



**EASY TO INSTALL**

**PRODUCT CATALOGUE**

**SAFETY SWITCHES, LOAD BREAK SWITCHES, SWITCH FUSES, DISCONNECTORS, ISOLATORS, TERMINALS**



## **A FAMILY COMPANY FROM FINLAND PROVIDING SAFETY ON A GLOBAL SCALE**

The history of KATKO dates back to 1938 when the brothers Kauko and Tauno Hyryläinen started their first company to repair car engines.

In 1946, after World War II, they started manufacturing electrical switches.

Already in 1959 Mr Kauko Hyryläinen created the modern-day switch fuse.

Today KATKO's products not only meet the highest quality requirements but are also designed to be environmentally friendly.



**KATKO is a Finnish switch manufacturer with well over sixty years of experience in designing and manufacturing load break switches and switch fuses.**

**Customers all over the world choose KATKO time and time again, because we offer them overall certainty. The quality of the switch itself combined with the accompanying service process delivers those essential aspects that differentiate us from the competition.**

# CONTENTS

## ENCLOSED SWITCHES

General Information	8
Technical Data for Safety Switches / Isolators 16-630 A	12
KEM Polycarbonate 10-630 A	14
KEM ABS 10-80 A	16
EMC 16-630 A	17
KET Sheet Steel 16-1600 A	18
KEA Aluminium 16-250 A	20
KER Stainless Steel 16-1600 A	22
Firerated Aluminium Enclosed 16-200 A	26
Side Operated Switches 16-40 A	27
ATEX Switches 16-160 A	30
Change-over Switches 16-160 A	32
Bypass Switch for Frequency Inverter 16-63 A	34
Motor Control Switches 16-40 A	35
Enclosed Switch Fuses 16-630 A	36

## LOAD BREAK SWITCHES

General Information	37
Technical Data for KU / KUE / VKA / EVA 16-250 A	38
KU / VKA Rotary Switches 16-250 A	40
KUE / EVA Toggle Switches 16-250 A	42
Technical Data for VKE 125-630 A	46
VKE Modular Switches 125-630 A	47

## SWITCH FUSES

KKV Switch Fuses 16-32 A	49
Technical Data for KVKE Switch Fuses 20-630 A	50
KVKE Switch Fuses 20-630 A	51

## PHOTOVOLTAICS/DC

56

## ACCESSORIES

Handles / Shafts / Terminal Covers	60
Auxiliary Contacts / Change-over Kits	62
Door Mounting Kits / Front Plates / Parallel Kits / Spreaders	64

## UL 60947-4-1A LISTED PRODUCTS

Polycarbonate Enclosed 16-150 A	66
Sheet Steel Enclosed 16-150 A	68
Aluminium Enclosed 16-125 A	69
Stainless Steel Enclosed 16-125 A	70
KKV Switch Fuse 32 A	71
KU / VKA 16-150 A	72
KUE / EVA Toggle Switches 16-150 A	74
Accessories for UL Listed Products	75

## TERMINAL BLOCKS

77

## CABLE CONNECTORS

80

## CABLE GLANDS

84

## CONDITIONS OF SALE

89

## MORE THAN 75 YEARS OF INNOVATION AND QUALITY IN MANUFACTURING AND SERVICE

KATKO is a specialised manufacturer of modern load break switches. KATKO produces a wide range of load break switches, switch fuses, safety switches and motor protection switches as well as accessories for them - in its highly automated manufacturing facilities both in Finland and Poland. Our product portfolio also covers a full range of enclosed switches in polycarbonate, ABS, aluminium, stainless steel and sheet steel to match all EMC and ATEX specifications in whatever area. One of our strengths is our expertise in designing and producing modifications. KATKO switches are used in a broad spectrum of applications and industries – ranging from: Food Industry, Clean Air, Heavy Industry, Hazardous and Demanding Areas, Power Distribution to Renewable Energy - just a few areas where our switches are in use. More information in the catalogue.

KATKO's history dates back to 1938 when two brothers – Kauko and Tauno Hyryläinen – started their first company, which specialised in repairing automobile engines. In 1946, after World War II, the brothers started manufacturing electrical switches. In 1959 Kauko Hyryläinen introduced the modern switch fuse.

Since then our business has changed and expanded. KATKO has grown from a domestic player into a company that supplies products to most of the market areas around the world. Our global network covers more than fifty countries on six continents, and more than 60% of our production is exported. In addition to our headquarters and factory in Finland and a manufacturing company in Poland, we also have a sales and a marketing office in Dubai.

KATKO ensures the quality of its products by using independent, approved testing houses to guarantee that KATKO products comply with the current worldwide IEC, UL, EAC and CCC standards. KATKO products are designed to be environmentally friendly as well as to meet the highest quality requirements.



### Long Tradition In Strong Partnerships

Today KATKO is a well-known brand in the electrical sector, with sales in six continents and over 50 countries. Throughout the years KATKO's goal has been to produce high-quality products and to deploy the latest technology in our factories – in Finland as well as in Poland.

NHP Australia has been a good partner for KATKO since the very first delivery in January 1988. As with many new relationships it started out as small business, but since then NHP has grown to be one of KATKO's major export partners over the last 25 years. From the beginning the two companies have innovated several successful switch products for the Australian and New Zealand markets. Those products have not only met the highest quality requirements but are also designed to be environmentally friendly.

This is the way we work, here in KATKO – through building partnerships. It requires hard work over a long time span, and is a subject to mutual interest, but it places the participants in a win-win situation - not only today but also in the next quarter, which in our case is at least 25 years. This will give all of us time to build a better world for our children, and give them the opportunity to make further improvements on standards of living.

Jukka Hyryläinen  
CEO



## **FOOD INDUSTRY**

**Food processing. Dairy.  
Meat packing & processing. Beverage-making.**

KATKO is the main solution provider for the global dairy industry. Our clients choose KATKO for both food hygiene and work safety reasons. KATKO products are generally tailored in collaboration with the customer to suit their specific hygiene and performance needs: endurance of both cold and warm jet water sprays, all kinds of moisture, chemicals and detergents.

**YOUR PRODUCT IS DESTINED FOR PEOPLE'S PLATES – CHOOSE KATKO**



## **CLEAN AIR**

**Air conditioning.  
Warm air.**

Wherever warm or cool air is needed, KATKO is the choice that will not leave you gasping for breath. Intensive care units in hospitals rely on KATKO switches for their air supply. Work safety is always a top priority – with KATKO switches service personnel can depend on reliable disconnection.

**CLEAN AIR IS ESSENTIAL FOR BOTH PEOPLE  
AND BUSINESSES – CHOOSE KATKO**



## **HEAVY INDUSTRY**

**Metal Industry. Pulp. Paper.**

KATKO solutions cover all fields of heavy industry. We have served Scandinavian pulp and paper companies for decades on end and have grown to be an essential part of the value chain for the widest spectrum of industries all around the world – ranging from metal manufacturing to water purification to strip mills.

**WITH HEAVY INDUSTRY COMES WEIGHTY  
RESPONSIBILITY – CHOOSE KATKO**



# HAZARDOUS AND DEMANDING AREAS

Mining. Oil. Gas. Fire. Marine.

Even the world's most demanding and hostile environments need to be switched on and off. KATKO delivers stainless steel casings and extra-strong handles for the mining industry in both the northern and southern hemispheres Finland and Australia. Our ATEX products serve high-risk areas and our RINA-certified marine product range was chosen for the world's largest passenger vessel.

WHEN ONE SWITCH CAN MAKE THE  
DIFFERENCE - CHOOSE KATKO

# POWER DISTRIBUTION

Standard panel. Switchgear.  
Distribution boards.

KATKO power distribution products can be found everywhere from industrial premises to sports arenas, in apartment blocks and schools buildings, as well as in shopping centres. KATKO delivers the whole range of products from enclosed and open types of load break switches to 16-630A switch fuses, cable connectors and terminal blocks. KATKO products can be installed to suit your specific need with door interlock handles, direct handles or door mountings as well as other related accessories.

ELECTRICITY IS NOT TO BE TOYED AROUND WITH - CHOOSE KATKO

# RENEWABLE ENERGY

Photovoltaics. Wind power. Recycling.

KATKO is working on new solutions for renewable energy - today's fastest growing area of energy production. Our Nordic operational environment is the perfect laboratory setting for our product development both because of the region's high-standard of research facilities and also because of its harsh and intensely varied climate.

IN ECOLOGICAL EXPERIMENTATION, YOU NEED EQUIPMENT  
THAT'S STABLE - CHOOSE KATKO



## KATKO'S EASY TO USE RANGE OF ENCLOSED SWITCHES

**Polycarbonate (IP66) or ABS (IP65) enclosure.**

Good resistance against UV and many chemicals. Available in grey/black or yellow/red.

stainless steel screw fixing



Retained handle, you don't need to unscrew to remove the cover

Provision for 3 padlocks

**5 cable entries:**

M20 & M25 mm as standard on the top and bottom and M20 on the base. Knock-out glands are easy to open.

**Retrofit 'snap on' auxiliary contacts.**

No need to touch existing cabling.

**Neutral & earth terminals** fitted on 3 pole switch. Only earth on 4 pole switch.

**Large cable terminals**  
1,5 - 16 mm<sup>2</sup> up to 40A  
2,5 - 35 mm<sup>2</sup> up to 80A

**Door interlock with defeat mechanism**

**Self-extinguishing material and excellent insulating properties**

**Padlocking in OFF-position prevents access to the actuator.**

**Reliable position indication**



**Fully rated Load Break Switch.** Breaking capacity of 8xAC23 rating. Back up fuse rating to match motor manufacturers recommendation

**Enclosure mounting screws (4,5 mm in diameter) isolated from the inside housing** keeping the integrity of the IP65/IP66 rating.

**'Plug in' switch.** Enables unplugging the switch for easy cabling



IP CLASSIFICATIONS		NEMA/UL CLASSIFICATIONS
<p>Ingress protection class of enclosures is according to IEC 60 529 given in form of IP classification, a two digit coding which is shown below.</p>		<p>The National Electrical Manufacturers Association (NEMA) is a US Manufacturers organisation. NEMA performance criteria and test methods are used by Underwriters' Laboratories as guidelines for investigation and listing of electrical enclosures.</p>
FIRST NUMBER Protection against solid objects IP	SECOND NUMBER Protection against liquids IP	NEMA
<p>0 No protection.</p> <p>1 Protected against solid objects up to 50mm eg accidental touch by hands.</p> <p>2 Protected against solid objects up to 12mm eg fingers.</p> <p>3 Protected against solid objects up to 2,5mm eg (tools + small wires).</p> <p>4 Protected against solid objects up to 1mm eg (tools + small wires).</p> <p>5 Protected against dust - limited ingress permitted (no harmful deposit).</p> <p>6 Totally protected against dust.</p>	<p>0 No protection.</p> <p>1 Protected against vertically falling drops of water.</p> <p>2 Protected against direct sprays of water up to 15° from the vertical.</p> <p>3 Protected against sprays up to 60° from the vertical.</p> <p>4 Protected against water sprayed from all directions - limited ingress permitted.</p> <p>5 Protected against low pressure jets of water from all directions - limited ingress permitted.</p> <p>6 Protected against strong jets of water eg for use on shipdecks - limited ingress permitted.</p> <p>7 Protected against the affects of immersion between 15cm and 1m.</p> <p>8 Protected against long periods of immersion under pressure.</p>	<p>1 Indoor use primarily to provide a degree of protection against contact with the enclosed equipment and against a limited amount of falling dirt.</p> <p>2 Indoor use to provide a degree of protection against limited amounts of falling water and dirt.</p> <p>3 Outdoor use to provide a degree of protection against windblown dust, rain and sleet; undamaged by the formation of ice on the enclosure.</p> <p>3R Outdoor use to provide a degree of protection against rain and sleet; undamaged by the formation of ice on the enclosure.</p> <p>3S Outdoor use to provide a degree of protection against windblown dust, rain and sleet; external mechanisms remain operable while ice laden.</p> <p>4 Indoor or outdoor use to provide a degree of protection against splashing water, windblown dust and rain, hose directed water; undamaged by the formation of ice on the enclosure.</p> <p>4X Indoor or outdoor use to provide a degree of protection against splashing water, windblown dust and rain, hose directed water; undamaged by the formation of ice on the enclosure. Resists corrosion.</p> <p>6 Indoor or outdoor use to provide a degree of protection against the entry of water during temporary submersion at a limited depth; undamaged by the formation of ice on the enclosure.</p> <p>6P Indoor or outdoor use to provide a degree of protection against the entry of water during prolonged submersion at a limited depth.</p> <p>11 Indoor use to provide by oil immersion a degree of protection of the enclosed equipment against the corrosive effects of corrosive liquids and gases.</p> <p>12/12K Indoor use to provide a degree of protection against dust, falling dirt and dripping noncorrosive liquids.</p> <p>13 Indoor use to provide a degree of protection against dust, and spraying of water oil and noncorrosive coolants.</p>

## SWITCHES ACCORDING TO IEC 60 947-3.

### SWITCH

A mechanical switching device capable of making, carrying and breaking currents under normal circuit conditions which may include specified operating overload conditions and also carrying for a specified time currents under specified abnormal circuit conditions such as those of short circuit.

Note: A switch may be capable of making, but not breaking, short-circuit currents.

### DISCONNECTOR

A mechanical switching device which, in the open position, complies with the requirements specified for the isolating function.

Disconnecter: (working definition) device without on-load making and breaking capacity.

### SWITCH DISCONNECTOR / LOAD BREAK SWITCH

A switch capable of making, carrying and breaking currents under normal circuit conditions and which, in the open position, complies with the isolating requirements specified for a disconnector.

### SWITCH DISCONNECTOR FUSE

A switch-disconnector in which one or more poles have a fuse in series in a composite unit.

### UTILIZATION CATEGORY

Utilization category	Use / Application
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

### PROTECTION AGAINST OVERVOLTAGE

$U_{imp}$  (Impulse withstand voltage) defines the device's use in abnormal network conditions with overvoltage due to lightning on overhead wires etc.

This characteristic also defines the device's dielectric quality.

Overvoltage protection is ensured by choosing the equipment according to  $U_{imp}$ . The 4 impulse withstand categories of use at 400V/ 690V (IEC 60 364-4-44) are:

Category	$U_{imp}$ kV	Applications
1	2,5 kV	pecially protected equipment
2	4 kV	Portable tools, motors, etc.
3	6 kV	Equipment placed in distribution networks
4	8 kV	Equipment placed at the head of an installation.

The  $U_{imp}$  rating for most of the Katko switches is 8kV.

### OPERATING TEMPERATURE

The normal operating temperature for Katko switches is in the range -40 to +80°C. For higher ambient temperatures than +40°C the maximum load of the switch might be derated. For the right application, please contact KATKO for further information.

### CONFORMITY TO STANDARDS

Katko switches are designed to comply with both national and international standards.

-Switches tested acc. to IEC 60 947

-AC 23 / 690V ratings

-50 kA R.M.S values

-CB certificates

-UL, cUL listed (UL 60947-4-1A)

-Fuse holder acc. to IEC 60 269 / UL 4248-1

- Enclosures:
 

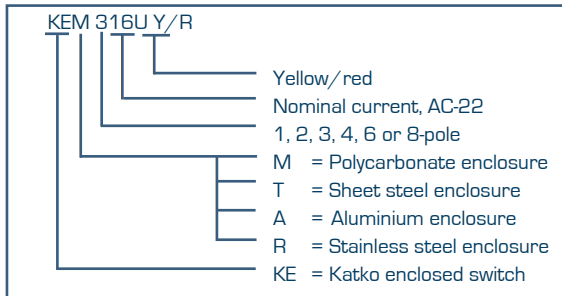
Polycarbonate (KEM)	IP66/IP65
ABS (KEM)	IP65
Sheet steel (KET)	IP65
Aluminium (KEA)	IP66/IP65
Stainless steel (KER)	IP66/IP65
- Tested according to IEC 60 947-3 and UL 60947-4-1A
- CB certificates
- Comply with ISO 9001 and ISO 14001
- AC-23, 690V ratings
- R.M.S values 50 kA
- Multiple break with silver rivets
- Airgap 12,5 mm
- Door interlock
- Lockable handle
- Reliable position indication
- Standard grey/black and yellow/red series  
grey/black= grey cover, black handle  
yellow/red= yellow cover, red handle
- Standard models 3P, 4P, 6P and 8P
- 1P and 2P available

### KATKO SWITCHES - FOR HEAVY DUTY

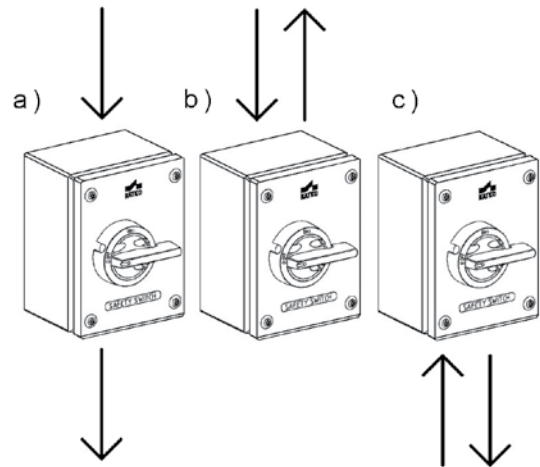
- Superior life span even in most demanding environments such as papermills, chemical plants, steelworks and food processing plants.

### EASY TO INSTALL

- Retrofit snap-on auxilliary contacts
- Flexible installation, incoming and outgoing cables for example:
  - KEM 3400: In from the top, out from the bottom of the enclosure
  - KEM 3400 Y: in- and outgoing cables from the top of the enclosure
  - KEM 3400 A: in- and outgoing cables from the bottom of the enclosure



NOTE: When ordering the grey/black series no abbreviation is needed.



NOTE: When ordering switches with ampere rating 200A or higher, please mention the intended cabling directions if other than shown in a).

### RECOMMENDED ENCLOSURE FOR DIFFERENT CABLE SIZES

Polycarbonate Enclosures	Cable size mm <sup>2</sup>	Sheet Steel Enclosures	Cable size mm <sup>2</sup>	Aluminium Enclosures	Cable size mm <sup>2</sup>	Stainless Steel Enclosures
U2	3x2.5+2.5	TE005/TR007	3x2.5+2.5	A2	3x2.5+2.5	H23
	3x6+6		3x6+6		3x6+6	
U3	3x10+10		TR01	3x10+10	A3	
	3x16+16	3x16+16		3x16+16		H32
U4	3x25+16	TR02	3x25+16	A4	3x25+16	
	3x35+16		3x35+16		3x35+16	
MF11, MF12	3x50+25	TR03	3x50+25	A5	3x50+25	H02
	3x70+35		3x70+35		3x70+35	
MF03, MF04	3x95+50	TR04/TR05	3x95+50		3x95+50	H03
	3x120+70		3x120+70		3x120+70	
	3x185+95		3x185+95		3x185+95	
	3x240+120		3x240+120		3x240+120	H04-H08

**ALWAYS CHOOSE THE RIGHT SWITCH FOR THE RIGHT PURPOSE!**

## SAFETY SWITCHES / ISOLATORS 10-630 A TECHNICAL DATA



SAFETY SWITCHES / ISOLATORS		10 A	16 A	25 A	40 A	63 A	80 A	125 A	160 A
Rated insulation voltage, $U_i$ [V]		690	690	690	690	690	690	690	690
Rated thermal current, $I_{th}$ [A]		20	25	40	63	80	100	160	200
Nominal values with cable size [mm <sup>2</sup> ]		2.5	4	10	16	25	35	70	95
Rated operational current, $I_o$ [A]									
AC-21	400/415V	20	25	40	63	80	100	160	200
	500V	20	25	40	63	80	100	160	200
	690V	20	25	40	63	80	100	160	200
AC-22	400/415V	10	16	25	40	63	80	125	160
	500V	10	16	25	40	63	80	125	160
	690V	10	16	25	40	63	80	125	160
AC-23	400/415V	10	16	25	40	40	63	100	135
	500V	10	16	25	32	40	40	80	125
	690V	10	16	25	32	40	40	80	125
Rated operational power for 3-phase (1500 r.p.m.) squirrel cage induction motors [kW]									
AC-23	400/415V	5.5	7.5	11	22	22	30	55	75
	500V	5.5	7.5	15	22	30	30	55	75
	690V	7.5	11	22	30	37	37	55	90
Rated fused short circuit current									
Back-up fuse [A]		63	63	63	63	80	80	160	160
R.M.S. value, $I_k$ [kA]		50	50	50	50	50	50	50	50
Peak value [kA]		7.2	7.2	7.2	7.2	8.7	8.7	15	15
Impulse withstand voltage, $U_{imp}$ [kV]		8	8	8	8	8	8	8	8
Rated short circuit making capacity, $I_{cm}$ [kA]									
	690V	2.5	2.5	2.5	2.5	3.3	3.3	5.1	5.1
Rated short time withstand current (1 s), $I_{cw}$ [kA]									
	690V	1.7	1.7	1.7	1.7	2.3	2.3	3.5	3.5
Rated breaking capacity, $I_{cn}$ [A]									
AC-23	400/415V	80	128	200	320	320	504	800	1080
	500V	80	128	200	256	320	320	640	1000
	690V	80	128	200	256	320	320	640	1000
Electrical endurance (operations)		3000	3000	3000	3000	3000	3000	2000	2000
Mechanical endurance (operations)		50000	50000	50000	50000	50000	50000	16000	16000
Terminals / Bolt size Cu [mm <sup>2</sup> ]		1.5-16	1.5-16	1.5-16	1.5-16	2.5-35	2.5-35	6-70	6-70
Max terminal torque [Nm]		1.8	1.8	1.8	1.8	2.5	2.5	6	6
1) KEx x200 - KEx x250									
2) KEx x200C - KEx x250C									

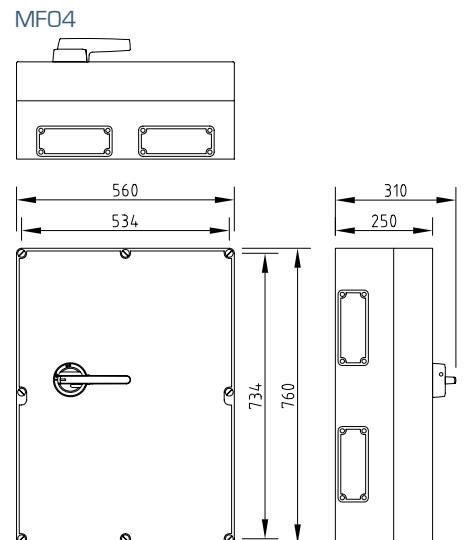
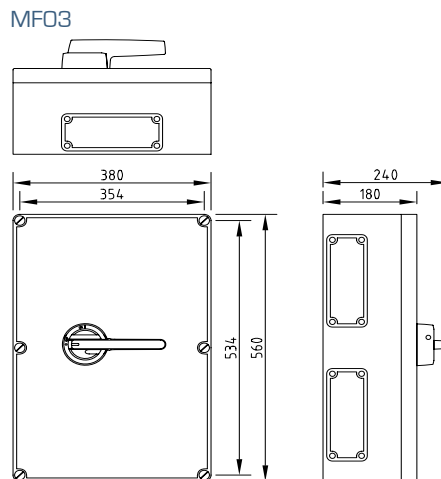
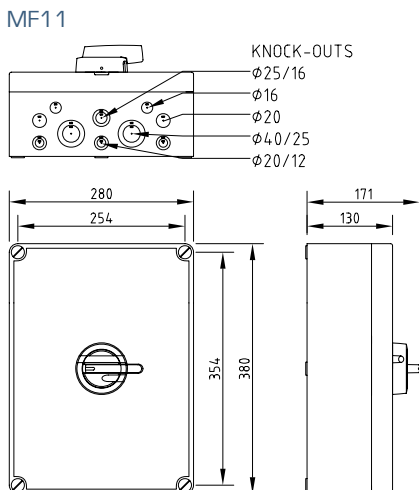
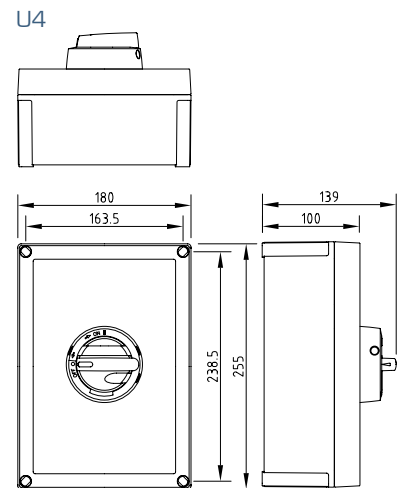
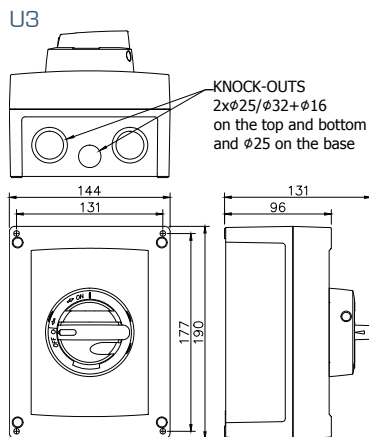
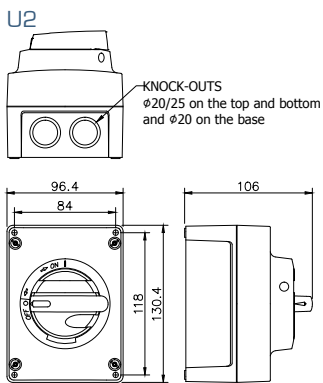


	200 A <sup>1)</sup>	200 A <sup>2)</sup>	250 A <sup>1)</sup>	250 A <sup>2)</sup>	315 A	400 A	630 A	Safety switches / Isolators	
	1000	1000	1000	1000	1000	1000	1000	Rated insulation voltage, U <sub>i</sub> [V]	
	200	200	250	250	315	400	630	Rated thermal current, I <sub>th</sub> [A]	
	95	95	120	120	185	240	2x185	Nominal values with cable size [mm <sup>2</sup> ]	
	Rated operational current								
	200	200	250	250	315	400	630	400/415V	AC-21
	200	200	250	250	315	400	630	500V	
	200	200	250	250	315	400	630	690V	
	200	200	250	250	315	400	630	400/415V	AC-22
	200	-	250	-	315	400	630	500V	
	200	-	250	-	315	400	630	690V	
	200	200	250	250	315	400	630	400/415V	AC-23
	200	-	250	-	315	400	500	500V	
	200	-	250	-	315	400	500	690V	
	Rated operational power for 3-phase (1500 r.p.m.) squirrel cage induction motors [kW]								
	110	110	132	132	160	200	355	400/415V	AC-23
	132	-	160	-	200	250	355	500V	
	160	-	250	-	315	355	500	690V	
	Rated fused short circuit current								
	250	250	250	250	400	400	630	Back-up fuse [A]	
	50	50	50	50	50	50	50	R.M.S. value, I <sub>l</sub> [kA]	
	18	22	18	22	26	26	32	Peak value [kA]	
	8	8	8	8	8	8	8	Impulse withstand voltage, U <sub>imp</sub> [kV]	
	Rated short circuit making capacity, I <sub>cm</sub> [kA]								
	7	7	7	7	12	12	17	690V	
	Rated short time withstand current [1 s], I <sub>cw</sub> [kA]								
	5	6	5	6	7	7	10	690V	
	Rated breaking capacity, I <sub>cn</sub> [A]								
	1600	1600	2000	2000	2520	3200	5040	400/415V	AC-23
	1600	-	2000	-	2520	3200	4000	500V	
	1600	-	2000	-	2520	3200	4000	690V	
	2000	2000	2000	2000	2000	2000	2000	Electrical endurance (operations)	
	16000	16000	16000	16000	10000	10000	10000	Mechanical endurance (operations)	
	M10	M8	M10	M8	M10	M10	M12	Terminals / Bolt size Cu [mm <sup>2</sup> ]	
	30-44	15-22	30-44	15-22	30-44	30-44	50-75	Max terminal torque [Nm]	

# POLYCARBONATE ENCLOSED SAFETY SWITCHES / ISOLATORS 10-630 A



- IP66; Enclosure types U2, U3, U4
- IP65; Enclosure types MF11, MFO3, MFO4
- Self-extinguishing material
- Wide operating temperature range
- Padlockable
- Door interlock with defeat mechanism
- Excellent insulating properties
- Good UV resistance
- Good resistance against many chemicals



## POLYCARBONATE ENCLOSED SAFETY SWITCHES / ISOLATORS 10-630 A

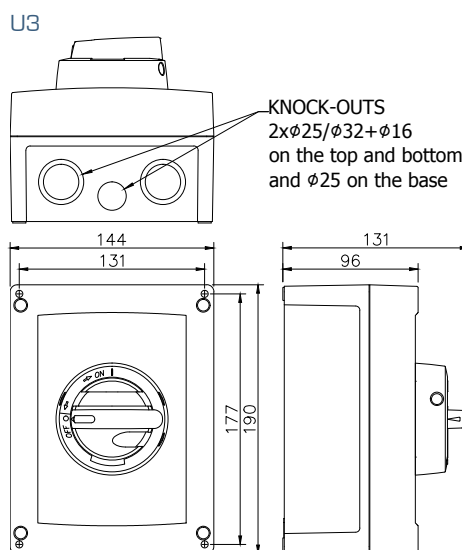
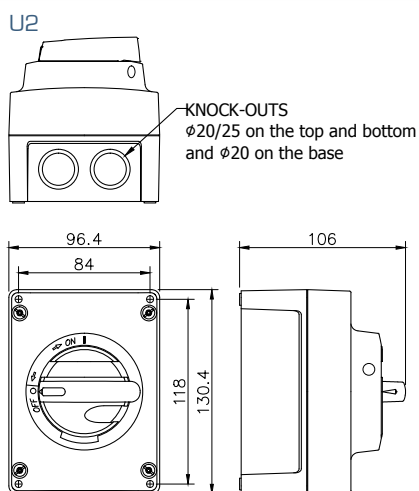
Type		AC-21	400 V 415 V	AC-22	400 V 415 V	AC-23	400 V 415 V	AC-23	690 V	EAN codes 6419410...		Enclosure	Weight kg
			690 V		690 V					Grey/black	Yellow/red		
Grey/black	Yellow/red	I <sub>n</sub> / A		I <sub>n</sub> / A		I <sub>n</sub> / A	P / kW	I <sub>n</sub> / A	P / kW				
<b>1-pole</b>													
KEM 110U	KEM 110U Y/R	20 A*		10 A*		10 A	2 kW**	10 A	-	...353585	...353592	U2	0.4
KEM 116U	KEM 116U Y/R	25 A*		16 A*		16 A	3 kW**	16 A	-	...351475	...353608	U2	0.4
KEM 125U	KEM 125U Y/R	40 A*		25 A*		25 A	4 kW**	25 A	-	...351482	...353615	U2	0.4
KEM 140U	KEM 140U Y/R	63 A*		40 A*		40 A	5,5 kW**	32 A	-	...353622	...353639	U2	0.4
KEM 163U	KEM 163U Y/R	80 A*		63 A*		40 A	7,5 kW**	40 A	-	...363646	...353653	U3	0.6
KEM 180U	KEM 180U Y/R	100 A*		80 A*		63 A	11 kW**	40 A	-	...353660	...353677	U3	0.6
<b>2-pole</b>													
KEM 210U	KEM 210U Y/R	20 A*		10 A*		10 A	2 kW**	10 A	-	...353684	...353691	U2	0.4
KEM 216U	KEM 216U Y/R	25 A*		16 A*		16 A	3 kW**	16 A	-	...353707	...353714	U2	0.4
KEM 225U	KEM 225U Y/R	40 A*		25 A*		25 A	4 kW**	25 A	-	...353721	...353738	U2	0.4
KEM 240U	KEM 240U Y/R	63 A*		40 A*		40 A	5,5 kW**	32 A	-	...353745	...353752	U2	0.4
KEM 263U	KEM 263U Y/R	80 A*		63 A*		40 A	7,5 kW**	40 A	-	...353769	...353776	U3	0.6
KEM 280U	KEM 280U Y/R	100 A*		80 A*		63 A	11 kW**	40 A	-	...353783	...353790	U3	0.6
<b>3-pole</b>													
KEM 310U	KEM 310U Y/R	20 A		10 A		10 A	5,5 kW	10 A	7,5 kW	...327654	...327722	U2	0.4
KEM 316U	KEM 316U Y/R	25 A		16 A		16 A	7,5 kW	16 A	11 kW	...327661	...327739	U2	0.4
KEM 325U	KEM 325U Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...327685	...327753	U2	0.4
KEM 340U	KEM 340U Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...327708	...327777	U2	0.4
KEM 363U	KEM 363U Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...399637	...399644	U3	0.6
KEM 380U	KEM 380U Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...399651	...399668	U3	0.6
KEM 3125U	KEM 3125U Y/R	160 A		125 A		100 A	55 kW	80 A	55 kW	...481721	...481738	U4	1
KEM 3160	KEM 3160 Y/R	200 A		160 A		135 A	75 kW	125 A	90 kW	...323403	...319505	MF11	3.3
KEM 3200	KEM 3200 Y/R	200 A		200 A		200 A	110 kW	200 A	160 kW	...323809	...319826	MF03	7.8
KEM 3200C	KEM 3200C Y/R	200 A		200 A*		200 A	110 kW	-	-	...323816	...323823	MF11	3.4
KEM 3250	KEM 3250 Y/R	250 A		250 A		250 A	132 kW	250 A	250 kW	...324202	...319888	MF03	7.8
KEM 3250C	KEM 3250C Y/R	250 A		250 A*		250 A	132 kW	-	-	...324219	...324226	MF11	3.4
KEM 3315	KEM 3315 Y/R	315 A		315 A		315 A	160 kW	315 A	315 kW	...324608	...319949	MF03	8.2
KEM 3400	KEM 3400 Y/R	400 A		400 A		400 A	200 kW	400 A	355 kW	...325001	...320006	MF03	8.2
KEM 3630	KEM 3630 Y/R	630 A		630 A		630 A	355 kW	500 A	500 kW	...325407	...320068	MF04	21.0
<b>4-pole</b>													
KEM 410U	KEM 410U Y/R	20 A		10 A		10 A	5,5 kW	10 A	7,5 kW	...321072	...301487	U2	0.5
KEM 416U	KEM 416U Y/R	25 A		16 A		16 A	7,5 kW	16 A	11 kW	...327678	...327746	U2	0.5
KEM 425U	KEM 425U Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...327692	...327760	U2	0.5
KEM 440U	KEM 440U Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...327715	...327784	U2	0.5
KEM 463U	KEM 463U Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...399675	...399682	U3	0.7
KEM 480U	KEM 480U Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...399699	...399705	U3	0.7
KEM 4125U	KEM 4125U Y/R	160 A		125 A		100 A	55 kW	80 A	55 kW	...323120	...323144	U4	1
KEM 4160	KEM 4160 Y/R	200 A		160 A		135 A	75 kW	125 A	90 kW	...323502	...319604	MF11	3.4
KEM 4200	KEM 4200 Y/R	200 A		200 A		200 A	110 kW	200 A	160 kW	...323908	...323922	MF03	8.3
KEM 4200C	KEM 4200C Y/R	200 A		200 A*		200 A	110 kW	-	-	...323915	...323939	MF11	3.5
KEM 4250	KEM 4250 Y/R	250 A		250 A		250 A	132 kW	250 A	250 kW	...324325	...324349	MF03	8.3
KEM 4250C	KEM 4250C Y/R	250 A		250 A*		250 A	132 kW	-	-	...324332	...324356	MF11	3.5
KEM 4315	KEM 4315 Y/R	315 A		315 A		315 A	160 kW	315 A	315 kW	...324707	...324721	MF03	8.8
KEM 4400	KEM 4400 Y/R	400 A		400 A		400 A	200 kW	400 A	355 kW	...325100	...325124	MF03	8.8
KEM 4630	KEM 4630 Y/R	630 A		630 A		630 A	355 kW	500 A	500 kW	...327616	...327623	MF04	22.1
<b>6-pole</b>													
KEM 616U	KEM 616U Y/R	25 A		16 A		16 A	7,5 kW	16 A	11 kW	...399712	...399729	U3	0.9
KEM 625U	KEM 625U Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...399736	...399743	U3	0.9
KEM 640U	KEM 640U Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...399750	...399767	U3	0.9
KEM 663U	KEM 663U Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...399774	...399781	U3	0.9
KEM 680U	KEM 680U Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...399798	...399804	U3	0.9
KEM 6125	KEM 6125 Y/R	160 A		125 A		100 A	55 kW	80 A	55 kW	...323205	...319307	MF11	2.1
KEM 6160	KEM 6160 Y/R	200 A		160 A		135 A	75 kW	125 A	90 kW	...323601	...319703	MF11	3.8
<b>8-pole</b>													
KEM 816U	KEM 816U Y/R	25 A		16 A		16 A	7,5 kW	16 A	11 kW	...399811	...399828	U3	1
KEM 825U	KEM 825U Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...399835	...399842	U3	1
KEM 840U	KEM 840U Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...399859	...399866	U3	1
KEM 863U	KEM 863U Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...399873	...399880	U3	1
KEM 880U	KEM 880U Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...399897	...399903	U3	1
KEM 8125	KEM 8125 Y/R	160 A		125 A		100 A	55 kW	80 A	55 kW	...323304	...319406	MF11	2.2
KEM 8160	KEM 8160 Y/R	200 A		160 A		135 A	75 kW	125 A	90 kW	...323700	...319758	MF11	4

\* 400/415 V    \*\*240 V

## ABS ENCLOSED SAFETY SWITCHES / ISOLATORS 10-80 A



- IP65
- Padlockable
- Door interlock with defeat mechanism
- Excellent insulating properties
- Good resistance against many chemicals
- E/G=Grey, Y/R=Yellow/Red



Type		AC-21		AC-22		AC-23		AC-23	690 V	EAN-Code		Enclosure	Weight kg
		400 V	415 V	400 V	415 V	400 V	415 V			6419410...	Grey/black		
Grey/black	Yellow/red	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	P / kW	I <sub>e</sub> / A	P / kW	Grey/black	Yellow/red		
<b>1-pole</b>													
KEM 110U E/G	KEM 110U Y/R ABS	20 A*	10 A*	10 A	2 kW**	10 A	-	...353806	...353813	U2	0.4		
KEM 116U E/G	KEM 116U Y/R ABS	25 A*	16 A*	16 A	3 kW**	16 A	-	...353820	...353837	U2	0.4		
KEM 125U E/G	KEM 125U Y/R ABS	40 A*	25 A*	25 A	4 kW**	25 A	-	...353844	...353851	U2	0.4		
KEM 140U E/G	KEM 140U Y/R ABS	63 A*	40 A*	40 A	5,5 kW**	32 A	-	...353868	...353875	U2	0.4		
KEM 163U E/G	KEM 163U Y/R ABS	80 A*	63 A*	40 A	7,5 kW**	40 A	-	...353882	...353899	U3	0.6		
KEM 180U E/G	KEM 180U Y/R ABS	100 A*	80 A*	63 A	11 kW**	40 A	-	...353905	...353912	U3	0.6		
<b>2-pole</b>													
KEM 210U E/G	KEM 210U Y/R ABS	20 A*	10 A*	10 A	2 kW**	10 A	-	...353929	...353936	U2	0.5		
KEM 216U E/G	KEM 216U Y/R ABS	25 A*	16 A*	16 A	3 kW**	16 A	-	...353943	...353950	U2	0.5		
KEM 225U E/G	KEM 225U Y/R ABS	40 A*	25 A*	25 A	4 kW**	25 A	-	...353967	...353974	U2	0.5		
KEM 240U E/G	KEM 240U Y/R ABS	63 A*	40 A*	40 A	5,5 kW**	32 A	-	...353981	...353998	U2	0.5		
KEM 263U E/G	KEM 263U Y/R ABS	80 A*	63 A*	40 A	7,5 kW**	40 A	-	...354001	...354018	U3	0.7		
KEM 280U E/G	KEM 280U Y/R ABS	100 A*	80 A*	63 A	11 kW**	40 A	-	...354025	...354032	U3	0.7		
<b>3-pole</b>													
KEM 310U E/G	KEM 310U Y/R ABS	20 A	10 A	10 A	5,5 kW	10 A	7,5 kW	...481004	...481165	U2	0.4		
KEM 316U E/G	KEM 316U Y/R ABS	25 A	16 A	16 A	7,5 kW	16 A	11 kW	...481028	...481189	U2	0.4		
KEM 325U E/G	KEM 325U Y/R ABS	40 A	25 A	25 A	11 kW	25 A	22 kW	...481042	...481202	U2	0.4		
KEM 340U E/G	KEM 340U Y/R ABS	63 A	40 A	40 A	22 kW	32 A	30 kW	...481066	...481226	U2	0.4		
KEM 363U E/G	KEM 363U Y/R ABS	80 A	63 A	40 A	22 kW	40 A	37 kW	...481325	...481646	U3	0.6		
KEM 380U E/G	KEM 380U Y/R ABS	100 A	80 A	63 A	30 kW	40 A	37 kW	...481363	...481684	U3	0.6		
<b>4-pole</b>													
KEM 410U E/G	KEM 410U Y/R ABS	20 A	10 A	10 A	5,5 kW	10 A	7,5 kW	...481011	...481172	U2	0.5		
KEM 416U E/G	KEM 416U Y/R ABS	25 A	16 A	16 A	7,5 kW	16 A	11 kW	...481035	...481196	U2	0.5		
KEM 425U E/G	KEM 425U Y/R ABS	40 A	25 A	25 A	11 kW	25 A	22 kW	...481059	...481219	U2	0.5		
KEM 440U E/G	KEM 440U Y/R ABS	63 A	40 A	40 A	22 kW	32 A	30 kW	...481073	...481233	U2	0.5		
KEM 463U E/G	KEM 463U Y/R ABS	80 A	63 A	40 A	22 kW	40 A	37 kW	...481332	...481653	U3	0.7		
KEM 480U E/G	KEM 480U Y/R ABS	100 A	80 A	63 A	30 kW	40 A	37 kW	...481370	...481691	U3	0.7		

