

easy to install



ENCLOSED SWITCHES



NEW RANGE OF ENCLOSED SWITCHES

CONSISTS OF U2, U3 AND U4

Polycarbonate (IP66) or ABS (IP65) enclosure.

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

stainless steel screw fixing

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.

Large cable terminals
1,5 - 16 mm² up to 40A
(2,5 - 35 mm² up to 80A)

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

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

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

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



Retained handle, you do not have to unscrew to remove cover

Provision for 3 padlocks



More information on pages 8-11

SAVE TIME AND MONEY ON INSTALLATION

Innovation in Development and Production of Quality Switches Over Sixty years

When Mr. Kauko Hyryläinen founded KATKO in 1941, one of his key targets was innovation in development of new products and production methods. The idea was that we should give our customers the best possible solutions to match their needs. Already at that time the goal of the company was to produce high quality products using the latest technology available and this is still our goal.

KATKO ensures the quality of their products by using independent and approved test houses to make sure that the products comply with current world wide standards.

Since then our business has changed and increased, from a domestic supplier into a company working worldwide. Today we have two joint venture companies, a sales company in the United Kingdom and a manufacturing unit in Poland. Our network around the world has increased and today we have partners in over forty countries on six continents and our share of export is more than 60 % of our production.

Our strong investments in product and production development have recently created a great number of new products with good market opportunities. We have great expectations for our three different plastic and three metallic ranges of enclosed switches. This gives many advantages to our customers: not only the possibility to choose the right enclosure for the correct application but also an Easy to Install feature.

I know that together with our partners we will have interesting times ahead of us, times which will provide us with lots of new challenges but also a bit of fun when working together for better future. Our aim at KATKO, with our partners, is to leave a better world behind us, so that our children have possibilities to sail on these waters.

I am sure you will find solutions for your needs from our product catalogue.

Jukka Hyryläinen
Managing Director & CEO

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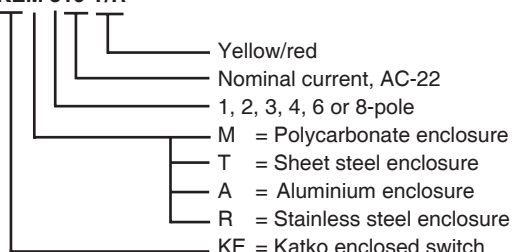


ENCLOSED SWITCHES 16 - 800A SAFETY SWITCHES / ISOLATORS

- Professional product range
- Enclosures:

Polycarbonate (KEM)	IP66/IP65
ABS (KEM)	IP65
Sheet steel (KET)	IP65/IP55
Aluminium (KEA)	IP66/IP65
Stainless steel (KER)	IP66/IP65
- Tested according to IEC 60 947-3
- and UL 508 (polycarbonate 25-150 A)
- CB certificates
- 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
- Product codes e.g.

KEM 316 Y/R



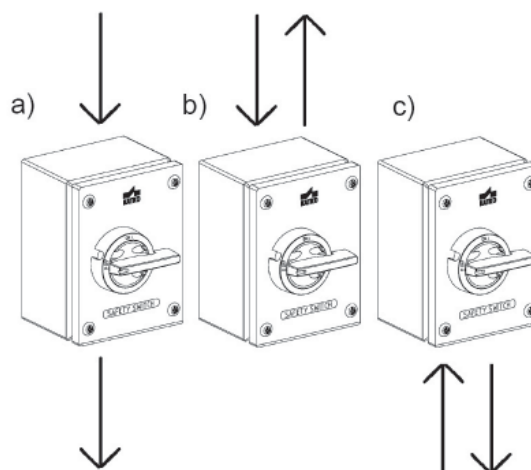
NOTE: When ordering the grey/black series no abbreviation is needed.

KATKO SWITCHES - FOR HEAVY DUTY

- Superior life span even in most demanding environments such as papermills, chemical plants, steel-works and food processing industries

EASY TO INSTALL

- Cable entry and exit from the base for higher ampere models
- Retrofit snap-on auxiliary contacts
- Flexible installation, incoming and outgoing cables for example:
 - a) KEM 3400: In from the top, out from the bottom of the enclosure
 - b) KEM 3400 Y: in- and outgoing cables from the top of the enclosure
 - c) KEM 3400 A: in- and outgoing cables from the bottom of the enclosure



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 ²	SHEET STEEL ENCLOSURES	Cable size mm ²	ALUMINIUM ENCLOSURES	Cable size mm ²	STAINLESS STEEL ENCLOSURES
U2	3x2,5+2,5	TT005	3x2,5+2,5	A2	3x2,5+2,5	H23
	3x6+6		3x6+6		3x6+6	
U3	3x10+10		3x10+10	A3	3x10+10	H32
	3x16+16	3x16+16	3x16+16			
	3x25+16	3x25+16	3x25+16			
U4	3x35+16	TR02	3x35+16	AS01	3x35+16	H02
	3x50+25		3x50+25		3x50+25	
MF11, MF12	3x70+35		3x70+35		3x70+35	
MF03, MF04	3x95+50	TR03	3x95+50	AS02	3x95+50	H03
	3x120+70		3x120+70		3x120+70	
	3x185+95		3x185+95		3x185+95	
	3x240+120	TR04	3x240+120		H04	

SAFETY SWITCHES / ISOLATORS 10-800 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	
Rated thermal current	I_{the} (A)	20	25	40	63	80	100	160	200	
Rated operational current	I_e (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	32	40	63	80	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	15	22	30	45	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	
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	256	320	504	640	1080
		500V	80	128	200	256	320	320	640	1000
690V		80	128	200	256	320	320	640	1000	
Electrical endurance (number of operations)		3000	3000	3000	3000	3000	3000	2000	2000	
Mechanical endurance (number of operations)		50000	50000	50000	50000	50000	50000	16000	16000	
Terminals / * Bolt size	Cu (mm ²)	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

ENCLOSED SWITCHES

200 A ¹⁾	200 A ²⁾	250 A ¹⁾	250 A ²⁾	315 A	400 A	630 A	800 A	Safety switches / Isolators		
1000	1000	1000	1000	1000	1000	1000	1000	U _i (V)	Rated insulation voltage	
200	200	250	250	315	400	630	800	I _{th} (A)	Rated thermal current	
200	200	250	250	315	400	630	800	I _{the} (A)	Rated thermal current	
									I _e (A)	Rated operational current
200	200	250	250	315	400	630	800	400/415V	AC-21	
200	200	250	250	315	400	630	800	500V		
200	200	250	250	315	400	630	800	690V	AC-22	
200	-	250	-	315	400	630	800	500V		
200	-	250	-	315	400	630	630	690V	AC-23	
200	200	250	250	315	400	630	800	400/415V		
200	-	250	-	315	400	500	630	500V	AC-23	
200	-	250	-	315	400	500	400	690V		
									(kW)	Rated operational power for 3-phase (1500 r.p.m.) squirrel cage induction motors
110	110	132	132	160	200	355	400	400/415V	AC-23	
132	-	160	-	200	250	355	400	500V		
160	-	250	-	315	355	500	355	690V		
									(A)	Rated fused short circuit current
250	250	250	250	400	400	630	800		Back-up fuse	
50	50	50	50	50	50	50	100	I _k (kA)	R.M.S. value	
18	22	18	22	26	26	32	70	(kA)	Peak value	
7	7	7	7	12	12	17	-	I _{cm} (kA)	Rated short circuit making capacity	
5	6	5	6	7	7	10	35	I _{cw} (kA)	Rated short time withstand current (1 s)	
									I _{cn} (A)	Rated breaking capacity
1600	1400	2000	2000	2520	3200	5040	6400	400/415V	AC-23	
1600	-	2000	-	2520	3200	4000	5040	500V		
1600	-	2000	-	2520	3200	4000	3200	690V		
2000	2000	2000	2000	2000	2000	2000	1000	Electrical endurance (number of operations)		
16000	16000	16000	16000	10000	10000	10000	7000	Mechanical endurance (number of operations)		
M10	M8	M10	M8	M10	M10	M12	M14	Cu (mm ²)	Terminals / * Bolt size	
30-44	15-22	30-44	15-22	30-44	30-44	50-75	45	(Nm)	Max terminal torque	

POLYCARBONATE ENCLOSED SAFETY SWITCHES / ISOLATORS 10-800 A

- IP 66; Enclosure types U2, U3, U4
- IP 65; Enclosure types MF11, MF03, MF04
- Self-extinguishing material
- Wide operating temperature range
- Padlockable   
- Door interlock with defeat mechanism
- Excellent insulating properties
- Good UV resistance
- Good resistance against many chemicals



