* function
- 10Hz measuring frequency *(prevents oxidation measuring probes and liquid polarization)*
- One-state device monitors one level, two-state device monitors two levels *(switches on one level and switches off on another level)*

type	supply voltage	sensitivity adjustment	trip delay	monitor	contact config.	price
HRH series - Liquid level control relays						
• Adjustable sensitivity:		5...100 kΩ *(corresponding to "resistance" of monitored liquid)*				
• Adjustable output delay		0.5...10sec *(to reduce undesirable switching in turbulent liquids)*				
• Universal supply voltage:		24 to 240 VAC/DC *(galvanically separated)*				
HRH-5/UNI	24-240 VAC/DC	5 - 100 kΩ	0.5-10s	liquid level control	8A CO	**907.20**
Surface mounting - IP65 - *(external wall mounting)*						
• Suitable to operate in harsh conditions due to the high degree of protection IP65						
• Measuring circuit galvanically separated from the power source						
HRH-7/UNI	24-240 VAC/DC	5 - 100 kΩ	0.5-10s	liquid level control	16A CO	**2 047.50**

TER-3 series - Thermostats *(temperature control)*

Single thermostat for temperature monitoring and regulation in switchboards, heating/cooling systems, liquids, radiators, motors, devices, open spaces, etc.

General features

- Selectable "heating" or "cooling" function
- Modular DIN rail mounting, compact *(one module 17.6 mm wide)*
- Adjustable hysteresis *(sensitivity)*, by potentiometer *(0.5...5°C)*
- Red LED indicates status of output, green LED indicates energization of the device
- External temperature sensors - double insulation cable - *(standard lengths 3, 6, 12m)*
- Universal supply voltage: 24 to 240 VAC/DC *(galvanically separated)*

type	sensor type	temperature range	hysteresis	monitor	contact config.	price
TER-3E	NTC thermistor	0…60ºC	*(fixed)* 1°C	thermostat (TZ)	16A NO	**851.55**
TER-3D	NTC thermistor	0…60ºC	0.5...5°C	thermostat (TZ)	16A NO	**1 318.80**
TER-3F	NTC *(built-in)*	0…60ºC	*(fixed)* 1°C	thermostat	16A NO	**910.35**
TER-3G	PTC sensor	0…60ºC	0.5...5°C	thermostat (Pt100)	16A NO	**1 538.25**
Sensors/probes for *(above)* **thermostats** - silicone cable *(3 / 6 / 12 meters)*						
TZ-3	NTC thermistor	-40…+125°C	12kΩ	silicone insulated	3 met	**383.25**
TZ-6	NTC thermistor	-40…+125°C	12kΩ	silicone insulated	6 met	**428.40**
PT100-3	PTC sensor	-30…+200°C	Pt100	shielded silicone	3 met	**752.85**
PT100-6	PTC sensor	-30…+200°C	Pt100	shielded silicone	6 met	**1 146.60**
PT100-12	PTC sensor	-30…+200°C	Pt100	shielded silicone	12 met	**1 375.50**

TER-7 series - Thermostat *(for monitoring temperature of motor winding)*

General features

- Connects to the internal PTC sensing element of the motor winding
- Selectable MEMORY function *(ressetable via facia reset button or remote button)*
- Universal supply voltage: 24 to 240 VAC/DC

TER-7	PTC sensor	1.8…3.3kΩ	–	motor winding PTC	2x16A CO	**1 140.30**

RHT series - Hygro thermostat

Designed for monitoring environmental parameters *(meaning temperature and relative humidity)* in switchboards. Up to eight selectable conditions cater for usage in various load types *(e.g. fans, heating, air-conditioning, dehydrating units,...)*.

General features

- Modular DIN rail mounting, compact *(one module 17.6 mm wide)*
- Setting of up to 8 conditions for contact switching and function or permanently ON/OFF
- Hygro-thermostat for temperature monitoring *(0...60°C)* and relative humidity *(50...90%)*
- Sensor incorporated into the relay *(for measuring conditions within switchboards)*
- Temperature hysteresis fixed at 2.5°C and humidity at 4%
- Universal supply voltage: 24 to 240V AC/DC

RHT-1	built-into relay	0…60ºC	*(fixed)* 2.5°C	hygro-thermostat	16A NO	**1 602.30**

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Catalogue

Modular relays / Installation contactors


BR-216.11

BR series - Bistable *(impulse)* step relays

Bistable relay used to switch electrical circuits by impulse command, ideal for lighting control by an unlimited number of buttons connected in parallel *(two wires)* a simple practical replacement for 2/3-way switches.