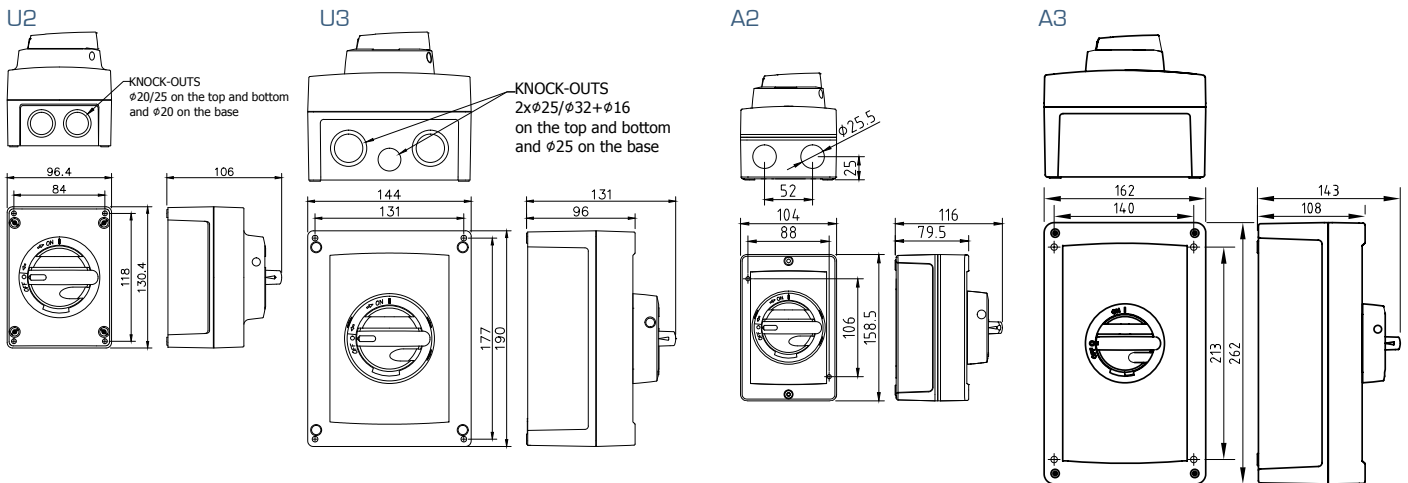
\* 400/415 V \*\* 240 V



## EMC-PROTECTED SAFETY SWITCHES / ISOLATORS 16-630 A



- Electromagnetic compatibility ensures safe operation in environments with electromagnetic disturbance
- Tested according to EN 55011 with EMC-glands shielded power cable
- IP66; Enclosure types U2, U3, A2, A3
- IP65; Enclosure types TRO2, TRO3, TRO4
- Available in polycarbonate up to 80 A, aluminium up to 125 A and sheet steel up to 630 A
- Also available in TRO2, TRO3 and TRO4 enclosures
- Padlockable
- Door interlock with defeat mechanism
- EMC cable glands included



Type		400 V		400 V		AC-23	400 V	AC-23	690 V	EAN-Code		Enclosure	Cable glands	Weight kg
		AC-21	415 V	AC-22	415 V					6419410...	6419410...			
Grey/black	Yellow/red	I <sub>e</sub> / A	690 V	I <sub>e</sub> / A	690 V	I <sub>e</sub> / A	P / kW	I <sub>e</sub> / A	P / kW	Grey/black	Yellow/red			
<b>Polycarbonate enclosures</b>														
KEM 316U/EMC	KEM 316U/EMC Y/R	25 A		16 A		16 A	7.5 kW	16 A	11 kW	...329207	...329252	U2	2xM25	0.6
KEM 325U/EMC	KEM 325U/EMC Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...329214	...329269	U2	2xM25	0.6
KEM 340U/EMC	KEM 340U/EMC Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...329221	...329276	U2	2xM25	0.8
KEM 363U/EMC	KEM 363U/EMC Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...329238	...329283	U3	2xM32	0.8
KEM 380U/EMC	KEM 380U/EMC Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...329245	...329290	U3	2xM32	0.8
<b>Aluminium enclosures</b>														
KEA 316U/EMC	KEA 316U/EMC Y/R	25 A		16 A		16 A	7.5 kW	16 A	11 kW	...483008	...483039	A2	2xM25	0.8
KEA 325U/EMC	KEA 325U/EMC Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...483015	...483046	A2	2xM25	0.8
KEA 340U/EMC	KEA 340U/EMC Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...483022	...483053	A2	2xM25	0.8
KEA 363U/EMC	KEA 363U/EMC Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...336601	...336465	A3	2xM40	2.1
KEA 380U/EMC	KEA 380U/EMC Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...336618	...336472	A3	2xM40	2.1
KEA 3125U/EMC	KEA 3125U/EMC Y/R	160 A		125 A		100 A	55 kW	80 A	55 kW	...336625	...336489	A3	2xM40	3.5
<b>Sheet steel enclosures</b>														
KET 3160/EMC	KET 3160/EMC Y/R	200 A		160 A		135 A	75 kW	125 A	90 kW	...336649	...338735	TRO2	*	8.1
KET 3200/EMC	KET 3200/EMC Y/R	200 A		200 A		200 A	110 kW	200 A	160 kW	...336656	...338742	TRO3	*	19
KET 3250/EMC	KET 3250/EMC Y/R	250 A		250 A		250 A	132 kW	250 A	250 kW	...336663	...338759	TRO3	*	19
KET 3315/EMC	KET 3315/EMC Y/R	315 A		315 A		315 A	160 kW	315 A	315 kW	...336670	...338776	TRO3	*	20
KET 3400/EMC	KET 3400/EMC Y/R	400 A		400 A		400 A	200 kW	400 A	355 kW	...336687	...338773	TRO3	*	20
KET 3630/EMC	KET 3630/EMC Y/R	630 A		630 A		630 A	355 kW	500 A	500 kW	...336694	...338780	TRO4	*	39

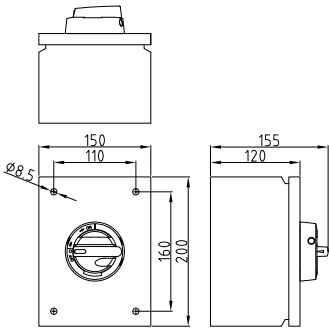
\* 160-630 A cable glands according to order

## SHEET STEEL ENCLOSED SAFETY SWITCHES / ISOLATORS 16-1600 A

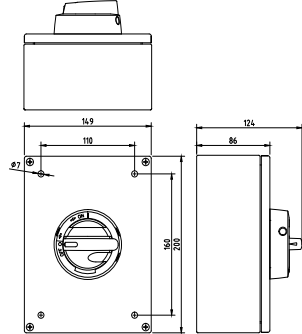


- IP65
- Good corrosion resistance
- Wide operating temperature range
- Padlockable
- Door interlock with defeat mechanism
- Excellent Insulating properties
- Good UV resistance
- Good resistance against many chemicals
- Available up to 1600A

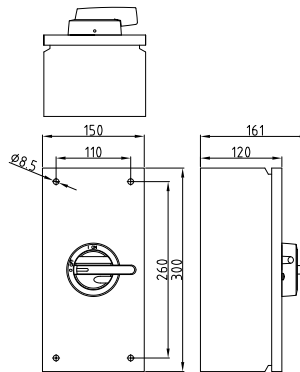
TR007



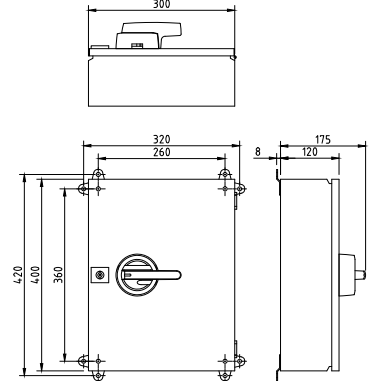
TE005



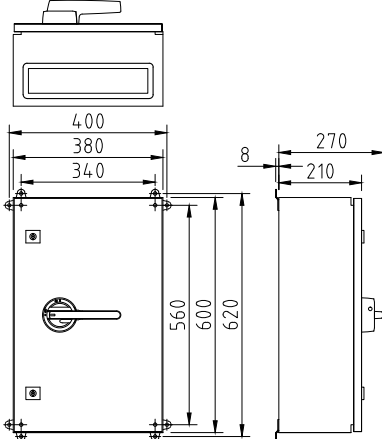
TR01



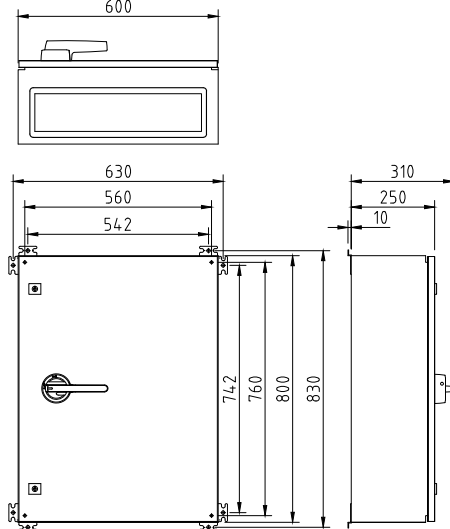
TR02



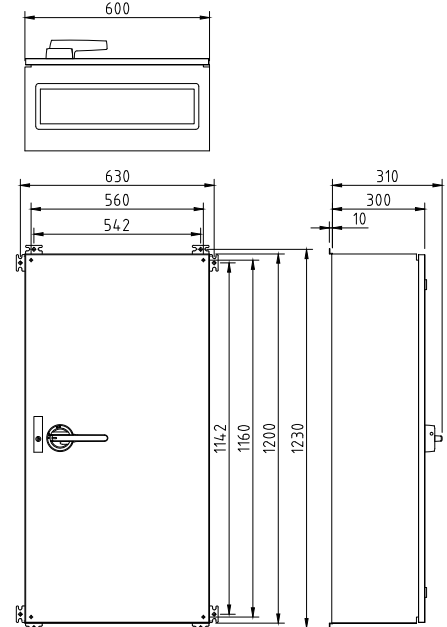
TR03



TR04



TR05






## SHEET STEEL ENCLOSED SAFETY SWITCHES / ISOLATORS 16-1600 A

Type		AC-21	400 V 415 V	AC-22	400 V 415 V	AC-23	400 V 415 V	AC-23	690 V	EAN-Code 6419410...		Enclosure	Weight kg
Grey/black	Yellow/red	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	P / kW	I <sub>e</sub> / A	P / kW	P / kW	Grey/black	Yellow/red		
<b>1-pole</b>													
KET 116	KET 116 Y/R	25 A*	16 A*	16 A	3 kW**	16 A	-	...	...	TE005	2.1		
KET 125	KET 125 Y/R	40 A*	25 A*	25 A	4 kW**	25 A	-	...	...	TE005	2.1		
KET 140	KET 140 Y/R	63 A*	40 A*	40 A	5.5 kW**	32 A	-	...	...	TE005	2.1		
KET 163	KET 163 Y/R	80 A*	63 A*	40 A	7.5 kW**	40 A	-	...	...	TE005	2.1		
KET 180	KET 180 Y/R	100 A*	80 A*	63 A	11 kW**	40 A	-	...	...	TE005	2.1		
<b>2-pole</b>													
KET 216	KET 216 Y/R	25 A*	16 A*	16 A	3 kW**	16 A	-	...	...	TE005	2.1		
KET 225	KET 225 Y/R	40 A*	25 A*	25 A	4 kW**	25 A	-	...	...	TE005	2.1		
KET 240	KET 240 Y/R	63 A*	40 A*	40 A	5.5 kW**	32 A	-	...	...	TE005	2.1		
KET 263	KET 263 Y/R	80 A*	63 A*	40 A	7.5 kW**	40 A	-	...	...	TE005	2.1		
KET 280	KET 280 Y/R	100 A*	80 A*	63 A	11 kW**	40 A	-	...	...	TE005	2.1		
<b>3-pole</b>													
KET 316	KET 316 Y/R	25 A	16 A	16 A	7.5 kW	16 A	11 kW	...	...	TE005	2.1		
KET 325	KET 325 Y/R	40 A	25 A	25 A	11 kW	25 A	22 kW	...	...	TE005	2.1		
KET 340	KET 340 Y/R	63 A	40 A	40 A	22 kW	32 A	30 kW	...	...	TE005	2.1		
KET 363	KET 363 Y/R	80 A	63 A	40 A	22 kW	40 A	37 kW	...	...	TE005	2.1		
KET 380	KET 380 Y/R	100 A	80 A	63 A	30 kW	40 A	37 kW	...	...	TE005	2.1		
KET 3125	KET 3125 Y/R	160 A	125 A	100 A	55 kW	80 A	55 kW	...	...	TR01	4.3		
KET 3160	KET 3160 Y/R	200 A	160 A	135 A	75 kW	125 A	90 kW	...	...	TR02	9.7		
KET 3200	KET 3200 Y/R	200 A	200 A	200 A	110 kW	200 A	160 kW	...	...	TR03	19		
KET 3200C	KET 3200C Y/R	200 A	200 A*	200 A	110 kW	-	-	...	...	TR02	7.6		
KET 3250	KET 3250 Y/R	250 A	250 A	250 A	132 kW	250 A	250 kW	...	...	TR03	19		
KET 3250C	KET 3250C Y/R	250 A	250 A*	250 A	132 kW	-	-	...	...	TR02	7.6		
KET 3315	KET 3315 Y/R	315 A	315 A	315 A	160 kW	315 A	315 kW	...	...	TR03	20		
KET 3400	KET 3400 Y/R	400 A	400 A	400 A	200 kW	400 A	355 kW	...	...	TR03	20		
KET 3630	KET 3630 Y/R	630 A	630 A	630 A	355 kW	500 A	500 kW	...	...	TR04	39		
KET 3800T	KET 3800T Y/R	800 A	800 A	800 A	400 kW	800 A	710 kW	...	...	TR05	60		
KET 31000T	KET 31000T Y/R	1000 A	1000 A	1000 A	560 kW	1000 A	800 kW	...	...	TR05	65		
KET 31250T	KET 31250T Y/R	1250 A	1250 A	1250 A	710 kW	1250 A	1000 kW	...	...	TR05	75		
KET 31600T	KET 31600T Y/R	1600 A	1600 A	1600 A	900 kW	1600 A	1200 kW	...	...	TR05	85		
<b>4-pole</b>													
KET 416	KET 416 Y/R	25 A	16 A	16 A	7.5 kW	16 A	11 kW	...	...	TE005	2.2		
KET 425	KET 425 Y/R	40 A	25 A	25 A	11 kW	25 A	22 kW	...	...	TE005	2.2		
KET 440	KET 440 Y/R	63 A	40 A	40 A	22 kW	32 A	30 kW	...	...	TE005	2.2		
KET 463	KET 463 Y/R	80 A	63 A	40 A	22 kW	40 A	37 kW	...	...	TE005	2.2		
KET 480	KET 480 Y/R	100 A	80 A	63 A	30 kW	40 A	37 kW	...	...	TE005	2.2		
KET 4125	KET 4125 Y/R	160 A	125 A	100 A	55 kW	80 A	55 kW	...	...	TR01	4.5		
KET 4160	KET 4160 Y/R	200 A	160 A	135 A	75 kW	125 A	90 kW	...	...	TR02	9.9		
KET 4200	KET 4200 Y/R	200 A	200 A	200 A	110 kW	200 A	160 kW	...	...	TR03	20		
KET 4200C	KET 4200C Y/R	200 A	200 A*	200 A	110 kW	-	-	...	...	TR02	7.7		
KET 4250	KET 4250 Y/R	250 A	250 A	250 A	132 kW	250 A	250 kW	...	...	TR03	20		
KET 4250C	KET 4250C Y/R	250 A	250 A*	250 A	132 kW	-	-	...	...	TR02	7.7		
KET 4315	KET 4315 Y/R	315 A	315 A	315 A	160 kW	315 A	315 kW	...	...	TR03	20		
KET 4400	KET 4400 Y/R	400 A	400 A	400 A	200 kW	400 A	355 kW	...	...	TR03	20		
KET 4630	KET 4630 Y/R	630 A	630 A	630 A	355 kW	500 A	500 kW	...	...	TR04	40		
KET 4800T	KET 4800T Y/R	800 A	800 A	800 A	400 kW	800 A	710 kW	...	...	TR05	62		
KET 41000T	KET 41000T Y/R	1000 A	1000 A	1000 A	560 kW	1000 A	800 kW	...	...	TR05	77		
KET 41250T	KET 41250T Y/R	1250 A	1250 A	1250 A	710 kW	1250 A	1000 kW	...	...	TR05	77		
KET 41600T	KET 41600T Y/R	1600 A	1600 A	1600 A	900 kW	1600 A	1200 kW	...	...	TR05	87		
<b>6-pole</b>													
KET 616	KET 616 Y/R	25 A	16 A	16 A	7.5 kW	16 A	11 kW	...	...	TR007	2.4		
KET 625	KET 625 Y/R	40 A	25 A	25 A	11 kW	25 A	22 kW	...	...	TR007	2.4		
KET 640	KET 640 Y/R	63 A	40 A	40 A	22 kW	32 A	30 kW	...	...	TR007	2.4		
KET 663	KET 663 Y/R	80 A	63 A	40 A	22 kW	40 A	37 kW	...	...	TR007	2.4		
KET 680	KET 680 Y/R	100 A	80 A	63 A	30 kW	40 A	37 kW	...	...	TR007	2.4		
KET 6125	KET 6125 Y/R	160 A	125 A	100 A	55 kW	80 A	55 kW	...	...	TR02	8.6		
KET 6160	KET 6160 Y/R	200 A	160 A	135 A	75 kW	125 A	90 kW	...	...	TR02	8.6		
KET 6200	KET 6200 Y/R	200 A	200 A	200 A	110 kW	200 A	160 kW	...	...	TR04	40		
KET 6250	KET 6250 Y/R	250 A	250 A	250 A	132 kW	250 A	250 kW	...	...	TR04	40		
KET 6315	KET 6315 Y/R	315 A	315 A	315 A	160 kW	315 A	315 kW	...	...	TR06	36		
KET 6400	KET 6400 Y/R	400 A	400 A	400 A	200 kW	400 A	355 kW	...	...	TR06	36		
<b>8-pole</b>													
KET 816	KET 816 Y/R	25 A	16 A	16 A	7.5 kW	16 A	11 kW	...	...	TR007	2.5		
KET 825	KET 825 Y/R	40 A	25 A	25 A	11 kW	25 A	22 kW	...	...	TR007	2.5		
KET 840	KET 840 Y/R	63 A	40 A	40 A	22 kW	32 A	30 kW	...	...	TR007	2.5		
KET 863	KET 863 Y/R	80 A	63 A	40 A	22 kW	40 A	37 kW	...	...	TR007	2.5		
KET 880	KET 880 Y/R	100 A	80 A	63 A	30 kW	40 A	37 kW	...	...	TR007	2.5		
KET 8125	KET 8125 Y/R	160 A	125 A	100 A	55 kW	80 A	55 kW	...	...	TR02	8.8		
KET 8160	KET 8160 Y/R	200 A	160 A	135 A	75 kW	125 A	90 kW	...	...	TR02	8.8		

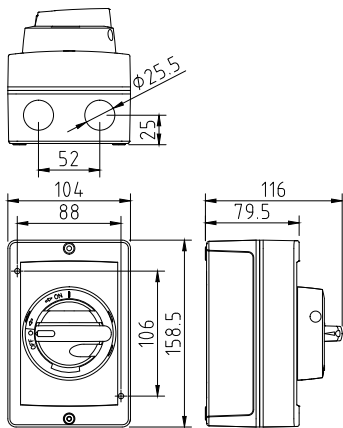
\* 400/415 V    \*\* 240 V

## ALUMINIUM ENCLOSED SAFETY SWITCHES / ISOLATORS 16-250 A

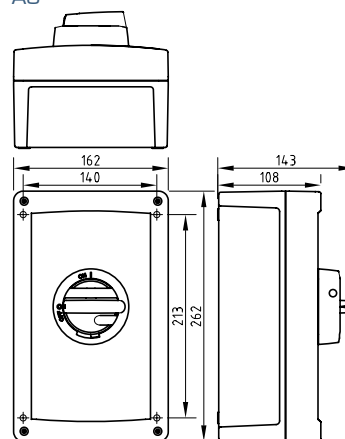


- IP66; Enclosure types A2, A3
- IP65; Enclosure types A4, A5
- IK08; A2, A3 (Degree of mechanical impact)
- IK10; A4, A5
- Wide operating temperature range
- Good resistance against many chemicals
- Good UV resistance
- Excellent for hard weather conditions
- Padlockable   
- Door interlock with defeat mechanism

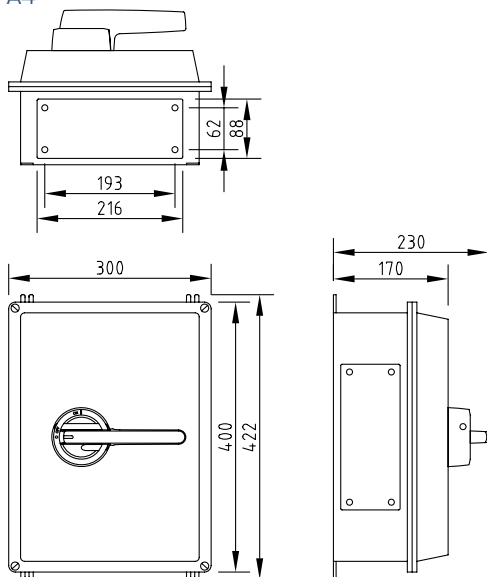
A2



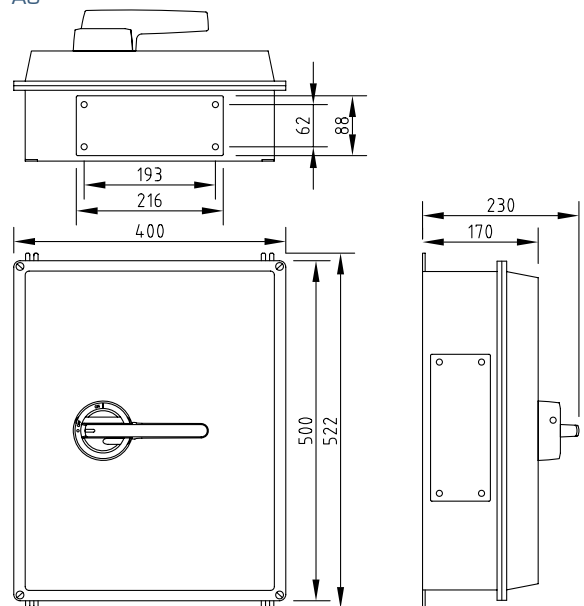
A3



A4



A5



## ALUMINIUM ENCLOSED SAFETY SWITCHES / ISOLATORS 16-250 A

Type		AC-21		AC-22		AC-23		AC-23		EAN-Code		Enclosure	Weight kg		
		400 V 415 V 690 V	$I_n$ / A	400 V 415 V 690 V	$I_n$ / A	400 V 415 V 690 V	$I_n$ / A	400 V 415 V 690 V	P / kW	690 V	P / kW			Grey/black	Yellow/red
<b>1-pole</b>															
KEA 116U	KEA 116U Y/R	25 A*		16 A*		16 A	3 kW**	16 A	-	...	351581	...	351598	A2	0.8
KEA 125U	KEA 125U Y/R	40 A*		25 A*		25 A	4 kW**	25 A	-	...	351604	...	351611	A2	0.8
KEA 140U	KEA 140U Y/R	63 A*		40 A*		40 A	5,5 kW**	32 A	-	...	351628	...	351635	A2	0.8
KEA 163U	KEA 163U Y/R	80 A*		63 A*		40 A	7,5 kW**	40 A	-	...	351642	...	351659	A3	2
<b>2-pole</b>															
KEA 216U	KEA 216U Y/R	25 A*		16 A*		16 A	3 kW**	16 A	-	...	351666	...	351673	A2	0.8
KEA 225U	KEA 225U Y/R	40 A*		25 A*		25 A	4 kW**	25 A	-	...	351680	...	351697	A2	0.8
KEA 240U	KEA 240U Y/R	63 A*		40 A*		40 A	5,5 kW**	32 A	-	...	351703	...	351710	A2	0.8
KEA 263U	KEA 263U Y/R	80 A*		63 A*		40 A	7,5 kW**	40 A	-	...	351727	...	351734	A3	2
<b>3-pole</b>															
KEA 316U	KEA 316U Y/R	25 A		16 A		16 A	7,5 kW	16 A	11 kW	...	330036	...	330043	A2	0.8
KEA 325U	KEA 325U Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...	330234	...	330241	A2	0.8
KEA 340U	KEA 340U Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...	330432	...	330449	A2	0.8
KEA 363U	KEA 363U Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...	329566	...	329740	A3	2
KEA 380U	KEA 380U Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...	329603	...	329788	A3	2
KEA 3125U	KEA 3125U Y/R	160 A		125 A		100 A	55 kW	80 A	55 kW	...	329641	...	329825	A3	3.5
KEA 3160U	KEA 3160U Y/R	200 A		160 A		135 A	75 kW	125 A	90 kW	...	329665	...	329849	A3	3.5
KEA 3200	KEA 3200 Y/R	200 A		200 A		200 A	110 kW	200 A	160 kW	...	332641	...	332658	A5	14
KEA 3200C	KEA 3200C Y/R	200 A		200 A*		200 A	110 kW	-	-	...	332900	...	332917	A4	8.6
KEA 3250	KEA 3250 Y/R	250 A		250 A		250 A	132 kW	250 A	250 kW	...	332665	...	332672	A5	14
KEA 3250C	KEA 3250C Y/R	250 A		250 A*		250 A	132 kW	-	-	...	332924	...	332931	A4	8.6
<b>4-pole</b>															
KEA 416U	KEA 416U Y/R	25 A		16 A		16 A	7,5 kW	16 A	11 kW	...	330050	...	330067	A2	0.9
KEA 425U	KEA 425U Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...	330258	...	330265	A2	0.9
KEA 440U	KEA 440U Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...	330456	...	330463	A2	0.9
KEA 463U	KEA 463U Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...	329573	...	329757	A3	2.1
KEA 480U	KEA 480U Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...	329610	...	329795	A3	2.1
KEA 4125U	KEA 4125U Y/R	160 A		125 A		100 A	55 kW	80 A	55 kW	...	329658	...	329832	A3	3.6
KEA 4160U	KEA 4160U Y/R	200 A		160 A		135 A	75 kW	125 A	90 kW	...	329672	...	329856	A3	3.6
KEA 4200	KEA 4200 Y/R	200 A		200 A		200 A	110 kW	200 A	160 kW	...	358061	...	358078	A5	14,1
KEA 4200C	KEA 4200C Y/R	200 A		200 A*		200 A	110 kW	-	-	...	332948	...	332955	A4	8.7
KEA 4250	KEA 4250 Y/R	250 A		250 A		250 A	132 kW	250 A	250 kW	...	358085	...	358092	A5	14,1
KEA 4250C	KEA 4250C Y/R	250 A		250 A*		250 A	132 kW	-	-	...	332962	...	332979	A4	8.7
<b>6-pole</b>															
KEA 616U	KEA 616U Y/R	25 A		16 A		16 A	7,5 kW	16 A	11 kW	...	329504	...	329689	A3	2.3
KEA 625U	KEA 625U Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...	329528	...	329702	A3	2.3
KEA 640U	KEA 640U Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...	329542	...	329726	A3	2.3
KEA 663U	KEA 663U Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...	329580	...	329764	A3	2.3
KEA 680U	KEA 680U Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...	329627	...	329801	A3	2.3
KEA 6125	KEA 6125 Y/R	160 A		125 A		100 A	55 kW	80 A	55 kW	...	332207	...	332207	A4	9.9
KEA 6160	KEA 6160 Y/R	200 A		160 A		135 A	75 kW	125 A	90 kW	...	332603	...	336410	A4	9.9
<b>8-pole</b>															
KEA 816U	KEA 816U Y/R	25 A		16 A		16 A	7,5 kW	16 A	11 kW	...	329511	...	329696	A3	2.4
KEA 825U	KEA 825U Y/R	40 A		25 A		25 A	11 kW	25 A	22 kW	...	329535	...	329719	A3	2.4
KEA 840U	KEA 840U Y/R	63 A		40 A		40 A	22 kW	32 A	30 kW	...	329559	...	329733	A3	2.4
KEA 863U	KEA 863U Y/R	80 A		63 A		40 A	22 kW	40 A	37 kW	...	329597	...	329771	A3	2.4
KEA 880U	KEA 880U Y/R	100 A		80 A		63 A	30 kW	40 A	37 kW	...	329634	...	329818	A3	2.4
KEA 8125	KEA 8125 Y/R	160 A		125 A		100 A	55 kW	80 A	55 kW	...	332221	...	332221	A4	10
KEA 8160	KEA 8160 Y/R	200 A		160 A		135 A	75 kW	125 A	90 kW	...	332627	...	336427	A4	10

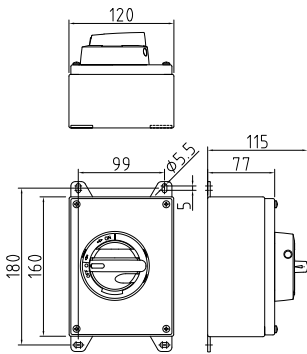
\* 400/415 V    \*\*240 V

## STAINLESS STEEL ENCLOSED SAFETY SWITCHES / ISOLATORS 16-1600 A

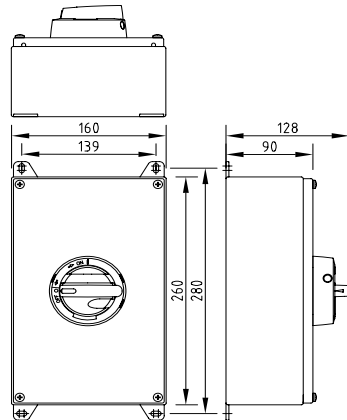


- IP66; Enclosure types H23, H32, H02 (AISI 316, acid proof)
- IP65; Enclosure types H03, H04, H06, H07, H08 (AISI 304 as standard, AISI 316 on request)
- Where hygiene and good protection against corrosion are required
- Padlockable
- Door interlock with defeat mechanism

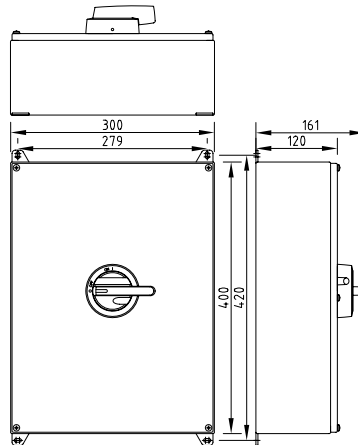
H23



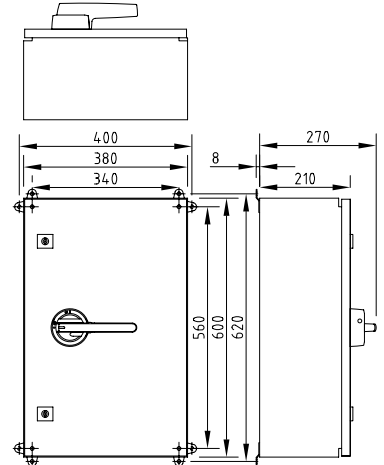
H32



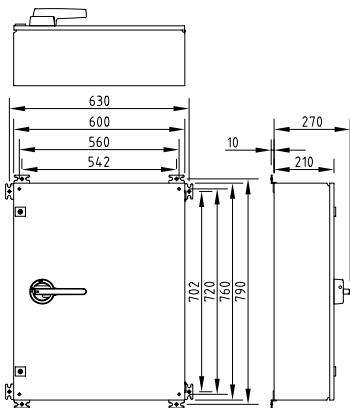
H02



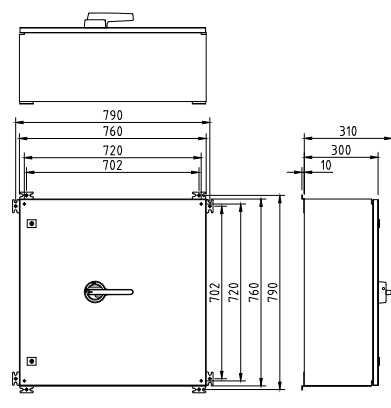
H03



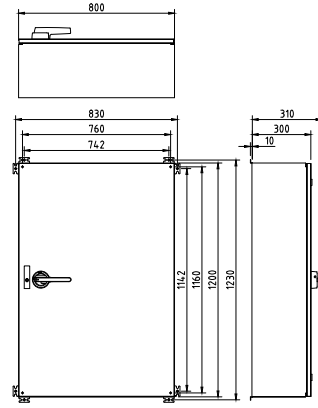
H04



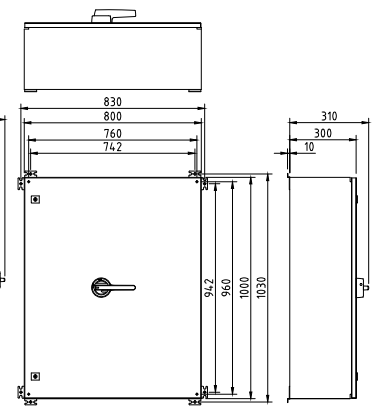
H06



H07



H08



## STAINLESS STEEL ENCLOSED SAFETY SWITCHES / ISOLATORS 16-1600 A

Type		AC-21	400 V 415 V 690 V	AC-22	400 V 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	EAN-Code 6419410...		Enclosure	Weight kg			
			I <sub>e</sub> / A		I <sub>e</sub> / A		P / kW	I <sub>e</sub> / A	P / kW	Grey/black	Yellow/red					
<b>3-pole</b>																
KER 316	KER 316 Y/R		25 A		16 A		16 A		11 kW	...	343005	...	343050	H23	1.2	
KER 325	KER 325 Y/R		40 A		25 A		25 A		22 kW	...	343203	...	343258	H23	1.2	
KER 340	KER 340 Y/R		63 A		40 A		40 A		30 kW	...	343401	...	343456	H23	1.2	
KER 363	KER 363 Y/R		80 A		63 A		40 A		37 kW	...	343562	...	343579	H32	2.3	
KER 380	KER 380 Y/R		100 A		80 A		63 A		37 kW	...	343609	...	343616	H32	2.3	
KER 3125	KER 3125 Y/R		160 A		125 A		100 A		55 kW	...	343647	...	343654	H02	6.9	
KER 3160	KER 3160 Y/R		200 A		160 A		135 A		75 kW	...	343685	...	343692	H02	6.9	
KER 3200	KER 3200 Y/R		200 A		200 A		200 A		110 kW	...	343722	...	343739	H03	15	
KER 3200C	KER 3200C Y/R		200 A		200 A*		200 A		110 kW	-	...	347805	...	347812	H02	7.7
KER 3250	KER 3250 Y/R		250 A		250 A		250 A		132 kW	...	343784	...	343791	H03	15	
KER 3250C	KER 3250C Y/R		250 A		250 A*		250 A		132 kW	-	...	347829	...	347836	H02	7.7
KER 3315	KER 3315 Y/R		315 A		315 A		315 A		160 kW	...	343845	...	343852	H03	16	
KER 3400	KER 3400 Y/R		400 A		400 A		400 A		200 kW	...	343906	...	343913	H03	16	
KER 3630	KER 3630 Y/R		630 A		630A		630 A		355 kW	...	343968	...	343975	H04	25	
KER 3800	KER 3800 Y/R		800 A		800 A		800 A		400 kW	...	305645	...	305652	H08	75	
KER 31000	KER 31000 Y/R		1000 A		1000 A		1000 A		560 kW	...	305669	...	305676	H07	80	
KER 31250	KER 31250 Y/R		1250 A		1250 A		1250 A		710 kW	...	305683	...	305690	H07	90	
KER 31600	KER 31600 Y/R		1600 A		1600 A		1600 A		900 kW	...	305706	...	305713	H07	100	
<b>4-pole</b>																
KER 416	KER 416 Y/R		25 A		16 A		16 A		11 kW	...	343104	...	343159	H23	1.3	
KER 425	KER 425 Y/R		40 A		25 A		25 A		22 kW	...	343302	...	343357	H23	1.3	
KER 440	KER 440 Y/R		63 A		40 A		40 A		30 kW	...	343500	...	343555	H23	1.3	
KER 463	KER 463 Y/R		80 A		63 A		40 A		37 kW	...	343586	...	343593	H32	2.4	
KER 480	KER 480 Y/R		100 A		80 A		63 A		37 kW	...	343623	...	343630	H32	2.4	
KER 4125	KER 4125 Y/R		160 A		125 A		100 A		55 kW	...	343661	...	343678	H02	7	
KER 4160	KER 4160 Y/R		200 A		160 A		135 A		75 kW	...	343708	...	343715	H02	7	
KER 4200	KER 4200 Y/R		200 A		200 A		200 A		110 kW	...	343746	...	343753	H03	16	
KER 4200C	KER 4200C Y/R		200 A		200 A*		200 A		110 kW	-	...	347843	...	347850	H02	7.8
KER 4250	KER 4250 Y/R		250 A		250 A		250 A		132 kW	...	343807	...	343814	H03	16	
KER 4250C	KER 4250C Y/R		250 A		250 A*		250 A		132 kW	-	...	347867	...	347874	H02	7.8
KER 4315	KER 4315 Y/R		315 A		315 A		315 A		160 kW	...	343869	...	343876	H03	16	
KER 4400	KER 4400 Y/R		400 A		400 A		400 A		200 kW	...	343920	...	343937	H03	16	
KER 4630	KER 4630 Y/R		630 A		630 A		630 A		355 kW	...	344002	...	344019	H04	26	
KER 4800	KER 4800 Y/R		800 A		800 A		800 A		400 kW	...	363843	...	363881	H08	77	
KER 41000	KER 41000 Y/R		1000 A		1000 A		1000 A		560 kW	...	363850	...	363898	H07	82	
KER 41250	KER 41250 Y/R		1250 A		1250 A		1250 A		710 kW	...	363867	...	363904	H07	92	
KER 41600	KER 41600 Y/R		1600 A		1600 A		1600 A		900 kW	...	363874	...	363911	H07	102	
<b>6-pole</b>																
KER 616	KER 616 Y/R		25 A		16 A		16 A		11 kW	...	342879	...	342237	H32	2.5	
KER 625	KER 625 Y/R		40 A		25 A		25 A		22 kW	...	342893	...	342251	H32	2.5	
KER 640	KER 640 Y/R		63 A		40 A		40 A		30 kW	...	342916	...	342275	H32	2.5	
KER 663	KER 663 Y/R		80 A		63 A		40 A		37 kW	...	342930	...	342299	H32	2.5	
KER 680	KER 680 Y/R		100 A		80 A		63 A		37 kW	...	342954	...	342312	H32	2.5	
KER 6125	KER 6125 Y/R		160 A		125 A		100 A		55 kW	...	342978	...	342336	H02	7.3	
KER 6160	KER 6160 Y/R		200 A		160 A		135 A		75 kW	...	342992	...	342367	H02	7.3	
KER 6200	KER 6200 Y/R		200 A		200 A		200 A		110 kW	...	343760	...	343777	H04	25	
KER 6250	KER 6250 Y/R		250 A		250 A		250 A		132 kW	...	343821	...	343838	H04	25	
KER 6315	KER 6315 Y/R		315 A		315 A		315 A		160 kW	...	343883	...	343890	H06	26	
KER 6400	KER 6400 Y/R		400 A		400 A		400 A		200 kW	...	343944	...	343951	H06	26	
<b>8-pole</b>																
KER 816	KER 816 Y/R		25 A		16 A		16 A		11 kW	...	342886	...	342244	H32	2.6	
KER 825	KER 825 Y/R		40 A		25 A		25 A		22 kW	...	342909	...	342268	H32	2.6	
KER 840	KER 840 Y/R		63 A		40 A		40 A		30 kW	...	342923	...	342282	H32	2.6	
KER 863	KER 863 Y/R		80 A		63 A		40 A		37 kW	...	342947	...	342305	H32	2.6	
KER 880	KER 880 Y/R		100 A		80 A		63 A		37 kW	...	342961	...	342329	H32	2.6	
KER 8125	KER 8125 Y/R		160 A		125 A		100 A		55 kW	...	342985	...	342350	H02	7.5	
KER 8160	KER 8160 Y/R		200 A		160 A		135 A		75 kW	...	343012	...	342374	H02	7.5	

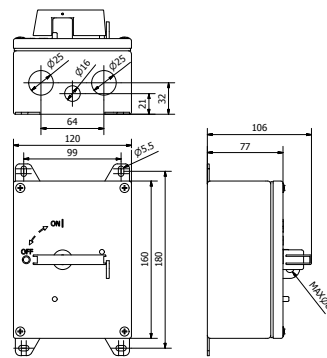
\* 400/415 V

## STAINLESS STEEL ENCLOSED SAFETY SWITCHES / ISOLATORS 16-160A

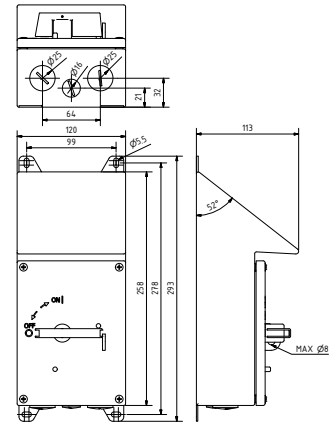


- Designed for hygienic and heavy environments
- Easy to install and to keep clean
- IP66, stainless steel enclosure
- Acid proof, AISI 316
- Rainhood protection with angled top
- Padlockable stainless steel handle