KEM 316U

GREY/BLACK-SERIES




400 V AC-21 415 V 690 V	400 V AC-22 415 V 690 V	AC-23		AC-23		Number of poles	Type	EAN-Code	Enclosure	Weight kg
		I _e / A	P / kW	I _e / A	P / kW					
I _e / A	I _e / A	I _e / A	P / kW	I _e / A	P / kW					
20 A	10 A	10 A	5,5 kW	10 A	7,5 kW	3P 4P	KEM 310U KEM 410U	6419410327654 6419410321072	U2 U2	0,4 0,5
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P 4P 6P 8P	KEM 316U KEM 416U KEM 616U KEM 816U	6419410327661 6419410327678 6419410399712 6419410399811	U2 U2 U3 U3	0,4 0,5 0,9 1,0
40 A	25 A	25 A	11 kW	25 A	22 kW	3P 4P 6P 8P	KEM 325U KEM 425U KEM 625U KEM 825U	6419410327685 6419410327692 6419410399736 6419410399835	U2 U2 U3 U3	0,4 0,5 0,9 1,0
63 A	40 A	32 A	15 kW	32 A	30 kW	3P 4P 6P 8P	KEM 340U KEM 440U KEM 640U KEM 840U	6419410327708 6419410327715 6419410399750 6419410399859	U2 U2 U3 U3	0,4 0,5 0,9 1,0
80 A	63 A	40 A	22 kW	40 A	37 kW	3P 4P 6P 8P	KEM 363U KEM 463U KEM 663U KEM 863U	6419410399637 6419410399675 6419410399774 6419410399873	U3 U3 U3 U3	0,6 0,7 0,9 1,0
100 A	80 A	63 A	30 kW	40 A	37 kW	3P 4P 6P 8P	KEM 380U KEM 480U KEM 680U KEM 880U	6419410399651 6419410399699 6419410399798 6419410399897	U3 U3 U3 U3	0,6 0,7 0,9 1,0
160 A	125 A	80 A	45 kW	80 A	55 kW	3P 4P 6P 8P	KEM 3125U KEM 4125U KEM 6125 KEM 8125	6419410481721 6419410323120 6419410323205 6419410323304	U4 U4 MF11 MF11	1,0 1,0 2,1 2,2
200 A	160 A	135 A	75 kW	125 A	90 kW	3P 4P 6P 8P	KEM 3160 KEM 4160 KEM 6160 KEM 8160	6419410323403 6419410323502 6419410323601 6419410323700	MF11 MF11 MF11 MF11	3,3 3,4 3,8 4,0
200 A	200 A	200 A	110 kW	200 A	160 kW	3P 4P	KEM 3200 KEM 4200	6419410323809 6419410323908	MF03 MF03	7,8 8,3
200 A	200 A ¹⁾	200 A	110 kW	-	-	3P 4P	KEM 3200C KEM 4200C	6419410323816 6419410323915	MF11 MF11	3,4 3,5
250 A	250 A	250 A	132 kW	250 A	250 kW	3P 4P	KEM 3250 KEM 4250	6419410324202 6419410324325	MF03 MF03	7,8 8,3
250 A	250 A ¹⁾	250 A	132 kW	-	-	3P 4P	KEM 3250C KEM 4250C	6419410324219 6419410324332	MF11 MF11	3,4 3,5
315 A	315 A	315 A	160 kW	315 A	315 kW	3P 4P	KEM 3315 KEM 4315	6419410324608 6419410324707	MF03 MF03	8,2 8,8
400 A	400 A	400 A	200 kW	400 A	355 kW	3P 4P	KEM 3400 KEM 4400	6419410325001 6419410325100	MF03 MF03	8,2 8,8
630 A	630 A	630 A	355 kW	500 A	500 kW	3P 4P	KEM 3630 KEM 4630	6419410325407 6419410327616	MF04 MF04	6,0 7,0
800 A	630 A	800 A	400 kW	400 A	355 kW	3P 4P	KEM 3800 KEM 4800	6419410325902 6419410327630	MF04 MF04	6,0 7,0

1) 400/415 V

Dimensions on page 11

Further technical data on pages 6-7

POLYCARBONATE ENCLOSED SAFETY SWITCHES / ISOLATORS 10-800 A

- IP 66; Enclosure types U2, U3, U4
- IP 65; Enclosure types MF11, MF03, MF04
- Self-extinguishing material
- Wide operating temperature range
- Padlockable   
- Door interlock with defeat mechanism
- Excellent insulating properties
- Good UV resistance
- Good resistance against many chemicals



KEM 363U Y/R

YELLOW/RED-SERIES




400 V AC-21 415 V 690 V	400 V AC-22 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	Number of poles	Type	EAN-Code	Enclosure	Weight kg
I _e / A	I _e / A	I _e / A	P / kW	I _e / A	P / kW					
20 A	10 A	10 A	5,5 kW	10 A	7,5 kW	3P 4P	KEM 310U Y/R KEM 410U Y/R	6419410327722 6419410301487	U2 U2	0,4 0,5
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P 4P 6P 8P	KEM 316U Y/R KEM 416U Y/R KEM 616U Y/R KEM 816U Y/R	6419410327739 6419410327746 6419410399729 6419410399828	U2 U2 U3 U3	0,4 0,5 0,9 1,0
40 A	25 A	25 A	11 kW	25 A	22 kW	3P 4P 6P 8P	KEM 325U Y/R KEM 425U Y/R KEM 625U Y/R KEM 825U Y/R	6419410327753 6419410327760 6419410399743 6419410399842	U2 U2 U3 U3	0,4 0,5 0,9 1,0
63 A	40 A	32 A	15 kW	32 A	30 kW	3P 4P 6P 8P	KEM 340U Y/R KEM 440U Y/R KEM 640U Y/R KEM 840U Y/R	6419410327777 6419410327784 6419410399767 6419410399866	U2 U2 U3 U3	0,4 0,5 0,9 1,0
80 A	63 A	40 A	22 kW	40 A	37 kW	3P 4P 6P 8P	KEM 363U Y/R KEM 463U Y/R KEM 663U Y/R KEM 863U Y/R	6419410399644 6419410399682 6419410399781 6419410399880	U3 U3 U3 U3	0,6 0,7 0,9 1,0
100 A	80 A	63 A	30 kW	40 A	37 kW	3P 4P 6P 8P	KEM 380U Y/R KEM 480U Y/R KEM 680U Y/R KEM 880U Y/R	6419410399668 6419410399705 6419410399804 6419410399903	U3 U3 U3 U3	0,6 0,7 0,9 1,0
160 A	125 A	80 A	45 kW	80 A	55 kW	3P 4P 6P 8P	KEM 3125U Y/R KEM 4125U Y/R KEM 6125 Y/R KEM 8125 Y/R	6419410481738 6419410323144 6419410319307 6419410319406	U4 U4 MF11 MF11	1,0 1,0 2,1 2,2
200 A	160 A	135 A	75 kW	125 A	90 kW	3P 4P 6P 8P	KEM 3160 Y/R KEM 4160 Y/R KEM 6160 Y/R KEM 8160 Y/R	6419410319505 6419410319604 6419410319703 6419410319758	MF11 MF11 MF11 MF11	3,3 3,4 3,8 4,0
200 A	200 A	200 A	110 kW	200 A	160 kW	3P 4P	KEM 3200 Y/R KEM 4200 Y/R	6419410319826 6419410323922	MF03 MF03	7,8 8,3
200 A	200 A ¹⁾	200 A	110 kW	-	-	3P 4P	KEM 3200C Y/R KEM 4200C Y/R	6419410323823 6419410323939	MF11 MF11	3,4 3,5
250 A	250 A	250 A	132 kW	250 A	250 kW	3P 4P	KEM 3250 Y/R KEM 4250 Y/R	6419410319888 6419410324349	MF03 MF03	7,8 8,3
250 A	250 A ¹⁾	250 A	132 kW	-	-	3P 4P	KEM 3250C Y/R KEM 4250C Y/R	6419410324226 9419410324356	MF11 MF11	3,4 3,5
315 A	315 A	315 A	160 kW	315 A	315 kW	3P 4P	KEM 3315 Y/R KEM 4315 Y/R	6419410319949 6419410324721	MF03 MF03	8,2 8,8
400 A	400 A	400 A	200 kW	400 A	355 kW	3P 4P	KEM 3400 Y/R KEM 4400 Y/R	6419410320006 6419410325124	MF03 MF03	8,2 8,8
630 A	630 A	630 A	355 kW	500 A	500 kW	3P 4P	KEM 3630 Y/R KEM 4630 Y/R	6419410320068 6419410327623	MF04 MF04	6,0 7,0
800 A	630 A	800 A	400 kW	400 A	355 kW	3P 4P	KEM 3800 Y/R KEM 4800 Y/R	6419410320082 6419410327647	MF04 MF04	6,0 7,0

1) 400/415 V

Dimensions on page 11

Further technical data on pages 6-7

ABS ENCLOSED SAFETY SWITCHES / ISOLATORS 10-80 A

- IP 65
- Padlockable   
- Door interlock with defeat mechanism
- Excellent insulating properties
- Good resistance against many chemicals
- E/G=Grey, Y/R=Yellow/Red