- Manual override function switch *(also serves as relay status indication)*
- Relay output status changes with a short control pulse *(min.50ms / max.1hr)*

type	supply voltage	current Ith	contact configuration	description	width x 17.5 mm	price
BR-216.11	230 VAC	16A	1NO + 1NC	step relay	1	**434.70**

MR series - Memory relays - electronic step/impulse relay *(with memory)*

- LED relay status indication
- Memorises last contact state even after removal of supply
- Can be controlled by unlimited buttons *(connected in parallel)* from several locations

type	supply voltage	current Ith	contact configuration	description	width x 17.5 mm	price
MR-41/UNI	12-240 VAC/DC	16A	1 changeover	step relay	1	**675.15**


MR-41/UNI

VS series - Installation contactors

VS series installation contactors are designed for auxiliary and power switching of motors, machines, pumps or luminaires. For switching electric circuits, for resistive loads and three-phase induction motors.

Modular contactors:

- Modular, DIN rail mounting *(same dimension and cutout as standard MCB's)*
- Contact status flag indication
- Rated insulation voltage (Ui): VS220 = 230 V, VS425/440/463 = 440 V
- Auxiliary contacts for contactors VS425, VS440, VS463
- Standards: IEC/EN 60947-4-1, -5-1, IEC/EN 61095, EN 60947-1

type	supply voltage	current Ith	contact configuration	description	width x 17.5 mm	price
VS220-20 24V	24 VAC/DC	20A	2 NO	modular contactor	1	**521.85**
VS220-20 230V	230 VAC/DC	20A	2 NO	modular contactor	1	**521.85**
VS220-11 24V	24 VAC/DC	20A	1NO + 1NC	modular contactor	1	**521.85**
VS220-11 230V	230 VAC/DC	20A	1NO + 1NC	modular contactor	1	**521.85**
VS220-02 230V	230 VAC/DC	20A	2 NC	modular contactor	1	**521.85**
VS425-40 24V	24 VAC/DC	25A	4 NO	modular contactor	2	**572.25**
VS425-40 230V	230 VAC/DC	25A	4 NO	modular contactor	2	**572.25**
VS425-22 230V	230 VAC/DC	25A	2NO + 2NC	modular contactor	2	**572.25**
VS425-04 230V	230 VAC/DC	25A	4 NC	modular contactor	2	**572.25**
VS440-40 230V	230 VAC/DC	40A	4 NO	modular contactor	3	**1 233.75**
VS440-22 230V	230 VAC/DC	40A	2NO + 2NC	modular contactor	3	**1 233.75**
VS440-04 230V	230 VAC/DC	40A	4 NC	modular contactor	3	**1 233.75**
VS463-40 230V	230 VAC/DC	63A	4 NO	modular contactor	3	**1 417.50**


VS220...

Auxiliary contact - for contactors **VS425, 440, 463**

VSK-11	–	6A	1NO + 1NC	auxiliary contact	10 mm	**422.10**
VSK-20	–	6A	2 NO	auxiliary contact	10 mm	**422.10**

VSM series - Contactors with manual override facility

The manual control contactors are designed for auxiliary and power switching, have a front panel switch and have a manual override for maintenance or testing.

- Indicator of state ON - OFF
- Possible to connect auxiliary contacts VSK-11 a VSK-20
- For switching electric circuits, especially for resistive loads and 3-phase induction motors
- Special version of installation contactors with not only basic function but also with manual control


VSM220...

Individual positions of manual control:

AUTO: common function as with installation contactors without manual control
1: Shifting from AUTO to 1: operational contacts are closed and back contacts are open until there is another impulse to a contactor coil
0: Contacts are open *(operational contact)* or closed *(stand-by contact)* regardless voltage

Three position selector *(on - auto - off)*

VSM220-20 24V	24 VAC	20A	2 NO	modular contactor	1	**581.70**
VSM220-20 230V	230 VAC	20A	2 NO	modular contactor	1	**581.70**
VSM220-11 24V	24 VAC	20A	1NO + 1NC	modular contactor	1	**581.70**
VSM220-11 230V	230 VAC	20A	1NO + 1NC	modular contactor	1	**581.70**