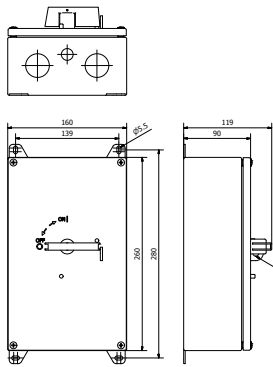
H23T



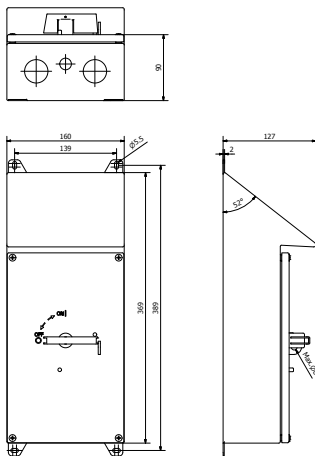
H24T



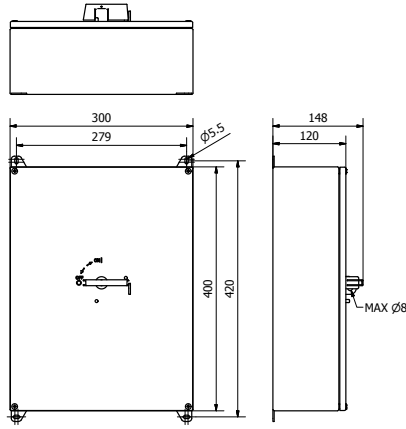
H32T



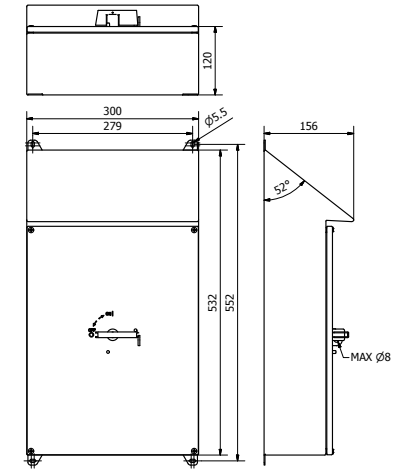
H34T



H02T



H02TR



Type		400 V AC-21	400 V AC-22	400 V AC-23	400 V AC-23	690 V AC-23	EAN-Code 6419410...		Enclosure & handle		Weight kg		
Without angled top	With angled top	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	P / kW	I <sub>e</sub> / A	P / kW	Without angled top	With angled top	Without angled top	With angled top	Without angled top	With angled top
<b>3-pole</b>													
KER 316R	KER 316RS	25 A	16 A	16 A	7.5 kW	16 A	11 kW	...306550	...306611	H23T	H24T	1.2	1.7
KER 325R	KER 325RS	40 A	25 A	25 A	11 kW	25 A	22 kW	...306567	...306628	H23T	H24T	1.2	1.7
KER 340R	KER 340RS	63 A	40 A	40 A	22 kW	32 A	30 kW	...306574	...306635	H23T	H24T	1.2	1.7
KER 363R	KER 363RS	80 A	63 A	40 A	22 kW	40 A	37 kW	...306703	...307052	H32T	H34T	2.3	2.9
KER 380R	KER 380RS	100 A	80 A	63 A	30 kW	40 A	37 kW	...306710	...307069	H32T	H34T	2.3	2.9
KER 3125R	KER 3125RS	160 A	125 A	100 A	55 kW	80 A	55 kW	...357828	...357835	H02T	H02TR	6.9	8
KER 3160R	KER 3160RS	200 A	160 A	135 A	75 kW	125 A	90 kW	...357842	...357859	H02T	H02TR	6.9	8
<b>4-pole</b>													
KER 416R	KER 416RS	25 A	16 A	16 A	7.5 kW	16 A	11 kW	...306581	...306642	H23T	H24T	1.3	1.8
KER 425R	KER 425RS	40 A	25 A	25 A	11 kW	25 A	22 kW	...306598	...306659	H23T	H24T	1.3	1.8
KER 440R	KER 440RS	63 A	40 A	40 A	22 kW	32 A	30 kW	...306604	...306666	H23T	H24T	1.3	1.8
KER 463R	KER 463RS	80 A	63 A	40 A	22 kW	40 A	37 kW	...306727	...307076	H32T	H34T	2.4	3.0
KER 480R	KER 480RS	100 A	80 A	63 A	30 kW	40 A	37 kW	...306734	...307083	H32T	H34T	2.4	3.0
KER 4125R	KER 4125RS	160 A	125 A	100 A	55 kW	80 A	55 kW	...305720	...305737	H02T	H02TR	7	8.1
KER 4160R	KER 4160RS	200 A	160 A	135 A	75 kW	125 A	90 kW	...305744	...305751	H02T	H02TR	7	8.1



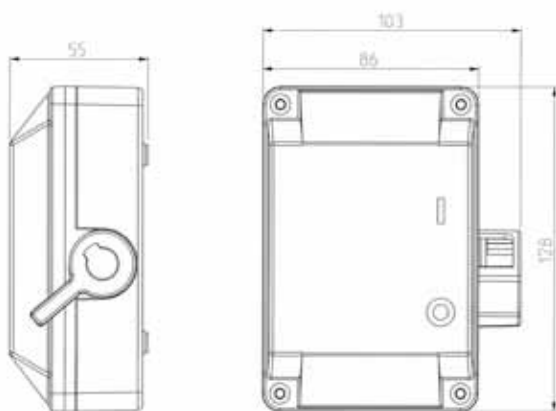


Stainless steel safety switches at Arla Foods

## SIDE OPERATED SWITCHES POLYCARBONATE ENCLOSED 16 A



- IP65
- Fully rated Load Break Switch
- Good resistance against UV and many chemicals
- Cable entries 2 x M20 as standard on the top and bottom and 2 x M20 on the base
- 2 x M20 cable glands included
- Mounting holes: 64,0 x 90,0
- Large cable terminals 1,5 - 16 mm<sup>2</sup>
- Padlockable handle
- Available in grey and yellow/red [Y/R]
- Available 2, 3, 4P and with auxiliary contact
- Neutral and earth terminals on 3P switch, earth on 2P and 4P switches

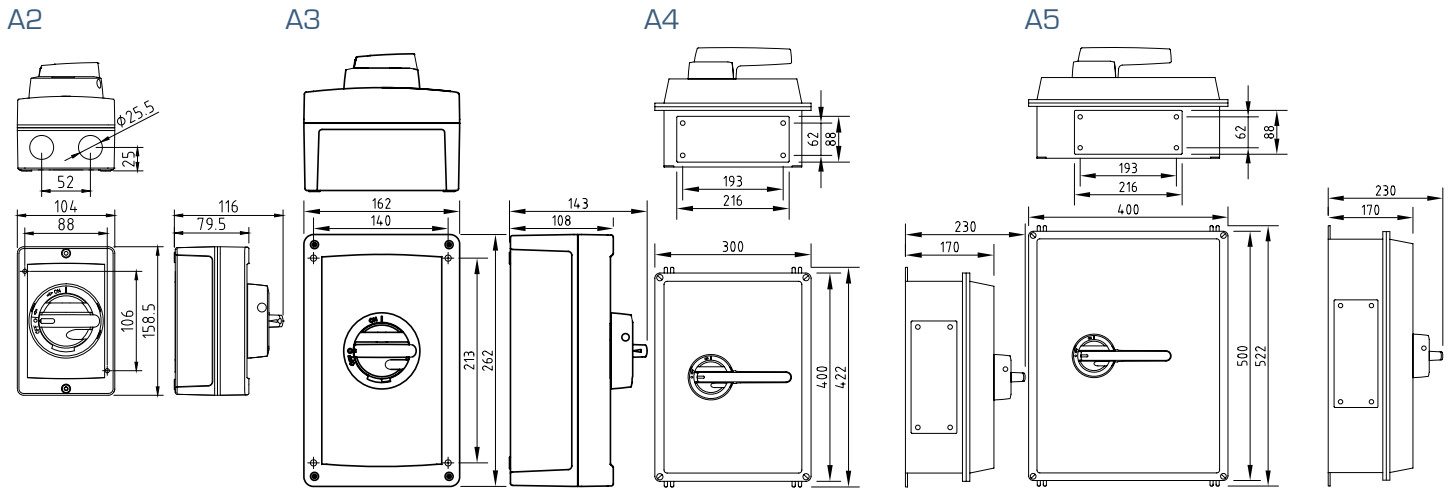


Type	AC-21 / 415 V	AC-22 / 415 V	AC-23 / 415 V	Poles	Description	EAN-Code	Weight
KSM 216	16 A	16 A	16 A	2P	Grey	6419410 328217	0,22
KSM 316				3P		6419410 328200	0,29
KSM 416				4P		6419410 328224	0,29
KSM 316S				3P + auxiliary contact		6419410 328231	0,32
KSM 216 Y/R	16 A	16 A	16 A	2P	Yellow/Red	6419410 328170	0,22
KSM 316 Y/R				3P		6419410 328163	0,29
KSM 416 Y/R				4P		6419410 328187	0,29
KSM 316S Y/R				3P + auxiliary contact		6419410 328194	0,32

## FIRERATED ALUMINIUM ENCLOSED SAFETY SWITCHES / ISOLATORS 16-200A



- F200 3H (FR) / F300 2H (FR3)
- IP66
- Padlockable
- Door interlock with defeat mechanism
- ON-Locking facility as option
- Good corrosion and UV resistance
- Excellent for hard weather conditions



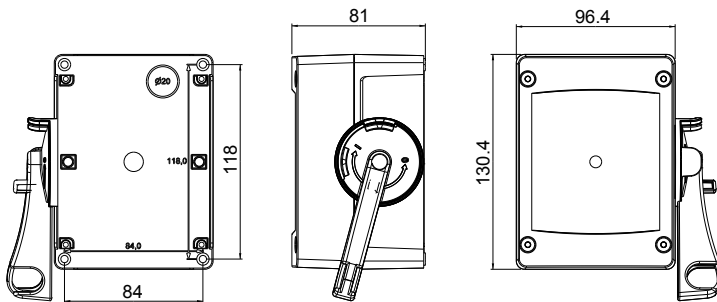
Type		AC-21	400 V 415 V 690 V	AC-22	400 V 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	EAN-Code 6419410...	Enclosure	Weight kg
F200 3H	F300 2H	I <sub>n</sub> / A		I <sub>n</sub> / A		I <sub>n</sub> / A	P / kW	I <sub>n</sub> / A	P / kW			
<b>3-pole</b>												
KEA 316U FR	KEA 316U FR3	25 A		16 A		16 A	7.5 kW	16 A**	11 kW**	...305294 ...333396	A2	0.8
KEA 325U FR	KEA 325U FR3	40 A		25 A		25 A	11 kW	25 A**	22 kW**	...305300 ...333426	A2	0.8
KEA 340U FR	KEA 340U FR3	63 A		40 A		40 A	22 kW	32 A**	30 kW**	...305317 ...333457	A2	0.8
KEA 363U FR	KEA 363U FR3	80 A		63 A		40 A	22 kW	40 A**	37 kW**	...305324 ...333488	A3	2
KEA 380U FR	KEA 380U FR3	100 A		80 A		63 A	30 kW	40 A**	37 kW**	...305331 ...333518	A3	2
KEA 3125 FR		160 A		125 A		100 A	55 kW	80 A	55 kW	...305492	A4	8.6
KEA 3160 FR		200 A		160 A		135 A	75 kW	125 A	90 kW	...305508	A4	8.6
KEA 3200C FR		200 A		200 A*		200 A	110 kW	-	-	...305515	A4	8.6
<b>4-pole</b>												
KEA 416U FR	KEA 416U FR3	25 A		16 A		16 A	7.5 kW	16 A**	11 kW**	...305348 ...333402	A2	0.9
KEA 425U FR	KEA 425U FR3	40 A		25 A		25 A	11 kW	25 A**	22 kW**	...305355 ...333433	A2	0.9
KEA 440U FR	KEA 440U FR3	63 A		40 A		40 A	22 kW	32 A**	30 kW**	...305362 ...333464	A2	0.9
KEA 463U FR	KEA 463U FR3	80 A		63 A		40 A	22 kW	40 A**	37 kW**	...305379 ...333495	A3	2.1
KEA 480U FR	KEA 480U FR3	100 A		80 A		63 A	30 kW	40 A**	37 kW**	...305386 ...333525	A3	2.1
KEA 4125 FR		160 A		125 A		100 A	55 kW	80 A	55 kW	...305522	A4	8.7
KEA 4160 FR		200 A		160 A		135 A	75 kW	125 A	90 kW	...305539	A4	8.7
KEA 4200C FR		200 A		200 A*		200 A	110 kW	-	-	...305546	A4	8.7
<b>6-pole</b>												
KEA 616U FR	KEA 616U FR3	25 A		16 A		16 A	7.5 kW	16 A**	11 kW**	...305393 ...333419	A3	2.3
KEA 625U FR	KEA 625U FR3	40 A		25 A		25 A	11 kW	25 A**	22 kW**	...305409 ...333440	A3	2.3
KEA 640U FR	KEA 640U FR3	63 A		40 A		40 A	22 kW	32 A**	30 kW**	...305416 ...333471	A3	2.3
KEA 663U FR	KEA 663U FR3	80 A		63 A		40 A	22 kW	40 A**	37 kW**	...305423 ...333501	A3	2.3
KEA 680U FR	KEA 680U FR3	100 A		80 A		63 A	30 kW	40 A**	37 kW**	...305430 ...333532	A3	2.3
KEA 6125 FR		160 A		125 A		100 A	55 kW	80 A	55 kW	...305553	A5	15
KEA 6160 FR		200 A		160 A		135 A	75 kW	125 A	90 kW	...305560	A5	15
KEA 6200C FR		200 A		200 A*		200 A	110 kW	-	-	...305577	A5	15
<b>8-pole</b>												
KEA 816U FR		25 A		16 A		16 A	7.5 kW	16 A	11 kW	...305447	A3	2.4
KEA 825U FR		40 A		25 A		25 A	11 kW	25 A	22 kW	...305454	A3	2.4
KEA 840U FR		63 A		40 A		40 A	22 kW	32 A	30 kW	...305461	A3	2.4
KEA 863U FR		80 A		63 A		40 A	22 kW	40 A	37 kW	...305478	A3	2.4
KEA 880U FR		100 A		80 A		63 A	30 kW	40 A	37 kW	...305485	A3	2.4

\* 400/415 V \*\* Does not apply to FR3 models

## SIDE OPERATED SWITCHES POLYCARBONATE ENCLOSED 16-40 A



- Available in grey/black, yellow/red or fireman red
- Good resistance against UV and many chemicals
- Self-extinguishing material and excellent insulating properties
- Fully rated Load Break Switch breaking capacity of 8 x AC23 rating
- Cable entries 2 x M20/M25 as standard on the top and bottom and M20 on the base
- Mounting holes: 118,0 x 84,0
- Padlockable handle in 0-position and also available in 1-position
- Knock-out glands are easy to open
- Large cable terminals 1,5 - 16 mm<sup>2</sup>
- IP66

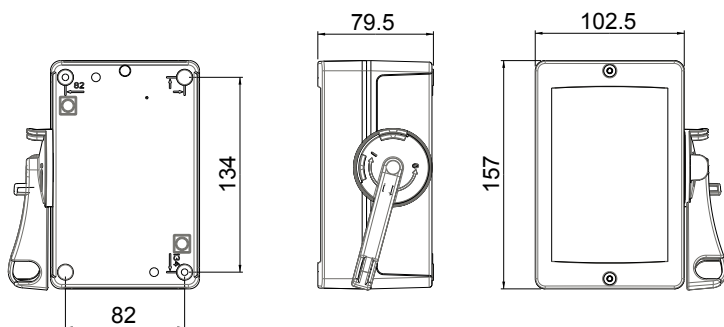


Type		AC-21		AC-22		AC-23		AC-23		EAN-Code		Enclosure	Weight kg
		400 V	415 V	400 V	415 V	400 V	415 V	400 V	690 V	6419410...			
Grey/black	Yellow/red	I <sub>n</sub> / A	I <sub>n</sub> / A	I <sub>n</sub> / A	I <sub>n</sub> / A	P / kW	I <sub>n</sub> / A	P / kW	P / kW	Grey/black	Yellow/red		
<b>3-pole</b>													
KE 316M	KE 316M Y/R	25 A	16 A	16 A	16 A	7.5 kW	16 A	11 kW	...	...304006	...304129	U2	0.5
KE 325M	KE 325M Y/R	40 A	25 A	25 A	25 A	11 kW	25 A	22 kW	...	...304013	...304136	U2	0.5
KE 340M	KE 340M Y/R	63 A	40 A	40 A	40 A	22 kW	32 A	30 kW	...	...304020	...304143	U2	0.5
<b>4-pole</b>													
KE 416M	KE 416M Y/R	25 A	16 A	16 A	16 A	7.5 kW	16 A	11 kW	...	...304037	...304150	U2	0.5
KE 425M	KE 425M Y/R	40 A	25 A	25 A	25 A	11 kW	25 A	22 kW	...	...304044	...304167	U2	0.5
KE 440M	KE 440M Y/R	63 A	40 A	40 A	40 A	22 kW	32 A	30 kW	...	...304051	...304174	U2	0.5
<b>Fireman version</b>													
<b>3-pole</b>													
KEF 316M		25 A	16 A	16 A	16 A	7.5 kW	16 A	11 kW	...	...304365		U2	0.5
KEF 325M		40 A	25 A	25 A	25 A	11 kW	25 A	22 kW	...	...304372		U2	0.5
KEF 340M		63 A	40 A	40 A	40 A	22 kW	32 A	30 kW	...	...304389		U2	0.5
<b>4-pole</b>													
KEF 416M		25 A	16 A	16 A	16 A	7.5 kW	16 A	11 kW	...	...304396		U2	0.5
KEF 425M		40 A	25 A	25 A	25 A	11 kW	25 A	22 kW	...	...304402		U2	0.5
KEF 440M		63 A	40 A	40 A	40 A	22 kW	32 A	30 kW	...	...304419		U2	0.5

## SIDE OPERATED SWITCHES ALUMINIUM ENCLOSED 16-40 A






- Available in grey/black, yellow/red or fireman red
- Good resistance against UV and many chemicals
- Withstands high impact and has wide operating temperature
- Fully rated Load Break Switch breaking capacity of 8 x AC23 rating
- Cable entries: 2 x M25 as standard on the top and bottom
- Mounting holes: 134,0 x 82,0
- Padlockable handle in 0-position and also available in 1-position
- EMC shielding with EMC glands as an option
- Large cable terminals 1,5 - 16 mm<sup>2</sup>
- KE handle on right side, KEF handle on left side
- IP66



Type		AC-21	400 V 415 V 690 V	AC-22	400 V 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	EAN-Code		Enclosure	Weight kg
Grey/black	Yellow/red	I <sub>n</sub> / A	I <sub>n</sub> / A	I <sub>n</sub> / A	P / kW	I <sub>n</sub> / A	P / kW	P / kW	Grey/black	Yellow/red			
<b>3-pole</b>													
KE 316A	KE 316A Y/R	25 A	16 A	16 A	7.5 kW	16 A	11 kW	16 A	11 kW	6419410304488	6419410304600	A2	0.9
KE 325A	KE 325A Y/R	40 A	25 A	25 A	11 kW	25 A	22 kW	25 A	22 kW	6419410304495	6419410304617	A2	0.9
KE 340A	KE 340A Y/R	63 A	40 A	40 A	22 kW	32 A	30 kW	32 A	30 kW	6419410304501	6419410304624	A2	0.9
<b>4-pole</b>													
KE 416A	KE 416A Y/R	25 A	16 A	16 A	7.5 kW	16 A	11 kW	16 A	11 kW	6419410304518	6419410304631	A2	0.9
KE 425A	KE 425A Y/R	40 A	25 A	25 A	11 kW	25 A	22 kW	25 A	22 kW	6419410304525	6419410304648	A2	0.9
KE 440A	KE 440A Y/R	63 A	40 A	40 A	22 kW	32 A	30 kW	32 A	30 kW	6419410304532	6419410304655	A2	0.9
<b>Fireman version</b>													
<b>3-pole</b>													
KEF 316A		25 A	16 A	16 A	7.5 kW	16 A	11 kW	16 A	11 kW	6419410305003		A2	0.9
KEF 325A		40 A	25 A	25 A	11 kW	25 A	22 kW	25 A	22 kW	6419410304846		A2	0.9
KEF 340A		63 A	40 A	40 A	22 kW	32 A	30 kW	32 A	30 kW	6419410304853		A2	0.9
<b>4-pole</b>													
KEF 416A		25 A	16 A	16 A	7.5 kW	16 A	11 kW	16 A	11 kW	6419410304860		A2	0.9
KEF 425A		40 A	25 A	25 A	11 kW	25 A	22 kW	25 A	22 kW	6419410304877		A2	0.9
KEF 440A		63 A	40 A	40 A	22 kW	32 A	30 kW	32 A	30 kW	6419410304884		A2	0.9

## ATEX SWITCHES SAFETY SWITCHES / ISOLATORS 16-160 A

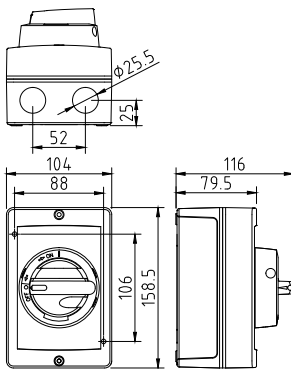


- Conforming to EN 60079-0:2009, EN 60079-31:2009
- Suitable for use in Zone 22 (Category 3D)
- IP66
- Frontal impact test of 7 J
- Available in aluminium and stainless steel
- Available in yellow/ red: Add Y/R at the end of product code
- Padlockable   
- Door interlock with defeat mechanism
- Separate ATEX-enclosures upon request
- ATEX CABLE GLANDS INCLUDED

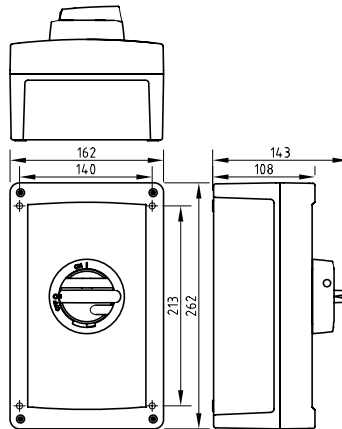


# ATEX

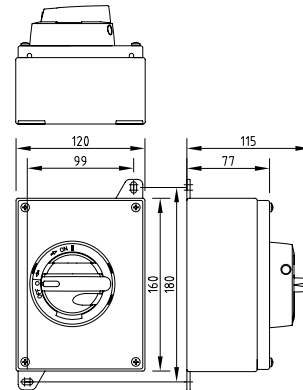
A2EX



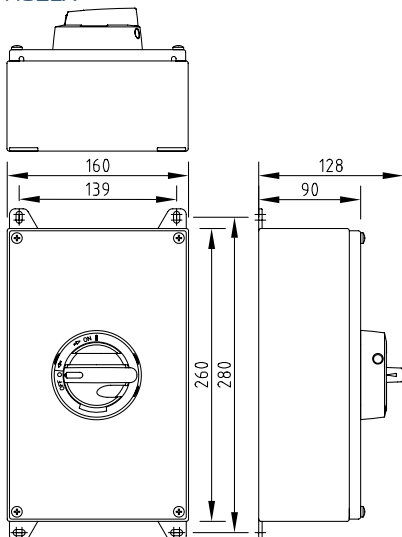
A3EX



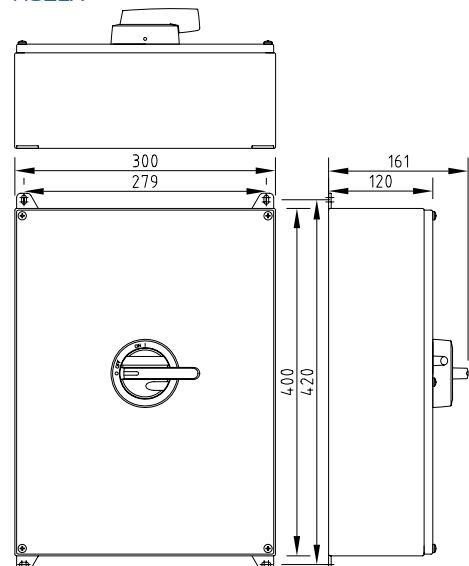
H23EX



H32EX



H02EX



## ATEX SWITCHES SAFETY SWITCHES / ISOLATORS 16-160 A

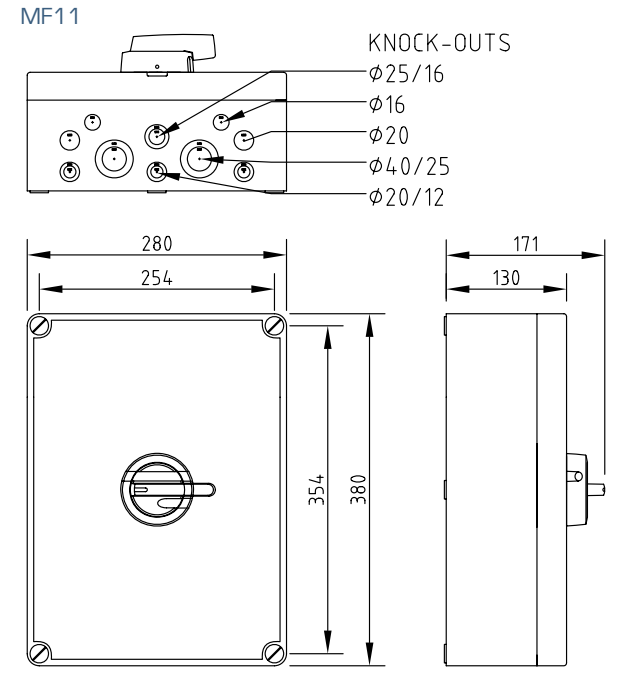
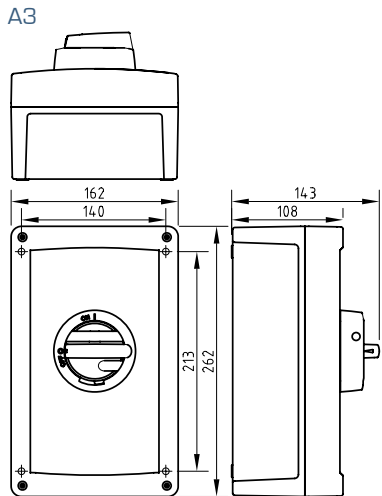
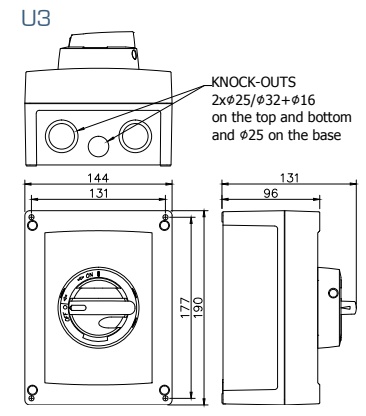
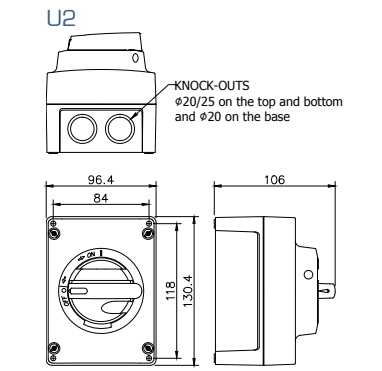
Type	400 V		400 V		AC-23	AC-23		EAN-Code	Enclosure	Cable glands	Weight kg	
	AC-21	415 V 690 V	AC-22	415 V 690 V		400 V 415 V	690 V					P / kW
	$I_n$ / A		$I_n$ / A		$I_n$ / A		P / kW					
<b>Aluminium enclosures</b>												
<b>3-pole</b>												
KEA 316U EX	25 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410305508	A2EX	2xM25	0.9
KEA 325U EX	40 A		25 A		25 A	11 kW	25 A	22 kW	6419410305515	A2EX	2xM25	0.9
KEA 340U EX	63 A		40 A		40 A	22 kW	32 A	30 kW	6419410305522	A2EX	2xM25	0.9
KEA 363U EX	80 A		63 A		40 A	22 kW	40 A	37 kW	6419410305560	A3EX	2xM40	2.3
KEA 380U EX	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410305577	A3EX	2xM40	2.3
KEA 3125U EX	160 A		125 A		100 A	55 kW	80 A	55 kW	6419410305584	A3EX	2xM40	3.8
KEA 3160U EX	200 A		160 A		135 A	75 kW	125 A	90 kW	6419410305591	A3EX	2xM40	3.8
<b>4-pole</b>												
KEA 416U EX	25 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410305539	A2EX	2xM25	1
KEA 425U EX	40 A		25 A		25 A	11 kW	25 A	22 kW	6419410305546	A2EX	2xM25	1
KEA 440U EX	63 A		40 A		40 A	22 kW	32 A	30 kW	6419410305553	A2EX	2xM25	1
KEA 463U EX	80 A		63 A		40 A	22 kW	40 A	37 kW	6419410305607	A3EX	2xM40	2.4
KEA 480U EX	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410305614	A3EX	2xM40	2.4
KEA 4125U EX	160 A		125 A		100 A	55 kW	80 A	55 kW	6419410305621	A3EX	2xM40	3.9
KEA 4160U EX	200 A		160 A		135 A	75 kW	125 A	90 kW	6419410305638	A3EX	2xM40	3.9
<b>6-pole</b>												
KEA 616U EX	25 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410306208	A3EX	2xM40	2.6
KEA 625U EX	40 A		25 A		25 A	11 kW	25 A	22 kW	6419410306215	A3EX	2xM40	2.6
KEA 640U EX	63 A		40 A		40 A	22 kW	32 A	30 kW	6419410306222	A3EX	2xM40	2.6
KEA 663U EX	80 A		63 A		40 A	22 kW	40 A	37 kW	6419410306239	A3EX	2xM40	2.6
KEA 680U EX	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410306246	A3EX	2xM40	2.6
<b>8-pole</b>												
KEA 816U EX	25 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410306253	A3EX	2xM40	2.7
KEA 825U EX	40 A		25 A		25 A	11 kW	25 A	22 kW	6419410306260	A3EX	2xM40	2.7
KEA 840U EX	63 A		40 A		40 A	22 kW	32 A	30 kW	6419410306277	A3EX	2xM40	2.7
KEA 863U EX	80 A		63 A		40 A	22 kW	40 A	37 kW	6419410306284	A3EX	2xM40	2.7
KEA 880U EX	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410306291	A3EX	2xM40	2.7
<b>Stainless steel enclosures</b>												
<b>3-pole</b>												
KER 316 EX	25 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410305645	H23EX	2xM25	1.3
KER 325 EX	40 A		25 A		25 A	11 kW	25 A	22 kW	6419410305652	H23EX	2xM25	1.3
KER 340 EX	63 A		40 A		40 A	22 kW	32 A	30 kW	6419410305669	H23EX	2xM25	1.3
KER 363 EX	80 A		63 A		40 A	22 kW	40 A	37 kW	6419410305706	H32EX	2xM32	2.5
KER 380 EX	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410305713	H32EX	2xM32	2.5
KER 3125 EX	160 A		125 A		100 A	55 kW	80 A	55 kW	6419410305720	H02EX	2xM40	7.2
KER 3160 EX	200 A		160 A		135 A	75 kW	125 A	90 kW	6419410305737	H02EX	2xM40	7.2
<b>4-pole</b>												
KER 416 EX	25 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410305676	H23EX	2xM25	1.4
KER 425 EX	40 A		25 A		25 A	11 kW	25 A	22 kW	6419410305683	H23EX	2xM25	1.4
KER 440 EX	63 A		40 A		40 A	22 kW	32 A	30 kW	6419410305690	H23EX	2xM25	1.4
KER 463 EX	80 A		63 A		40 A	22 kW	40 A	37 kW	6419410305744	H32EX	2xM32	2.6
KER 480 EX	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410305751	H32EX	2xM32	2.6
KER 4125 EX	160 A		125 A		100 A	55 kW	80 A	55 kW	6419410305768	H02EX	2xM40	7.3
KER 4160 EX	200 A		160 A		135 A	75 kW	125 A	90 kW	6419410305775	H02EX	2xM40	7.3
<b>6-pole</b>												
KER 616 EX	25 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410306406	H32EX	2xM25	2.6
KER 625 EX	40 A		25 A		25 A	11 kW	25 A	22 kW	6419410306413	H32EX	2xM25	2.6
KER 640 EX	63 A		40 A		40 A	22 kW	32 A	30 kW	6419410306420	H32EX	2xM25	2.6
KER 663 EX	80 A		63 A		40 A	22 kW	40 A	37 kW	6419410306437	H32EX	2xM32	2.7
KER 680 EX	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410306444	H32EX	2xM32	2.7
KER 6125 EX	160 A		125 A		100 A	55 kW	80 A	55 kW	6419410306505	H02EX	4xM40	7.6
KER 6160 EX	200 A		160 A		135 A	75 kW	125 A	90 kW	6419410306512	H02EX	4xM40	7.6
<b>8-pole</b>												
KER 816 EX	25 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410306451	H32EX	2xM25	2.7
KER 825 EX	40 A		25 A		25 A	11 kW	25 A	22 kW	6419410306468	H32EX	2xM25	2.7
KER 840 EX	63 A		40 A		40 A	22 kW	32 A	30 kW	6419410306475	H32EX	2xM32	2.8
KER 863 EX	80 A		63 A		40 A	22 kW	40 A	37 kW	6419410306482	H32EX	2xM32	2.8
KER 880 EX	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410306499	H32EX	2xM32	2.8
KER 8125 EX	160 A		125 A		100 A	55 kW	80 A	55 kW	6419410306529	H02EX	4xM40	7.8
KER 8160 EX	200 A		160 A		135 A	75 kW	125 A	90 kW	6419410306536	H02EX	4xM40	7.8

# CHANGE-OVER SWITCHES

## 16 - 160 A

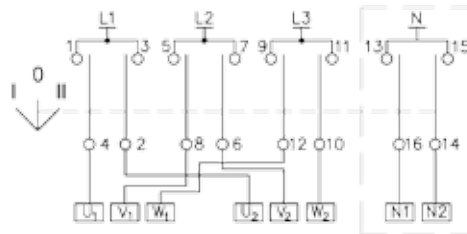


- Polycarbonate (TKM, KEM) or aluminium (KEA) enclosures
- TKM-models with cam switch 16 to 40 A
- KEM and KEA models consist of two KU or VKA switches connected by a change-over kit and range from 16 to 160 A
- IP66; enclosure types U2, U3, A3
- IP65; enclosure type MF11
- Self-extinguishing material
- Excellent insulating properties
- Wide operating temperature range
- Good resistance against many chemicals
- Good UV resistance
- Padlockable
- Door interlock with defeat mechanism
- IEC 60947-3

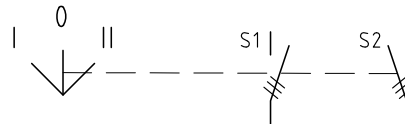




## CHANGE-OVER SWITCHES 16 - 160 A



TK VV circuit diagram



KEM/KEA VV circuit diagram

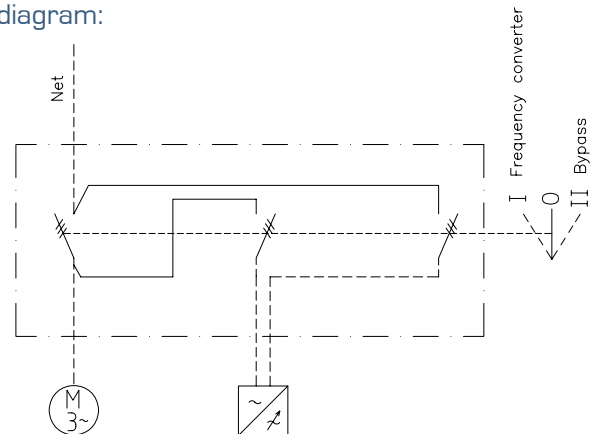
Type		AC-21		AC-22		AC-23		AC-23		EAN-Code		Switch	Enclosure	Weight kg	
		400 V 415 V	690 V	400 V 415 V <sup>1)</sup>	690 V <sup>2)</sup>	400 V 415 V	690 V	400 V 415 V	690 V	Grey/black	Yellow/red				
Grey/black	Yellow/red	I <sub>b</sub> / A		I <sub>b</sub> / A		I <sub>b</sub> / A		P / kW		I <sub>b</sub> / A		P / kW		Grey/black	Yellow/red
<b>TKM (Polycarbonate)</b>															
<b>2-pole</b>															
TKM 225U VV	TKM 225U VV Y/R	25 A*		25 A*		25 A*		4 kW	-	-	...346952	...346969	TK 225 VV	U2	0.5
TKM 240U VV	TKM 240U VV Y/R	40 A*		40 A*		40 A*		7.5 kW	-	-	...346976	...346983	TK 240 VV	U2	0.5
<b>3-pole</b>															
TKM 316U VV	TKM 316U VV Y/R	16 A*		16 A*		16 A*		7.5 kW	-	-	...345757	...345764	TK 316 VV	U2	0.5
TKM 325U VV	TKM 325U VV Y/R	25 A*		25 A*		25 A*		11 kW	-	-	...345733	...345740	TK 325 VV	U2	0.5
TKM 340U VV	TKM 340U VV Y/R	40 A*		40 A*		40 A*		18.5 kW	-	-	...345771	...345788	TK 340 VV	U2	0.5
<b>4-pole</b>															
TKM 416U VV	TKM 416U VV Y/R	16 A*		16 A*		16 A*		7.5 kW	-	-	...347058	...347065	TK 416 VV	U2	0.5
TKM 425U VV	TKM 425U VV Y/R	25 A*		25 A*		25 A*		11 kW	-	-	...345948	...347072	TK 425 VV	U2	0.5
TKM 440U VV	TKM 440U VV Y/R	40 A*		40 A*		40 A*		18.5 kW	-	-	...347089	...347096	TK 440 VV	U2	0.5
<b>KEM (Polycarbonate)</b>															
<b>3-pole</b>															
KEM 316 VV	KEM 316 VV Y/R	25 A		16 A		16 A		7.5 kW	16 A	11 kW	...320624	...320723	2xKU 316	U3	0.9
KEM 325 VV	KEM 325 VV Y/R	40 A		25 A		25 A		11 kW	25 A	22 kW	...320631	...320730	2xKU 325	U3	0.9
KEM 340 VV	KEM 340 VV Y/R	63 A		40 A		40 A		22 kW	32 A	30 kW	...320648	...320747	2xKU 340	U3	0.9
KEM 363 VV	KEM 363 VV Y/R	80 A		63 A		40 A		22 kW	40 A	37 kW	...320655	...320754	2xKU 363	U3	0.9
KEM 380 VV	KEM 380 VV Y/R	100 A		80 A		63 A		30 kW	40 A	37 kW	...320662	...320761	2xKU 380	U3	0.9
KEM 3100C VV	KEM 3100C VV Y/R	100 A		100 A <sup>1)</sup> / 80 A <sup>2)</sup>		63 A		30 kW	40 A	37 kW	...320679	...320778	2xKU 3100	MF11	2.1
KEM 3125C VV	KEM 3125C VV Y/R	125 A		125 A <sup>1)</sup> / 80 A <sup>2)</sup>		63 A		30 kW	40 A	37 kW	...320686	...320785	2xKU 3125	MF11	2.1
KEM 3125 VV 1-0-2	KEM 3125 VV 1-0-2 Y/R	160 A		125 A		100 A		55 kW	80 A	55 kW	...320402	...320457	2xVKA 3125	MF11	3.8
KEM 3160 VV 1-0-2	KEM 3160 VV 1-0-2 Y/R	200 A		160 A		135 A		75 kW	125 A	90 kW	...320501	...320556	2xVKA 3160	MF11	3.8
<b>4-pole</b>															
KEM 416 VV	KEM 416 VV Y/R	25 A		16 A		16 A		7.5 kW	16 A	11 kW	...320853	...320921	2xKU 416	U3	1.0
KEM 425 VV	KEM 425 VV Y/R	40 A		25 A		25 A		11 kW	25 A	22 kW	...320860	...320938	2xKU 425	U3	1.0
KEM 440 VV	KEM 440 VV Y/R	63 A		40 A		40 A		22 kW	32 A	30 kW	...320877	...320945	2xKU 440	U3	1.0
KEM 463 VV	KEM 463 VV Y/R	80 A		63 A		40 A		22 kW	40 A	37 kW	...320884	...320952	2xKU 463	U3	1.0
KEM 480 VV	KEM 480 VV Y/R	100 A		80 A		63 A		30 kW	40 A	37 kW	...320891	...320969	2xKU 480	U3	1.0
KEM 4100C VV	KEM 4100C VV Y/R	100 A		100 A <sup>1)</sup> / 80 A <sup>2)</sup>		63 A		30 kW	40 A	37 kW	...320907	...320976	2xKU 4100	MF11	2.2
KEM 4125C VV	KEM 4125C VV Y/R	125 A		125 A <sup>1)</sup> / 80 A <sup>2)</sup>		63 A		30 kW	40 A	37 kW	...320914	...320983	2xKU 4125	MF11	2.2
KEM 4125 VV 1-0-2	KEM 4125 VV 1-0-2 Y/R	160 A		125 A		100 A		55 kW	80 A	55 kW	...320426	...320471	2xVKA 4125	MF11	4.0
KEM 4160 VV 1-0-2	KEM 4160 VV 1-0-2 Y/R	200 A		160 A		135 A		75 kW	125 A	90 kW	...320525	...320570	2xVKA 4160	MF11	4.0
<b>KEA (Aluminium)</b>															
<b>3-pole</b>															
KEA 316 VV	KEA 316 VV Y/R	25 A		16 A		16 A		7.5 kW	16 A	11 kW	...329863	...329931	2xKU 316	A3	2.3
KEA 325 VV	KEA 325 VV Y/R	40 A		25 A		25 A		11 kW	25 A	22 kW	...329870	...329948	2xKU 325	A3	2.3
KEA 340 VV	KEA 340 VV Y/R	63 A		40 A		40 A		22 kW	32 A	30 kW	...329887	...329955	2xKU 340	A3	2.3
KEA 363 VV	KEA 363 VV Y/R	80 A		63 A		40 A		22 kW	40 A	37 kW	...329894	...329962	2xKU 363	A3	2.3
KEA 380 VV	KEA 380 VV Y/R	100 A		80 A		63 A		30 kW	40 A	37 kW	...329900	...329979	2xKU 380	A3	2.3
<b>4-pole</b>															
KEA 416 VV	KEA 416 VV Y/R	25 A		16 A		16 A		7.5 kW	16 A	11 kW	...332245	...332313	2xKU 416	A3	2.4
KEA 425 VV	KEA 425 VV Y/R	40 A		25 A		25 A		11 kW	25 A	22 kW	...332252	...332320	2xKU 425	A3	2.4
KEA 440 VV	KEA 440 VV Y/R	63 A		40 A		40 A		22 kW	32 A	30 kW	...332269	...332337	2xKU 440	A3	2.4
KEA 463 VV	KEA 463 VV Y/R	80 A		63 A		40 A		22 kW	40 A	37 kW	...332276	...332344	2xKU 463	A3	2.4
KEA 480 VV	KEA 480 VV Y/R	100 A		80 A		63 A		30 kW	40 A	37 kW	...332283	...332351	2xKU 480	A3	2.4