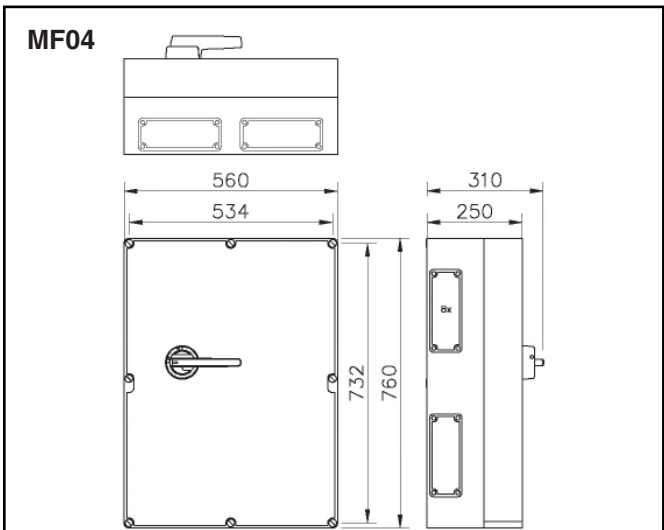
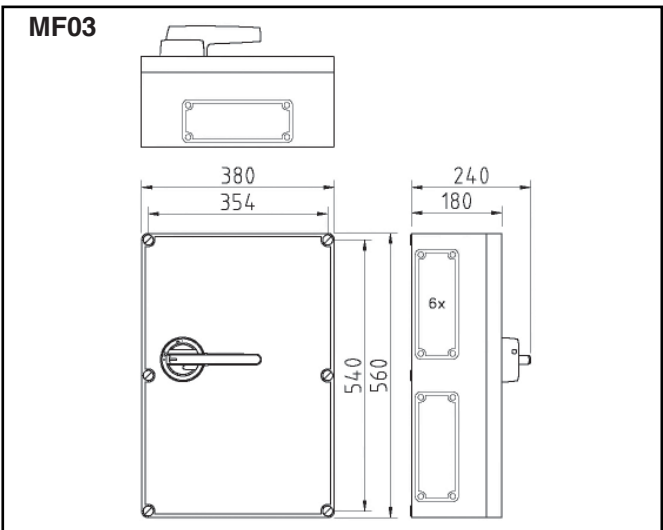
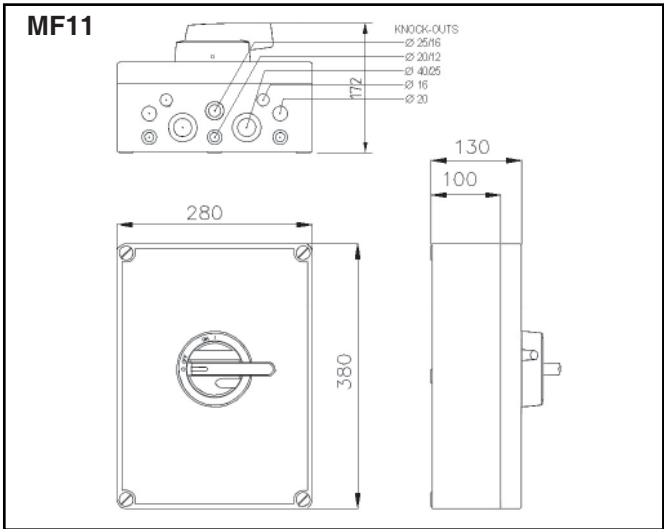
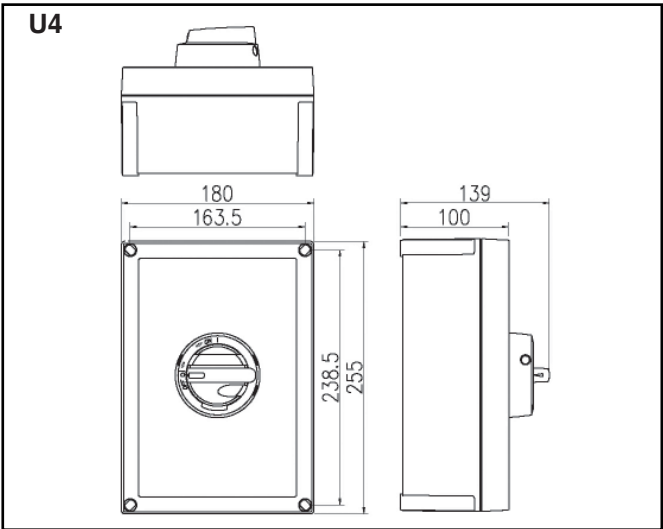
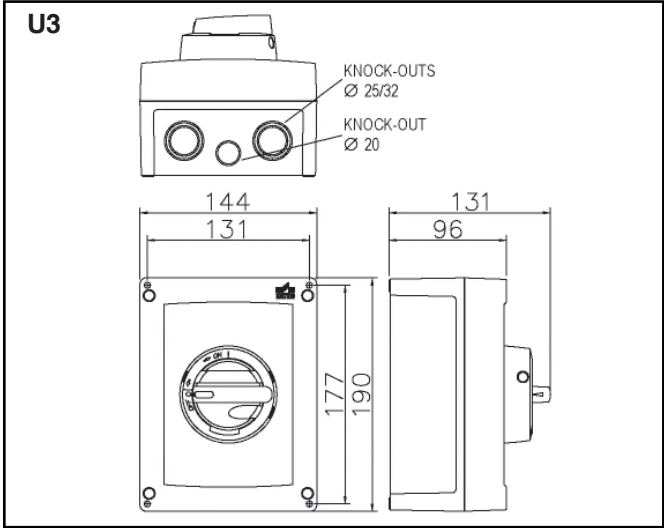
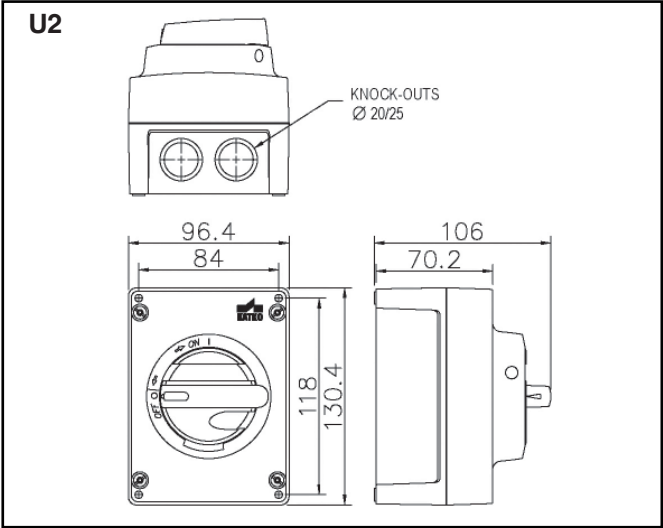
KEM 380U Y/R ABS & KEM 325U E/G

400 V AC-21 415 V 690 V	400 V AC-22 415 V 690 V	AC-23 400 V 415 V		AC-23 690 V		Number of poles	Type	EAN-Code	Enclosure	Weight kg
I _e / A	I _e / A	I _e / A	P / kW	I _e / A	P / kW					
20 A	10 A	10 A	5,5 kW	10 A	7,5 kW	3P	KEM 310U E/G	6419410481004	U2	0,4
						4P	KEM 410U E/G	6419410481011	U2	0,5
						3P	KEM 310U Y/R ABS	6419410481165	U2	0,4
						4P	KEM 410U Y/R ABS	6419410481172	U2	0,5
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KEM 316U E/G	6419410481028	U2	0,4
						4P	KEM 416U E/G	6419410481035	U2	0,5
						3P	KEM 316U Y/R ABS	6419410481189	U2	0,4
						4P	KEM 416U Y/R ABS	6419410481196	U2	0,5
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KEM 325U E/G	6419410481042	U2	0,4
						4P	KEM 425U E/G	6419410481059	U2	0,5
						3P	KEM 325U Y/R ABS	6419410481202	U2	0,4
						4P	KEM 425U Y/R ABS	6419410481219	U2	0,5
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KEM 340U E/G	6419410481066	U2	0,4
						4P	KEM 440U E/G	6419410481073	U2	0,5
						3P	KEM 340U Y/R ABS	6419410481226	U2	0,4
						4P	KEM 440U Y/R ABS	6419410481233	U2	0,5
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KEM 363U E/G	6419410481325	U3	0,6
						4P	KEM 463U E/G	6419410481332	U3	0,7
						3P	KEM 363U Y/R ABS	6419410481646	U3	0,6
						4P	KEM 463U Y/R ABS	6419410481653	U3	0,7
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KEM 380U E/G	6419410481363	U3	0,6
						4P	KEM 480U E/G	6419410481370	U3	0,7
						3P	KEM 380U Y/R ABS	6419410481684	U3	0,6
						4P	KEM 480U Y/R ABS	6419410481691	U3	0,7




Dimensions on page 11

Further technical data on pages 6-7

POLYCARBONATE / ABS ENCLOSED ENCLOSURE DIMENSIONS



SHEET STEEL ENCLOSED SAFETY SWITCHES / ISOLATORS 16-800 A

- IP 65; Enclosure types TT005, TR01, TR02, TR03
- IP 55; Enclosure types TR04, TR06
- Good corrosion resistance
- Padlockable   



KET 316

GREY/BLACK-SERIES




AC-21 400 V 415 V 690 V	AC-22 400 V 415 V 690 V	AC-23	400 V 415 V		690 V		Number of poles	Type	EAN-Code	Enclosure	Weight kg
			I _e / A	P / kW	I _e / A	P / kW					
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KET 316	6419410339800	TT005	2,1	
						4P	KET 416	6419410339817	TT005	2,2	
						6P	KET 616	6419410339824	TT005	2,4	
						8P	KET 816	6419410339831	TT005	2,5	
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KET 325	6419410339848	TT005	2,1	
						4P	KET 425	6419410339855	TT005	2,2	
						6P	KET 625	6419410339862	TT005	2,4	
						8P	KET 825	6419410339879	TT005	2,5	
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KET 340	6419410339886	TT005	2,1	
						4P	KET 440	6419410339893	TT005	2,2	
						6P	KET 640	6419410339909	TT005	2,4	
						8P	KET 840	6419410339916	TT005	2,5	
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KET 363	6419410339923	TT005	2,1	
						4P	KET 463	6419410339930	TT005	2,2	
						6P	KET 663	6419410339947	TT005	2,4	
						8P	KET 863	6419410339954	TT005	2,5	
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KET 380	6419410339961	TT005	2,1	
						4P	KET 480	6419410339978	TT005	2,2	
						6P	KET 680	6419410339985	TT005	2,4	
						8P	KET 880	6419410339992	TT005	2,5	
160 A	125 A	80 A	45 kW	80 A	55 kW	3P	KET 3125	6419410339251	TR01	4,3	
						4P	KET 4125	6419410339275	TR01	4,5	
						6P	KET 6125	6419410338902	TR02	8,6	
						8P	KET 8125	6419410338919	TR02	8,8	
200 A	160 A	135 A	75 kW	125 A	90 kW	3P	KET 3160	6419410339299	TR02	9,7	
						4P	KET 4160	6419410339312	TR02	9,9	
						6P	KET 6160	6419410338926	TR02	8,6	
						8P	KET 8160	6419410338933	TR02	8,8	
200 A	200 A	200 A	110 kW	200 A	160 kW	3P	KET 3200	6419410336700	TR03	19,0	
						4P	KET 4200	6419410341315	TR03	20,0	
						6P	KET 6200	6419410341438	TR04	40,0	
200 A	200 A ¹⁾	200 A	110 kW	-	-	3P	KET 3200C	6419410336731	TR02	7,6	
						4P	KET 4200C	6419410341346	TR02	7,7	
250 A	250 A	250 A	132 kW	250 A	250 kW	3P	KET 3250	6419410337103	TR03	19,0	
						4P	KET 4250	6419410341711	TR03	20,0	
						6P	KET 6250	6419410341834	TR04	40,0	
250 A	250 A ¹⁾	250 A	132 kW	-	-	3P	KET 3250C	6419410337134	TR02	7,6	
						4P	KET 4250C	6419410341773	TR02	7,7	
315 A	315 A	315 A	160 kW	315 A	315 kW	3P	KET 3315	6419410337509	TR03	20,0	
						4P	KET 4315	6419410337547	TR03	20,0	
						6P	KET 6315	6419410337561	TR06	36,0	
400 A	400 A	400 A	200 kW	400 A	355 kW	3P	KET 3400	6419410337905	TR03	20,0	
						4P	KET 4400	6419410337967	TR03	20,0	
						6P	KET 6400	6419410338100	TR06	36,0	
630 A	630 A	630 A	355 kW	500 A	500 kW	3P	KET 3630	6419410338308	TR04	39,0	
						4P	KET 4630	6419410338346	TR04	40,0	
800 A	630 A	800 A	400 kW	400 A	355 kW	3P	KET 3800	6419410338704	TR04	39,0	
						4P	KET 4800	6419410342800	TR04	40,0	

1) 400/415 V

Dimensions on page 14

Further technical data on pages 6-7

SHEET STEEL ENCLOSED SAFETY SWITCHES / ISOLATORS 16-800 A

- IP 65; Enclosure types TT005, TR01, TR02, TR03
- IP 55; Enclosure types TR04, TR06
- Good corrosion resistance
- Padlockable   



KET 3160 Y/R

YELLOW/RED-SERIES

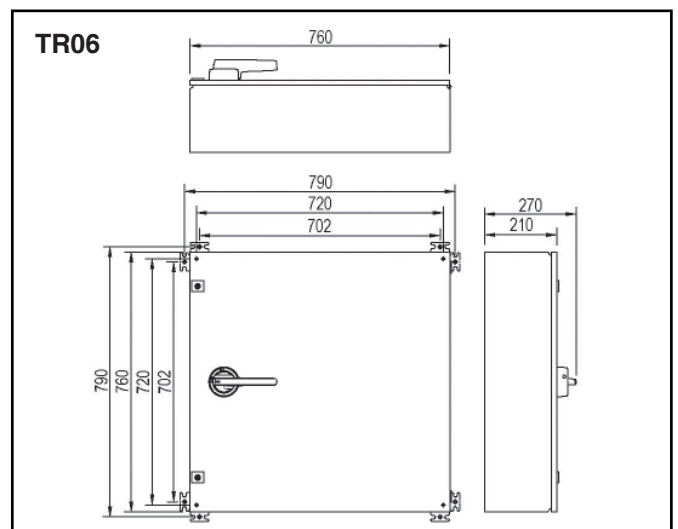
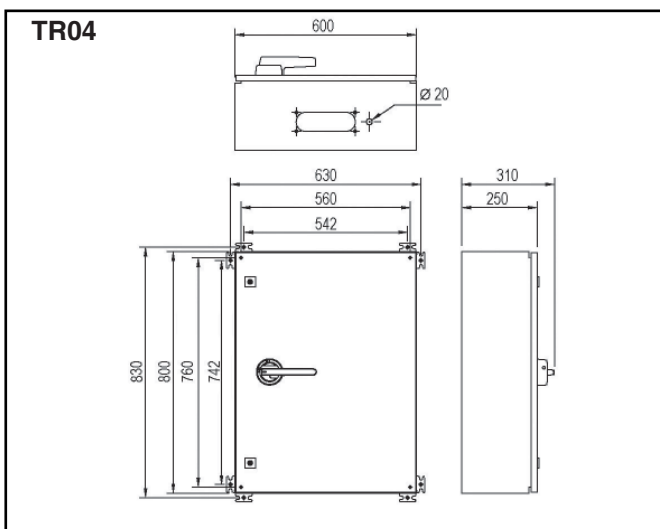
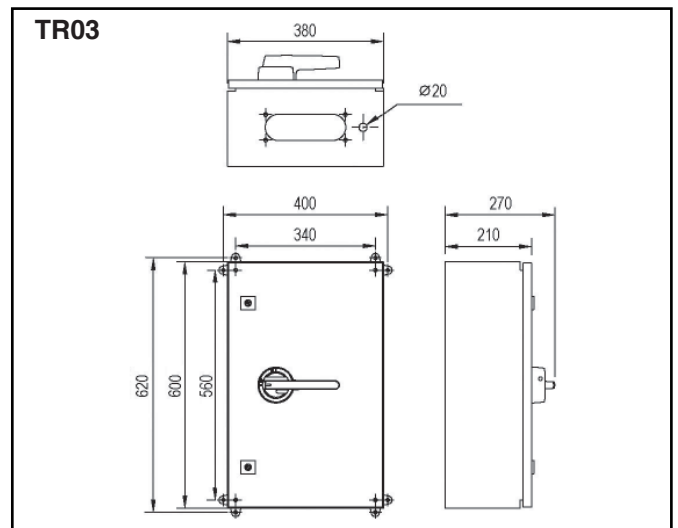
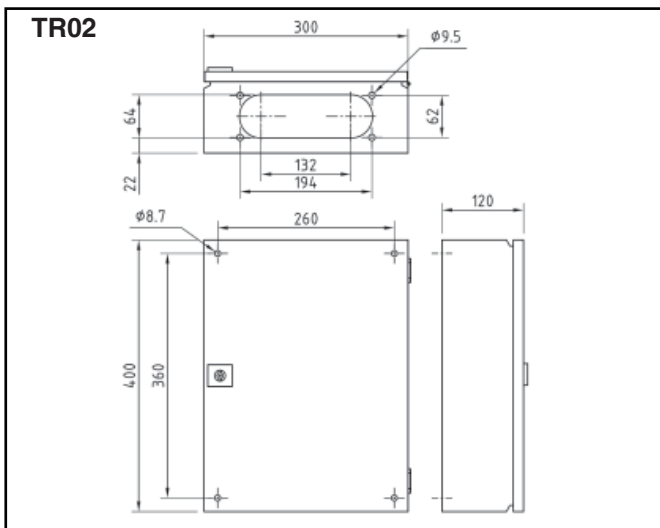
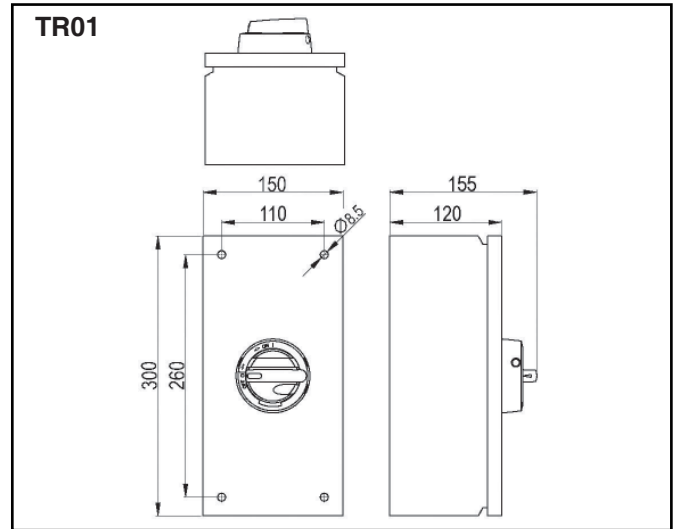
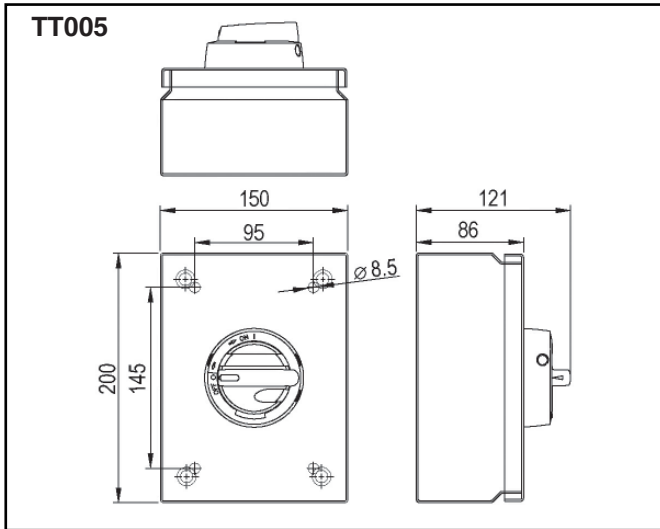
AC-21 400 V 415 V 690 V	AC-22 400 V 415 V 690 V	AC-23	400 V	AC-23	690 V	Number of poles	Type	EAN-Code	Enclosure	Weight kg
			415 V							
I_e / A	I_e / A	I_e / A	P / kW	I_e / A	P / kW					
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KET 316 Y/R	6419410341513	TT005	2,1
						4P	KET 416 Y/R	6419410341520	TT005	2,2
						6P	KET 616 Y/R	6419410341537	TT005	2,4
						8P	KET 816 Y/R	6419410341544	TT005	2,5
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KET 325 Y/R	6419410341551	TT005	2,1
						4P	KET 425 Y/R	6419410341568	TT005	2,2
						6P	KET 625 Y/R	6419410341575	TT005	2,4
						8P	KET 825 Y/R	6419410341582	TT005	2,5
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KET 340 Y/R	6419410341599	TT005	2,1
						4P	KET 440 Y/R	6419410341605	TT005	2,2
						6P	KET 640 Y/R	6419410341612	TT005	2,4
						8P	KET 840 Y/R	6419410341629	TT005	2,5
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KET 363 Y/R	6419410341636	TT005	2,1
						4P	KET 463 Y/R	6419410341643	TT005	2,2
						6P	KET 663 Y/R	6419410341650	TT005	2,4
						8P	KET 863 Y/R	6419410341667	TT005	2,5
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KET 380 Y/R	6419410341735	TT005	2,1
						4P	KET 480 Y/R	6419410341742	TT005	2,2
						6P	KET 680 Y/R	6419410341759	TT005	2,4
						8P	KET 880 Y/R	6419410341766	TT005	2,5
160 A	125 A	80 A	45 kW	80 A	55 kW	3P	KET 3125 Y/R	6419410339268	TR01	4,3
						4P	KET 4125 Y/R	6419410339282	TR01	4,5
						6P	KET 6125 Y/R	6419410341254	TR02	8,6
						8P	KET 8125 Y/R	6419410341261	TR02	8,8
200 A	160 A	135 A	75 kW	125 A	90 kW	3P	KET 3160 Y/R	6419410339305	TR02	9,7
						4P	KET 4160 Y/R	6419410339329	TR02	9,9
						6P	KET 6160 Y/R	6419410341278	TR02	8,6
						8P	KET 8160 Y/R	6419410341285	TR02	8,8
200 A	200 A	200 A	110 kW	200 A	160 kW	3P	KET 3200 Y/R	6419410336724	TR03	19,0
						4P	KET 4200 Y/R	6419410341339	TR03	20,0
200 A	200 A ¹⁾	200 A	110 kW	-	-	6P	KET 6200 Y/R	6419410341445	TR04	40,0
						3P	KET 3200C Y/R	6419410336748	TR02	7,6
200 A	200 A ¹⁾	200 A	110 kW	-	-	4P	KET 4200C Y/R	6419410341353	TR02	7,7
						3P	KET 3250 Y/R	6419410337127	TR03	19,0
250 A	250 A	250 A	132 kW	250 A	250 kW	4P	KET 4250 Y/R	6419410341698	TR03	20,0
						6P	KET 6250 Y/R	6419410341841	TR04	40,0
						3P	KET 3250C Y/R	6419410337141	TR02	7,6
250 A	250 A ¹⁾	250 A	132 kW	-	-	4P	KET 4250C Y/R	6419410341780	TR02	7,7
						3P	KET 3315 Y/R	6419410337523	TR03	20,0
315 A	315 A	315 A	160 kW	315 A	315 kW	4P	KET 4315 Y/R	6419410337554	TR03	20,0
						6P	KET 6315 Y/R	6419410337707	TR06	36,0
						3P	KET 3400 Y/R	6419410337929	TR03	20,0
400 A	400 A	400 A	200 kW	400 A	355 kW	4P	KET 4400 Y/R	6419410337974	TR03	20,0
						6P	KET 6400 Y/R	6419410338117	TR06	36,0
						3P	KET 3630 Y/R	6419410338322	TR04	39,0
630 A	630 A	630 A	355 kW	500 A	500 kW	4P	KET 4630 Y/R	6419410338353	TR04	40,0
						3P	KET 3800 Y/R	6419410338728	TR04	39,0
800 A	630 A	800 A	400 kW	400 A	355 kW	4P	KET 4800 Y/R	6419410342848	TR04	40,0