\* 400/415 V

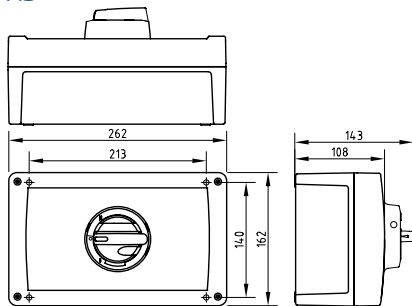
## BYPASS SWITCH FOR FREQUENCY INVERTER 16-63 A



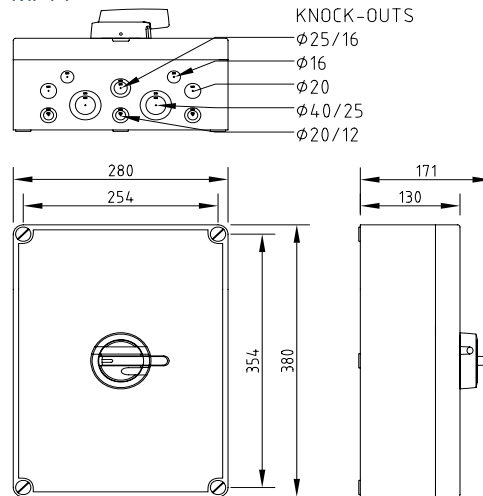
- Polycarbonate (IP65), sheet steel (IP65) or aluminium (IP66) enclosed
- R.M.S value 50kA
- Padlockable
- Door interlock with defeat mechanism
- Tested according to IEC 60 947-3
- CB certificates
- Circuit diagram:



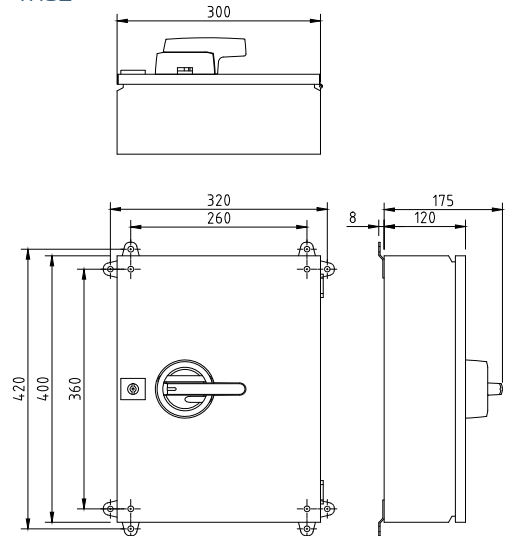
A3



MF11



TR02

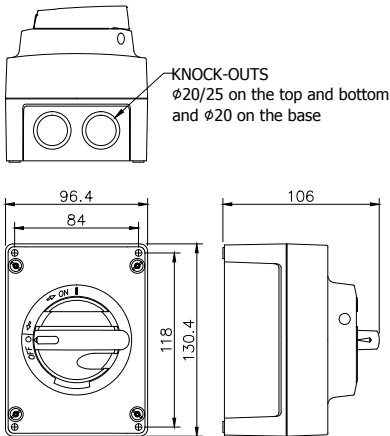


Type	AC-21	400 V 415 V 690 V	AC-22	400 V 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	EAN-Code	Enclosure	Weight kg
	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	P / kW	I <sub>e</sub> / A	P / kW				
<b>Polycarbonate enclosures</b>											
KUM 616/316 VV.1-0-2 2xKU1.V	40 A		25 A		20 A	7.5 kW	20 A	15 kW	6419410301661	MF11	3,6
KUM 625/325 VV.1-0-2 2xKU1.V	63 A		40 A		25 A	11 kW	25 A	22 kW	6419410302057	MF11	3,6
KUM 640/340 VV.1-0-2 2xKU1.V	90 A		70 A		50 A	22 kW	32 A	30 kW	6419410302453	MF11	3,6
KUM 663/363 VV.1-0-2 2xKU1.V	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410302903	MF11	3,6
<b>Sheet steel enclosures</b>											
KUT 616/316 VV.1-0-2 EMC 2xKU1.V	40 A		25 A		20 A	7.5 kW	20 A	15 kW	6419410311509	TR02	8,5
KUT 625/325 VV.1-0-2 EMC 2xKU1.V	63 A		40 A		25 A	11 kW	25 A	22 kW	6419410311554	TR02	8,5
KUT 640/340 VV.1-0-2 EMC 2xKU1.V	90 A		70 A		50 A	22 kW	32 A	30 kW	6419410311608	TR02	8,5
KUT 663/363 VV.1-0-2 EMC 2xKU1.V	100 A		80 A		63 A	30 kW	40 A	37 kW	6419410311653	TR02	8,5
<b>Aluminium enclosures</b>											
TKA 616/316 VV 2xSS EMC	16 A		16 A		16 A	7.5 kW	-	-	6419410311684	A3	3,1

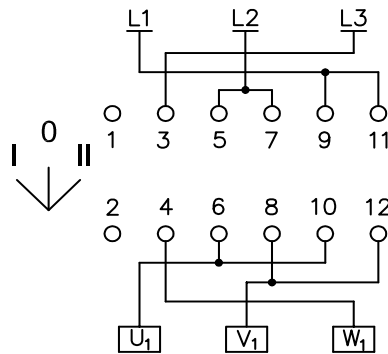
## MOTOR CONTROL SWITCHES 16-40 A



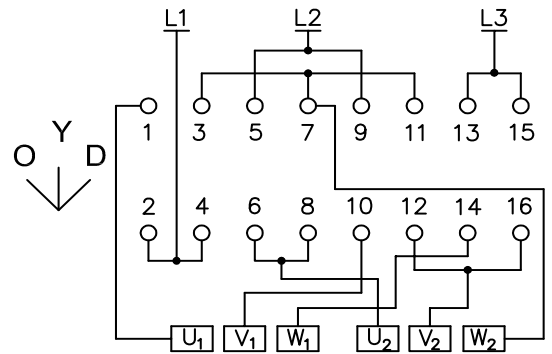
- Cam switches
- Polycarbonate enclosure, IP66
- Rated thermal current  $I_{the}$  16 - 40 A
- Padlockable
- Door interlock with defeat mechanism
- Terminals: Cu 1,5 - 16 mm<sup>2</sup>
- Max. terminal torque: 1,8 Nm
- IEC 60 947-3
- TK= star delta
- SK= reverse switch



Connection diagrams:  
TKM 325U SK



TKM 325U TK



Type		AC-21	400 V	AC-22	400 V	AC-23	400 V	EAN-Code		Enclosure	Weight kg
			415 V		415 V		415 V	6419410...	Grey/black		
Grey/black	Yellow/red	$I_e$ / A		$I_e$ / A		$I_e$ / A	P / kW				
<b>Star-Delta</b>											
TKM 316U TK	TKM 316U TK Y/R	16 A		16 A		16 A	7.5 kW	...344828	...344842	U2	0.5
TKM 325U TK	TKM 325U TK Y/R	25 A		25 A		25 A	11 kW	...345023	...345030	U2	0.5
TKM 340U TK	TKM 340U TK Y/R	40 A		40 A		40 A	18.5 kW	...345627	...345641	U2	0.5
<b>Reverse</b>											
TKM 316U SK	TKM 316U SK Y/R	16 A		16 A		16 A	7.5 kW	...344729	...344743	U2	0.5
TKM 325U SK	TKM 325U SK Y/R	25 A		25 A		25 A	11 kW	...345221	...345238	U2	0.5
TKM 340U SK	TKM 340U SK Y/R	40 A		40 A		40 A	18.5 kW	...345962	...345986	U2	0.5

## ENCLOSED SWITCH FUSES 16-630 A

- Available as 1P, 2P, 3P and 4P versions
- KKVT/M/R (16 - 32 A) - with KU switch and KV 10x38 fuse holder
- KVKET/M/R (20-630 A) - with KVKE switch fuse
- Available as BS and DIN fuse version: for BS version: add BS at the end of the product code
- All Versions available in grey/black or yellow/red: for yellow/red version: add Y/R at the end of the product code
- M**=polycarbonate, **T**=steel, **R**=stainless steel

Type	AC-21		AC-22		AC-23	AC-23		EAN-Code	Enclosure	Weight kg	
	400 V	400 V	400 V	400 V		AC-23	690 V				
	415 V	415 V	415 V	415 V							
I <sub>e</sub> / A	690 V	I <sub>e</sub> / A	690 V	I <sub>e</sub> / A	P / kW	I <sub>e</sub> / A	P / kW				
<b>Polycarbonate enclosures</b>											
<b>KKVM</b>											
KKVM 316	16 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410377000	U3	0,8
KKVM 325	25 A		25 A		25 A	11 kW	25 A	22 kW	6419410377109	U3	0,8
KKVM 332	32 A		32 A		32 A	15 kW	32 A	30 kW	6419410377208	U3	0,8
<b>KVKEM</b>											
KVKEM 320	20 A		20 A		20 A	10 kW	-	-	6419410391709	U3	3,5
KVKEM 332	32 A		32 A		32 A	15 kW	-	-	6419410391723	U3	3,5
KVKEM 363	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410394052	MF11	4,4
KVKEM 380	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410394151	MF11	4,4
KVKEM 3100	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410394250	MF11	4,4
KVKEM 3125	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410394359	MF11	4,4
KVKEM 3160	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410394458	MF11	4,4
KVKEM 3200	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410397565	MF03	8,7
KVKEM 3250	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410391303	MF03	8,7
KVKEM 3315	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410303108	MF04	9,2
KVKEM 3400	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410391501	MF04	9,2
KVKEM 3630	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410391600	MF04	9,3
<b>Sheet steel enclosures</b>											
<b>KKVT</b>											
KKVT 316	16 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410379004	TR01	4,3
KKVT 325	25 A		25 A		25 A	11 kW	25 A	22 kW	6419410379103	TR01	4,3
KKVT 332	32 A		32 A		32 A	15 kW	32 A	30 kW	6419410379202	TR01	4,3
<b>KVKET</b>											
KVKET 320	20 A		20 A		20 A	10 kW	-	-	6419410393154	TR02	9,7
KVKET 332	32 A		32 A		32 A	15 kW	-	-	6419410393161	TR02	9,7
KVKET 363	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410395059	TR03	20
KVKET 380	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410395158	TR03	20
KVKET 3100	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410395257	TR03	20
KVKET 3125	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410395356	TR03	20
KVKET 3160	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410395455	TR03	20
KVKET 3200	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410393208	TR03	22
KVKET 3250	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410393307	TR03	22
KVKET 3315	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410303245	TR04	23
KVKET 3400	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410393505	TR04	23
KVKET 3630	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410393604	TR04	24
<b>Stainless steel enclosures</b>											
<b>KKVR</b>											
KKVR 316	16 A		16 A		16 A	7.5 kW	16 A	11 kW	6419410378007	H32	2,5
KKVR 325	25 A		25 A		25 A	11 kW	25 A	22 kW	6419410378014	H32	2,5
KKVR 332	32 A		32 A		32 A	15 kW	32 A	30 kW	6419410378021	H32	2,5
<b>KVKER</b>											
KVKER 320	20 A		20 A		20 A	10 kW	-	-	6419410378038		
KVKER 332	32 A		32 A		32 A	15 kW	-	-	6419410378045		
KVKER 363	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410378052	H03	16
KVKER 380	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410378069	H03	16
KVKER 3100	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410378076	H03	16
KVKER 3125	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410378083	H03	16
KVKER 3160	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410378090	H03	16
KVKER 3200	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410378106	H03	16
KVKER 3250	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410378113	H03	16
KVKER 3315	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410378120	H04	26
KVKER 3400	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410378137	H04	26
KVKER 3630	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410378144	H04	26

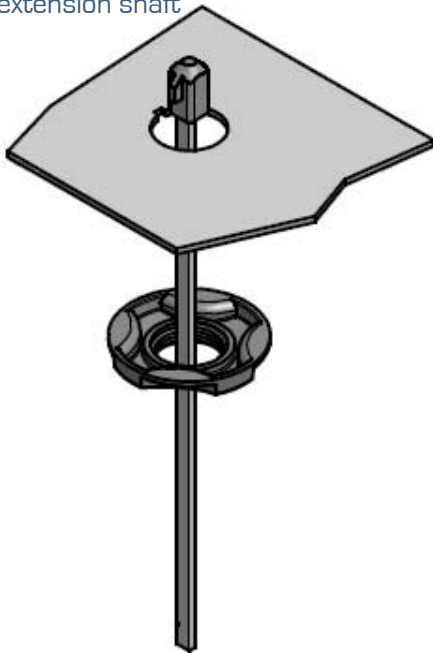
## LOAD BREAK SWITCHES 16-630 A ROTARY AND TOGGLE SWITCHES

### ASSEMBLY EXAMPLE

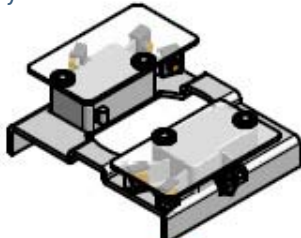
LK10 handle



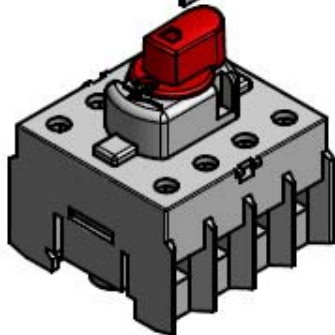
L=200 AD11 extension shaft



"Snap-on" Auxiliary contact



4P KU-switch



General information:

The professional range of KATKO Load Break Switches consists of rotary and toggle switches. Types KU, VKA and VKE are rotary switches while KUE and EVA are toggle switches. The KATKO range is available from 16 A up to 630 A. Also 800-3150 A is available on request.

- KU/VKA 16 - 250 A
- KUE/EVA 16 - 250 A
- VKE 125 - 630 A

Rotary switches are available as 3-pole, 4-pole, 6-pole and 8-pole. Katko switches are rated up to 690V. Katko Load Break Switches comply with and are tested according to IEC 60 947-3, IEC 60 269-2, UL 60947-4-1A (16-150 A), CCA, CB, ISO 9001, ISO 14001 and RINA [KU, VKA, KKV332].

Features:

- Compact size
- DIN-rail mounting
- Double break with silver rivets
- 12.5 mm air gap in open position
- AC-23, 690 V
- 50 kA RMS
- Position indicator
- Snap-on auxiliary contacts
- Adjustable shaft
- Door interlock
- Lockable handles
- Load break (will break at least 8xAC-23 current)

## LOAD BREAK SWITCHES 16-250 A ROTARY AND TOGGLE SWITCHES



LOAD BREAK SWITCHES		16A	25A	40A	63A	80A	125A		160A	200A		250A	
		KU / KUE	KU / KUE	KU / KUE	KU / KUE	KU / KUE	KU / KUE	VKA / EVA	VKA / EVA	VKA	EVA	VKA	EVA
Rated insulation voltage, U <sub>i</sub> [V]		690	690	690	690	690	690	690	690	1000	690	1000	690
Rated thermal current, I <sub>th</sub> [A]		25	40	63	80	100	125	160	200	200	200	250	250
Nominal values with cable size (mm <sup>2</sup> )		4	10	16	25	35	50	70	95	95	95	120	120
Rated operational current, I <sub>o</sub> [A]													
AC-21	400/415V	25	40	63	80	100	125	160	200	200	200	250	250
	500V	25	40	63	80	100	125	160/-	200	200	-	250	-
	690V	25	40	63	80	100	125	160/-	200	200	-	250	-
AC-22	400/415V	16	25	40	63	80	125	125	160	200	200	250	250
	500V	16	25	40	63	80	80	125/-	160	-	-	-	-
	690V	16	25	40	63	80	80	125/-	160	-	-	-	-
AC-23	400/415V	16	25	40/25	40	63	63	100/80	135/105	200	160	250	200
	500V	16	25/20	32/20	40/32	40/32	40/32	80/-	125/-	-	-	-	-
	690V	16	25/20	32/20	40/32	40/32	40/32	80/-	125/-	-	-	-	-
Rated operational power for 3-phase (1500 r.p.m.) squirrel cage induction motors [kW]													
AC-23	400/415V	7.5	11	22/11	22	30	30	55/45	75/55	110	75	132	90
	500V	7.5	15/11	22/11	30/22	30/22	30/22	55/-	75	-	-	-	-
	690V	11	22/15	30/15	37/30	37/30	37/30	55/-	90	-	-	-	-
DC-21B for KU/VKA 3 pole		16A 320V	25A 320V	40A 320V	63A 220V	80A 220V	80A 220V	125A 220V	160A 220V	-	-	-	-
DC-21B for KU/VKA 4 pole		12A 500V	16A 500V	20A 500V	25A 500V	32A 500V	32A 500V	125A 440V	160A 440V	-	-	-	-
Rated fused short circuit current													
Back-up fuse [A]		63	63	63	80	80	125	160	160	250	250	250	250
R.M.S. value, I <sub>sc</sub> [kA]		50	50	50	50	50	30	50	50	50	50	50	50
Peak value [kA]		7.2	7.2	7.2	8.7	8.7	10	15	15	22	21	22	21
Impulse withstand voltage, U <sub>imp</sub> [kV]		8	8	8	8	8	8	8/6	8/6	8	6	8	6
Rated short circuit making capacity, I <sub>sm</sub> [kA]													
690V		2.5	2.5	2.5	3.3	3.3	3.3	5.1	5.1	7*	7*	7*	7*
Rated short time withstand current [1 s], I <sub>sw</sub> [kA]													
690V		1.7	1.7	1.7	2.3	2.3	2.3	3.5	3.5	6*	6*	6*	6*
Rated breaking capacity, I <sub>bn</sub> [A]													
AC-23	400/415V	128	200	320/200	320	504	504	800	1080/840	1600	1600	2000	1600
	500V	128	200/160	256/160	320/256	320/256	320	640	1000	-	-	-	-
	690V	128	200/160	256/160	320/256	320/256	320	640	1000	-	-	-	-
Electrical endurance (operations)		3000	3000	3000	3000	3000	3000	2000	2000	2000	2000	2000	2000
Mechanical endurance (operations)		50000	50000	50000	50000	50000	50000	16000	16000	16000	16000	16000	16000
Terminals / Bolt size Cu (mm <sup>2</sup> )		1.5-16	1.5-16	1.5-16	2.5-35	2.5-35	2.5-50	6-70	6-70	M8	M8	M8	M8
Max terminal torque [Nm]		1.8	1.8	1.8	2.5	2.5	2.5	6	6	15-22	15-22	15-22	15-22
*415 V													



*easy to install*

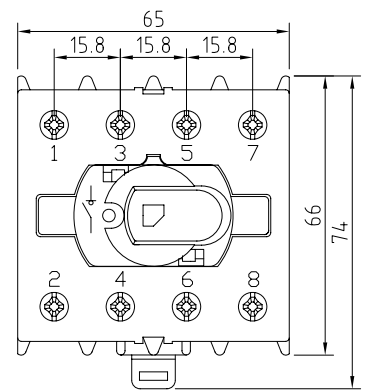
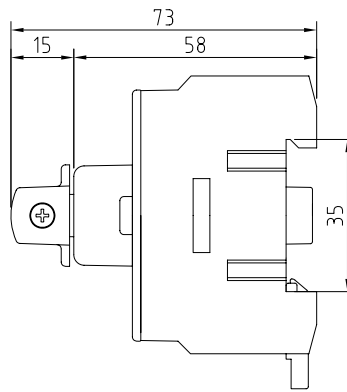
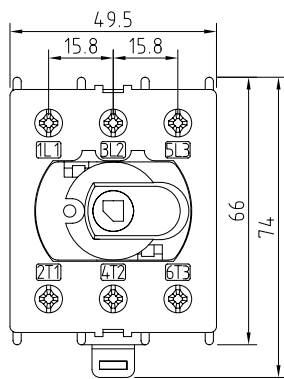
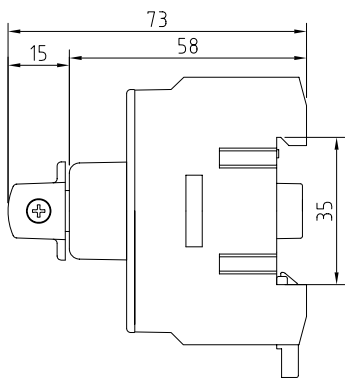


**ONE SWITCH - MANY POSSIBILITIES**

## LOAD BREAK SWITCHES 16-125 A ROTARY SWITCHES, KU SERIES



- Compact size
- DIN-rail mounting
- 3-pole and 4-pole KU-switches as standard
- 2-pole upon request
- 6-pole and 8-pole versions consist of two 3-pole or 4-pole KU-switches connected by a parallel kit
- Switch technology by means of silver contacts ensures safe and durable operation
- 4-pole versions with early-make and late-break neutral pole
- Compatible with handles LK10 and LK11
- Shafts L=100/200/300 AD11 and L=100/200/300 AD11/VT



Type	AC-21		AC-22	AC-23	AC-23		690 V	EAN-Code	Weight kg
	400 V	415 V			400 V	415 V			
	415 V	690 V	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	P / kW	P / kW		
<b>3-pole</b>									
KU 316N	25 A		16 A	16 A	16 A	7,5 kW	11 kW	6419410214305	0.19
KU 325N	40 A		25 A	25 A	25 A	11 kW	22 kW	6419410214404	0.19
KU 340N	63 A		40 A	40 A	40 A	22 kW	30 kW	6419410214503	0.19
KU 363N	80 A		63 A	40 A	40 A	22 kW	37 kW	6419410214602	0.2
KU 380N	100 A		80 A	63 A	40 A	30 kW	37 kW	6419410214701	0.2
KU 3125N	125 A		125 <sup>1)</sup> / 80 <sup>2)</sup> A	63 A	40 A	30 kW	37 kW	6419410214824	0.2
<b>4-pole</b>									
KU 416N	25 A		16 A	16 A	16 A	7,5 kW	11 kW	6419410215005	0.23
KU 425N	40 A		25 A	25 A	25 A	11 kW	22 kW	6419410215203	0.23
KU 440N	63 A		40 A	40 A	32 A	22 kW	30 kW	6419410215500	0.23
KU 463N	80 A		63 A	40 A	40 A	22 kW	37 kW	6419410215906	0.25
KU 480N	100 A		80 A	63 A	40 A	30 kW	37 kW	6419410216002	0.25
KU 4125N	125 A		125 <sup>1)</sup> / 80 <sup>2)</sup> A	63 A	40 A	30 kW	37 kW	6419410216125	0.25



## LOAD BREAK SWITCHES 125-250 A ROTARY SWITCHES, VKA SERIES



VKA 125-160 A

- Compact size
- 3-pole and 4-pole VKA-switches as standard
- 2-pole upon request
- Switch technology by means of silver contacts ensures safe and durable operation
- 4-pole versions with early-make and late-break neutral pole

### 125-160 A:

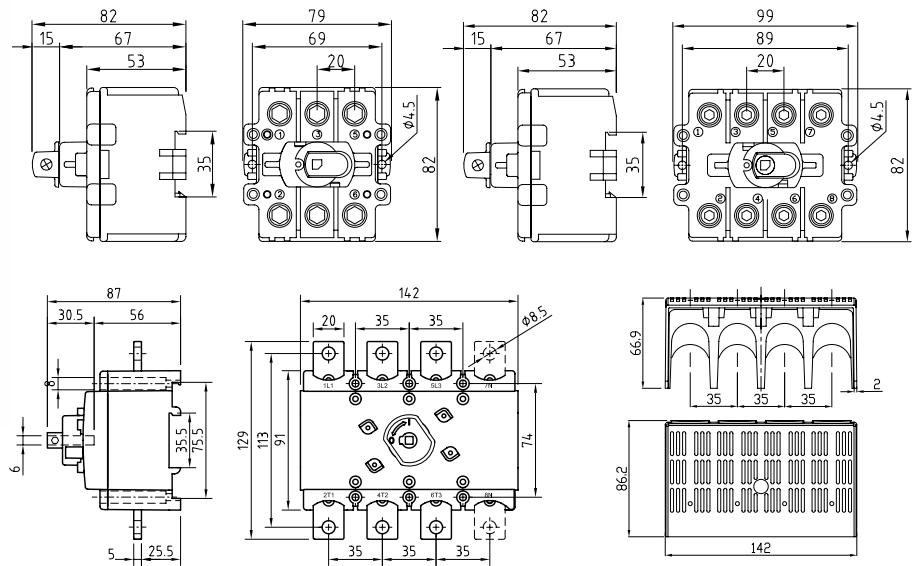
- 6-pole and 8-pole versions consist of two 3-pole or 4-pole VKA-switches connected by a parallell kit
- Compatible with handles LK10 and LK11
- Shafts L=100/200 AD11 and L=100/200/300 AD11/VT

### 200-250 A:

- Handle LK12 and shaft L=228 AD12/T6 included, suitable for 250 mm panel board
- Terminal covers LS/VKAC and phase barriers VS/VKAC enable safe use



VKA 200-250 A



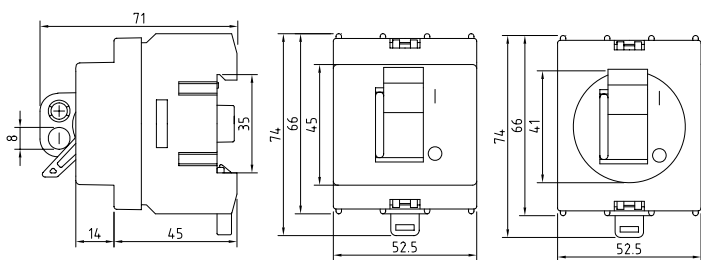
Type	AC-21		AC-22		AC-23		EAN-Code	Weight kg		
	400 V 415 V 690 V	$I_e$ / A	400 V 415 V 690 V	$I_e$ / A	400 V 415 V P / kW	400 V 415 V P / kW				
<b>3-pole</b>										
VKA 3125N	160 A		125 A		100 A	55 kW	80 A	55 kW	6419410217504	0.51
VKA 3160N	200 A		160 A		135 A	75 kW	125 A	90 kW	6419410218600	0.51
<b>4-pole</b>										
VKA 4125N	160 A		125 A		100 A	55 kW	80 A	55 kW	6419410218006	0.66
VKA 4160N	200 A		160 A		135 A	75 kW	125 A	90 kW	6419410219102	0.66

Type	AC-21		AC-22		AC-23		EAN-Code	Weight kg		
	400 V 415 V	$I_e$ / A	400 V 415 V	$I_e$ / A	400 V 415 V P / kW	400 V 415 V P / kW				
<b>3-pole</b>										
VKA 3200	200 A		200 A		200 A	110 kW	200 A	132 kW	6419410218020	1.4
VKA 3250	250 A		250 A		250 A	110 kW	250 A	132 kW	6419410218044	1.4
VKA 3200 LS/VS	200 A		200 A		200 A	110 kW	200 A	110 kW	6419410218037	1.5
VKA 3250 LS/VS	250 A		250 A		250 A	132 kW	250 A	132 kW	6419410218051	1.5
<b>4-pole</b>										
VKA 4200	200 A		200 A		200 A	110 kW	200 A	110 kW	6419410219126	1.6
VKA 4250	250 A		250 A		250 A	132 kW	250 A	132 kW	6419410219140	1.6
VKA 4200 LS/VS	200 A		200 A		200 A	110 kW	200 A	110 kW	6419410219133	1.7
VKA 4250 LS/VS	250 A		250 A		250 A	132 kW	250 A	132 kW	6419410219157	1.7

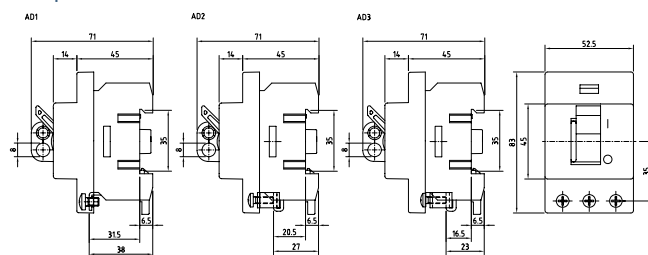
## LOAD BREAK SWITCHES 16-125 A TOGGLE SWITCHES, KUE SERIES



- Compact size
- DIN-rail mounting
- 3-pole
- Switch technology by means of silver contacts ensures safe and durable operation
- Available with adapter to connect the switch to a three-phase section rail. Three different connection heights
- Available with yellow front plate and red toggle add "Y/R" at the end of the product code when ordering



### Adapter dimensions



Type	400 V		400 V		AC-23	400 V	AC-23	690 V	EAN-Code	Weight kg
	AC-21	415 V	AC-22	415 V <sup>1)</sup>						
	I <sub>e</sub> / A		I <sub>e</sub> / A	690 V <sup>2)</sup>	I <sub>e</sub> / A					
KUE 316	25 A		16 A		16 A	7,5 kW	16 A	11 kW	6419410200308	0.17
KUE 325	40 A		25 A		25 A	11 kW	20 A	15 kW	6419410200407	0.17
KUE 340	63 A		40 A		25 A	11 kW	20 A	15 kW	6419410200506	0.17
KUE 363	80 A		63 A		40 A	22 kW	32 A	30 kW	6419410200605	0.18
KUE 380	100 A		80 A		63 A	30 kW	32 A	30 kW	6419410200704	0.18
KUE 3125	125 A		80 A		63 A	30 kW	32 A	30 kW	6419410200902	0.18
KUE 316 + AD1 + K/KUE	25 A		125 <sup>1)</sup> / 80 <sup>2)</sup> A		16 A	7,5 kW	16 A	11 kW	6419410200322	0.21
KUE 325 + AD1 + K/KUE	40 A		25 A		25 A	11 kW	20 A	15 kW	6419410200421	0.21
KUE 340 + AD1 + K/KUE	63 A		40 A		25 A	11 kW	20 A	15 kW	6419410200520	0.21
KUE 363 + AD1 + K/KUE	80 A		63 A		40 A	22 kW	32 A	30 kW	6419410200629	0.22
KUE 380 + AD1 + K/KUE	100 A		80 A		63 A	30 kW	32 A	30 kW	6419410200728	0.22
KUE 3125 + AD1 + K/KUE	125 A		80 A		63 A	30 kW	32 A	30 kW	6419410200834	0.22
KUE 316 + AD2 + K/KUE	25 A		125 <sup>1)</sup> / 80 <sup>2)</sup> A		16 A	7,5 kW	16 A	11 kW	6419410200339	0.21
KUE 325 + AD2 + K/KUE	40 A		25 A		25 A	11 kW	20 A	15 kW	6419410200438	0.21
KUE 340 + AD2 + K/KUE	63 A		40 A		25 A	11 kW	20 A	15 kW	6419410200537	0.21
KUE 363 + AD2 + K/KUE	80 A		63 A		40 A	22 kW	32 A	30 kW	6419410200636	0.22
KUE 380 + AD2 + K/KUE	100 A		80 A		63 A	30 kW	32 A	30 kW	6419410200735	0.22
KUE 3125 + AD2 + K/KUE	125 A		80 A		63 A	30 kW	32 A	30 kW	6419410200841	0.22
KUE 316 + AD3 + K/KUE	25 A		125 <sup>1)</sup> / 80 <sup>2)</sup> A		16 A	7,5 kW	16 A	11 kW	6419410200346	0.21
KUE 325 + AD3 + K/KUE	40 A		25 A		25 A	11 kW	20 A	15 kW	6419410200445	0.21
KUE 340 + AD3 + K/KUE	63 A		40 A		25 A	11 kW	20 A	15 kW	6419410200810	0.21
KUE 363 + AD3 + K/KUE	80 A		63 A		40 A	22 kW	32 A	30 kW	6419410200643	0.22
KUE 380 + AD3 + K/KUE	100 A		80 A		63 A	30 kW	32 A	30 kW	6419410200827	0.22
KUE 3125 + AD3 + K/KUE	125 A		80 A		63 A	30 kW	32 A	30 kW	6419410200858	0.22
<b>ADDITIONAL FRONT PLATES</b>										
K/KUE	Rectangular front plate								6419410221808	0.02
R/KUE	Round front plate								6419410221907	0.02
K/KUE AD	Long front plate								6419410221815	0.02



KATKO VSD EMC Isolators installed at Sydney International Airport, as part of two Santerno Multipump Systems for their Recycled Water Treatment Plant

KATKO safety switches at UPM Rauma paper mill with the latest paper machine started in Finland



KATKO safety switches with ventilation machinery in Kazan Sports Arena, Russia

## LOAD BREAK SWITCHES 125-250 A TOGGLE SWITCHES, EVA SERIES



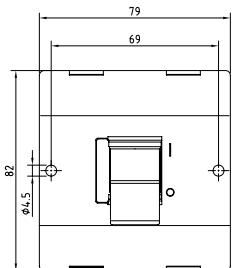
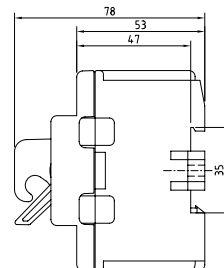
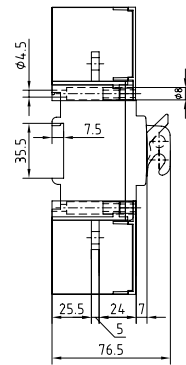
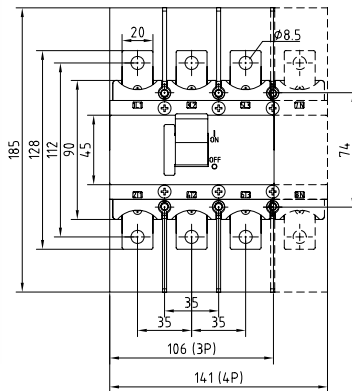
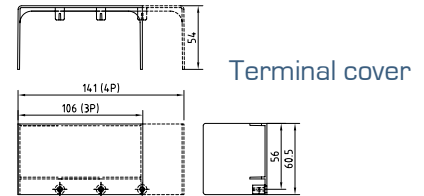
- Compact size
- Switch technology by means of silver contacts ensures a long life expectancy and safe use in demanding conditions

### 125-160 A:

- Available also with yellow front plate and red toggle (Y/R)

### 200-250 A:

- 3-pole and 4-pole
- Available with terminal covers and phase barriers (LS/VS)
- Available also with red toggle (R)

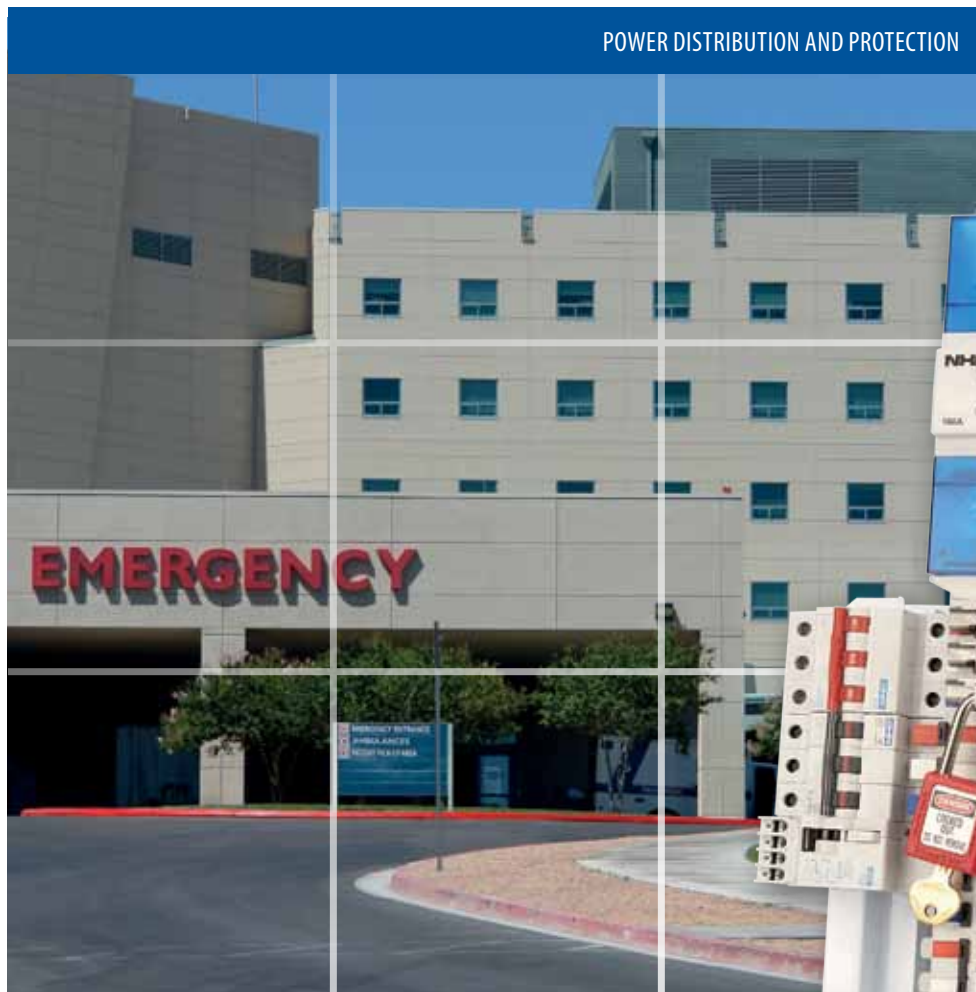


Type	AC-21		AC-22		AC-23		EAN-Code	Weight kg
	400 V	415 V	400 V	415 V	400 V	415 V		
EVA 3125+K/EVA	160 A		125 A		80 A	45 kW	6419410202517	0.51
EVA 3160+K/EVA	200 A		160 A		105 A	55 kW	6419410203019	0.51
EVA 3125+K/EVA R	160 A		125 A		80 A	45 kW	6419410202524	0.51
EVA 3160+K/EVA R	200 A		160 A		105 A	55 kW	6419410203026	0.51
EVA 3125+K/EVA Y/R	160 A		125 A		80 A	45 kW	6419410202531	0.51
EVA 3160+K/EVA Y/R	200 A		160 A		105 A	55 kW	6419410203033	0.51

	$I_n$ / A	$I_n$ / A	$I_n$ / A	P / kW		
<b>3-pole</b>						
EVA 3200	200 A	200 A	160 A	75 kW	6419410203156	0.9
EVA 3250	250 A	250 A	200 A	90 kW	6419410203200	0.9
EVA 3200 R	200 A	200 A	160 A	75 kW	6419410203163	0.9
EVA 3250 R	250 A	250 A	200 A	90 kW	6419410203217	0.9
EVA 3200 LS/VS	200 A	200 A	160 A	75 kW	6419410203170	0.9
EVA 3250 LS/VS	250 A	250 A	200 A	90 kW	6419410203224	0.9
EVA 3200 R LS/VS	200 A	200 A	160 A	75 kW	6419410203187	0.9
EVA 3250 R LS/VS	250 A	250 A	200 A	90 kW	6419410203321	0.9
<b>4-pole</b>						
EVA 4200	200 A	200 A	160 A	75 kW	6419410203262	1.1
EVA 4250	250 A	250 A	200 A	90 kW	6419410203309	1.1
EVA 4200 R	200 A	200 A	160 A	75 kW	6419410203279	1.1
EVA 4250 R	250 A	250 A	200 A	90 kW	6419410203316	1.1
EVA 4200 LS/VS	200 A	200 A	160 A	75 kW	6419410203286	1.2
EVA 4250 LS/VS	250 A	250 A	200 A	90 kW	6419410203323	1.2
EVA 4200 R LS/VS	200 A	200 A	160 A	75 kW	6419410203293	1.2
EVA 4250 R LS/VS	250 A	250 A	200 A	90 kW	6419410203330	1.2

# Katko Isolator and Grizz-Bar Chassis

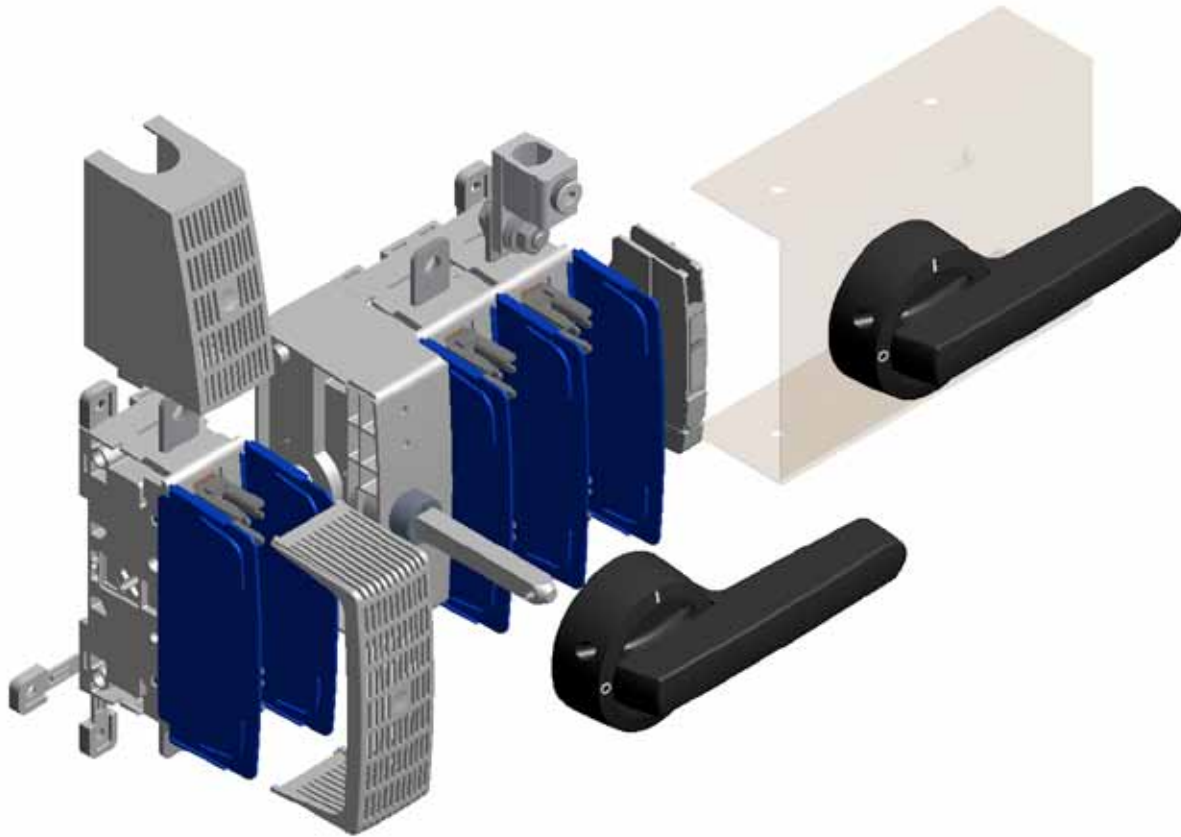
World leading isolating switch matched with innovative busbar solutions.