1) 400/415 V




Dimensions on page 14

Further technical data on pages 6-7

SHEET STEEL ENCLOSED ENCLOSURE DIMENSIONS



ALUMINIUM ENCLOSED SAFETY SWITCHES / ISOLATORS 16-250 A

- IP 66; Enclosure types A2, A3
- IP 65; Enclosure types AS01, AS02
- Wide operating temperature range
- Good resistance against many chemicals
- Good UV resistance
- Excellent for hard weather conditions
- Padlockable   



KEA 340U

GREY/BLACK-SERIES




400 V AC-21 415 V 690 V	400 V AC-22 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	Number of poles	Type	EAN-Code	Enclosure	Weight kg
I_e / A	I_e / A	I_e / A	P / kW	I_e / A	P / kW					
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KEA 316U	6419410330036	A2	0,8
						4P	KEA 416U	6419410330050	A2	0,9
						6P	KEA 616U	6419410329504	A3	2,3
						8P	KEA 816U	6419410329511	A3	2,4
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KEA 325U	6419410330234	A2	0,8
						4P	KEA 425U	6419410330258	A2	0,9
						6P	KEA 625U	6419410329528	A3	2,3
						8P	KEA 825U	6419410329535	A3	2,4
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KEA 340U	6419410330432	A2	0,8
						4P	KEA 440U	6419410330456	A2	0,9
						6P	KEA 640U	6419410329542	A3	2,3
						8P	KEA 840U	6419410329559	A3	2,4
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KEA 363U	6419410329566	A3	2,0
						4P	KEA 463U	6419410329573	A3	2,1
						6P	KEA 663U	6419410329580	A3	2,3
						8P	KEA 863U	6419410329597	A3	2,4
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KEA 380U	6419410329603	A3	2,0
						4P	KEA 480U	6419410329610	A3	2,1
						6P	KEA 680U	6419410329627	A3	2,3
						8P	KEA 880U	6419410329634	A3	2,4
160 A	125 A	80 A	45 kW	80 A	55 kW	3P	KEA 3125U	6419410329641	A3	3,5
						4P	KEA 4125U	6419410329658	A3	3,6
						6P	KEA 6125	6419410332207	AS01	9,9
						8P	KEA 8125	6419410332221	AS01	10,0
200 A	160 A	135 A	75 kW	125 A	90 kW	3P	KEA 3160U	6419410329665	A3	3,5
						4P	KEA 4160U	6419410329672	A3	3,6
						6P	KEA 6160	6416410332603	AS01	9,9
						8P	KEA 8160	6416410332627	AS01	10,0
200 A	200 A	200 A	110 kW	200 A	160 kW	3P	KEA 3200	6416410332641	AS02	14,0
200 A	200 A ¹⁾	200 A	110 kW	-	-	3P	KEA 3200C	6419410332900	AS01	8,6
						4P	KEA 4200C	6419410332948	AS01	8,7
250 A	250 A	250 A	132 kW	250 A	250 kW	3P	KEA 3250	6416410332665	AS02	14,0
250 A	250 A ¹⁾	250 A	132 kW	-	-	3P	KEA 3250C	6419410332924	AS01	8,6
						4P	KEA 4250C	6419410332962	AS01	8,7

1) 400/415 V

Dimensions on page 17

Further technical data on pages 6-7

ALUMINIUM ENCLOSED SAFETY SWITCHES / ISOLATORS 16-250 A

- IP 66; Enclosure types A2, A3
- IP 65; Enclosure types AS01, AS02
- Wide operating temperature range
- Good resistance against many chemicals
- Good UV resistance
- Excellent for hard weather conditions
- Padlockable   



KEA 480U Y/R

YELLOW/RED-SERIES

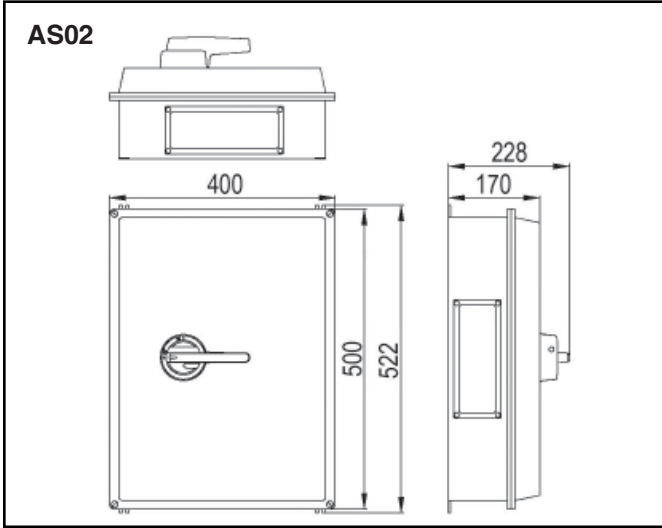
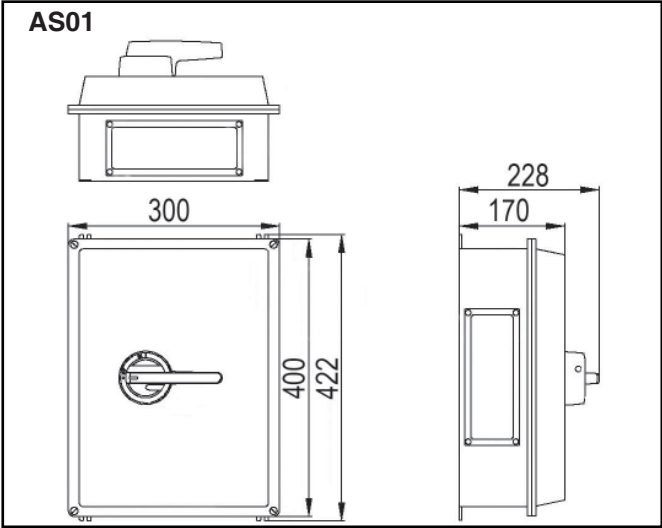
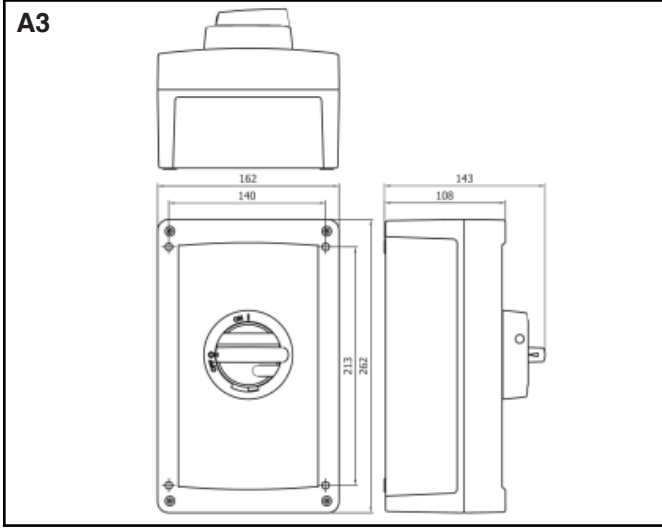
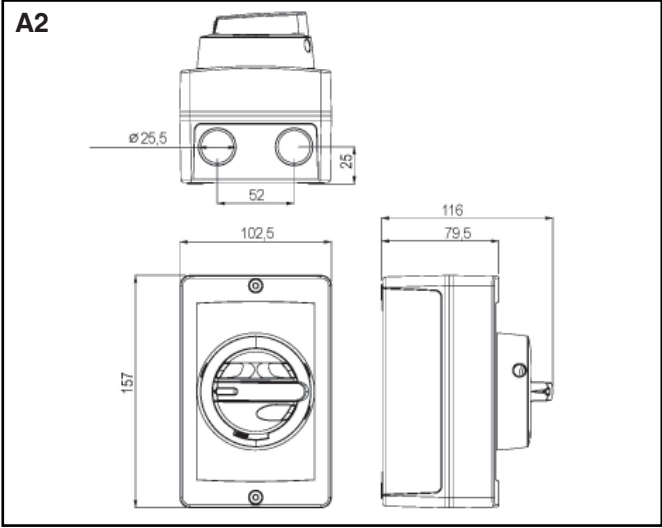
AC-21 400 V 415 V 690 V	AC-22 400 V 415 V 690 V	AC-23	400 V	AC-23	690 V	Number of poles	Type	EAN-Code	Enclosure	Weight kg
			415 V							
I _e / A	I _e / A	I _e / A	P / kW	I _e / A	P / kW					
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KEA 316U Y/R	6419410330043	A2	0,8
						4P	KEA 416U Y/R	6419410330067	A2	0,9
						6P	KEA 616U Y/R	6419410329689	A3	2,3
						8P	KEA 816U Y/R	6419410329696	A3	2,4
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KEA 325U Y/R	6419410330241	A2	0,8
						4P	KEA 425U Y/R	6419410330265	A2	0,9
						6P	KEA 625U Y/R	6419410329702	A3	2,3
						8P	KEA 825U Y/R	6419410329719	A3	2,4
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KEA 340U Y/R	6419410330449	A2	0,8
						4P	KEA 440U Y/R	6419410330463	A2	0,9
						6P	KEA 640U Y/R	6419410329726	A3	2,3
						8P	KEA 840U Y/R	6419410329733	A3	2,4
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KEA 363U Y/R	6419410329740	A3	2,0
						4P	KEA 463U Y/R	6419410329757	A3	2,1
						6P	KEA 663U Y/R	6419410329764	A3	2,3
						8P	KEA 863U Y/R	6419410329771	A3	2,4
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KEA 380U Y/R	6419410329788	A3	2,0
						4P	KEA 480U Y/R	6419410329795	A3	2,1
						6P	KEA 680U Y/R	6419410329801	A3	2,3
						8P	KEA 880U Y/R	6419410329818	A3	2,4
160 A	125 A	80 A	45 kW	80 A	55 kW	3P	KEA 3125U Y/R	6419410329825	A3	3,5
						4P	KEA 4125U Y/R	6419410329832	A3	3,6
						6P	KEA 6125 Y/R	6419410332207	AS01	9,9
						8P	KEA 8125 Y/R	6419410332221	AS01	10,0
200 A	160 A	135 A	75 kW	125 A	90 kW	3P	KEA 3160U Y/R	6419410329849	A3	3,5
						4P	KEA 4160U Y/R	6419410329856	A3	3,6
						6P	KEA 6160 Y/R	6416410336410	AS01	9,9
						8P	KEA 8160 Y/R	6416410336427	AS01	10,0
200 A	200 A	200 A	110 kW	200 A	160 kW	3P	KEA 3200 Y/R	6416410332658	AS02	14,0
200 A	200 A ¹⁾	200 A	110 kW	-	-	3P	KEA 3200C Y/R	6419410332917	AS01	8,6
						4P	KEA 4200C Y/R	6419410332955	AS01	8,7
250 A	250 A	250 A	132 kW	250 A	250 kW	3P	KEA 3250 Y/R	6416410332672	AS02	14,0
250 A	250 A ¹⁾	250 A	132 kW	-	-	3P	KEA 3250C Y/R	6419410332931	AS01	8,6
						4P	KEA 4250C Y/R	6419410332979	AS01	8,7

1) 400/415 V




Dimensions on page 17

Further technical data on pages 6-7

ALUMINIUM ENCLOSED ENCLOSURE DIMENSIONS



STAINLESS STEEL ENCLOSED SAFETY SWITCHES / ISOLATORS 16-800 A

- IP 66; Enclosure types H23, H32, H02 (AISI 316, acid proof)
- IP 65; Enclosure types H03, H04 (AISI 304 as standard, AISI 316 upon request)
- Where hygiene and good protection against corrosion are required
- Padlockable   
- Door interlock with defeat mechanism



KER 316

GREY/BLACK-SERIES

AC-21 400 V 415 V 690 V	AC-22 400 V 415 V 690 V	AC-23	400 V 415 V		690 V		Number of poles	Type	EAN-Code	Enclosure	Weight kg
			I _e / A	P / kW	I _e / A	P / kW					
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KER 316	6419410343005	H23	1,2	
						4P	KER 416	6419410343104	H23	1,3	
						6P	KER 616	6419410342879	H32	2,5	
						8P	KER 816	6419410342886	H32	2,6	
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KER 325	6419410343203	H23	1,2	
						4P	KER 425	6419410343302	H23	1,3	
						6P	KER 625	6419410342893	H32	2,5	
						8P	KER 825	6419410342909	H32	2,6	
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KER 340	6419410343401	H23	1,2	
						4P	KER 440	6419410343500	H23	1,3	
						6P	KER 640	6419410342916	H32	2,5	
						8P	KER 840	6419410342923	H32	2,6	
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KER 363	6419410343562	H32	2,3	
						4P	KER 463	6419410343586	H32	2,4	
						6P	KER 663	6419410342930	H32	2,5	
						8P	KER 863	6419410342947	H32	2,6	
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KER 380	6419410343609	H32	2,3	
						4P	KER 480	6419410343623	H32	2,4	
						6P	KER 680	6419410342954	H32	2,5	
						8P	KER 880	6419410342961	H32	2,6	
160 A	125 A	80 A	45 kW	80 A	55 kW	3P	KER 3125	6419410343647	H02	6,9	
						4P	KER 4125	6419410343661	H02	7,0	
						6P	KER 6125	6419410342978	H02	7,3	
						8P	KER 8125	6419410342985	H02	7,5	
200 A	160 A	135 A	75 kW	125 A	90 kW	3P	KER 3160	6419410343685	H02	6,9	
						4P	KER 4160	6419410343708	H02	7,0	
						6P	KER 6160	6419410342992	H02	7,3	
						8P	KER 8160	6419410343012	H02	7,5	
200 A	200 A	200 A	110 kW	200 A	160 kW	3P	KER 3200	6419410343722	H03	15,0	
						4P	KER 4200	6419410343746	H03	16,0	
						6P	KER 6200	6419410343760	H04	25,0	
200 A	200 A ¹⁾	200 A	110 kW	-	-	3P	KER 3200C	6419410347805	H02	7,7	
						4P	KER 4200C	6419410347843	H02	7,8	
250 A	250 A	250 A	132 kW	250 A	250 kW	3P	KER 3250	6419410343784	H03	15,0	
						4P	KER 4250	6419410343807	H03	16,0	
						6P	KER 6250	6419410343821	H04	25,0	
250 A	250 A ¹⁾	250 A	132 kW	-	-	3P	KER 3250C	6419410347829	H02	7,7	
						4P	KER 4250C	6419410347867	H02	7,8	
315 A	315 A	315 A	160 kW	315 A	315 kW	3P	KER 3315	6419410343845	H03	16,0	
						4P	KER 4315	6419410343869	H03	16,0	
						6P	KER 6315	6419410343883	H04	26,0	
400 A	400 A	400 A	200 kW	400 A	355 kW	3P	KER 3400	6419410343906	H03	16,0	
						4P	KER 4400	6419410343920	H03	16,0	
						6P	KER 6400	6419410343944	H04	26,0	
630 A	630 A	630 A	355 kW	500 A	500 kW	3P	KER 3630	6419410343968	H04	25,0	
						4P	KER 4630	6419410344002	H04	26,0	
800 A	630 A	800 A	400 kW	400 A	355 kW	3P	KER 3800	6419410343982	H04	25,0	
						4P	KER 4800	6419410344026	H04	26,0	




1) 400/415 V

Dimensions on page 20

Further technical data on pages 6-7



STAINLESS STEEL ENCLOSED SAFETY SWITCHES / ISOLATORS 16-800 A

- IP 66; Enclosure types H23, H32, H02 (AISI 316, acid proof)
- IP 65; Enclosure types H03, H04 (AISI 304 as standard, AISI 316 upon request)
- Where hygiene and good protection against corrosion are required
- Padlockable   
- Door interlock with defeat mechanism