- Direct connection of Katko isolator to the Grizz-Bar
- Installed in tens of thousands of projects throughout Australia
- Ideal in critical applications such as hospitals and data centres
- Maximum safety and reliability

NHP in Australia is using KATKO's EVA 3250 in Pan Assemblies, for example with Grizz-Bar Isolation Chassis.

## LOAD BREAK SWITCHES 125-630 A TECHNICAL DATA FOR VKE SERIES



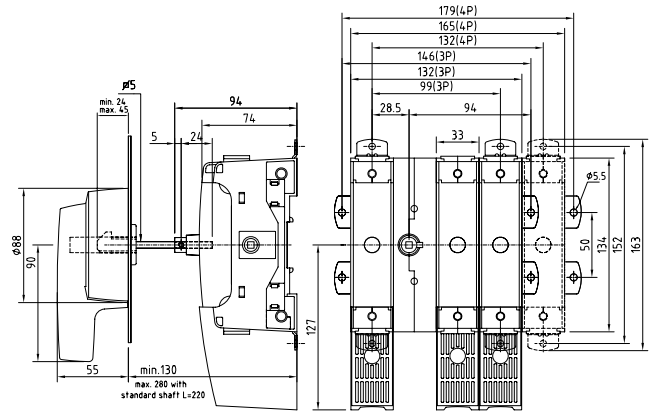
Structure of a modular switch fuse

LOAD BREAK SWITCHES		125 A	160 A	200 A	250 A	315 A	400 A	630 A
Rated insulation voltage, $U_i$ [V]		690	690	1000	1000	1000	1000	1000
Rated thermal current, $I_{th}$ [A]		160	160	200	250	315	400	630
Nominal values with cable size [mm <sup>2</sup> ]		70	70	95	120	185	240	2x185
Rated operational current, $I_o$ [A]								
AC-21	400/415V	160	160	200	250	315	400	630
	500V	160	160	200	250	315	400	630
	690V	160	160	200	250	315	400	630
AC-22	400/415V	125	160	200	250	315	400	630
	500V	125	160	200	250	315	400	630
	690V	125	160	200	250	315	400	630
AC-23	400/415V	125	125	200	250	315	400	630
	500V	125	125	200	250	315	400	500
	690V	125	125	200	250	315	400	500
Rated operational power for 3-phase (1500 r.p.m.) squirrel cage induction motors [kW]								
AC-23	400/415V	55	55	110	132	160	200	355
	500V	75	75	132	160	200	250	355
	690V	90	90	160	250	315	355	500
Rated fused short circuit current								
Back-up fuse [A]		125	160	250	250	400	400	630
R.M.S. value, $I_k$ [kA]		50	25	50	50	50	50	50
Peak value [kA]		11	11	18	18	26	26	32
Impulse withstand voltage, $U_{imp}$ [kV]		8	8	12	12	12	12	12
Rated short circuit making capacity, $I_{cm}$ [kA]								
	690V	6	6	7	7	12	12	17
Rated short time withstand current (1 s), $I_{scw}$ [kA]								
	690V	4	4	5	5	7	7	10
Rated breaking capacity, $I_{bn}$ [A]								
AC-23	400/415V	1000	1000	1600	2000	2520	3200	5040
	500V	1000	1000	1600	2000	2520	3200	4000
	690V	1000	1000	1600	2000	2520	3200	4000
Electrical endurance (number of operations)		2000	2000	2000	2000	2000	2000	2000
Mechanical endurance (number of operations)		16000	16000	16000	16000	1000	10000	10000
Terminals / Bolt size Cu [mm <sup>2</sup> ]		6-70	6-70	M10	M10	M10	M10	M12
Max terminal torque [Nm]		6	6	30-44	30-44	30-44	30-44	50-75

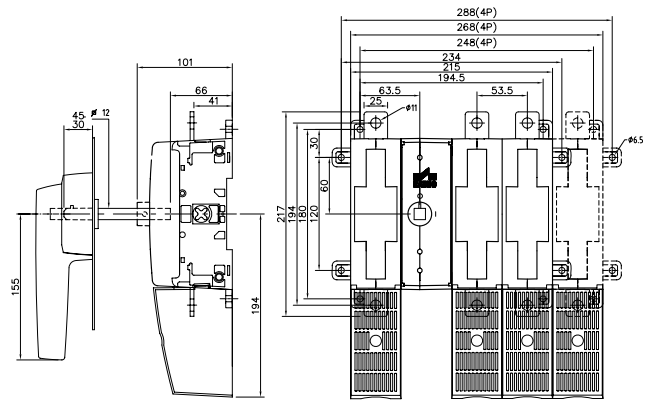
# LOAD BREAK SWITCHES VKE SERIES



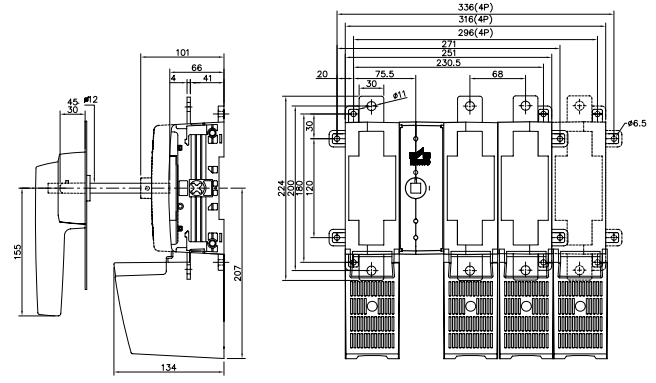
VKE 125-160 A



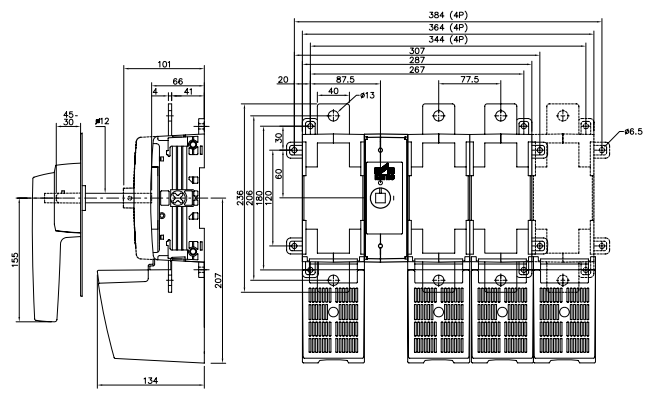
VKE 200-250 A



VKE 315-400 A



VKE 630 A



## LOAD BREAK SWITCHES VKE SERIES

- The modular structure enables the drive mechanism position to be varied
- Front operated
- Available as 1-,2-,3- and 4-pole
- Available with terminal covers (LS)
- Easy to install auxiliary contacts
- 125-160 A** Includes shaft L=220 AD12/T and LK12 handle
- 200-630 A** includes shaft LVK=228 and LK14 handle

Type	AC-21 400 V 415 V 690 V I <sub>e</sub> / A	AC-22 400 V 415 V 690 V I <sub>e</sub> / A	AC-23 I <sub>e</sub> / A	400 V 415 V P / kW	AC-23 I <sub>e</sub> / A	690 V P / kW	EAN-Code	Weight kg
VKE 3125	160 A	125 A	125 A	55 kW	125 A	90 kW	6419410205006	1,6
VKE 3160	160 A	160 A	125 A	55 kW	125 A	90 kW	6419410205013	1,6
VKE 3125 NT	160 A	125 A	125 A	55 kW	125 A	90 kW	6419410285848	1,9
VKE 3160 NT	160 A	160 A	125 A	55 kW	125 A	90 kW	6419410285855	1,9
<b>4-pole</b>								
VKE 4125	160 A	125 A	125 A	55 kW	125 A	90 kW	6419410205020	1,9
VKE 4160	160 A	160 A	125 A	55 kW	125 A	90 kW	6419410205037	1,9

Type	AC-21 400 V 415 V 690 V I <sub>e</sub> / A	AC-22 400 V 415 V 690 V I <sub>e</sub> / A	AC-23 I <sub>e</sub> / A	400 V 415 V P / kW	AC-23 I <sub>e</sub> / A	690 V P / kW	EAN-Code	Weight kg
VKE 3200	200 A	200 A	200 A	110 kW	200 A	160 kW	6419410280010	4,0
VKE 3250	250 A	250 A	250 A	132 kW	250 A	250 kW	6419410280119	4,0
VKE 3200 NT	200 A	200 A	200 A	110 kW	200 A	160 kW	6419410285862	4,6
VKE 3250 NT	250 A	250 A	250 A	132 kW	250 A	250 kW	6419410285879	4,6
<b>4-pole</b>								
VKE 4200	200 A	200 A	200 A	110 kW	200 A	160 kW	6419410280027	4,6
VKE 4250	250 A	250 A	250 A	132 kW	250 A	250 kW	6419410280126	4,6
<b>6-pole</b>								
VKE 6200	200 A	200 A	200 A	110 kW	200 A	160 kW	6419410280607	6,3
VKE 6250	250 A	250 A	250 A	132 kW	250 A	250 kW	6419410280652	6,3

Type	AC-21 400 V 415 V 690 V I <sub>e</sub> / A	AC-22 400 V 415 V 690 V I <sub>e</sub> / A	AC-23 I <sub>e</sub> / A	400 V 415 V P / kW	AC-23 I <sub>e</sub> / A	690 V P / kW	EAN-Code	Weight kg
VKE 3315	315 A	315 A	315 A	160 kW	315 A	315 kW	6419410285886	4,6
VKE 3400	400 A	400 A	400 A	200 kW	400 A	355 kW	6419410280133	4,6
VKE 3315 NT	315 A	315 A	315 A	160 kW	315 A	315 kW	6419410285893	5,4
VKE 3400 NT	400 A	400 A	400 A	200 kW	400 A	355 kW	6419410285916	5,4
<b>4-pole</b>								
VKE 4315	315 A	315 A	315 A	160 kW	315 A	315 kW	6419410285909	5,4
VKE 4400	400 A	400 A	400 A	200 kW	400 A	355 kW	6419410280140	5,4
<b>6-pole</b>								
VKE 6315	315 A	315 A	315 A	160 kW	315 A	315 kW	6419410280706	7,2
VKE 6400	400 A	400 A	400 A	200 kW	400 A	355 kW	6419410280737	7,2

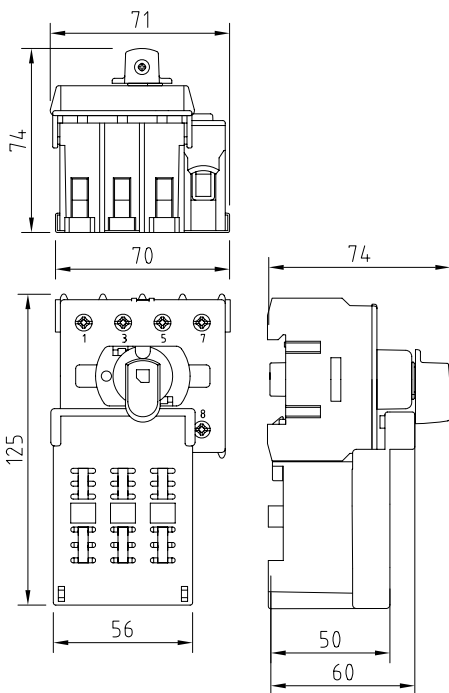
Type	AC-21 400 V 415 V 690 V I <sub>e</sub> / A	AC-22 400 V 415 V 690 V I <sub>e</sub> / A	AC-23 I <sub>e</sub> / A	400 V 415 V P / kW	AC-23 I <sub>e</sub> / A	690 V P / kW	EAN-Code	Weight kg
VKE 3630	630 A	630 A	630 A	355 kW	500 A	500 kW	6419410284858	5,3
VKE 3630 NT	630 A	630 A	630 A	355 kW	500 A	500 kW	6419410284865	6,6
<b>4-pole</b>								
VKE 4630	630 A	630 A	630 A	355 kW	500 A	500 kW	6419410280164	6,6
<b>6-pole</b>								
VKE 6630	630 A	630 A	630 A	355 kW	500 A	500 kW	6419410280751	10,6



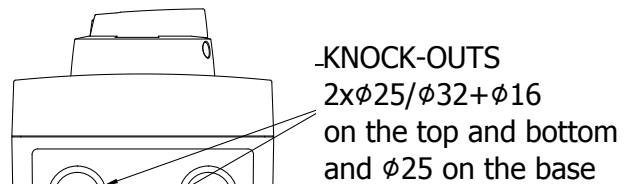
## SWITCH FUSES 16-32 A KKV SERIES



- Available as 1-, 2-, 3- and 4-pole
- Consists of a KU-switch and a KV 10 x 38 fuse holder
- Compatible with handles LK10 and LK11
- Shafts L=100/200/300 AD11 and L=100/200/300 AD11/VT



KKV



KKVM

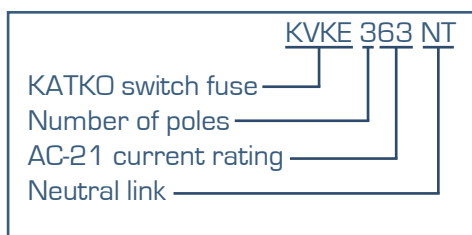
Type	AC-21	400 V 415 V 690 V	AC-22	400 V 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	EAN-Code	Weight kg
	$I_n / A$	$I_n / A$	$I_n / A$	$I_n / A$	P / kW	$I_n / A$	P / kW			
<b>3-pole</b>										
KKV 316	16 A	16 A	16 A	16 A	7,5 kW	16 A	11 kW	11 kW	6419410212608	0,32
KKV 325	25 A	25 A	25 A	25 A	11 kW	25 A	22 kW	22 kW	6419410212707	0,32
KKV 332	32 A	32 A	32 A	32 A	15 kW	32 A	30 kW	30 kW	6419410212806	0,32
<b>4-pole</b>										
KKV 416	16 A	16 A	16 A	16 A	7,5 kW	16 A	11 kW	11 kW	6419410212653	0,36
KKV 425	25 A	25 A	25 A	25 A	11 kW	25 A	22 kW	22 kW	6419410212752	0,36
KKV 432	32 A	32 A	32 A	32 A	15 kW	32 A	30 kW	30 kW	6419410212851	0,36

## SWITCH FUSES 20-630 A TECHNICAL DATA FOR KVKE SERIES

SWITCH FUSES		20A	32A	63A	80A	100A	125A	160A	200A	250A	315A	400A	630A
Rated insulation voltage, $U_i$ [V]		1000	1000	690	690	690	690	690	1000	1000	1000	1000	1000
Rated thermal current, $I_{th}$ [A] <sup>1)</sup>		20	32	63	80	100	125	160	200	250	315	400	630
Nominal values with cable size (mm <sup>2</sup> )		4	6	16	25	35	50	70	95	120	185	240	2x185
Rated operational current, $I_e$ [A]													
AC-21	400/415V	20	32	63	80	100	125	160	200	250	315	400	630
	500V	-	-	63	80	100	125	160	200	250	315	400	630
	690V	-	-	63	80	100	125	160	200	250	315	400	630
AC-22	400/415V	20	32	63	80	100	125	160	200	250	315	400	630
	500V	-	-	63	80	100	125	160	200	250	315	400	630
	690V	-	-	63	80	100	125	160	200	250	315	400	630
AC-23	400/415V	20	32	63	80	100	125	125	200	250	315	400	630
	500V	-	-	63	80	100	125	125	200	250	315	400	500
	690V	-	-	63	80	100	125	125	200	250	315	400	500
Rated operational power for 3-phase (1500 r.p.m.) squirrel cage induction motors (kW)													
AC-23	400/415V	10	15	30	45	55	55	55	110	132	160	200	355
	500V	-	-	37	55	55	75	75	132	160	200	250	355
	690V	-	-	55	75	90	110	110	160	250	315	355	500
Rated fused short circuit current													
Back-up fuse [A]		32	32	63	80	100	125	160	200	250	400	400	630
R.M.S. value, $I_k$ [kA]		50	50	50	50	50	50	25	50	50	50	50	50
Peak value [kA]		-	-	11	11	11	11	11	18	18	26	26	32
Impulse withstand voltage, $U_{imp}$ [kV]		8	8	8	8	8	8	8	12	12	12	12	12
Rated short circuit making capacity, $I_{cm}$ [kA]													
690V		-	-	6	6	6	6	6	7	7	12	12	17
Rated short time withstand current (1 s), $I_{cw}$ [kA]													
690V		-	-	4	4	4	4	4	5	5	7	7	10
Rated breaking capacity, $I_{cn}$ [A]													
AC-23	400/415V	160	256	504	640	800	1000	1000	1600	2000	2520	3200	5040
	500V	-	-	504	640	800	1000	1000	1600	2000	2520	3200	4000
	690V	-	-	504	640	800	1000	1000	1600	2000	2520	3200	4000
Electrical endurance (operations)		2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Mechanical endurance (operations)		20000	20000	20000	20000	20000	20000	20000	16000	16000	10000	10000	10000
Terminals / Bolt size Cu (mm <sup>2</sup> )		2,5-35	2,5-35	6-70	6-70	6-70	6-70	6-70	M10	M10	M10	M10	M12
Max terminal torque (Nm)		2,2	2,2	6	6	6	6	6	30-44	30-44	30-44	30-44	50-75
Fuse type													
DIN		10x38	10x38	00	00	00	00	00	1	1	2	2	3
BS88		A1	A1	A2-A3	A2-A3	A2-A3	A2-A3	A2-A3	B1-B2	B1-B3	B1-B4	B1-B4	B1-B4
- size of screws		M4	M4	M5	M5	M5	M5	M5	M8	M8	M8	M8	M8
- fixing centres (mm)		44,5	44,5	73	73	73	73	73	111	111	111	111	111
- torque (Nm)		1,8	1,8	3	3	3	3	3	15	15	15	15	15

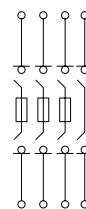
### NEUTRAL LINKS FOR KVKE SWITCH FUSES

All KVKE switches are available with the neutral links specified below. Product code example:

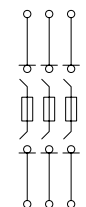


<sup>1)</sup> KVKE 63-630A mounting in horizontal position:  
Derating 0% in ventilated enclosure, ambient temperature  $\leq 40$  °C  
Derating 5% totally enclosed (KVKE 63-400A)  
Derating 8% totally enclosed (KVKE 630A)

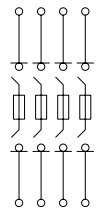
Switched neutral (all standard 4P switch fuses)



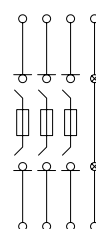
Solid neutral, NT  
Uninsulated solid neutral, NU



Fused switched neutral, F



Detachable neutral, NL

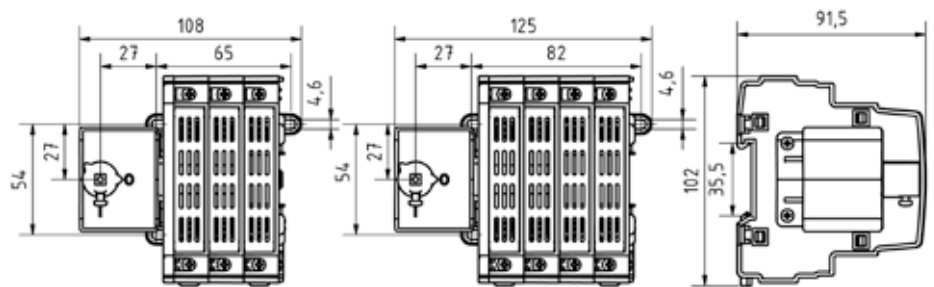


## SWITCH FUSES 20-160 A KVKE SERIES



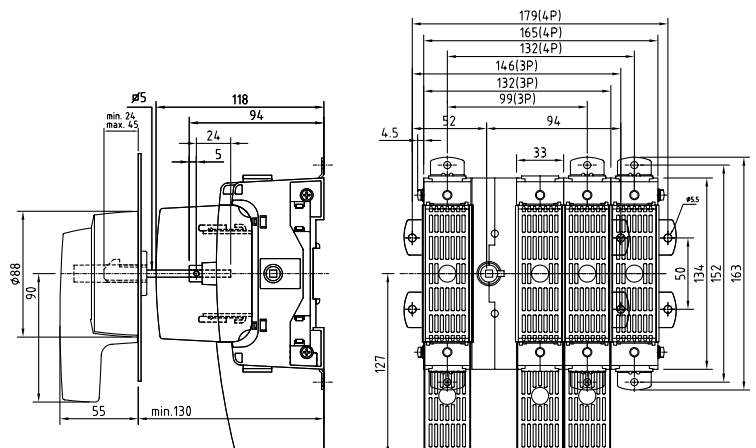
KVKE 20-32 A

- 10x38 & BS A1 fuse versions
- DIN rail and screw base mounting as standard
- Available as 3-pole and 4-pole version, 1-pole and 2-pole versions on request
- Handle LK10 and shaft L=180 mm included, suitable for 250 mm deep panel boards
- Fuse covers included
- Black or yellow/red handle, add Y/R to description



KVKE 63-160 A

- DIN & BS fuse versions
- Four breaking points per phase
- Connecting silver rivets have a silver alloy 350 um thick, thus ensuring a long life expectancy and safe use in demanding conditions
- Compact size saves space
- Modular structure enables position of drive mechanism to be varied
- Available as 1-,2-,3- and 4-pole (200-630 A also 6-pole)
- Black or yellow/red handle (add Y/R to description)
- Auxiliary contacts are easy to install
- Fuse covers included, terminal covers as accessory
- 63-160 A** includes handle LK12 and shaft L=220
- 200-630 A** includes handle LK14 and shaft LVK=228



## SWITCH FUSES 20-160 A KVKE SERIES

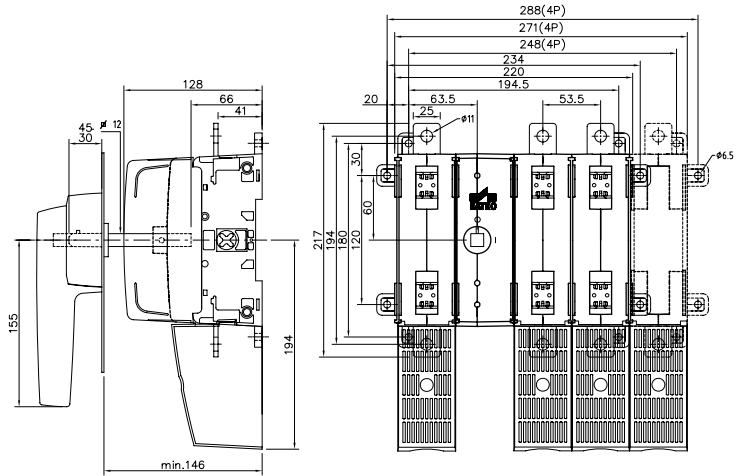
Type	AC-21	400 V	AC-22	400 V	AC-23	400 V	EAN-Code	Weight kg
		415 V		415 V		415 V		
	I <sub>e</sub> / A		I <sub>e</sub> / A		I <sub>e</sub> / A	P / kW		
<b>DIN fuse version</b>								
<b>3-pole</b>								
KVKE 320	20 A		20 A		20 A	10 kW	6419410289006	0,55
KVKE 332	32 A		32 A		32 A	15 kW	6419410289013	0,55
<b>4-pole</b>								
KVKE 420	20 A		20 A		20 A	10 kW	6419410289020	0,68
KVKE 432	32 A		32 A		32 A	15 kW	6419410289037	0,68
<b>BS fuse version</b>								
<b>3-pole</b>								
KVKE 320 BS	20 A		20 A		20 A	10 kW	6419410285220	0,55
KVKE 332 BS	32 A		32 A		32 A	15 kW	6419410285244	0,55
<b>4-pole</b>								
KVKE 420 BS	20 A		20 A		20 A	10 kW	6419410285237	0,68
KVKE 432 BS	32 A		32 A		32 A	15 kW	6419410285251	0,68

Type	AC-21	400 V	AC-22	400 V	AC-23	400 V	AC-23	690 V	EAN-Code	Weight kg
		415 V		415 V		415 V				
	I <sub>e</sub> / A		I <sub>e</sub> / A		I <sub>e</sub> / A	P / kW	I <sub>e</sub> / A	P / kW		
<b>DIN FUSE VERSION</b>										
<b>3-pole</b>										
KVKE 363	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410286029	1,7
KVKE 380	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410286043	1,7
KVKE 3100	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410286067	1,7
KVKE 3125	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410286081	1,7
KVKE 3160	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410286104	1,7
KVKE 363 NT	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410285640	2,0
KVKE 380 NT	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410284377	2,0
KVKE 3100 NT	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410284384	2,0
KVKE 3125 NT	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410285657	2,0
KVKE 3160 NT	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410285664	2,0
KVKE 363 NL	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410285749	2,0
KVKE 380 NL	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410284452	2,0
KVKE 3100 NL	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410284469	2,0
KVKE 3125 NL	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410285756	2,0
KVKE 3160 NL	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410285763	2,0
<b>4-pole</b>										
KVKE 463	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410286128	2,0
KVKE 480	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410286142	2,0
KVKE 4100	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410286166	2,0
KVKE 4125	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410286180	2,0
KVKE 4160	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410286203	2,0
KVKE 463 F	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410285541	2,0
KVKE 480 F	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410284292	2,0
KVKE 4100 F	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410284308	2,0
KVKE 4125 F	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410285558	2,0
KVKE 4160 F	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410285565	2,0
<b>BS FUSE VERSION</b>										
<b>3-pole</b>										
KVKE 363 BS	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410286227	1,7
KVKE 380 BS	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410286241	1,7
KVKE 3100 BS	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410286265	1,7
KVKE 3125 BS	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410286289	1,7
KVKE 3160 BS	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410285312	1,7
KVKE 363 NT BS	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410285695	2,0
KVKE 380 NT BS	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410284414	2,0
KVKE 3100 NT BS	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410284421	2,0
KVKE 3125 NT BS	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410285701	2,0
KVKE 3160 NT BS	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410285718	2,0
KVKE 363 NL BS	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410285794	2,0
KVKE 380 NL BS	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410284490	2,0
KVKE 3100 NL BS	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410284506	2,0
KVKE 3125 NL BS	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410285800	2,0
KVKE 3160 NL BS	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410285817	2,0
<b>4-pole</b>										
KVKE 463 BS	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410286302	2,0
KVKE 480 BS	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410286326	2,0
KVKE 4100 BS	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410286340	2,0
KVKE 4125 BS	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410286364	2,0
KVKE 4160 BS	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410285350	2,0
KVKE 463 F BS	63 A		63 A		63 A	30 kW	63 A	55 kW	6419410285596	2,0
KVKE 480 F BS	80 A		80 A		80 A	45 kW	80 A	75 kW	6419410284339	2,0
KVKE 4100 F BS	100 A		100 A		100 A	55 kW	100 A	90 kW	6419410284346	2,0
KVKE 4125 F BS	125 A		125 A		125 A	55 kW	125 A	110 kW	6419410285602	2,0
KVKE 4160 F BS	160 A		160 A		125 A	55 kW	125 A	110 kW	6419410285619	2,0

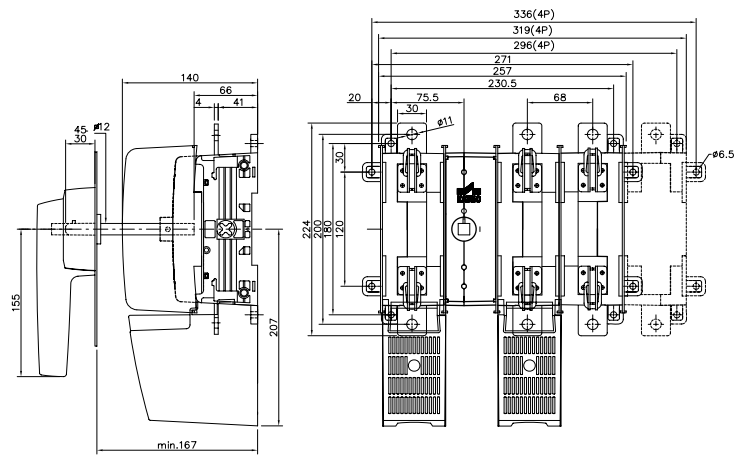
# SWITCH FUSES 200-630 A KVKE



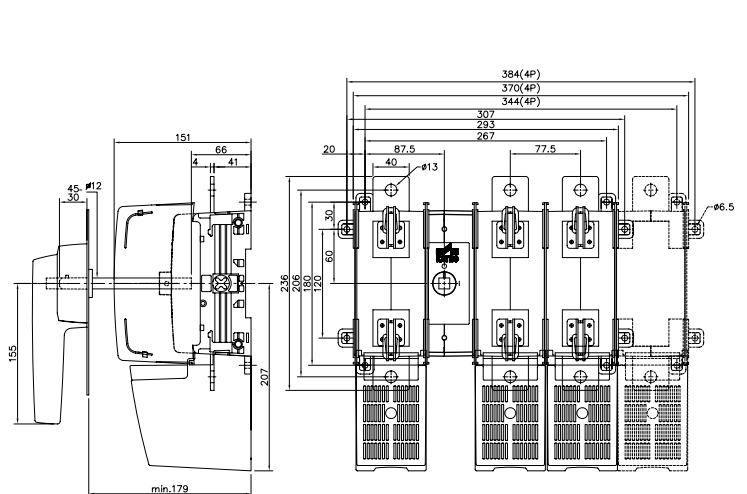
KVKE 200-250 A



KVKE 315-400 A



KVKE 630 A



## SWITCH FUSES 200-630 A KVKE

Type	AC-21	400 V 415 V 690 V	AC-22	400 V 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	EAN-Code	Weight kg
	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	I <sub>e</sub> / A	P / kW	I <sub>e</sub> / A	P / kW			
<b>DIN FUSE VERSION</b>										
<b>3-pole</b>										
KVKE 3200	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410287682	4,0
KVKE 3250	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410287705	4,0
KVKE 3200 NT	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410284391	4,7
KVKE 3250 NT	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410285671	4,7
KVKE 3200 NL	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410284476	4,7
KVKE 3250 NL	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410285770	4,7
<b>4-pole</b>										
KVKE 4200	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410287699	4,7
KVKE 4250	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410287712	4,7
KVKE 4200 F	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410284315	4,7
KVKE 4250 F	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410285572	4,7
<b>BS FUSE VERSION</b>										
<b>3-pole</b>										
KVKE 3200 BS	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410287644	4,0
KVKE 3250 BS	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410287651	4,0
KVKE 3200 NT BS	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410284438	4,7
KVKE 3250 NT BS	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410285725	4,7
KVKE 3200 NL BS	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410284513	4,7
KVKE 3250 NL BS	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410285824	4,7
<b>4-pole</b>										
KVKE 4200 BS	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410287668	4,7
KVKE 4250 BS	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410287675	4,7
KVKE 4200 F BS	200 A		200 A		200 A	110 kW	200 A	160 kW	6419410284353	4,7
KVKE 4250 F BS	250 A		250 A		250 A	132 kW	250 A	250 kW	6419410285626	4,7
<b>DIN FUSE VERSION</b>										
<b>3-pole</b>										
KVKE 3315	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284537	5,2
KVKE 3400	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410287835	5,2
KVKE 3315 NT	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284407	6,1
KVKE 3400 NT	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410285688	6,1
KVKE 3315 NL	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284483	6,1
KVKE 3400 NL	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410285787	6,1
<b>4-pole</b>										
KVKE 4315	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284544	6,1
KVKE 4400	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410287841	6,1
KVKE 4315 F	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284322	6,1
KVKE 4400 F	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410285589	6,1
<b>BS FUSE VERSION</b>										
<b>3-pole</b>										
KVKE 3315 BS	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284551	5,2
KVKE 3400 BS	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410287941	5,2
KVKE 3315 NT BS	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284445	6,1
KVKE 3400 NT BS	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410285732	6,1
KVKE 3315 NL BS	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284520	6,1
KVKE 3400 NL BS	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410285831	6,1
<b>4-pole</b>										
KVKE 4315 BS	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284568	6,1
KVKE 4400 BS	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410287958	6,1
KVKE 4315 F BS	315 A		315 A		315 A	160 kW	315 A	315 kW	6419410284360	6,1
KVKE 4400 F BS	400 A		400 A		400 A	200 kW	400 A	355 kW	6419410285633	6,1
<b>DIN FUSE VERSION</b>										
<b>3-pole</b>										
KVKE 3630	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284759	6,2
KVKE 3630 NT	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284766	7,4
KVKE 3630 NL	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284773	7,4
<b>4-pole</b>										
KVKE 4630	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284827	7,4
KVKE 4630 F	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284834	7,4
<b>BS FUSE VERSION</b>										
<b>3-pole</b>										
KVKE 3630 BS	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284780	6,2
KVKE 3630 NT BS	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284797	7,4
KVKE 3630 NL BS	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284803	7,4
<b>4-pole</b>										
KVKE 4630 BS	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284735	7,4
KVKE 4630 F BS	630 A		630 A		630 A	355 kW	500 A	500 kW	6419410284919	7,4



NEW KATKO DC isolators installed within a 30kW Solar System at Vines Golf Club (SA), Australia



KATKO switches assembled with commercial washing, automation and specialty equipments for food industry, Kuhl Corporation, Flemington, NJ USA



KATKO safety switches in Mondi Steti White Paper s.r.o., Czech Republic's largest Paper Mill, customer: Siemens Engineering Steti

## DEFINITION

Photovoltaics (PV) is a method of generating electrical power by converting solar radiation into direct current electricity using semiconductors that exhibit the photovoltaic effect.

## ADVANTAGES

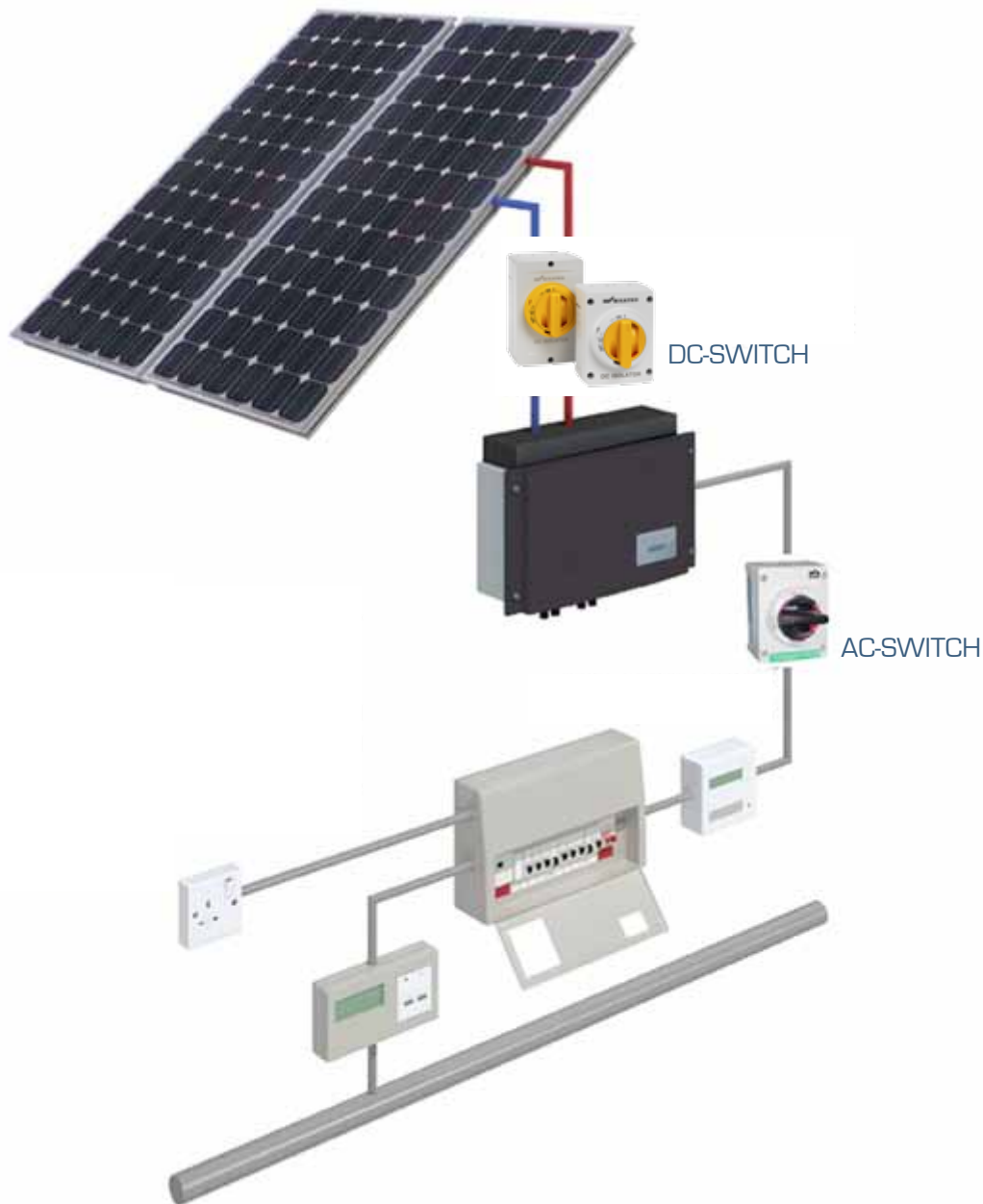
The 122 PW of sunlight reaching the Earth's surface is plentiful – almost 10,000 times more than the 13 TW equivalent of average power consumed in 2005 by humans. This abundance leads to the suggestion that it will not be long before solar energy will become the world's primary energy source. Additionally, solar electric generation has the highest power density (global mean of 170 W/m<sup>2</sup>) among renewable energies.

Solar power is pollution-free during use. Production end-wastes and emissions are manageable using existing pollution controls. End-of-use recycling technologies are under development and policies are being produced that encourage recycling from producers. PV installations can operate for many years with little maintenance or intervention after their initial set-up, so after the initial capital cost of building any solar power plant, operating costs are extremely low compared to existing power technologies. Grid-connected solar electricity can be used locally thus reducing transmission/distribution losses (transmission losses in the US were approximately 7.2% in 1995).

Compared to fossil and nuclear energy sources, very little research money has been invested in the development of solar cells, so there is considerable room for improvement. Nevertheless, experimental high efficiency solar cells already have efficiencies of over 40% in case of concentrating photovoltaic cells and efficiencies are rapidly rising while mass-production costs are rapidly falling.