KER 463 Y/R

YELLOW/RED-SERIES

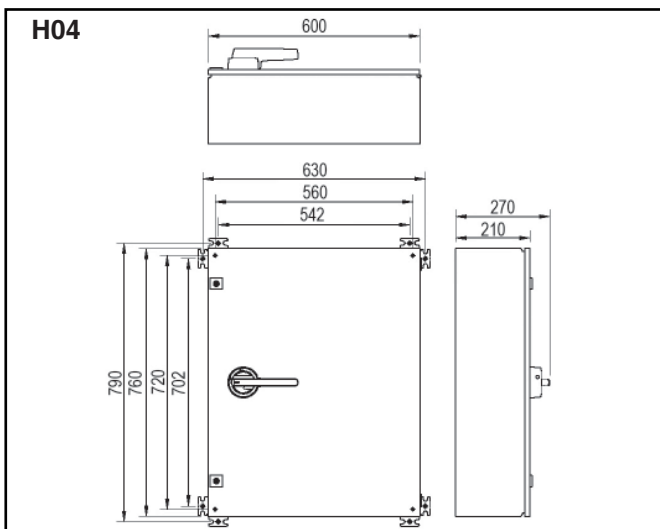
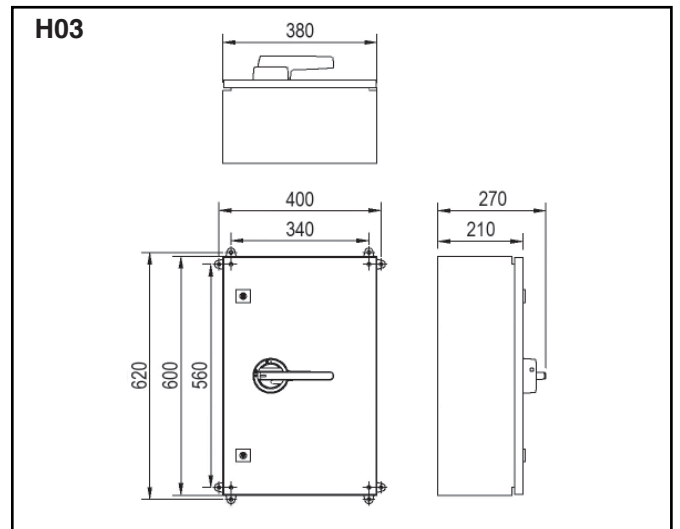
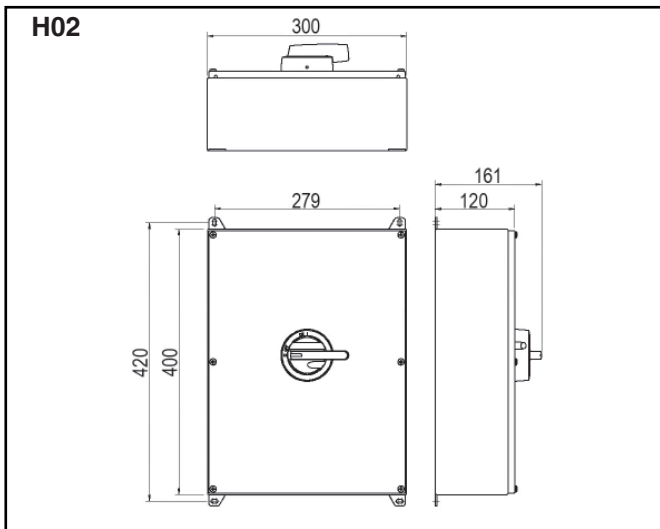
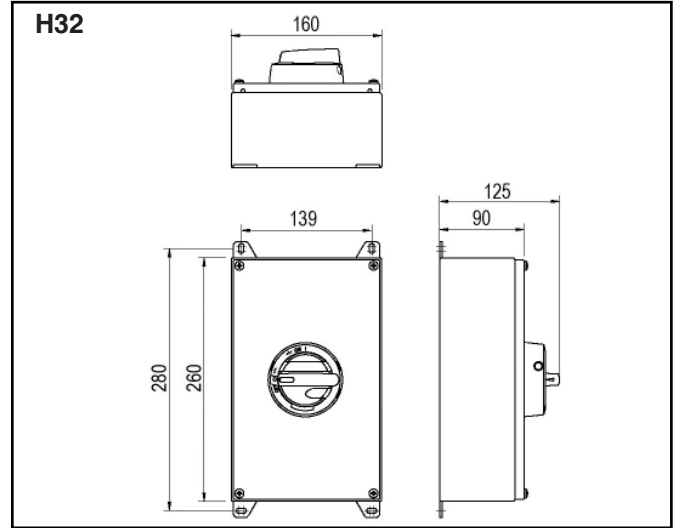
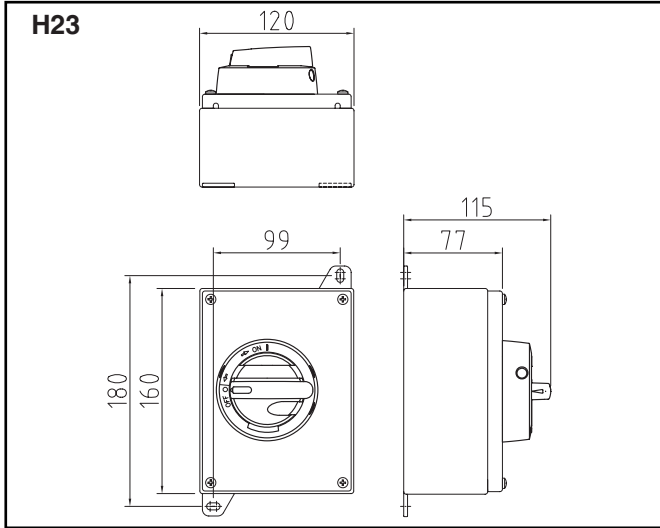
AC-21 400 V 415 V 690 V	AC-22 400 V 415 V 690 V	AC-23		AC-23		Number of poles	Type	EAN-Code	Enclosure	Weight kg
		400 V 415 V	690 V	400 V 415 V	690 V					
I _e / A	I _e / A	I _e / A	P / kW	I _e / A	P / kW					
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KER 316 Y/R	6419410343050	H23	1,2
						4P	KER 416 Y/R	6419410343159	H23	1,3
						6P	KER 616 Y/R	6419410342237	H32	2,5
						8P	KER 816 Y/R	6419410342244	H32	2,6
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KER 325 Y/R	6419410343258	H23	1,2
						4P	KER 425 Y/R	6419410343357	H23	1,3
						6P	KER 625 Y/R	6419410342251	H32	2,5
						8P	KER 825 Y/R	6419410342268	H32	2,6
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KER 340 Y/R	6419410343456	H23	1,2
						4P	KER 440 Y/R	6419410343555	H23	1,3
						6P	KER 640 Y/R	6419410342275	H32	2,5
						8P	KER 840 Y/R	6419410342282	H32	2,6
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KER 363 Y/R	6419410343579	H32	2,3
						4P	KER 463 Y/R	6419410343593	H32	2,4
						6P	KER 663 Y/R	6419410342299	H32	2,5
						8P	KER 863 Y/R	6419410342305	H32	2,6
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KER 380 Y/R	6419410343616	H32	2,3
						4P	KER 480 Y/R	6419410343630	H32	2,4
						6P	KER 680 Y/R	6419410342312	H32	2,5
						8P	KER 880 Y/R	6419410342329	H32	2,6
160 A	125 A	80 A	45 kW	80 A	55 kW	3P	KER 3125 Y/R	6419410343654	H02	6,9
						4P	KER 4125 Y/R	6419410343678	H02	7,0
						6P	KER 6125 Y/R	6419410342336	H02	7,3
						8P	KER 8125 Y/R	6419410342350	H02	7,5
200 A	160 A	135 A	75 kW	125 A	90 kW	3P	KER 3160 Y/R	6419410343692	H02	6,9
						4P	KER 4160 Y/R	6419410343715	H02	7,0
						6P	KER 6160 Y/R	6419410342367	H02	7,3
						8P	KER 8160 Y/R	6419410342374	H02	7,5
200 A	200 A	200 A	110 kW	200 A	160 kW	3P	KER 3200 Y/R	6419410343739	H03	15,0
						4P	KER 4200 Y/R	6419410343753	H03	16,0
						6P	KER 6200 Y/R	6419410343777	H04	25,0
200 A	200 A ¹⁾	200 A	110 kW	-	-	3P	KER 3200C Y/R	6419410347812	H02	7,7
						4P	KER 4200C Y/R	6419410347850	H02	7,8
250 A	250 A	250 A	132 kW	250 A	250 kW	3P	KER 3250 Y/R	6419410343791	H03	15,0
						4P	KER 4250 Y/R	6419410343814	H03	16,0
						6P	KER 6250 Y/R	6419410343838	H04	25,0
250 A	250 A ¹⁾	250 A	132 kW	-	-	3P	KER 3250C Y/R	6419410347836	H02	7,7
						4P	KER 4250C Y/R	6419410347874	H02	7,8
315 A	315 A	315 A	160 kW	315 A	315 kW	3P	KER 3315 Y/R	6419410343852	H03	16,0
						4P	KER 4315 Y/R	6419410343876	H03	16,0
						6P	KER 6315 Y/R	6419410343890	H04	26,0
400 A	400 A	400 A	200 kW	400 A	355 kW	3P	KER 3400 Y/R	6419410343913	H03	16,0
						4P	KER 4400 Y/R	6419410343937	H03	16,0
						6P	KER 6400 Y/R	6419410343951	H04	26,0
630 A	630 A	630 A	355 kW	500 A	500 kW	3P	KER 3630 Y/R	6419410343975	H04	25,0
						4P	KER 4630 Y/R	6419410344019	H04	26,0
800 A	630 A	800 A	400 kW	400 A	355 kW	3P	KER 3800 Y/R	6419410343999	H04	25,0
						4P	KER 4800 Y/R	6419410344033	H04	26,0

1) 400/415 V

Dimensions on page 20

Further technical data on pages 6-7

STAINLESS STEEL ENCLOSED ENCLOSURE DIMENSIONS



EMC-PROTECTED SAFETY SWITCHES / ISOLATORS 16-800 A

- Electromagnetic compatibility ensures safe operation in environments with electromagnetic disturbance
- Tested according to EN 55011 with EMC-glands and shielded power cable
- Available in polycarbonate up to 80 A, aluminium up to 125 A and sheet steel up to 800 A



KEM 325U/EMC

GREY/BLACK-SERIES

400 V AC-21 415 V 690 V		400 V AC-22 415 V 690 V		AC-23 400 V 415 V		AC-23 690 V		Number of poles	Type	EAN-Code	Enclosure	Cable glands	Weight kg
I _e / A	I _e / A	I _e / A	P / kW	I _e / A	P / kW								
Polycarbonate enclosures (IP66)													
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KEM 316U/EMC	6419410329207	U2	2xM25	0,6	*1	
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KEM 325U/EMC	6419410329214	U2	2xM25	0,6	*1	
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KEM 340U/EMC	6419410329221	U2	2xM32	0,8	*1	
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KEM 363U/EMC	6419410329238	U3	2xM32	0,8	*1	
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KEM 380U/EMC	6419410329245	U3	2xM32	0,8	*1	
Aluminium enclosures (IP66)													
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KEA 316U/EMC	6419410483008	A2	2xM25	0,8	*2	
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KEA 325U/EMC	6419410483015	A2	2xM25	0,8	*2	
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KEA 340U/EMC	6419410483022	A2	2xM25	0,8	*2	
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KEA 363/EMC	6419410336601	A3	2xM40	2,1	*2	
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KEA 380/EMC	6419410336618	A3	2xM40	2,1	*2	
160 A	125 A	80 A	45 kW	80 A	55 kW	3P	KEA 3125/EMC	6419410336625	A3	2xM40	3,5	*2	
Sheet steel enclosures (IP65)													
200 A	160 A	135 A	75 kW	125 A	90 kW	3P	KET 3160/EMC	6419410336649	TR02	*4	8,1	*3	
200 A	200 A	200 A	110 kW	200 A	160 kW	3P	KET 3200/EMC	6419410336656	TR03	*4	19,0	*3	
250 A	250 A	250 A	132 kW	250 A	250 kW	3P	KET 3250/EMC	6419410336663	TR03	*4	19,0	*3	
315 A	315 A	315 A	160 kW	315 A	315 kW	3P	KET 3315/EMC	6419410336670	TR03	*4	20,0	*3	
400 A	400 A	400 A	200 kW	400 A	355 kW	3P	KET 3400/EMC	6419410336687	TR03	*4	20,0	*3	
630 A	630 A	630 A	355 kW	500 A	500 kW	3P	KET 3630/EMC	6419410336694	TR04	*4	39,0	*3	
800 A	630 A	800 A	400 kW	400 A	355 kW	3P	KET 3800/EMC	6419410336717	TR04	*4	39,0	*3	