### KATKO WITH PHOTOVOLTAICS

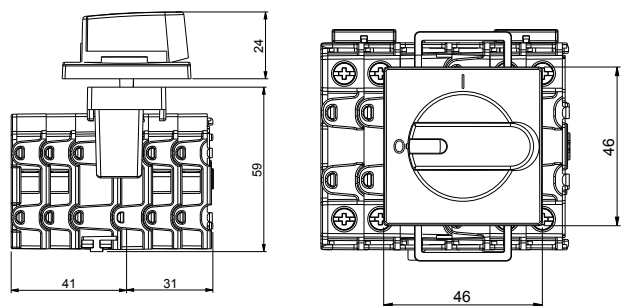
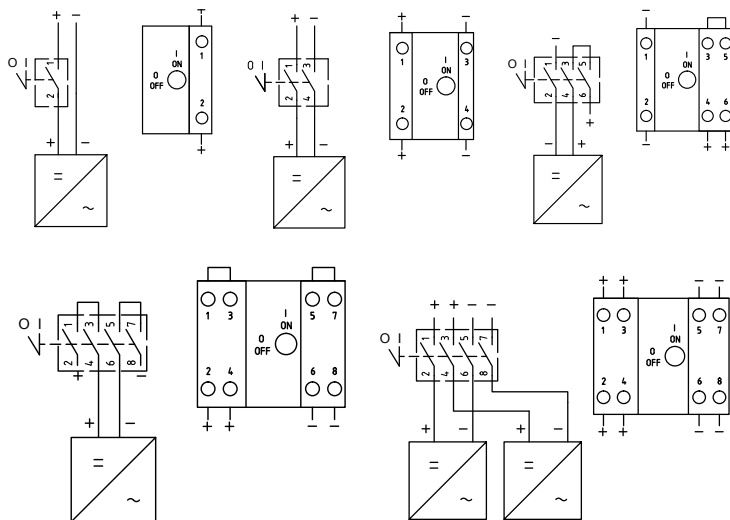
We here at KATKO are committed to develop our products to be the best possible solution for PV systems to speed up the usage of renewable energies in electricity production throughout the world. We strongly believe that renewable energy is the key component for building a cleaner, better environment for the future generations to live.

We are constantly developing and testing new products for photovoltaic systems, to grow our PV/DC product range. Please feel free to contact KATKO for any enquiries on this matter, and we'll help you to find the best solution to fit your needs.

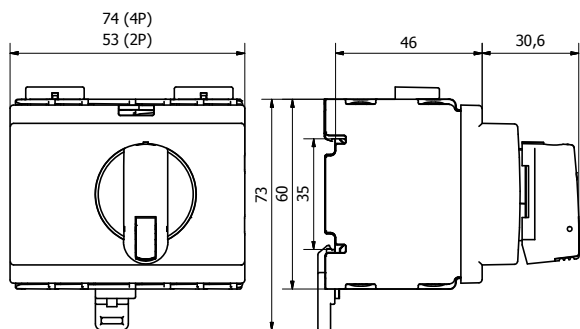
## PHOTOVOLTAIC DC SWITCH DISCONNECTOR



- Up to 32 A 1200 V DC, DC21B
- Compact size DC load break switch (PV)
- 1, 2, 3 and 4 pole versions
- Compatible with K/PV 2P and K/PV 4P front plates, LK10 handle and L=100/200/300 AD11 shafts
- Wide operating temperature range
- Padlockable LK10
- LK10 with door interlock with defeat mechanism



PV with OKA/PV 4P



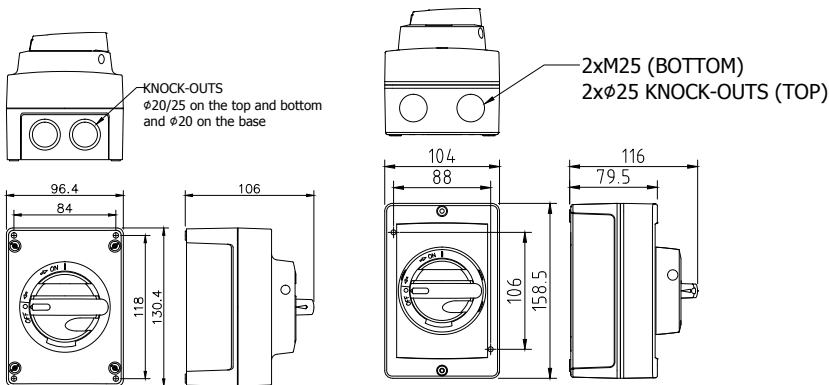
PV with K/PV 4P

Type	DC-21B	EAN-Code 6419410...	Weight kg
<b>2-pole - open type</b>			
PV 216	16A 1000V	...216187	0,14
PV 225	20A 1000V	...216194	0,14
PV 232	25A 1000V	...216200	0,14
<b>4-pole</b>			
PV 416	16A 1200V	...216248	0,21
PV 425	25A 1200V	...216255	0,21
PV 432	32A 1200V	...216262	0,21
VKE 440 DC	40A 600V	...212288	0,68
<b>6-pole</b>			
VKE 6250 DC	200A 1000V	...212301	6,5
<b>2-pole - Polycarbonate enclosure</b>			
PVM 216	16A 1000V	...325445	0,35
PVM 225	20A 1000V	...325452	0,35
PVM 232	25A 1000V	...325469	0,35
<b>4-pole - Polycarbonate enclosure</b>			
PVM 416	16A 1200V	...325506	0,42
PVM 425	25A 1200V	...325513	0,42
PVM 432	32A 1200V	...325520	0,42
VKEM 440U DC	40A 600V	...328088	1
<b>6-pole - Polycarbonate enclosure</b>			
KEM 6250 DC	200A 1000V	...328125	25,5
<b>2-pole - Aluminium enclosure</b>			
PVA 216	16A 1000V	...333280	0,75
PVA 225	20A 1000V	...333297	0,75
PVA 232	25A 1000V	...333303	0,75
<b>4-pole - Aluminium enclosure</b>			
PVA 416	16A 1200V	...333341	0,82
PVA 425	25A 1200V	...333358	0,82
PVA 432	32A 1200V	...333365	1,29

## ENCLOSED DC ISOLATOR SWITCH DISCONNECTOR



- Up to 32 A 1200 V DC, DC21B
- Available in Polycarbonate and Aluminium enclosures
- IP 66; Enclosure types U2 (PVM) and A2 (PVA)
- Self-extinguishing material
- Wide operating temperature range
- Padlockable
- Door interlock with defeat mechanism
- Excellent insulating properties
- Good UV resistance
- Good resistance against many chemicals



Accessories	Description	EAN-Code 6419410...
<b>Direct handles</b>		
K/PV 2P	2 pole	...216347
K/PV 4P	4 pole	...216316
<b>Door mounting kits</b>		
OKA/PV 2.P	2 pole	...224908
OKA/PV 4.P	4 pole	...224915
<b>Handles</b>		
LK 10	black handle	...222539
LK 10 Y/R	yellow/red handle	...222553
LK 10Y	yellow handle	...222799
<b>Shafts</b>		
L 100 AD11	100mm steel shaft	...253106
L 200 AD11	200mm steel shaft	...253113
L 300 AD11	300mm steel shaft	...253120

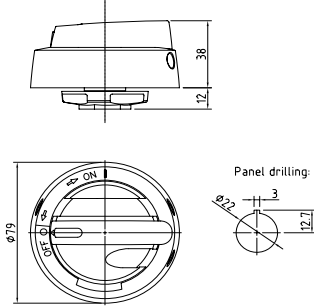
Load Break Switch		PV 216	PV 225	PV 232	PV 416	PV 425	PV 432	VKE 440 DC	VKE 6250 DC
Safety Switch, POLYCARBONATE (U2)		PVM 216	PVM 225	PVM 232	PVM 416	PVM 425	PVM 432	VKEM 440U DC*	KEM 6250 DC**
Safety Switch, ALUMINIUM (A2)		PVA 216	PVA 225	PVA 232	PVA 416	PVA 425	PVA 432		
Number of poles in series		2	2	2	4	4	4	4	6
Rated insulation voltage	Ui (V)	1200	1200	1200	1200	1200	1200	1000	1000
Impulse withstand voltage	Uimp(kV)	8	8	8	8	8	8	8	12
Rated thermal current, open air	Ith (A)	16	25	32	16	25	32	40	200
Rated thermal current, enclosed ambient +40°C	Ithe (A)	16	25	32	16	25	32	40	200
Rated thermal current, enclosed ambient +60°C	Ithe (A)	16	25	32	16	25	32	40	200
Nominal values with cable size (mm <sup>2</sup> )		2,5	4	6	2,5	4	6	16	95
Rated operational current DC-21B	Ue (VDC)								
	300V	16	25	32	16	25	32	40	200
	400V	16	25	32	16	25	32	40	200
	500V	16	25	32	16	25	32	40	200
	600V	16	25	32	16	25	32	40	200
	700V	16	20	25	16	25	32	32	200
	800V	16	20	25	16	25	32	32	200
	900V	16	20	25	16	25	32	-	200
	1000V	16	20	25	16	25	32	-	200
	1200V	10	12	16	16	25	32	-	-
Rated short circuit making capacity	Icm (A)	1100	1100	1100	1100	1100	1100	3,3	7
Rated short time withstand current	Icw (A)	800	800	800	800	800	800	2,3	5
Mechanical endurance		20000	20000	20000	20000	20000	20000	20000	20000
Terminals / *Bolt size	Cu (mm <sup>2</sup> )	1,5-16	1,5-16	1,5-16	1,5-16	1,5-16	1,5-16	2,5-32	M10
Terminal torque	(Nm)	1,8	1,8	1,8	1,8	1,8	1,8	2,5	30-44

\* U4 enclosure, \*\*MF04

## ACCESSORIES HANDLES



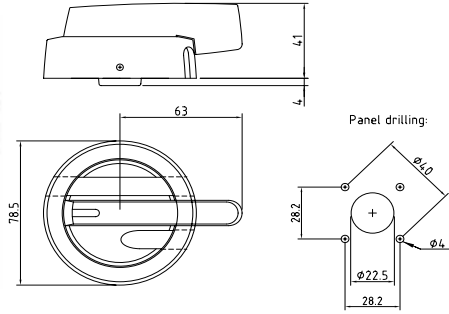
LK10 Y/R



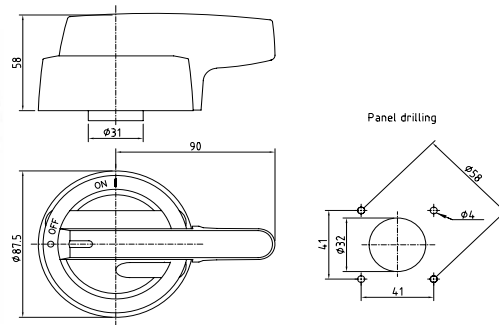
- Padlocking in OFF-position prevents access to the actuator
- Door interlock with defeat mechanism
- Available in black or yellow/red (Y/R)
- LK10: IP66
- LK11: IP66/IP67
- LK12-LK14: IP65



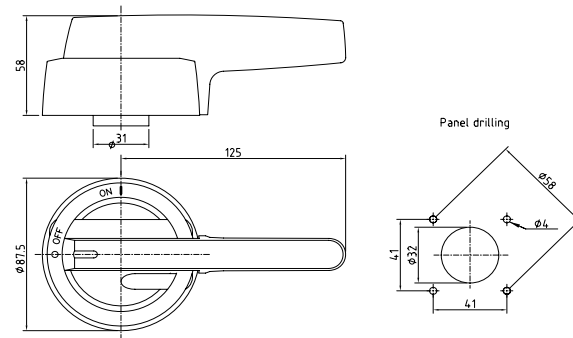
LK11



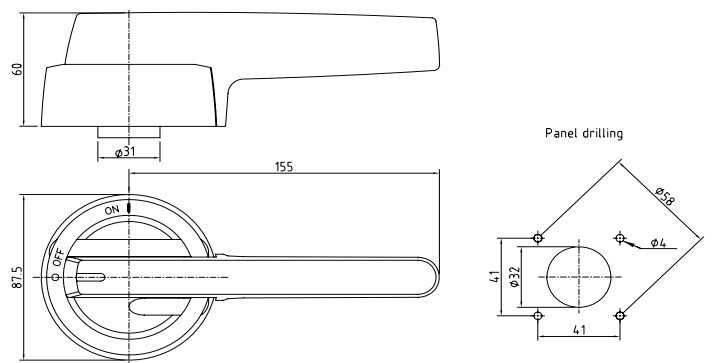
LK12



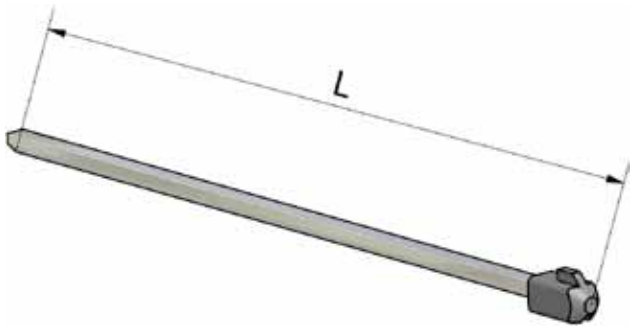
LK13 Y/R



LK 14

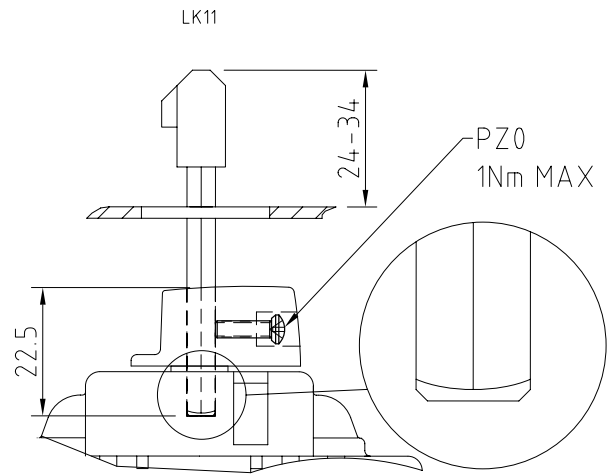
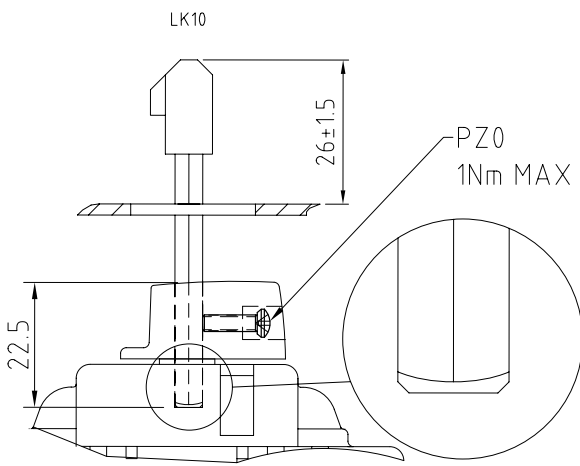


## ACCESSORIES SHAFTS



- With adapter AD11 for LK10 and LK11
- Length 100/200/300 mm
- Available in aluminium, steel (T), or steel and slanted (VT)
- Shafts are easy to cut to the correct length

Dimensioning of the extension shaft  
for LK10 and LK11 handles



Type	For	Description	EAN-code
<b>Handles</b>			
LK10	KU 16-125 A, VKA 125-160 A	Black	6419410222539
LK10 Y/R		Yellow/red	6419410222553
LK11		Black	6419410222607
LK11 Y/R	KU 16-125 A, VKA 125-160 A	Yellow/red	6419410222614
LK12		Black	6419410222683
LK12 Y/R	KVKE/VKE 125-160 A, VKA 200-250 A	Yellow/red	6419410222690
LK13		Black	6419410222645
LK13 Y/R		Yellow/red	6419410222652
LK14	KVKE/VKE 200-400 A	Black	6419410222669
LK14 Y/R		Yellow/red	6419410222676
<b>Shafts</b>			
L=100 AD11	KU/VKA, LK10 & LK11	Length 100 mm, aluminium	6419410253106
L=200 AD11		Length 200 mm, aluminium	6419410253113
L=300 AD11		Length 300 mm, aluminium	6419410253120
L=100 AD11/VT	KU/VKA, LK10 & LK11	Length 100 mm, steel, slanted	6419410253168
L=200 AD11/VT		Length 200 mm, steel, slanted	6419410253175
L=300 AD11/VT		Length 300 mm, steel, slanted	6419410253182
L=100 AD12/T	KVKE 63-160 A, LK12	Length 100 mm, steel	6419410253045
L=200 AD12/T		Length 200 mm, steel	6419410253052
L=300 AD12/T		Length 300 mm, steel	6419410253069
LVK=228	KVKE/VKE 200-630 A, LK13 & LK14	Length 228 mm, steel	6419410221440
LVK=320		Length 320 mm, steel	6419410221426

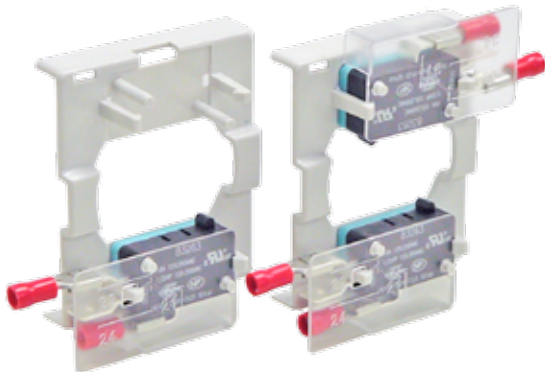
## TERMINAL COVERS



Type	For	EAN-code
<b>Terminal covers</b>		
LS 125	VKE 125-160 A, KVKE 63-160 A	6419410286937
LS 250	VKE 200-250 A, KVKE 200-250 A	6419410287729
LS 400	VKE 315-400 A, KVKE 315-400 A	6419410287866
LS 630	VKE 630 A, KVKE 630 A	6419410284957

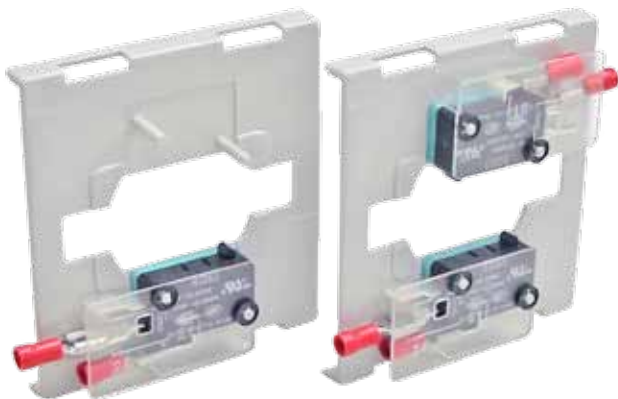
## ACCESSORIES

### AUXILIARY CONTACTS



KU 1.V & KU 2.V

- 1NO+1NC
- 2NO+2NC
- For KU, VKA and VKE switches
- For KVKE switch fuses
- Available with door mounting kit (OKA) with black or yellow/red handle (Y/R)
- Early break, late make
- 16 (4) A 250 VAC (EN 61058-1)

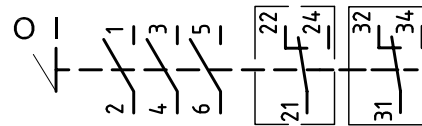


VKA 1.V & VKA 2.V

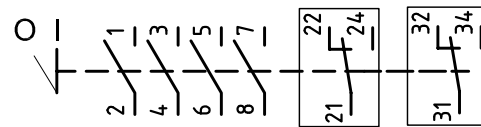


KVKE 1.V

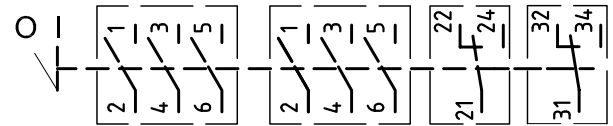
#### SWITCH DIAGRAMS:



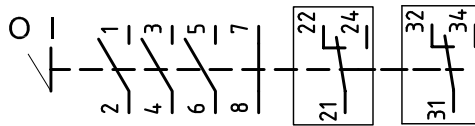
3 pole + 2NC/NO



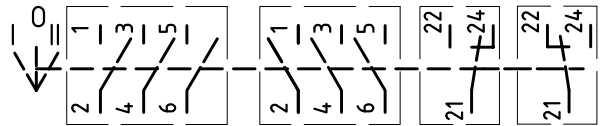
4 pole + 2NC/NO



6 pole + 2NC/NO



3 pole + NT + 2NC/NO



Change-over 3 pole + 2NC/NO

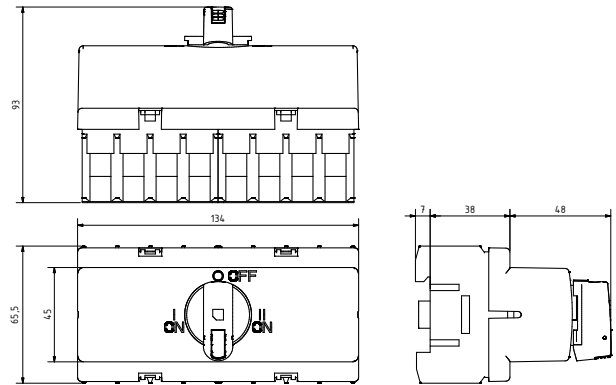
Type	For	Description	EAN-code
<b>Auxiliary contacts</b>			
KU1.V	KU 16-125 A	1NO/1NC	6419410300008
KU2.V		2NO/2NC	6419410300107
VKA 1.V	VKA 125-160 A	1NO/1NC	6419410300206
VKA 2.V		2NO/2NC	6419410300305
VKAC 1.V	VKA 200-250 A	1NO/1NC	6419410300800
VKAC 2.V		2NO/2NC	6419410300909
KVKEC 1.V	VKE/KVKE 20-32 A	1NO/1NC	6419410285039
KVKEC 2.V		2NO/2NC	6419410285046
KVKE 1.V	VKE/KVKE 63-630 A	1NO/1NC	6419410286982
KVKE 2.V		2NO/2NC	6419410287781
VV 1.V	KU3P/4P VV	1NO/1NC	6419410300756
KE 1.V	KE	1NO/1NC	6419410300770
KE 2.V	KE	2NO/2NC	6419410300787
KU 1.V/KKV	KKV	1NO/1NC	6419410300015

## ACCESSORIES

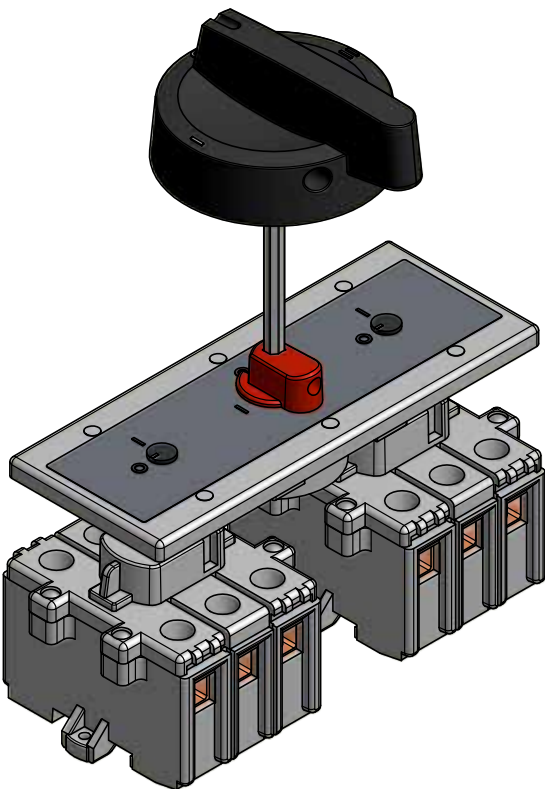
### CHANGE-OVER KIT KU3/4P VV



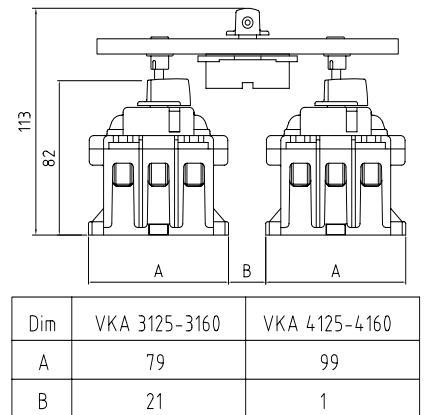
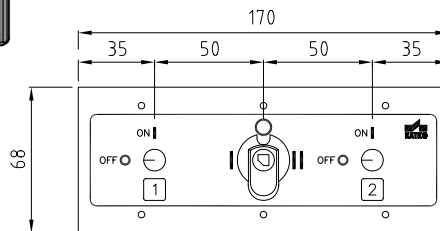
- Compact design for 2 KU-switches (16-125 A, 3-4 poles)
- Fast and easy to install
- Available with black or red direct handle (Y/R)
- Compatible with LK12 1-0-2 handle and L=100/200/300 AD12/VT shaft
- Compatible with auxiliary contact VV 1.V (two can be mounted)



### CHANGE-OVER KIT VV 1-0-2



- For two VKA switches (125-160 A)
- Available with black or yellow/red handle (Y/R)
- Includes handle and shaft
- Compatible with auxiliary contact VKA 1.V & VKA 2.V



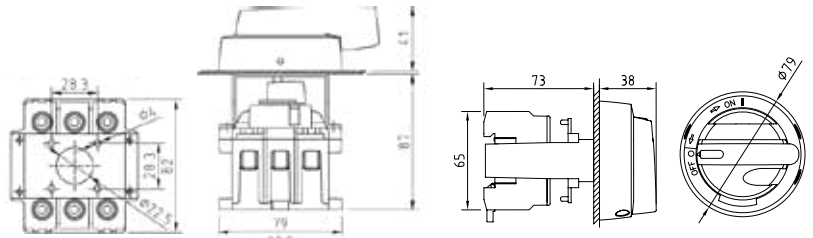
Type	For	Description	EAN-code
<b>Change over kits</b>			
KU3/4P VV	KU 16-125 A	Positions 1, 0, 2, black handle	6419410221624
KU3/4P VV Y/R		Positions 1, 0, 2, red handle	6419410221631
VV 1-0-2	VKA 125-160 A	Positions 1, 0, 2	6419410226407
VV.1-0-2/K		Positions 1, 0, 2 with supporting steel	6419410226421
VV.1-0-2/LK12		Positions 1, 0, 2 with LK12 handle	6419410226605
VV 1-2		CU 16-125 A, VKA 125-160 A	No 0-position
<b>Handles</b>			
LK12 1-0-2	Change-over switches 16-160 A	Black	6419410222737
LK12 1-0-2 Y/R	Change-over switches 16-160 A	Yellow/Red	6419410222744

## ACCESSORIES DOOR MOUNTING KITS



OKA/KU/LK10

- For KU and VKA-switches
- With LK10 or LK11 handle
- Available as black or yellow/red (Y/R)



OKA/VKA/LK11

OKA/KU/LK10

Type	For	Description	EAN-code
OKA/KU/LK10	KU	Black, for 3P switch, with LK10 handle	6419410224656
OKA/KU/LK10 Y/R	KU	Yellow/red, for 3P switch, with LK10 handle	6419410224663
OKA/KU 4P/LK10	KU 4pole	Black, for 4P switch, with LK10 handle	6419410224700
OKA/KU 4P/LK10 Y/R	KU 4pole	Yellow/red, for 4P switch, with LK10 handle	6419410224717
OKA/VKA	VKA	Black, for 3P switch, with LK11 handle	6419410224601
OKA/VKA Y/R	VKA	Yellow/red, for 3P switch, with LK11 handle	6419410224618
OKA/VKA 4P	VKA 4pole	Black, for 4P switch, with LK11 handle	6419410224762
OKA/VKA 4P Y/R	VKA 4pole	Yellow/red, for 4p switch, with LK11 handle	6419410224779

## LOAD BREAK SWITCHES 16 - 160 A FRONT PLATES FOR KU AND VKA

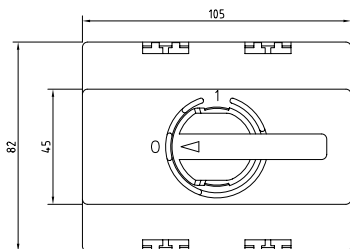


K/VKA 3-4P

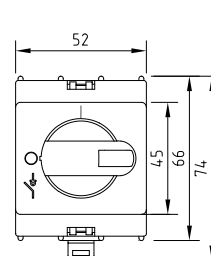
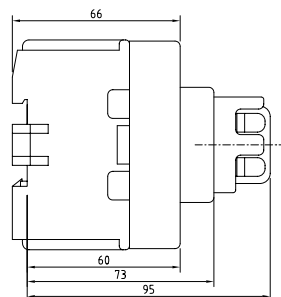


K/KU 3P

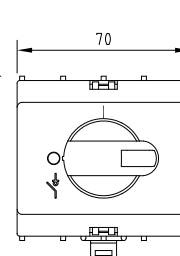
- Front plates for KU and VKA switches with direct handle
- Available in grey-black, and in yellow-red (Y/R)



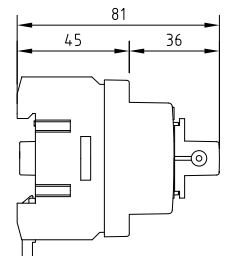
K/VKA 3-4P



K/KU 3P



K/KU 4P



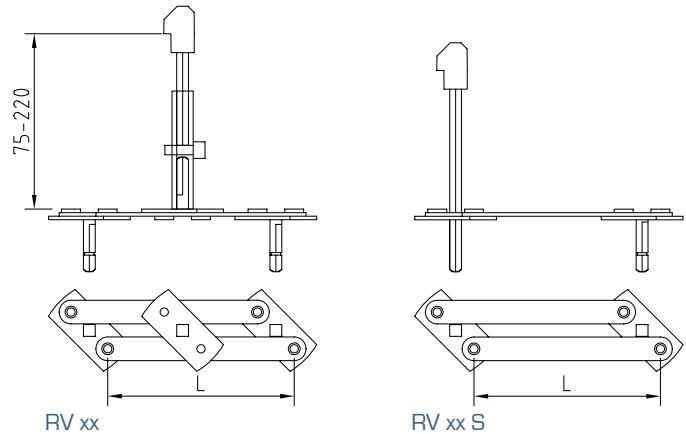
Type	For	Description	EAN-code
K/KU 3P	KU 3P	Grey plate, black direct handle	6419410221600
K/KU 4P	KU 4P	Grey plate, black direct handle	6419410222805
K/KU 3P Y/R	KU 3P	Yellow plate, red direct handle	6419410221617
K/KU 4P Y/R	KU 4P	Yellow plate, red direct handle	6419410222812
K/VKA 3P-4P	VKA 3-4P	Grey plate, black direct handle	6419410218709
K/VKA 3P-4P Y/R	VKA 3-4P	Yellow plate, red direct handle	6419410218808



## PARALLEL KITS

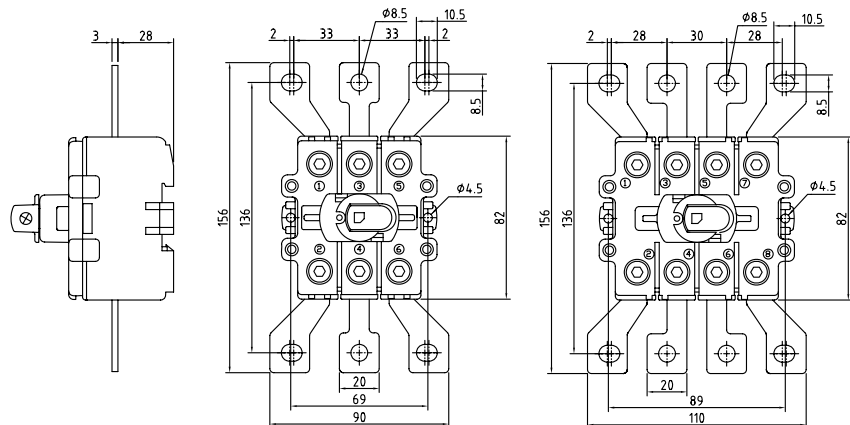


- For KU and VKA-switches
- Assembly depth for KU 155-300 mm
- Assembly depth for VKA 164-310 mm
- Length shown in the product code, for example:  
RV 66, L=66 mm
- Shaft L=200 AD11/VT
- Handle not included



Type	For	Description	EAN-code
<b>Parallel kits</b>			
RV 52S	KU	For 2 x KU 3P	6419410226223
RV 66		For 2 x KU 3P	6419410226285
RV 66S		For 2 x KU 3P	6419410226261
RV 80	KU, VKA	For 2 x KU 4P / 2 x VKA 3P	6419410226308
RV 80S		For 2 x KU 4P / 2 x VKA 3P	6419410226292
RV 104	VKA 125-160 A	For 2 x [VKA 3P+ALK 3160] / 2 x VKA 4P	6419410226322
RV 104S		For 2 x [VKA 3P+ALK 3160] / 2 x VKA 4P	6419410226315
RV 126		For 2 x [VKA 4P+ALK 4160]	6419410226346
RV 126S		For 2 x [VKA 4P+ALK 4160]	6419410226339
RV 143S/6		200-250 A	For 2 x VKA 3P

## SPREADERS



Type	For	Description	EAN-code
<b>Spreaders</b>			
ALK 3160	VKA, EVA	For 3P switch	6419410225301
ALK 4160	125-160 A	For 4P switch	6419410225400
KVKE ALK 160 3P	KVKE, VKE	For 3P switch	6419410286999
KVKE ALK 160 4P	125-160 A	For 4P switch	6419410287002

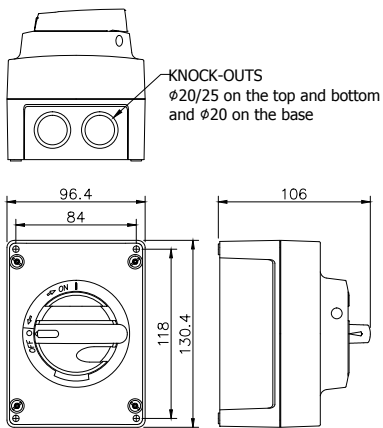
# UL 60947-4-1A LISTED POLYCARBONATE ENCLOSED MANUAL MOTOR CONTROLLERS WITH DISCONNECTOR MEANS 16-150 A



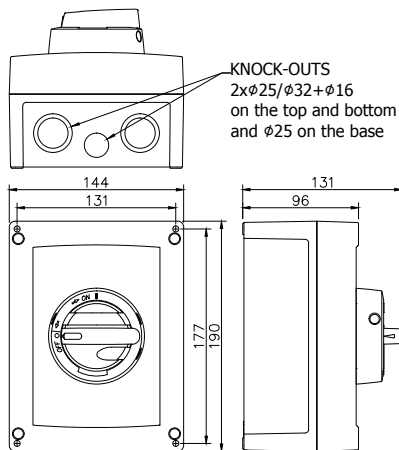
- Type 4X enclosure
- Across the line, motor starting up to 75HP/600V
- General use rating 25A to 150A/600V
- Retrofit snap on auxiliary contacts
- Padlockable



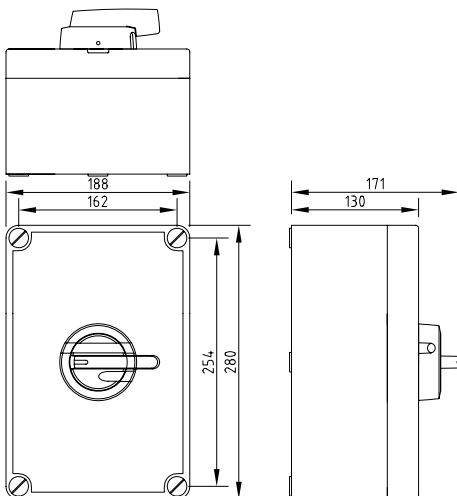
U2



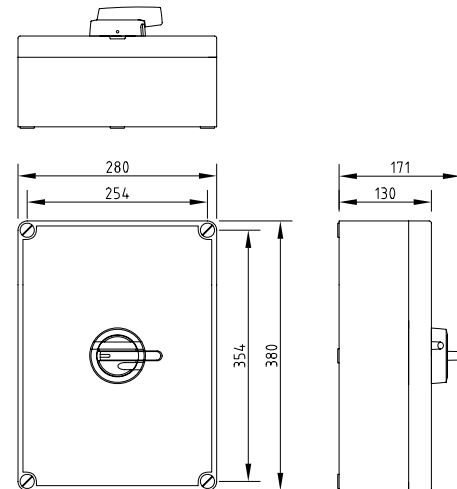
U3



MF10



MF11UL



## UL 60947-4-1A LISTED POLYCARBONATE ENCLOSED MANUAL MOTOR CONTROLLERS WITH DISCONNECTOR MEANS 16-150 A

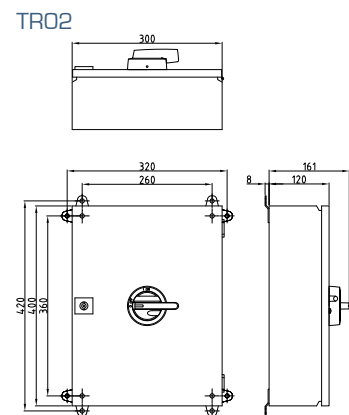
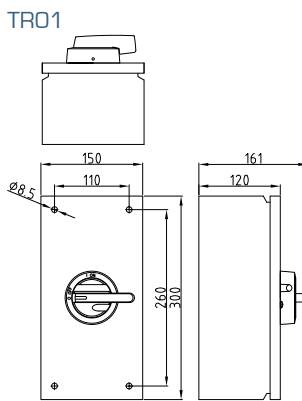
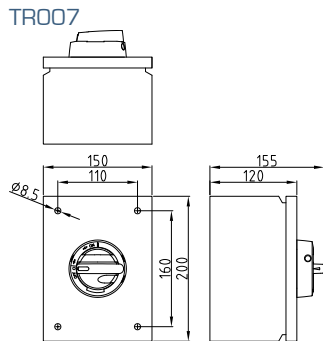


Type		Ampere rating (600 V)	208V	415V	480V	600V	EAN-Code 6419410...		Wire size Cu only	Enclosure	Weight kg
Grey/black	Yellow/red						Grey/black	Yellow/red			
<b>3-poles</b>											
KEM 316UL	KEM 316UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...351703	...351772	14-8AWG	U2	0.5
KEM 325UL	KEM 325UL Y/R	25 A	5HP	10HP	15HP	10HP	...351246	...351352	14-8AWG	U2	0.5
KEM 340UL	KEM 340UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...351277	...351383	14-8AWG	U3	0.7
KEM 360UL	KEM 360UL Y/R	60 A	10HP	20HP	25HP	25HP	...351307	...351413	12-4AWG	U3	0.7
KEM 380CUL	KEM 380CUL Y/R	80 A	10HP	25HP	30HP	30HP	...351840	...351925	12-4AWG	U3	0.7
KEM 380UL	KEM 380UL Y/R	80 A	15HP	25HP	30HP	40HP	...351338	...351444	8-1/OAWG	U3	2.2
KEM 3100L	KEM 3100L Y/R	100 A	15HP	30HP	40HP	50HP	...344163	...351154	8-1/OAWG	MF10	2.4
KEM 3125L	KEM 3125L Y/R	125 A	20HP	40HP	50HP	60HP	...344194	...351185	8-1/OAWG	MF10	2.4
KEM 3150L	KEM 3150L Y/R	150 A	25HP	50HP	60HP	75HP	...344224	...351215	8-1/OAWG	MF11UL	3.3
<b>4-poles</b>											
KEM 416UL	KEM 416UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...351710	...351789	14-8AWG	U2	0.5
KEM 425UL	KEM 425UL Y/R	25 A	5HP	10HP	15HP	10HP	...351253	...351369	14-8AWG	U2	0.5
KEM 440UL	KEM 440UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...351284	...351390	14-8AWG	U3	0.7
KEM 460UL	KEM 460UL Y/R	60 A	10HP	20HP	25HP	25HP	...351314	...351420	12-4AWG	U3	0.7
KEM 480CUL	KEM 480CUL Y/R	80 A	10HP	25HP	30HP	30HP	...351857	...351932	12-4AWG	U3	0.7
KEM 480UL	KEM 480UL Y/R	80 A	15HP	25HP	30HP	40HP	...351345	...351451	8-1/OAWG	U3	2.3
KEM 4100L	KEM 4100L Y/R	100 A	15HP	30HP	40HP	50HP	...344170	...351161	8-1/OAWG	MF10	2.6
KEM 4125L	KEM 4125L Y/R	125 A	20HP	40HP	50HP	60HP	...344200	...351192	8-1/OAWG	MF10	2.6
KEM 4150L	KEM 4150L Y/R	150 A	25HP	50HP	60HP	75HP	...344231	...351222	8-1/OAWG	MF11UL	3.4
<b>6-poles</b>											
KEM 616UL	KEM 616UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...351727	...351796	14-8AWG	U3	0.9
KEM 625UL	KEM 625UL Y/R	25 A	5HP	10HP	15HP	10HP	...351260	...351376	14-8AWG	U3	0.9
KEM 640UL	KEM 640UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...351291	...351406	14-8AWG	U3	0.9
KEM 660UL	KEM 660UL Y/R	60 A	10HP	20HP	25HP	25HP	...351321	...351437	12-4AWG	U3	0.9
KEM 680CUL	KEM 680CUL Y/R	80 A	10HP	25HP	30HP	30HP	...351666	...351673	12-4AWG	U3	0.9
KEM 680L	KEM 680L Y/R	80 A	15HP	25HP	30HP	40HP	...344156	...351147	8-1/OAWG	MF11UL	3.8
KEM 6100L	KEM 6100L Y/R	100 A	15HP	30HP	40HP	50HP	...344187	...351178	8-1/OAWG	MF11UL	3.8
KEM 6125L	KEM 6125L Y/R	125 A	20HP	40HP	50HP	60HP	...344217	...351208	8-1/OAWG	MF11UL	3.8
KEM 6150L	KEM 6150L Y/R	150 A	25HP	50HP	60HP	75HP	...344248	...351239	8-1/OAWG	MF11UL	3.8

# UL 60947-4-1A LISTED MANUAL MOTOR CONTROLLERS SHEET STEEL ENCLOSED 16-150 A



- Type 4 enclosure
- Across the line, motor starting- up to 75HP/600V
- General use rating from 16A to 150A/600V
- Retrofit snap on auxiliary contacts
- Padlockable

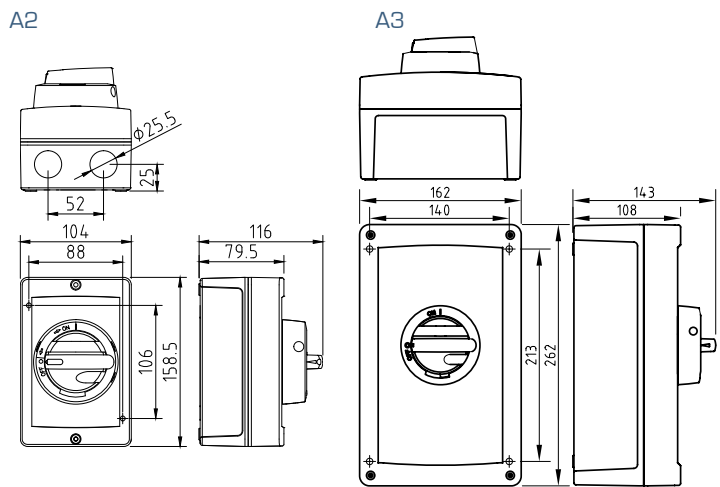


Type		Ampere rating (600 V)	208 V	415 V	480 V	600 V	EAN-Code 6419410...		Wire size Cu only	Enclosure	Weight kg
Grey/Black	Yellow/Red						Grey/Black	Yellow/Red			
<b>3-poles</b>											
KET 316UL	KET 316UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...348765	...349007	14-8AWG	TRO07	2.1
KET 325UL	KET 325UL Y/R	25 A	5HP	10HP	15HP	10HP	...348796	...349038	14-8AWG	TRO07	2.1
KET 340UL	KET 340UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...348826	...349069	14-8AWG	TRO07	2.1
KET 360UL	KET 360UL Y/R	60 A	10HP	20HP	25HP	25HP	...348857	...349090	12-4AWG	TRO1	4.0
KET 380CUL	KET 380CUL Y/R	80 A	10HP	25HP	30HP	30HP	...351888	...351963	12-4AWG	TRO1	4.0
KET 380UL	KET 380UL Y/R	80 A	15HP	25HP	30HP	40HP	...348888	...349120	8-1/OAWG	TRO1	4.3
KET 3100UL	KET 3100UL Y/R	100 A	15HP	30HP	40HP	50HP	...348918	...349151	8-1/OAWG	TRO1	4.3
KET 3125UL	KET 3125UL Y/R	125 A	20HP	40HP	50HP	60HP	...348949	...349182	8-1/OAWG	TRO1	4.3
KET 3150UL	KET 3150UL Y/R	150 A	25HP	50HP	60HP	75HP	...348970	...349212	8-1/OAWG	TRO2	9.7
<b>4-poles</b>											
KET 416UL	KET 416UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...348772	...349014	14-8AWG	TRO07	2.2
KET 425UL	KET 425UL Y/R	25 A	5HP	10HP	15HP	10HP	...348802	...349045	14-8AWG	TRO07	2.2
KET 440UL	KET 440UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...348833	...349076	14-8AWG	TRO07	2.2
KET 460UL	KET 460UL Y/R	60 A	10HP	20HP	25HP	25HP	...348864	...349106	12-4AWG	TRO1	4.1
KET 480CUL	KET 480CUL Y/R	80 A	10HP	25HP	30HP	30HP	...351895	...351970	12-4AWG	TRO1	4.1
KET 480UL	KET 480UL Y/R	80 A	15HP	25HP	30HP	40HP	...348895	...349137	8-1/OAWG	TRO1	4.3
KET 4100UL	KET 4100UL Y/R	100 A	15HP	30HP	40HP	50HP	...348925	...349168	8-1/OAWG	TRO1	4.3
KET 4125UL	KET 4125UL Y/R	125 A	20HP	40HP	50HP	60HP	...348956	...349199	8-1/OAWG	TRO1	4.3
KET 4150UL	KET 4150UL Y/R	150 A	25HP	50HP	60HP	75HP	...348987	...349229	8-1/OAWG	TRO2	9.9
<b>6-poles</b>											
KET 616UL	KET 616UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...348789	...349021	14-8AWG	TRO07	2.4
KET 625UL	KET 625UL Y/R	25 A	5HP	10HP	15HP	10HP	...348819	...349052	14-8AWG	TRO07	2.4
KET 640UL	KET 640UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...348840	...349083	14-8AWG	TRO07	2.4
KET 660UL	KET 660UL Y/R	60 A	10HP	20HP	25HP	25HP	...348871	...349113	12-4AWG	TRO1	4.3
KET 680CUL	KET 680CUL Y/R	80 A	10HP	25HP	30HP	30HP	...349243	...349250	12-4AWG	TRO1	4.1
KET 680UL	KET 680UL Y/R	80 A	15HP	25HP	30HP	40HP	...348901	...349144	8-1/OAWG	TRO2	8.6
KET 6100UL	KET 6100UL Y/R	100 A	15HP	30HP	40HP	50HP	...348932	...349175	8-1/OAWG	TRO2	8.6
KET 6125UL	KET 6125UL Y/R	125 A	20HP	40HP	50HP	60HP	...348963	...349205	8-1/OAWG	TRO2	8.6
KET 6150UL	KET 6150UL Y/R	150 A	25HP	50HP	60HP	75HP	...348994	...349236	8-1/OAWG	TRO2	8.6

# UL 60947-4-1A LISTED MANUAL MOTOR CONTROLLERS ALUMINIUM ENCLOSED 16-125 A



- Type 4 enclosure
- Across the line, motor starting- up to 75HP/600V
- General use rating from 16A to 125A/600V
- Retrofit snap on auxiliary contacts
- Padlockable



Type		Ampere rating (600 V)	208 V	415 V	480 V	600 V	EAN-Code 6419410...		Wire size Cu only	Enclosure	Weight kg
Grey/Black	Yellow/Red						Grey/Black	Yellow/Red			
<b>3-poles</b>											
KEA 316UL	KEA 316UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...348406	...348581	14-8AWG	A2	0.8
KEA 325UL	KEA 325UL Y/R	25 A	5HP	10HP	15HP	10HP	...348437	...348611	14-8AWG	A2	0.8
KEA 340UL	KEA 340UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...348468	...348642	14-8AWG	A2	0.8
KEA 360UL	KEA 360UL Y/R	60 A	10HP	20HP	25HP	25HP	...348499	...348673	12-4AWG	A3	2
KEA 380CUL	KEA 380CUL Y/R	80 A	10HP	25HP	30HP	30HP	...351864	...351949	12-4AWG	A3	2
KEA 380UL	KEA 380UL Y/R	80 A	15HP	25HP	30HP	40HP	...348529	...348703	8-1/0AWG	A3	2,3
KEA 3100UL	KEA 3100UL Y/R	100 A	15HP	30HP	40HP	50HP	...348543	...348727	8-1/0AWG	A3	2,3
KEA 3125UL	KEA 3125UL Y/R	125 A	20HP	40HP	50HP	60HP	...348567	...348741	8-1/0AWG	A3	2,3
<b>4-poles</b>											
KEA 416UL	KEA 416UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...348413	...348598	14-8AWG	A2	0.9
KEA 425UL	KEA 425UL Y/R	25 A	5HP	10HP	15HP	10HP	...348444	...348628	14-8AWG	A2	0.9
KEA 440UL	KEA 440UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...348475	...348659	14-8AWG	A2	0.9
KEA 460UL	KEA 460UL Y/R	60 A	10HP	20HP	25HP	25HP	...348505	...348680	12-4AWG	A3	2.1
KEA 480CUL	KEA 480CUL Y/R	80 A	10HP	25HP	30HP	30HP	...351871	...351956	12-4AWG	A3	2
KEA 480UL	KEA 480UL Y/R	80 A	15HP	25HP	30HP	40HP	...348536	...348710	8-1/0AWG	A3	2,4
KEA 4100UL	KEA 4100UL Y/R	100 A	15HP	30HP	40HP	50HP	...348550	...348734	8-1/0AWG	A3	2,4
KEA 4125UL	KEA 4125UL Y/R	125 A	20HP	40HP	50HP	60HP	...348574	...348758	8-1/0AWG	A3	2,4
<b>6-poles</b>											
KEA 616UL	KEA 616UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...348420	...348604	14-8AWG	A3	2.3
KEA 625UL	KEA 625UL Y/R	25 A	5HP	10HP	15HP	10HP	...348451	...348635	14-8AWG	A3	2.3
KEA 640UL	KEA 640UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...348482	...348666	14-8AWG	A3	2.3
KEA 660UL	KEA 660UL Y/R	60 A	10HP	20HP	25HP	25HP	...348512	...348697	12-4AWG	A3	2.3
KEA 680CUL	KEA 680CUL Y/R	80 A	10HP	25HP	30HP	30HP	...331811	...349250	12-4AWG	A3	2.3

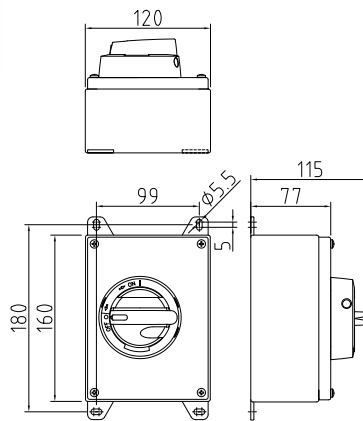
# UL 60947-4-1A LISTED STAINLESS STEEL ENCLOSED MANUAL MOTOR CONTROLLERS WITH DISCONNECTOR MEANS 16-125 A



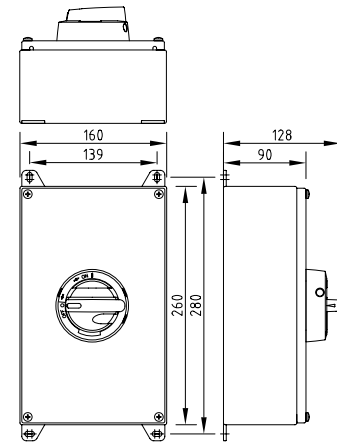
- Type 4X enclosure
- Across the line, motor starting- up to 75HP/600V
- General use rating from 25A to 125A/600V
- Retrofit snap on auxiliary contacts
- Padlockable



H23



H32

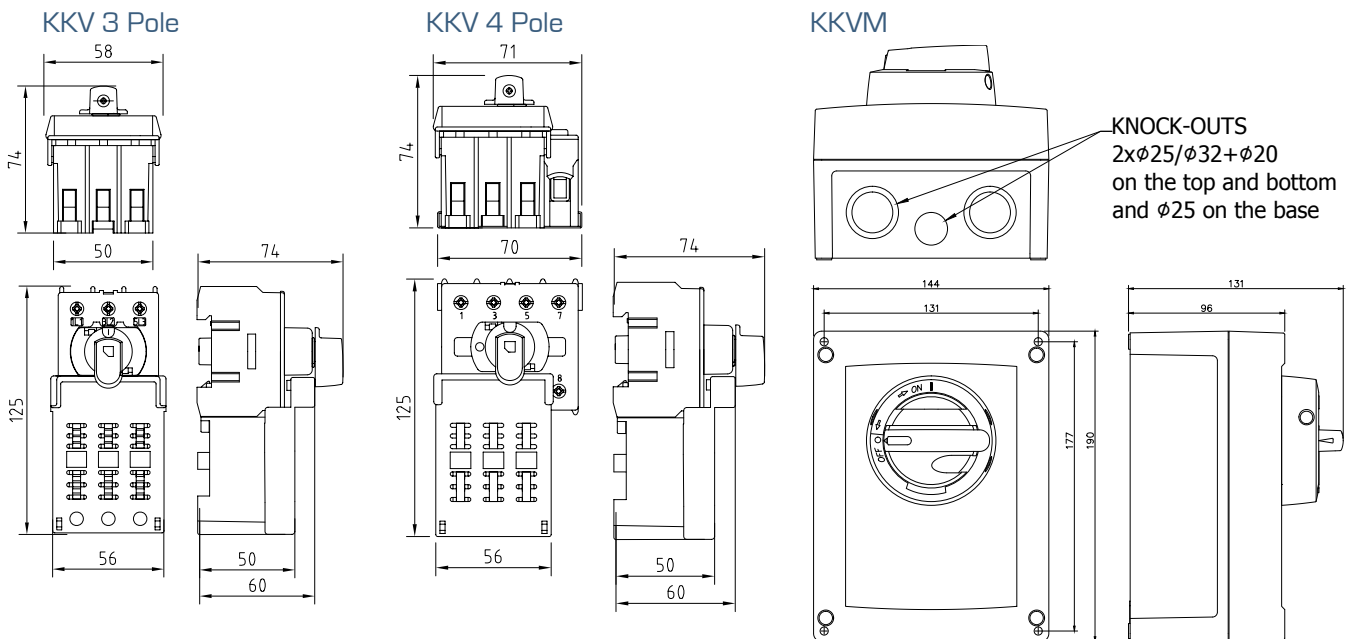


Type		Ampere rating (600 V)	208V	415V	480V	600V	EAN-Code 6419410...		Wire size Cu only	Enclosure	Weight kg
Grey/black	Yellow/red						Grey/black	Yellow/red			
<b>3-poles</b>											
KER 316UL	KER 316UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...347300	...347546	14-8AWG	H23	1.2
KER 325UL	KER 325UL Y/R	25 A	5HP	10HP	15HP	10HP	...347317	...347553	14-8AWG	H23	1.2
KER 340UL	KER 340UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...347362	...347607	14-8AWG	H23	1.2
KER 360UL	KER 360UL Y/R	60 A	10HP	20HP	25HP	25HP	...347393	...347638	12-4AWG	H32	2.2
KER 380CUL	KER 380CUL Y/R	80 A	10HP	25HP	30HP	30HP	...351901	...351987	12-4AWG	H32	2.2
KER 380UL	KER 380UL Y/R	80 A	15HP	25HP	30HP	40HP	...347423	...347669	8-1/OAWG	H32	2.2
KER 3100UL	KER 3100UL Y/R	100 A	15HP	30HP	40HP	50HP	...347454	...347690	8-1/OAWG	H32	2.5
KER 3125UL	KER 3125UL Y/R	125 A	20HP	40HP	50HP	60HP	...347485	...347720	8-1/OAWG	H32	2.5
<b>4-poles</b>											
KER 416UL	KER 416UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...347324	...347560	14-8AWG	H23	1.2
KER 425UL	KER 425UL Y/R	25 A	5HP	10HP	15HP	10HP	...347331	...347577	14-8AWG	H23	1.2
KER 440UL	KER 440UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...347379	...347614	14-8AWG	H23	1.2
KER 460UL	KER 460UL Y/R	60 A	10HP	20HP	25HP	25HP	...347409	...347645	12-4AWG	H32	2.2
KER 480CUL	KER 480CUL Y/R	80 A	10HP	25HP	30HP	30HP	...351918	...351994	12-4AWG	H32	2.2
KER 480UL	KER 480UL Y/R	80 A	15HP	25HP	30HP	40HP	...347430	...347676	8-1/OAWG	H32	2.2
KER 4100UL	KER 4100UL Y/R	100 A	15HP	30HP	40HP	50HP	...347461	...347706	8-1/OAWG	H32	2.5
KER 4125UL	KER 4125UL Y/R	125 A	20HP	40HP	50HP	60HP	...347492	...347737	8-1/OAWG	H32	2.5
<b>6-poles</b>											
KER 616UL	KER 616UL Y/R	16 A	3HP	7.5HP	10HP	7.5HP	...347348	...347584	14-8AWG	H32	2.5
KER 625UL	KER 625UL Y/R	25 A	5HP	10HP	15HP	10HP	...347355	...347591	14-8AWG	H32	2.5
KER 640UL	KER 640UL Y/R	40 A	7.5HP	15HP	20HP	15HP	...347386	...347621	14-8AWG	H32	2.5
KER 660UL	KER 660UL Y/R	60 A	10HP	20HP	25HP	25HP	...347416	...347652	12-4AWG	H32	2.5
KER 680CUL	KER 680CUL Y/R	80 A	10HP	25HP	30HP	30HP	...347287	...347294	12-4AWG	H32	2.5

# KKV SWITCH FUSE 32 A



- UL 60947-4-1A
- CCA, CB certificates
- ISO 9001
- Available as 3-pole and 4-pole
- Consists of a KU switch and a fuse holder
- KKV 332 for 10 x 38 fuse
- KKV 332 CC for class CC fuse
- Compatible with handles LK10UL and LK11UL
- Shafts L=100/200/300 AD11 and L=100/200/300 AD11/VT

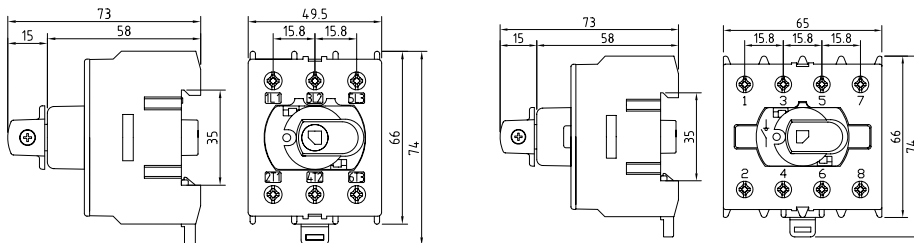


Type	Amp rating	208V	415V	480V	600V	Wire size	EAN	Weight
	(600V)					Cu only		kg
KKV 332	32A	7.5HP	15HP	20HP	15HP	14-8 AWG	6419410212806	0,32
KKV 332 CC	32A	7.5HP	15HP	20HP	15HP	14-8 AWG	6419410212813	0,32

## UL LISTED PRODUCTS KU SERIES 16-80A



- Rotary switch with direct or extended handle
- UL 60947-4-1A
- CCA, CB certificates
- ISO 9001
- Compact size
- DIN-rail mounting
- Switch technology by means of silver contacts ensures safe and durable operation
- Extended handle version compatible with handles LK10UL, LK11UL and shafts L=100/200/300 AD11, L=100/200/300 AD11/VT
- Direct handle version compatible with front plates K/KU



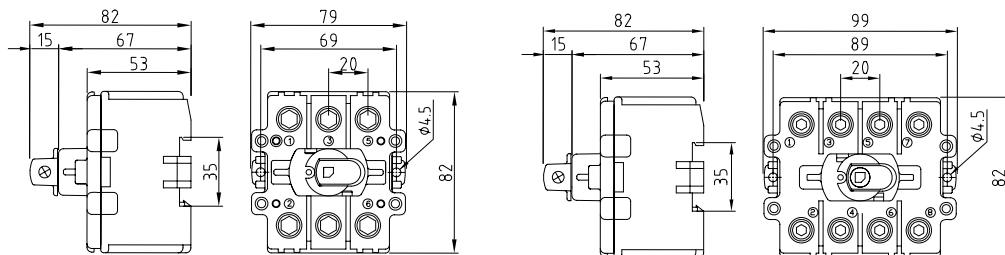
Type	Ampere rating (600V)	208V	415V	480V	600V	Wire size Cu only	EAN code	Weight kg
<b>EXTENDED HANDLE</b>								
<b>3-pole</b>								
KU 316N	16A	3HP	7.5HP	10HP	7.5HP	14-8 AWG	6419410214305	0,19
KU 325N	25A	5HP	10HP	15HP	10HP	14-8 AWG	6419410214404	0,19
KU 340N	40A	7.5HP	15HP	20HP	15HP	14-8 AWG	6419410214503	0,19
KU 363N	60A	10HP	20HP	25HP	25HP	12-4 AWG	6419410214602	0,19
KU 380N	80A	10HP	25HP	30HP	30HP	12-4 AWG	6419410214701	0,19
<b>4-pole</b>								
KU 416N	16A	3HP	7.5HP	10HP	7.5HP	14-8 AWG	6419410215005	0,22
KU 425N	25A	5HP	10HP	15HP	10HP	14-8 AWG	6419410215203	0,22
KU 440N	40A	7.5HP	15HP	20HP	15HP	14-8 AWG	6419410215500	0,22
KU 463N	60A	10HP	20HP	25HP	25HP	12-4 AWG	6419410215906	0,22
KU 480N	80A	10HP	25HP	30HP	30HP	12-4 AWG	6419410216002	0,22



## UL LISTED PRODUCTS VKA SERIES 80-150 A



- Rotary switch with direct or extended handle
- UL 60947-4-1A
- CCA, CB certificates
- ISO 9001
- Compact size
- Switch technology by means of silver contacts ensures safe and durable operation
- Extended handle version compatible with handles LK10UL, LK11UL and shafts L=100/200 AD11, L=100/200/300 AD11/VT
- Direct handle version compatible with front plates K/VKA



Type	Ampere rating (600V)	208V	415V	480V	600V	Wire size Cu only	EAN code	Weight kg
<b>EXTENDED HANDLE</b>								
<b>3-pole</b>								
VKA 380N	80A	15HP	25HP	30HP	40HP	8-1/0 AWG	6419410217443	0,51
VKA 3100N	100A	15HP	30HP	40HP	50HP	8-1/0 AWG	6419410217450	0,51
VKA 3125N	125A	20HP	40HP	50HP	60HP	8-1/0 AWG	6419410217504	0,51
VKA 3160N	150A	25HP	50HP	60HP	75HP	8-1/0 AWG	6419410218006	0,51
<b>4-pole</b>								
VKA 480N	80A	15HP	25HP	30HP	40HP	8-1/0 AWG	6419410218440	0,66
VKA 4100N	100A	15HP	30HP	40HP	50HP	8-1/0 AWG	6419410218556	0,66
VKA 4125N	125A	20HP	40HP	50HP	60HP	8-1/0 AWG	6419410218600	0,66
VKA 4160N	150A	25HP	50HP	60HP	75HP	8-1/0 AWG	6419410219102	0,66

## UL LISTED PRODUCTS KUE SERIES 16-80 A & EVA SERIES 80-150 A

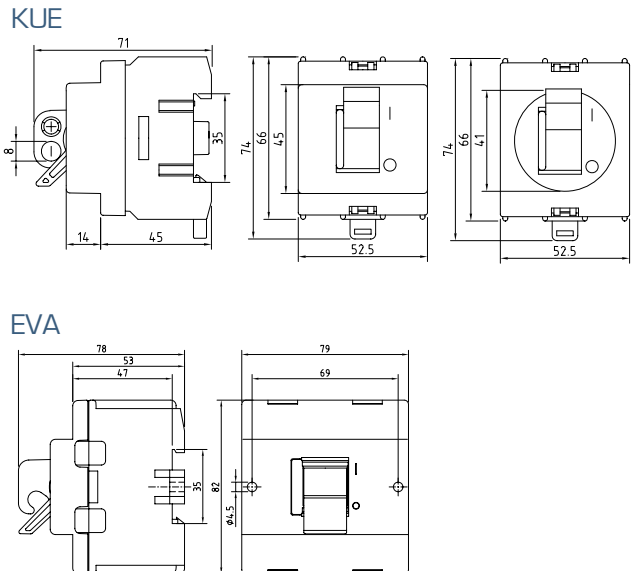


KUE

- Toggle handle
- UL 60947-4-1A
- CCA, CB certificates
- ISO 9001
- Compact size
- DIN-rail mounting
- 3-pole
- Switch technology by means of silver contacts ensures safe and durable operation
- Available with front plate K/KUE (rectangular) or R/KUE (circular)
- Available with yellow front plate and red toggle: add Y/R at the end of the product type



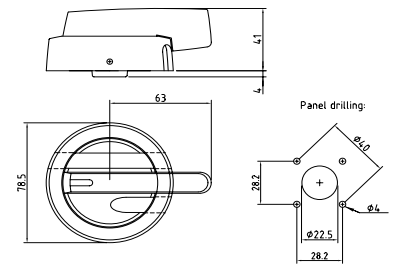
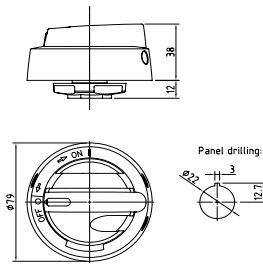
EVA



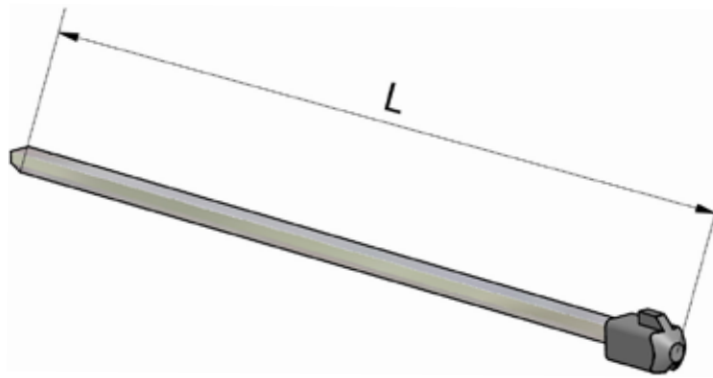
Type	Amp rating	208V	415V	480V	600V	Wire size	EAN	Weight
	(600V)					Cu only		
KUE 316	16A	3HP	7.5HP	10HP	7.5HP	14-8 AWG	6419410200308	0,17
KUE 325	25A	5HP	10HP	15HP	10HP	14-8 AWG	6419410200407	0,17
KUE 340	40A	7.5HP	15HP	20HP	15HP	14-8 AWG	6419410200506	0,17
KUE 363	60A	10HP	20HP	25HP	25HP	12-4 AWG	6419410200605	0,18
KUE 380	80A	10HP	25HP	30HP	30HP	12-4 AWG	6419410200704	0,18
KUE 316 + K/KUE	16A	3HP	7.5HP	10HP	7.5HP	14-8 AWG	6419410200315	0,19
KUE 325 + K/KUE	25A	5HP	10HP	15HP	10HP	14-8 AWG	6419410200414	0,19
KUE 340 + K/KUE	40A	7.5HP	15HP	20HP	15HP	14-8 AWG	6419410200513	0,19
KUE 363 + K/KUE	60A	10HP	20HP	25HP	25HP	12-4 AWG	6419410200612	0,20
KUE 380 + K/KUE	80A	10HP	25HP	30HP	30HP	12-4 AWG	6419410200711	0,20
KUE 316 + R/KUE	16A	3HP	7.5HP	10HP	7.5HP	14-8 AWG	6419410200377	0,19
KUE 325 + R/KUE	25A	5HP	10HP	15HP	10HP	14-8 AWG	6419410200476	0,19
KUE 340 + R/KUE	40A	7.5HP	15HP	20HP	15HP	14-8 AWG	6419410200544	0,19
KUE 363 + R/KUE	60A	10HP	20HP	25HP	25HP	12-4 AWG	6419410200674	0,20
KUE 380 + R/KUE	80A	10HP	25HP	30HP	30HP	12-4 AWG	6419410200742	0,20

Type	Amp rating	208V	415V	480V	600V	Wire size	EAN	Weight
	(600V)					Cu only		
EVA 380 + K/EVA	80A	15HP	25HP	30HP	40HP	8-1/0 AWG	6419410202463	0,54
EVA 3100 + K/EVA	100A	15HP	30HP	40HP	50HP	8-1/0 AWG	6419410202470	0,54
EVA 3125 + K/EVA	125A	20HP	40HP	50HP	60HP	8-1/0 AWG	6419410202517	0,54
EVA 3160 + K/EVA	150A	25HP	50HP	60HP	75HP	8-1/0 AWG	6419410203019	0,54

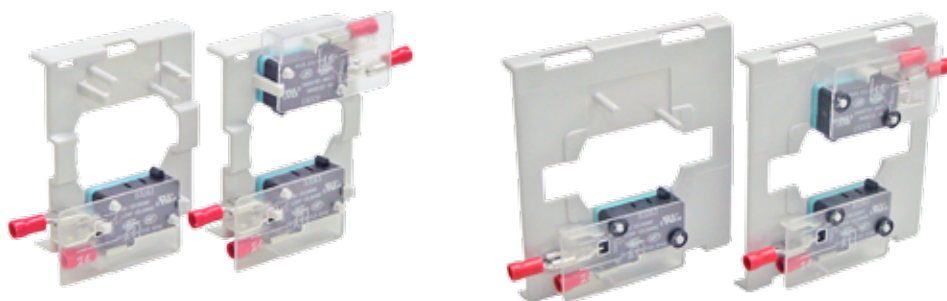
## UL LISTED PRODUCTS ACCESSORIES FOR KU AND VKA SERIES



Type	Colour	Description	EAN-code
LK10UL	Black	Type 4X rating	6419410222577
LK10UL Y/R	Yellow/red	Type 4X rating	6419410222584
LK11UL	Black	Type 4X rating	6419410222515
LK11UL Y/R	Yellow/red	Type 4X rating	6419410222522



Type	Description	EAN-code
L=100 AD11	Length 100 mm, aluminium	6419410253106
L=200 AD11	Length 200 mm, aluminium	6419410253113
L=300 AD11	Length 300 mm, aluminium	6419410253120
L=100 AD11/VT	Length 100 mm, steel, slanted	6419410253168
L=200 AD11/VT	Length 200 mm, steel, slanted	6419410253175
L=300 AD11/VT	Length 300 mm, steel, slanted	6419410253182



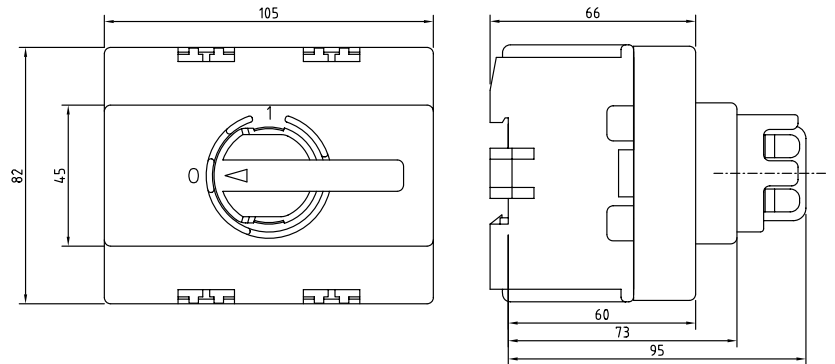
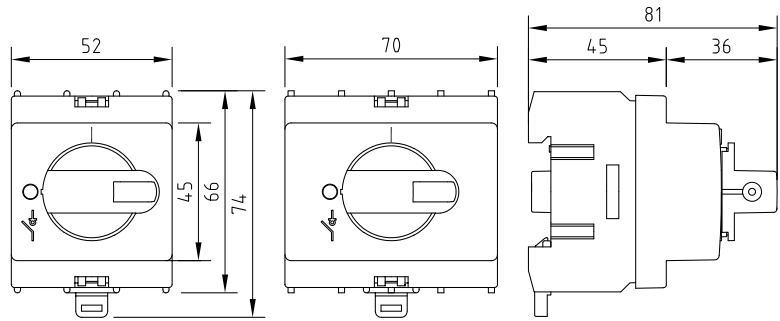
-16 A 1/2 HP 125/250 VAC



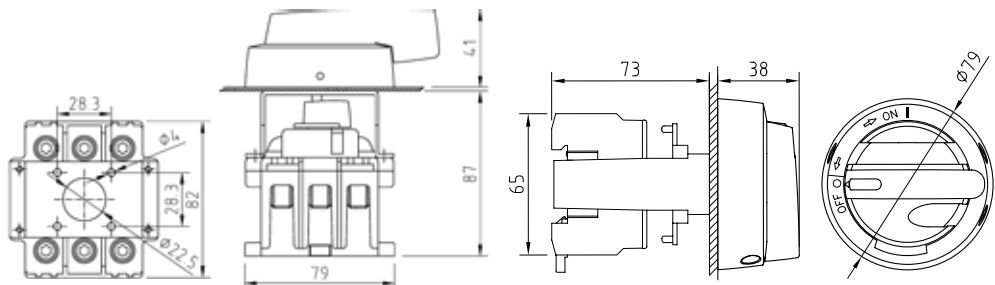
Type	For	Description	EAN-code
KU1.V	KU	1NO+1NC	6419410300008
KU2.V	KU	2NO+2NC	6419410300107
VKA 1.V	VKA	1NO+1NC	6419410300206
VKA 2.V	VKA	2NO+2NC	6419410300305

## UL LISTED PRODUCTS ACCESSORIES FOR KU AND VKA SERIES

-Front plates with direct handle for KU & VKA switches



Type	For	Description	EAN-code
K/KU 3P	KU 3P	Grey plate, black handle	6419410221600
K/KU 3P Y/R	KU 3P	Yellow plate, red handle	6419410221617
K/KU 4P	KU 4P	Grey plate, black handle	6419410222805
K/KU 4P Y/R	KU 4P	Yellow plate, red handle	6419410222812
K/VKA 3P-4P	VKA 3-4P	Grey plate, black handle	6419410218709
K/VKA 3P-4P Y/R	VKA 3-4P	Yellow plate, red handle	6419410218808



Type	For	Description	EAN-code
OKA/KU/LK10UL	KU	Black, for 3P switch, with LK10UL handle	6419410224724
OKA/KU/LK10UL Y/R	KU	Yellow/red, for 3P switch, with LK10UL handle	6419410224731
OKA/VKAUL	VKA	Black, for 3P switch, with LK11UL handle	6419410224748
OKA/VKAUL Y/R	VKA	Yellow/red, for 3P switch, with LK11UL handle	6419410224755

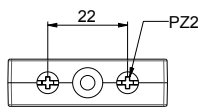
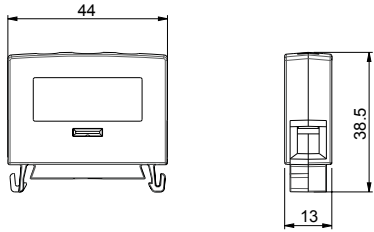
## TERMINAL BLOCKS



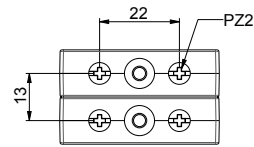
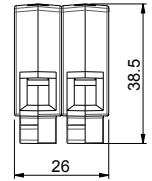
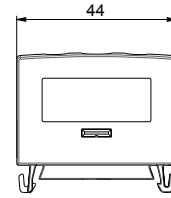
- Suitable for Al/Cu cables: 1.5 - 240 mm<sup>2</sup>
- Available in grey, blue (N) and yellow/green (PE)
- Touchproof, IP20
- Housing and cover in polyamide
- Terminal material tin-coated, greased aluminium
- KC-terminals 16 - 35 mm<sup>2</sup> for DIN-rail mounting
- KL-terminals 50 - 95 mm<sup>2</sup> for DIN-rail or base mounting
- KL-terminals 150 - 240 mm<sup>2</sup> for base mounting
- Environmentally friendly materials

Type	Un (V)	In (A)	Al/Cu mm <sup>2</sup>	Torque Al/Cu (Nm)	Number of conductors	Key size	Mounting	EAN-code	Weight (kg)
KC 1x16	800	63	1.5-16*	1.8	2	PZ2	DIN	6419410357200	0,021
KC 1x16N								6419410357217	
KC 1x16PE								6419410357224	
KC 2x16	800	125	1.5-16*	1.8	4	PZ2	DIN	6419410357507	0,047
KC 2x16N								6419410357514	
KC 2x16PE								6419410357521	
KC 1x35	800	135	2.5-35*	2.5	2	PZ2	DIN	6419410357231	0,030
KC 1x35N								6419410357248	
KC 1x35PE								6419410357255	
KC 2x35	800	270	2.5-35*	2.5	4	PZ2	DIN	6419410357538	0,069
KC 2x35N								6419410357545	
KC 2x35PE								6419410357552	
KL 1x50	800	160	2.5-50	6 (2.5-6 mm <sup>2</sup> ) 12 (10-50 mm <sup>2</sup> )	2	Hex 5	screw/DIN	6419410357262	0,040
KL 1x50N								6419410357279	
KL 1x50PE								6419410357286	
KL 1x50D	800	160	2.5-50	6 (2.5-6 mm <sup>2</sup> ) 12 (10-50 mm <sup>2</sup> )	2	Hex 5	DIN	6419410378151	0,04
KL 1x50DN								6419410378168	
KL 1x50DPE								6419410378175	
KL 2x50	800	320	2.5-50	6 (2.5-6 mm <sup>2</sup> ) 12 (10-50 mm <sup>2</sup> )	4	Hex 5	screw/DIN	6419410357293	0,066
KL 2x50N								6419410357309	
KL 2x50PE								6419410357316	
KL 2x50D	800	320	2.5-50	6 (2.5-6 mm <sup>2</sup> ) 12 (10-50 mm <sup>2</sup> )	4	Hex 5	DIN	6419410378182	0,066
KL 2x50DN								6419410378199	
KL 2x50DPE								6419410378205	
KL 1x95	800	200	16-95	12 (16-50 mm <sup>2</sup> ) 22 (70-95 mm <sup>2</sup> )	2	Hex 6	screw/DIN	6419410357323	0,074
KL 1x95N								6419410357330	
KL 1x95PE								6419410357347	
KL 2x95	800	400	16-95	12 (16-50 mm <sup>2</sup> ) 22 (70-95 mm <sup>2</sup> )	4	Hex 6	screw/DIN	6419410357354	0,137
KL 2x95N								6419410357361	
KL 2x95PE								6419410357378	
KL 1x150	800	315	25-150	12 (25-50 mm <sup>2</sup> ) 22 (70-95 mm <sup>2</sup> ) 35 (120-150 mm <sup>2</sup> )	2	Hex 6	screw	6419410357385	0,149
KL 1x150N								6419410357392	
KL 1x150PE								6419410357408	
KL 2x150	800	630	25-150	12 (25-50 mm <sup>2</sup> ) 22 (70-95 mm <sup>2</sup> ) 35 (120-150 mm <sup>2</sup> )	4	Hex 6	screw	6419410357415	0,260
KL 2x150N								6419410357422	
KL 2x150PE								6419410357439	
KL 1x240	800	400	35-240	25 (35-120 mm <sup>2</sup> ) 50 (150-240 mm <sup>2</sup> )	2	Hex 8	screw	6419410357446	0,225
KL 1x240N								6419410357453	
KL 1x240PE								6419410357460	
KL 2x240	800	800	35-240	25 (35-120 mm <sup>2</sup> ) 50 (150-240 mm <sup>2</sup> )	4	Hex 8	screw	6419410357477	0,380
KL 2x240N								6419410357484	
KL 2x240PE								6419410357491	

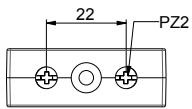
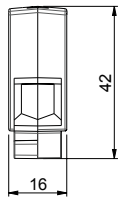
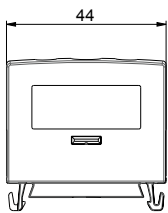
\*Only copper cables



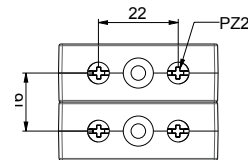
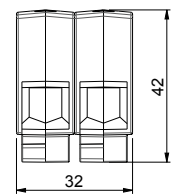
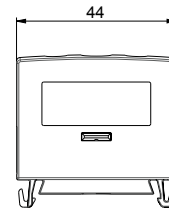
KC 1x16



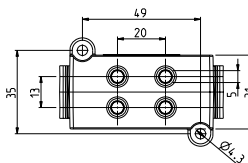
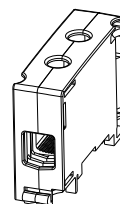
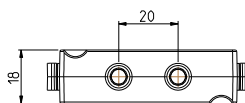
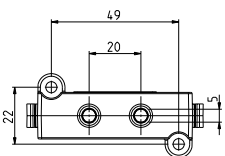
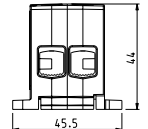
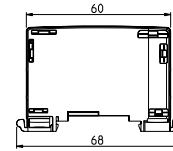
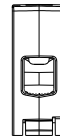
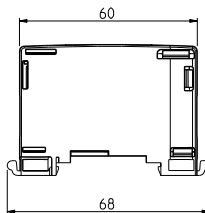
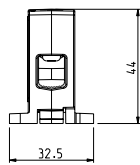
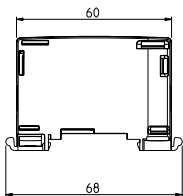
KC 2x16



KC 1x35



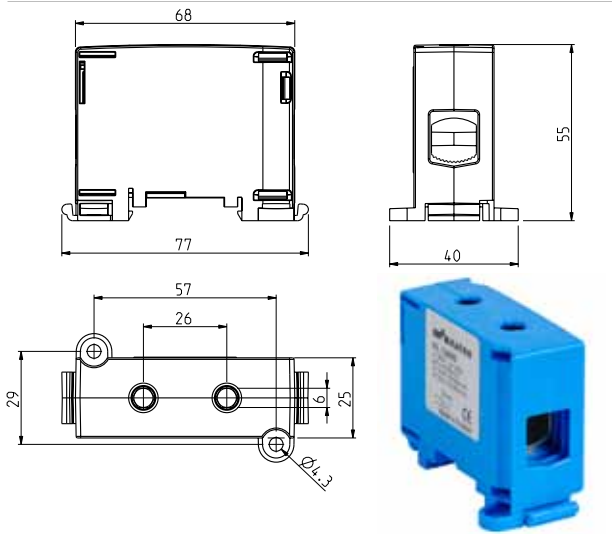
KC 2x35



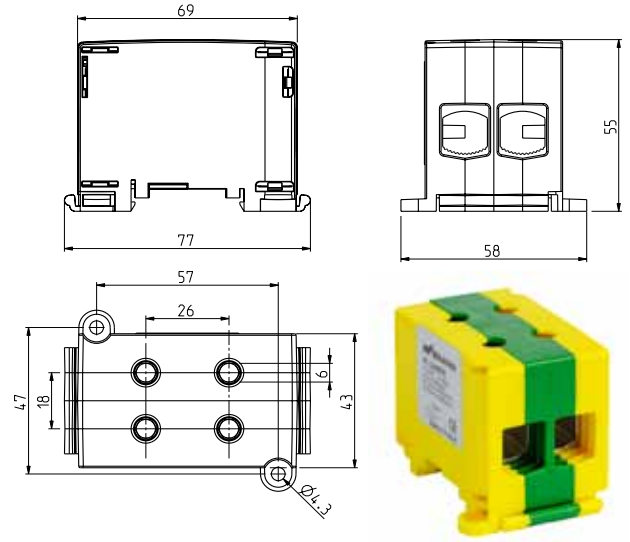
KL 1x50

KL 1x50D

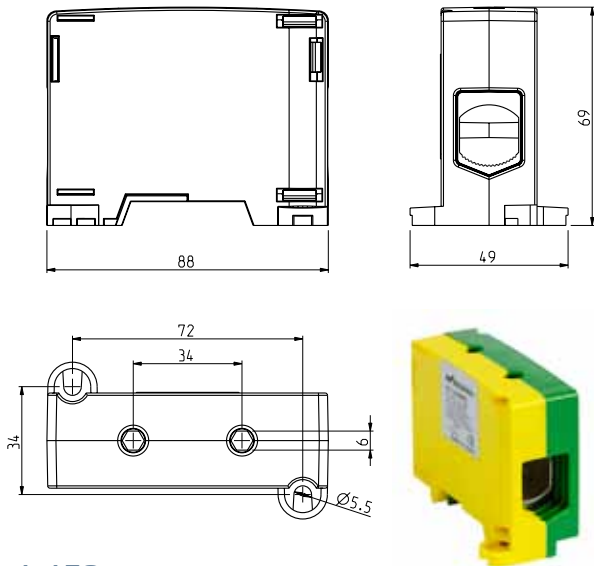
KL 2x50



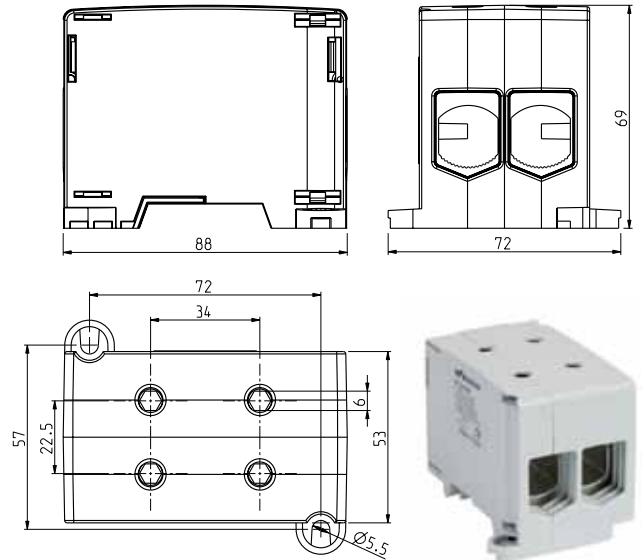
KL 1x95



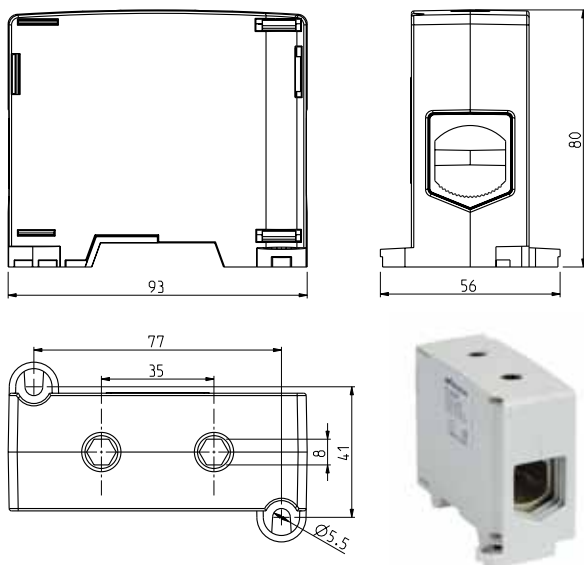
KL 2x95



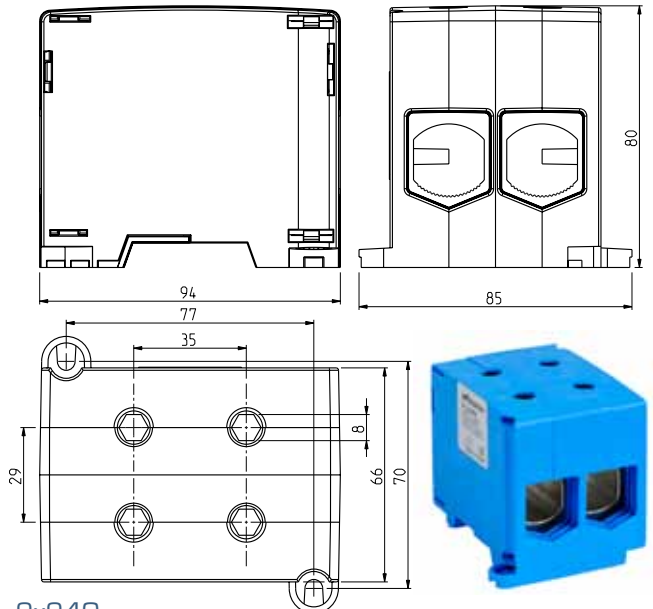
KL 1x150



KL 2x150



KL 1x240



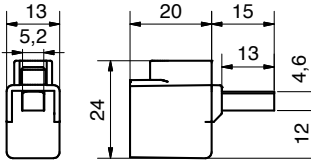
KL 2x240

## CABLE CONNECTORS

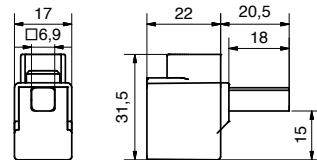


- Suitable for 1.5-240 mm<sup>2</sup> Al/Cu cables:
- Material: tin-coated aluminium
- In accordance with VDE 0220 part 1/11.71 and 2/11.71, SEN 24 50 12, SFS 2663 and IEC 61238-1
- Environmentally friendly materials

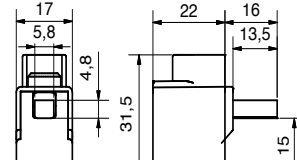
KKL 1x16



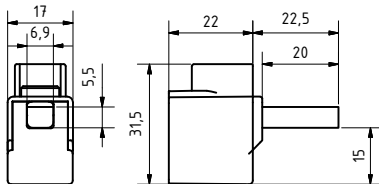
KKL 1x50



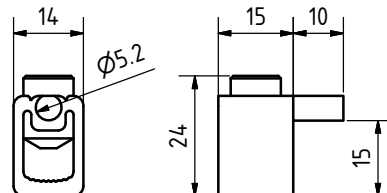
KKL 1x50M



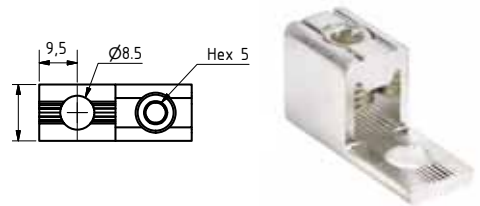
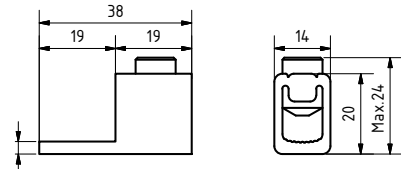
KKL 1x50MW



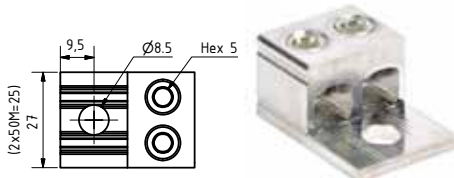
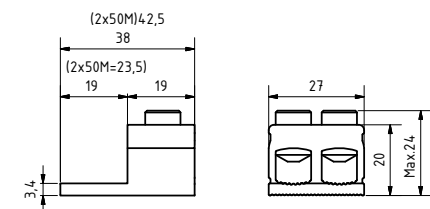
KKL 1x50N



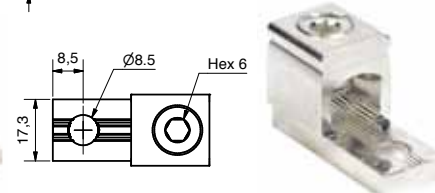
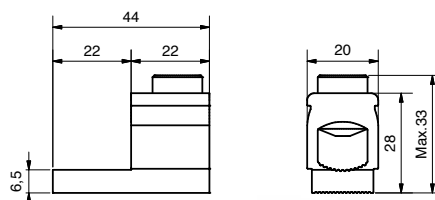
KKL 1x50R



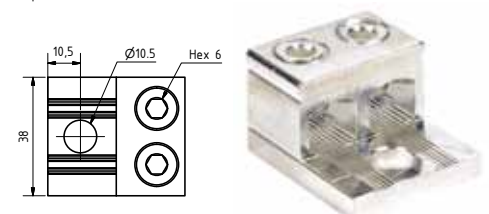
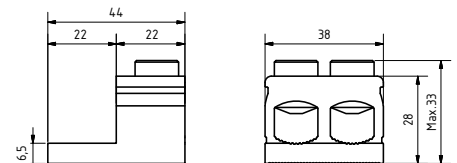
KKL 2x50 (KKL 2x50M)



KKL 1x95



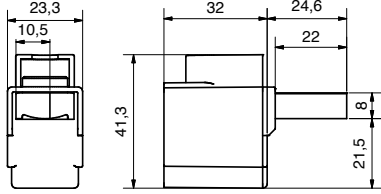
KKL 2x95



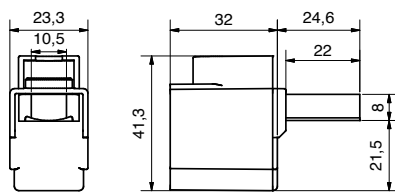


## CABLE CONNECTORS

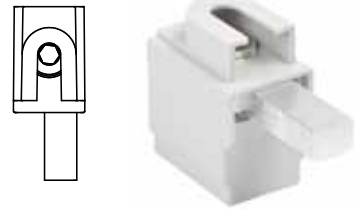
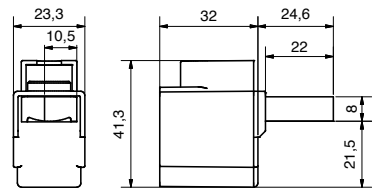
KKL 1x120T1



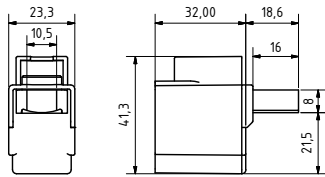
KKL 1x120T2



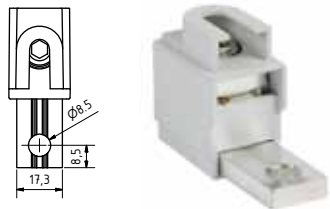
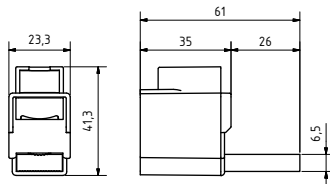
KKL 1x120T3



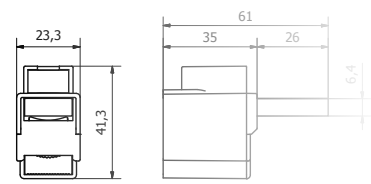
KKL 1x120TM



KKL 1x120RS

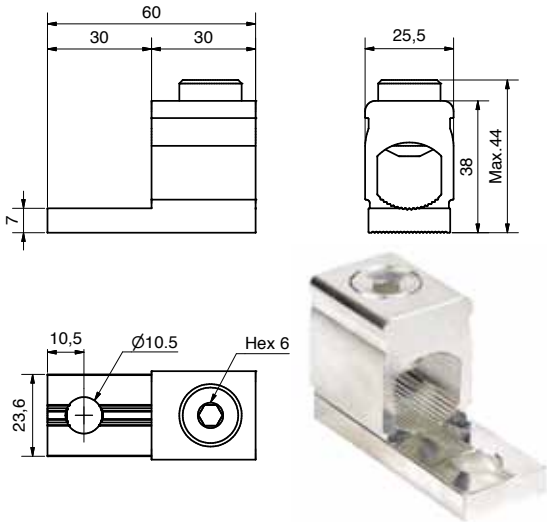


KKL 1x120RSY

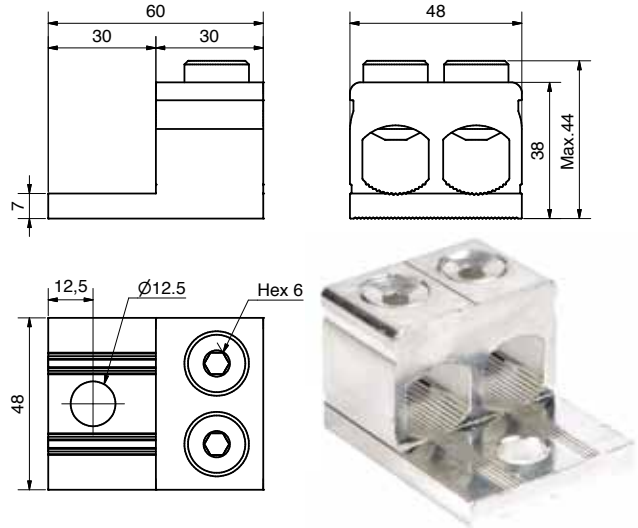


Type	Un [V]	In [A]	Al mm <sup>2</sup>	Cu mm <sup>2</sup>	Torque Al/Cu [Nm]	Number of conductors	Allen key size	Mounting	EAN-code	Weight [kg]							
KKL 1x16	690	63	1.5-16	1.5-16	2.5	1	Hex 3	Direct	6419410358887	0,010							
KKL 1x50								6419410358108	0,019								
KKL 1x50M								6419410358122	0,017								
KKL 1x50MW								6419410358153	0,019								
KKL 1x50N								6419410358146	0,014								
KKL 1x50R							Bolt	6419410358894	0,011								
KKL 2X50	690	320	16-50	16-50	6 [2.5-6mm <sup>2</sup> ] 12 [16-50mm <sup>2</sup> ]	2	Hex 5	Bolt M8	6419410358900	0,023							
KKL 2X50M									6419410358917								
KKL 1x95	690	200	25-95	25-95	12 [25-50mm <sup>2</sup> ]	1	Hex 6	Bolt M8	6419410358924	0,030							
KKL 2x95		400			22 [70-95mm <sup>2</sup> ]			Bolt M10	6419410358948	0,061							
KKL 1x120T.1	690	160	16-120	16-120	12 [16-35mm <sup>2</sup> ] 22 [50-120mm <sup>2</sup> ]	1	Hex 6	Direct	6419410358962	0,037							
KKL 1X120T.2									6419410358986								
KKL 1X120T.3									6419410359006								
KKL 1X120TM																	
KKL 1X120RS															M8	6419410358382	0,044
KKL 1X120RSY															M8	6419410358368	

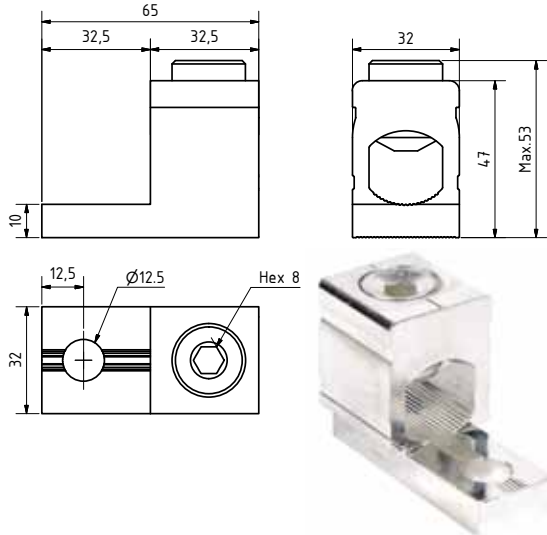
### KKL 1x150



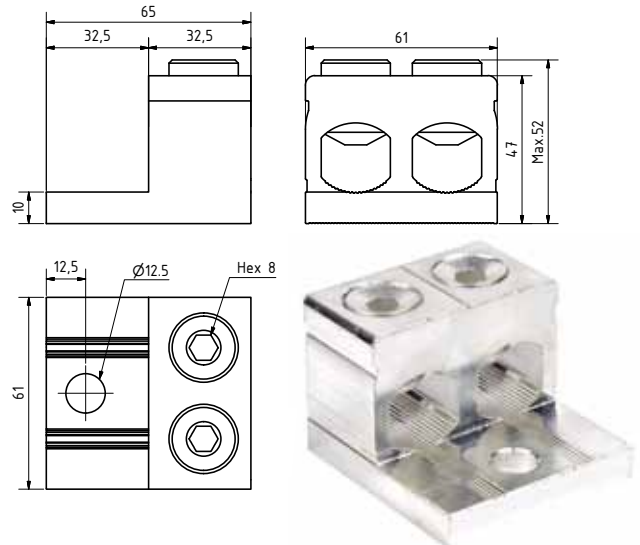
### KKL 2x150



### KKL 1x240



### KKL 2x240



Type	Un (V)	In (A)	Al mm <sup>2</sup>	Cu mm <sup>2</sup>	Torque Al/Cu (Nm)	Number of conductors	Allen key size	Mounting	EAN-code	Weight (kg)
KKL 1X150	690	315	25-150	25-150	12 (25-50mm <sup>2</sup> )	1	Hex 6	Bolt M10	6419410359020	0,073
KKL 2X150		630			22 (70-95mm <sup>2</sup> )			35 (120-150mm <sup>2</sup> )	2	Bolt M12
KKL 1X240	690	400	35-240	35-240	25 (35-120mm <sup>2</sup> )	1	Hex 6	Bolt M12	6419410359068	0,113
KKL 2X 240		800			55 (150-240mm <sup>2</sup> )				2	Hex 8

## EXAMPLES OF USE



MCB 16 A + KKL 1x16T



VKA 3160 + KKL 1x120T



KVKE 3125 + KKL 1x120T



MCCB 160 A + KKL 1x120TM



VKE 3250 + KKL 1x240

## MOULDED CABLE GLANDS WITH STRAIN RELIEF



### KPK-MVP

Material: Polyamide  
Colour: Grey, RAL 7035  
IP68

Type	EAN-code	Cable	Thread	Width	Pcs
		Ø mm	mm	mm	
KPK M12 MVP	6419410362808	3...6	8.0	15.0	100
KPK M16 MVP	6419410362815	5...10	8.0	20.0	100
KPK M20 MVP	6419410362822	8...13	8.0	24.0	100
KPK M25 MVP	6419410362839	11...17	8.0	29.0	50
KPK M32 MVP	6419410362846	15...21	10.0	36.0	25
KPK M40 MVP	6419410362853	19...28	10.0	46.0	10
KPK M50 MVP	6419410362860	27...35	12.0	55.0	5
KPK M63 MVP	6419410362877	32...42	12.0	68.0	5

## ATEX CABLE GLANDS WITH STRAIN RELIEF



### KPK-MVP EX

Material: Polyamide  
Colour: Black, RAL 9005  
⊕ II 2 GD EEx e  
IP66

Type	EAN	Cable	Thread	Width	Pcs
		Ø mm	mm	mm	
KPK M20 MVP EX	6419410362761	5.5...13	8.0	24.0	100
KPK M25 MVP EX	6419410362778	8...17	8.0	29.0	50
KPK M32 MVP EX	6419410362785	12...21	10.0	36.0	25
KPK M40 MVP EX	6419410362792	17...28	10.0	46.0	10

## ENLARGERS



### KE

Material: Polyamide  
Colour: Grey, RAL 7035

Type	EAN-code	Thread	Width	Height	Pcs
		mm	mm	mm	
KE M12-16	6419410461181	8.0	20.	20.5	100
KE M16-20	6419410461198	8.0	24.0	20.5	100
KE M20-25	6419410461204	8.0	30.	21.0	100
KE M25-32	6419410461211	8.0	37.0	23.0	50
KE M32-40	6419410461228	10.0	45.0	25.0	50

## REDUCTIONS



### KR

Material: Polyamide  
Colour: Grey, RAL 7035

Type	EAN-code	Thread	Width	Height	Pcs
		mm	mm	mm	
KR M20-12	6419410361795	8.0	24.0	12.0	100
KR M20-16	6419410361801	8.0	24.0	12.0	100
KR M25-12	6419410361818	8.0	29.0	14.0	100
KR M25-16	6419410361825	8.0	29.0	14.0	100
KR M25-20	6419410361832	8.0	29.0	14.0	100
KR M32-12	6419410361849	10.0	36.0	16.0	50
KR M32-16	6419410361856	10.0	36.0	16.0	50
KR M32-20	6419410361863	10.0	36.0	16.0	50
KR M32-25	6419410361870	10.0	36.0	16.0	50
KR M40-16	6419410361887	10.0	46.0	16.0	50
KR M40-20	6419410361894	10.0	46.0	16.0	50
KR M40-25	6419410361900	10.0	46.0	16.0	50
KR M40-32	6419410361917	10.0	46.0	16.0	50
KR M50-20	6419410361924	12.0	55.0	18.0	25
KR M50-25	6419410361931	12.0	55.0	18.0	25
KR M50-32	6419410361948	12.0	55.0	18.0	25
KR M50-40	6419410361955	12.0	55.0	18.0	25
KR M63-25	6419410361962	12.0	68.0	18.0	25
KR M63-32	6419410361979	12.0	68.0	18.0	25
KR M63-40	6419410361986	12.0	68.0	18.0	25
KR M63-50	6419410361993	12.0	68.0	18.0	25

## ADAPTERS



### PG-M

Material: Polyamide  
Colour: Grey, RAL 7035

Type	EAN-code	Thread	Width	Height	Pcs
		mm	mm	mm	
KR PK7-M12	6419410459911	8.0	15.0	20.0	100
KR PK7-M16	6419410459928	8.0	20.0	20.0	100
KR PK9-M12	6419410429935	8.0	19.0	20.0	100
KR PK9-M16	6419410459942	8.0	20.0	20.0	100
KR PK9-M20	6419410459959	8.0	24.0	20.0	100
KR PK11-M16	6419410459966	8.0	22.0	20.0	100
KR PK11-M20	6419410459973	8.0	24.0	20.0	100
KR PK13-M16	6419410459980	9.0	24.0	21.0	100
KR PK13-M20	6419410459997	9.0	24.0	21.0	100
KR PK13-M25	6419410461006	9.0	30.0	21.5	100
KR PK16-M20	6419410461013	10.0	27.0	22.0	100
KR PK16-M25	6419410461020	10.0	30.0	22.5	100
KR PK21-M25	6419410461037	11.0	33.0	23.5	50
KR PK21-M32	6419410461044	11.0	37.0	25.5	50
KR PK29-M32	6419410461051	11.0	42.0	25.5	50
KR PK29-M40	6419410461068	11.0	45.0	25.5	50



### M-PG

Material: Polyamide  
Colour: Grey, RAL 7035  
H = Hexagon

Type	EAN-code	Thread	Width	Height	Pcs
		mm	mm	mm	
KR M12-PK7 H	6419410461075	8.0	15.0	21.0	100
KR M12-PK9 H	6419410461082	11.0	19.0	23.5	100
KR M16-PK9 H	6419410461099	11.0	19.0	24.5	100
KR M20-PK11 H	6419410461105	11.0	22.0	26.5	100
KR M20-PK13,5 H	6419410461112	11.0	24.0	26.0	100
KR M25-P16 H	6419410461129	11.0	27.0	29.0	50
KR M25-PK21 H	6419410461136	11.0	32.0	31.0	50
KR M32-PK29 H	6419410461143	11.0	42.0	33.0	25
KR M40-PK29 H	6419410461150	11.0	42.0	34.0	10
KR M50-PK36 H	6419410461167	11.0	53.0	37.0	10
KR M50-PK42 H	6419410461174	11.0	60.0	39.0	10
KR M63-PK48 H	6419410461310	11.0	65.0	40.0	10

## SCREW PLUGS



### KST

Material: Polyamide  
Colour: Grey, RAL 7035

Type	EAN-code	Thread	Width	Height	Pcs
		mm	mm	mm	
KST M12	6419410461235	6.0	15.0	10.0	100
KST M16	6419410461242	6.0	20.0	10.5	100
KST M20	6419410461259	6.0	24.0	10.5	100
KST M25	6419410461266	8.0	30.0	13.0	100
KST M32	6419410461273	8.0	37.0	13.5	100
KST M40	6419410461280	8.0	46.0	14.0	50
KST M50	6419410461297	10.0	56.0	16.5	50
KST M63	6419410461303	12.0	70.0	17.0	50

## HEXAGONAL LOCKNUTS



### KVM

Material: Polyamide  
Colour: Grey, RAL 7035

Type	EAN-code	Width	Height	Pcs
		mm	mm	
KVM M12	6419410359709	17.0	5.0	100
KVM M16	6419410359716	22.0	5.0	100
KVM M20	6419410359723	27.0	6.0	100
KVM M25	6419410359730	32.0	6.0	100
KVM M32	6419410359747	41.0	7.0	100
KVM M40	6419410359754	50.0	7.0	50
KVM M50	6419410359761	60.0	8.0	50
KVM M63	6419410359778	75.0	8.0	50

### CABLE GLANDS WITH STRAIN RELIEF



#### KPK-TVP

Material:  
Nickel-coated brass  
IP68

Type	EAN	Cable	Thread	Width	Pcs
		Ø mm	mm	mm	
KPK M12 TVP	6419410362884	3...6	5.0	14.0	100
KPK M16 TVP	6419410362891	5...9	5.0	17.0	100
KPK M20 TVP	6419410362907	9...13	6.0	22.0	100
KPK M25 TVP	6419410362914	11...16	7.0	27.0	50
KPK M32 TVP	6419410362921	14...21	8.0	34.0	25
KPK M40 TVP	6419410362938	19...27	8.0	43.0	10
KPK M50 TVP	6419410362945	24...35	9.0	55.0	5
KPK M63 TVP	6419410362952	32...42	10.0	65.0	5

### EMC-PROTECTED CABLE GLANDS WITH STRAIN RELIEF



#### KPK-TVP/EMC-Y

Material:  
EMC-protected  
nickel-coated brass  
IP68

Type	EAN	Cable	Thread	Width	Pcs
		Ø mm	mm	mm	
KPK M12 TVP/EMC-Y	6419410363287	3...6.5	5.0	14.0	100
KPK M16 TVP/EMC-Y	6419410363263	4.5...10	5.0	17.0	100
KPK M20 TVP/EMC-Y	6419410363201	6...12	6.0	22.0	100
KPK M25 TVP/EMC-Y	6419410363218	11...17	7.0	27.0	50
KPK M32 TVP/EMC-Y	6419410363225	15...21	8.0	34.0	25
KPK M40 TVP/EMC-Y	6419410363232	19...28	8.0	43.0	10
KPK M50 TVP/EMC-Y	6419410363249	27...38	9.0	55.0	5
KPK M63 TVP/EMC-Y	6419410363256	34...44	10.0	65.0	5
KPK M63L TVP/EMC-Y	6419410360941	37...53	10.0	75.0	5
KPK M75 T/EMC-Y	6419410360958	53...64	18.0	90.0	4
KPK M85 T/EMC-Y	6419410360965	69...74	20.0	108.0	4
KPK M105 T/EMC-Y	6419410360972	75...90	22.0	130.0	1

### ATEX CABLE GLANDS WITH STRAIN RELIEF



#### KPK-TVP EX

Material:  
Nickel-coated brass  
⊕ II 2 GD EEx e  
IP68

Type	EAN	Cable	Thread	Width	Pcs
		Ø mm	mm	mm	
KPK M20 TVP EX	6419410362686	9...13	6.0	22.0	100
KPK M25 TVP EX	6419410362693	11...16	7.0	27.0	50
KPK M32 TVP EX	6419410362709	14...21	8.0	34.0	25
KPK M40 TVP EX	6419410362716	19...27	8.0	43.0	10

### ACID PROOF CABLE GLANDS WITH STRAIN RELIEF



#### KPK-HVP

Material:  
Acid proof steel,  
according to AISI 316  
IP68  
Hexagon locknuts  
included

Type	EAN	Cable	Thread	Width	Pcs
		Ø mm	mm	mm	
KPK M16 HVP	6419410461419	7...11.5	6.0	20.0	10
KPK M20 HVP	6419410461426	8...15	6.0	24.0	10
KPK M25 HVP	6419410461433	13...20	7.5	32.0	10
KPK M32 HVP	6419410461440	18...25.5	8.0	38.0	10

### HEXAGONAL ENLARGERS



#### KE-TH

Material:  
Nickel-coated brass

Type	EAN	Thread	Width	Height	Pcs
		mm	mm	mm	
KE M12-16 TH	6419410361405	5.0	18.0	16.0	100
KE M16-20 TH	6419410361412	5.0	22.0	16.5	100
KE M20-25 TH	6419410361429	6.0	27.0	18.5	50
KE M25-32 TH	6419410361436	7.0	34.0	20.25	25
KE M32-40 TH	6419410361443	8.0	42.0	23.5	25
KE M40-50 TH	6419410361450	8.0	52.0	30.0	10
KE M50-63 TH	6419410361467	9.0	65.0	32.5	10

### REDUCTIONS



#### KR-T

Material:  
Nickel-coated brass

Type	EAN	Thread mm	Width mm	Height mm	Pcs
KR M16-12 T	6419410360767	6.0	20.0	8.5	100
KR M20-12T	6419410360774	6.5	24.0	9.0	100
KR M20-16 T	6419410360781	6.5	24.0	9.0	100
KR M25-16 T	6419410360798	7.0	30.0	10.0	100
KR M25-20T	6419410360804	7.0	30.0	10.0	100
KR M32-20 T	6419410360811	8.0	39.0	11.5	50
KR M32-25 T	6419410360828	8.0	39.0	11.5	50
KR M40-25T	6419410360835	9.0	50.0	12.5	25
KR M40-32 T	6419410360842	9.0	50.0	12.5	25
KR M50-32 T	6419410360859	10.0	57.0	14.0	10
KR M50-40 T	6419410360866	10.0	57.0	14.0	10
KR M63-40T	6419410360873	10.0	70.0	14.0	10
KR M63-50 T	6419410360880	10.0	70.0	14.0	10

### ADAPTERS



#### PK-M

Material:  
Nickel-coated brass

Type	EAN	Thread mm	Width mm	Height mm	Pcs
KR PK16 M20 T	6419410362211	6.5	24.0	9.5	100
KR PK21 M25 T	6419410362228	7.0	30.0	10.0	100
KR PK29 M25 T	6419410362235	8.0	39.0	11.5	100



#### M-PK

Material:  
Nickel-coated brass

Type	EAN	Thread mm	Width mm	Height mm	Pcs
KR M16 PK7 TH	6419410360606	5.0	17.0	8.0	100
KR M20 PK9 TH	6419410360613	6.0	22.0	9.0	100
KR M25 PK11 TH	6419410360620	7.0	27.0	10.0	100
KR M25 PK13,5 TH	6419410360637	7.0	27.0	10.0	100
KR M32 PK13,5 TH	6419410360644	8.0	34.0	11.0	50
KR M32 PK16 TH	6419410360651	8.0	34.0	11.0	50
KR M32 PK21 TH	6419410360668	8.0	34.0	11.0	50
KR M40 PK16 TH	6419410360675	8.0	43.0	12.0	25
KR M40 PK21 TH	6419410360682	8.0	43.0	12.0	25
KR M40 PK29 TH	6419410360699	8.0	43.0	12.0	25
KR M50 PK21 TH	6419410360705	9.0	55.0	13.0	25
KR M50 PK29 TH	6419410360712	9.0	55.0	13.0	25
KR M50 PK36 TH	6419410360729	9.0	55.0	13.0	10
KR M63 PK29 TH	6419410360739	10.0	65.0	14.0	10
KR M63 PK36 TH	6419410360743	10.0	65.0	14.0	10
KR M63 PK42 TH	6419410360750	10.0	65.0	14.0	10

### SCREW PLUGS



#### KST-TT

Material:  
Nickel-coated brass

Type	EAN	Thread mm	Width mm	Height mm	Pcs
KST M12 TT	6419410361702	5.0	16.0	8.0	100
KST M16 TT	6419410361719	6.0	20.0	9.0	100
KST M20 TT	6419410361726	6.5	24.0	9.5	100
KST M25 TT	6419410361733	7.0	28.0	11.0	100
KST M32 TT	6419410361740	8.0	35.0	12.0	50
KST M40 TT	6419410361757	8.0	45.0	12.0	50
KST M50 TT	6419410361764	9.0	55.0	15.0	25
KST M63 TT	6419410361771	10.0	68.0	16.0	10

## ATEX SCREW PLUGS



### KST-T EX

Material:  
Nickel-coated brass  
⊕ II 2 GD EEx e  
IP68

Type	EAN	Thread	Width	Height	Pcs
		mm	mm	mm	
KST M20 T EX	6419410362242	6.5	24.0	9.5	100
KST M25 T EX	6419410362259	7.0	28.0	11.0	100
KST M32 T EX	6419410362266	8.0	35.0	12.0	50

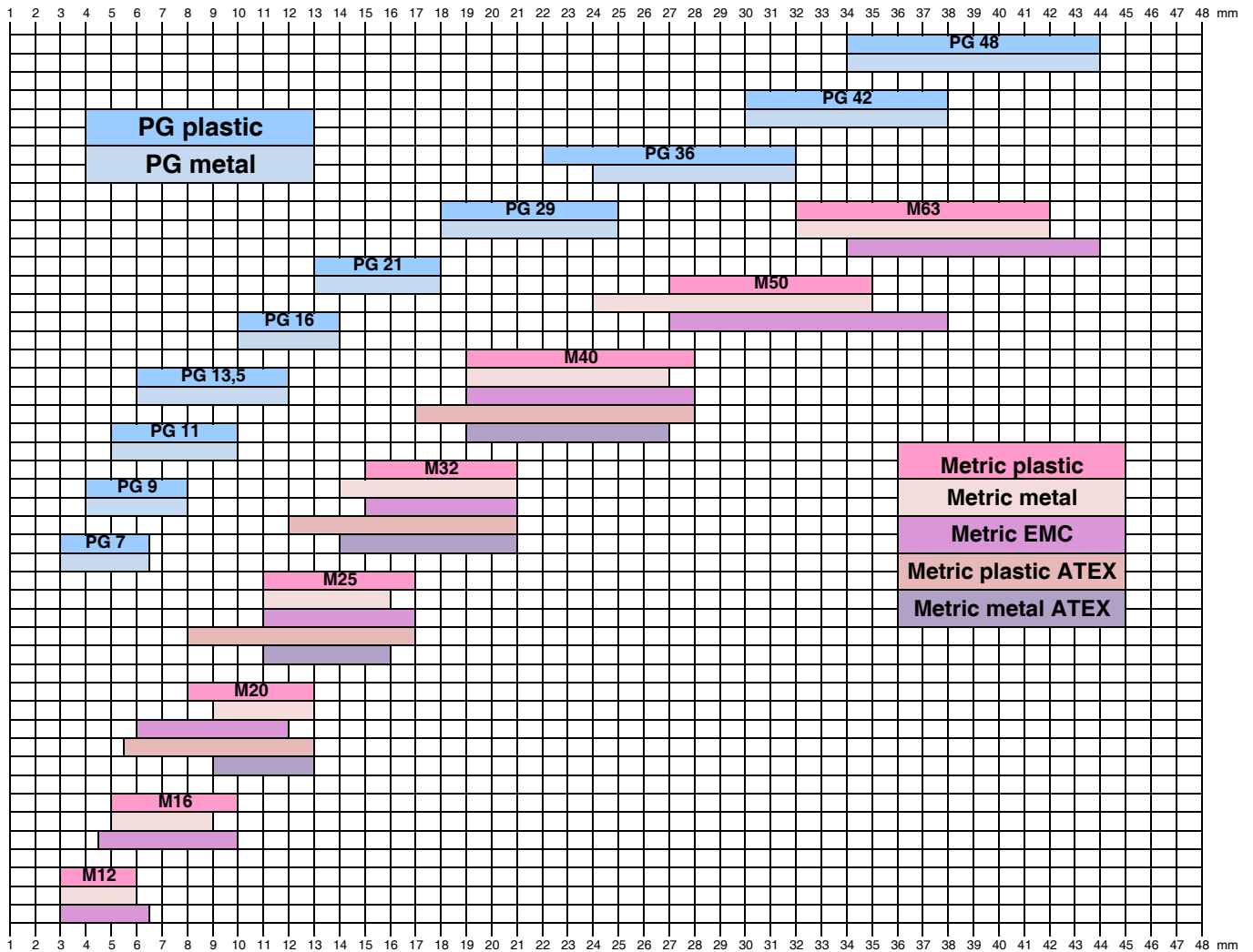
## HEXAGONAL LOCKNUTS



### KVM-T

Material:  
Nickel-coated brass

Type	EAN	Width	Height	Pcs
		mm	mm	
KVM M12 T	6419410359914	15.0	2.8	100
KVM M16 T	6419410359921	19.0	2.8	100
KVM M20 T	6419410359938	24.0	3.0	100
KVM M25 T	6419410359945	30.0	3.5	100
KVM M32 T	6419410359952	36.0	4.0	100
KVM M40 T	6419410359969	46.0	5.0	50
KVM M50 T	6419410359976	60.0	5.0	50
KVM M63 T	6419410359983	70.0	6.0	50





## CONDITIONS OF SALE

### 1. Validity

These conditions are subject to any special stipulations set out by KATKO Oy (hereinafter "Katko") in the Agreement documents. The said conditions and stipulations shall prevail unless otherwise agreed in writing.

### 2. Specifications

All quotations for goods are made in accordance with Katko's specifications at the time of order.

### 3. Price

Katko reserves the right to undertake reasonable price adjustments in case of fluctuation of cost with two (2) months notice (unless otherwise agreed in written). The adjustment will be applied also to orders already received and confirmed, if the confirmed delivery time is longer than two (2) months. Any change of the prices shall be notified to the Distributor by registered letter, fax or e-mail.

### 4. Delivery

Unless otherwise agreed, deliveries shall be ex-works, Vantaa in accordance with Incoterms 2010. Where the Distributor fails to give Katko adequate instructions for dispatch, or otherwise delays delivery, Katko shall be entitled to store, dispose of or reallocate the goods without being responsible for any loss and at its option to charge for any costs arising and/or to cancel the order.

### 5. Force Major

Katko shall not be under any liability in respect of any delay in delivery arising from Force Major including but not limited to industrial or labour disputes, riots, mobs, fires, floods, wars, civil strife, embargoes, shortages of labour, materials, power, fuels, or means of transportation, whether affecting the Company of any subcontractor, or for circumstances caused by reasons of law, regulations or orders and lack of permission of any government or competent Authority. Any delay caused by such conditions shall be excused and Katko may claim extension of time for as long as such conditions continue. During the period in which delivery of the goods cannot be made for any above-mentioned reason the Distributor shall be entitled, after giving Katko written notice of its intention to do so, to purchase elsewhere at his own cost and risk and Katko shall not be obliged to make up deficiencies which have arisen as aforesaid. If a delay exceeds three months Katko and the Distributor may cancel the Agreement without incurring any liability therefor.

### 6. Payment

a. Unless otherwise agreed, the Distributor shall make full payment in Euro to Katko by confirmed and irrevocable documentary credit (L/C) payable at sight in Helsinki.

b. Katko charges interest for late payment, amounting to one and one half per cent [1 and 1/2%] per month for any unpaid amount from the date such payment is due.

### 7. Claims

No claim for shortage or damage will be considered unless received in writing by Katko within 14 days from receipt of the goods at their destination.

### 8. Guarantee

Katko shall at its option replace at its own cost any goods which on arrival, fail or are found defective, provided that the goods are returned to Katko's designated factory freight prepaid, and Katko is informed immediately, the failure or the defect becomes apparent and the same is shown to Katko's reasonable satisfaction to be due to its faulty workmanship or defective materials.

No other warranties, express or implied, are made or will be deemed to have been made by Katko and Katko neither assumes nor authorises any other person to assume for it any other obligations or liabilities in connection with the distribution and sale of the products or otherwise. This condition shall replace and exclude all common law or statutory warranties, undertakings, statements, representations or conditions whether express or implied. Katko shall not be liable in contract or tort for any indirect, consequential or economic loss (whether relating to quality, despatch, and delivery or otherwise).

The Distributor will assume responsibility for and hold and save Katko harmless from all claims (including but not limited to claims resulting from acts of negligence on the part of the Distributor), liabilities, demand, costs or expenses or the like which may be incurred. The Distributor shall maintain during the term of this Agreement adequate insurance to cover its obligations under these conditions.

### 9. Copyright and confidentiality

The copyright in all Katko documents (including drawings and art work) furnished to the Distributor shall at all times remain vested in Katko and neither the documents nor their contents shall be used without Katko's express written consent for any purpose other than that for which they were furnished.

### 10. Taxes, duties, fees, charges

The quoted price is exclusive of all taxes, duties and fees and charges of any kind in the country of destination. Such taxes, duties, fees and charges are payable by the Distributor.

### 11. Forbearance

Katko's rights shall not be affected or restricted by any indulgence or forbearance to the Distributor.

### 12. Orgalime S 2000

Orgalime S 2000 "General Conditions for the Supply of Mechanical, Electrical and Electronic products" (hereafter Orgalime S 2000) shall apply if not otherwise agreed in the Agreement documents or determined in these conditions. Therefore, should there be a conflict between these conditions and Orgalime S 2000, these conditions shall prevail.







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Established in 1938, KATKO is a family-owned company that generates more than 60% of its export in over 40 countries around the world.