YELLOW/RED-SERIES

400 V AC-21 415 V 690 V		400 V AC-22 415 V 690 V		AC-23 400 V 415 V		AC-23 690 V		Number of poles	Type	EAN-Code	Enclosure	Cable glands	Weight kg
I _e / A	I _e / A	I _e / A	P / kW	I _e / A	P / kW								
Polycarbonate enclosures (IP66)													
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KEM 316U/EMC Y/R	6419410329252	U2	2xM25	0,6	*1	
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KEM 325U/EMC Y/R	6419410329269	U2	2xM25	0,6	*1	
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KEM 340U/EMC Y/R	6419410329276	U2	2xM32	0,8	*1	
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KEM 363U/EMC Y/R	6419410329283	U3	2xM32	0,8	*1	
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KEM 380U/EMC Y/R	6419410329290	U3	2xM32	0,8	*1	
Aluminium enclosures (IP66)													
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P	KEA 316U/EMC Y/R	6419410483039	A2	2xM25	0,8	*2	
40 A	25 A	25 A	11 kW	25 A	22 kW	3P	KEA 325U/EMC Y/R	6419410483046	A2	2xM25	0,8	*2	
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KEA 340U/EMC Y/R	6419410483053	A2	2xM25	0,8	*2	
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KEA 363/EMC Y/R	6419410336465	A3	2xM40	2,1	*2	
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KEA 380/EMC Y/R	6419410336472	A3	2xM40	2,1	*2	
160 A	125 A	80 A	45 kW	80 A	55 kW	3P	KEA 3125/EMC Y/R	6419410336489	A3	2xM40	3,5	*2	
Sheet steel enclosures (IP65)													
200 A	160 A	135 A	75 kW	125 A	90 kW	3P	KET 3160/EMC Y/R	6419410338735	TR02	*4	8,1	*3	
200 A	200 A	200 A	110 kW	200 A	160 kW	3P	KET 3200/EMC Y/R	6419410338742	TR03	*4	19,0	*3	
250 A	250 A	250 A	132 kW	250 A	250 kW	3P	KET 3250/EMC Y/R	6419410338759	TR03	*4	19,0	*3	
315 A	315 A	315 A	160 kW	315 A	315 kW	3P	KET 3315/EMC Y/R	6419410338776	TR03	*4	20,0	*3	
400 A	400 A	400 A	200 kW	400 A	355 kW	3P	KET 3400/EMC Y/R	6419410338773	TR03	*4	20,0	*3	
630 A	630 A	630 A	355 kW	500 A	500 kW	3P	KET 3630/EMC Y/R	6419410338780	TR04	*4	39,0	*3	
800 A	800 A	800 A	400 kW	400 A	355 kW	3P	KET 3800/EMC Y/R	6419410338797	TR04	*4	39,0	*3	

Cable glands: Additional M20 with auxiliary contact

*1: Enclosure dimensions on page 11

*2: Enclosure dimensions on page 17

*3: Enclosure dimensions on page 14

*4: 200-800A cable glands according to order

Further technical data on pages 6-7




Update your information from www.katko.com



ENCLOSED SWITCHES

UL508 LISTED POLYCARBONATE ENCLOSED MANUAL MOTOR CONTROLLERS WITH DISCONNECTOR MEANS 25-150 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   



KEM 325UL

GREY/BLACK-SERIES

Ampere rating (600 V)		Type	EAN-Code	208V	415V	480V	600V	Wire size Cu only	Enclosure	Weight kg
16 A	3P	KEM 316UL	6419410351703	3HP	7.5HP	10HP	7.5HP	14-8AWG	U2	0,5
	4P	KEM 416UL	6419410351710	3HP	7.5HP	10HP	7.5HP	14-8AWG	U2	0,5
	6P	KEM 616UL	6419410351727	3HP	7.5HP	10HP	7.5HP	14-8AWG	U3	0,9
25 A	3P	KEM 325UL	6419410351246	5HP	10HP	15HP	10HP	14-8AWG	U2	0,5
	4P	KEM 425UL	6419410351253	5HP	10HP	15HP	10HP	14-8AWG	U2	0,5
	6P	KEM 625UL	6419410351260	5HP	10HP	15HP	10HP	14-8AWG	U3	0,9
40 A	3P	KEM 340UL	6419410351277	7,5HP	15HP	20HP	15HP	14-8AWG	U3	0,7
	4P	KEM 440UL	6419410351284	7,5HP	15HP	20HP	15HP	14-8AWG	U3	0,7
	6P	KEM 640UL	6419410351291	7,5HP	15HP	20HP	15HP	14-8AWG	U3	0,9
60 A	3P	KEM 360UL	6419410351307	10HP	20HP	25HP	25HP	12-4AWG	U3	0,7
	4P	KEM 460UL	6419410351314	10HP	20HP	25HP	25HP	12-4AWG	U3	0,7
	6P	KEM 660UL	6419410351321	10HP	20HP	25HP	25HP	12-4AWG	U3	0,9
80 A	3P	KEM 380UL	6419410351338	15HP	25HP	30HP	40HP	4-1/0AWG	U3	2,2
	4P	KEM 480UL	6419410351345	15HP	25HP	30HP	40HP	4-1/0AWG	U3	2,3
	6P	KEM 680L	6419410344156	15HP	25HP	30HP	40HP	4-1/0AWG	MF11UL	3,8
100 A	3P	KEM 3100L	6419410344163	15HP	30HP	40HP	50HP	4-1/0AWG	MF10	2,4
	4P	KEM 4100L	6419410344170	15HP	30HP	40HP	50HP	4-1/0AWG	MF10	2,6
	6P	KEM 6100L	6419410344187	15HP	30HP	40HP	50HP	4-1/0AWG	MF11UL	3,8
125 A	3P	KEM 3125L	6419410344194	20HP	40HP	50HP	60HP	4-1/0AWG	MF10	2,4
	4P	KEM 4125L	6419410344200	20HP	40HP	50HP	60HP	4-1/0AWG	MF10	2,6
	6P	KEM 6125L	6419410344217	20HP	40HP	50HP	60HP	4-1/0AWG	MF11UL	3,8
150 A	3P	KEM 3150L	6419410344224	25HP	50HP	60HP	75HP	4-1/0AWG	MF11UL	3,3
	4P	KEM 4150L	6419410344231	25HP	50HP	60HP	75HP	4-1/0AWG	MF11UL	3,4
	6P	KEM 6150L	6419410344248	25HP	50HP	60HP	75HP	4-1/0AWG	MF11UL	3,8

YELLOW/RED-SERIES

Ampere rating (600 V)		Type	EAN-Code	208V	415V	480V	600V	Wire size Cu only	Enclosure	Weight kg
16 A	3P	KEM 316UL Y/R	6419410351772	3HP	7.5HP	10HP	7.5HP	14-8AWG	U2	0,5
	4P	KEM 416UL Y/R	6419410351789	3HP	7.5HP	10HP	7.5HP	14-8AWG	U2	0,5
	6P	KEM 616UL Y/R	6419410351796	3HP	7.5HP	10HP	7.5HP	14-8AWG	U3	0,9
25 A	3P	KEM 325UL Y/R	6419410351352	5HP	10HP	15HP	10HP	14-8AWG	U2	0,5
	4P	KEM 425UL Y/R	6419410351369	5HP	10HP	15HP	10HP	14-8AWG	U2	0,5
	6P	KEM 625UL Y/R	6419410351376	5HP	10HP	15HP	10HP	14-8AWG	U3	0,9
40 A	3P	KEM 340UL Y/R	6419410351383	7,5HP	15HP	20HP	15HP	14-8AWG	U3	0,7
	4P	KEM 440UL Y/R	6419410351390	7,5HP	15HP	20HP	15HP	14-8AWG	U3	0,7
	6P	KEM 640UL Y/R	6419410351406	7,5HP	15HP	20HP	15HP	14-8AWG	U3	0,9
60 A	3P	KEM 360UL Y/R	6419410351413	10HP	20HP	25HP	25HP	12-4AWG	U3	0,7
	4P	KEM 460UL Y/R	6419410351420	10HP	20HP	25HP	25HP	12-4AWG	U3	0,7
	6P	KEM 660UL Y/R	6419410351437	10HP	20HP	25HP	25HP	12-4AWG	U3	0,9
80 A	3P	KEM 380UL Y/R	6419410351444	15HP	25HP	30HP	40HP	4-1/0AWG	U3	2,2
	4P	KEM 480UL Y/R	6419410351451	15HP	25HP	30HP	40HP	4-1/0AWG	U3	2,3
	6P	KEM 680L Y/R	6419410351147	15HP	25HP	30HP	40HP	4-1/0AWG	MF11UL	3,8
100 A	3P	KEM 3100L Y/R	6419410351154	15HP	30HP	40HP	50HP	4-1/0AWG	MF10	2,4
	4P	KEM 4100L Y/R	6419410351161	15HP	30HP	40HP	50HP	4-1/0AWG	MF10	2,6
	6P	KEM 6100L Y/R	6419410351178	15HP	30HP	40HP	50HP	4-1/0AWG	MF11UL	3,8
125 A	3P	KEM 3125L Y/R	6419410351185	20HP	40HP	50HP	60HP	4-1/0AWG	MF10	2,4
	4P	KEM 4125L Y/R	6419410351192	20HP	40HP	50HP	60HP	4-1/0AWG	MF10	2,6
	6P	KEM 6125L Y/R	6419410351208	20HP	40HP	50HP	60HP	4-1/0AWG	MF11UL	3,8
150 A	3P	KEM 3150L Y/R	6419410351215	25HP	50HP	60HP	75HP	4-1/0AWG	MF11UL	3,3
	4P	KEM 4150L Y/R	6419410351222	25HP	50HP	60HP	75HP	4-1/0AWG	MF11UL	3,4
	6P	KEM 6150L Y/R	6419410351239	25HP	50HP	60HP	75HP	4-1/0AWG	MF11UL	3,8




Dimensions on page 11



UL508 LISTED STAINLESS STEEL ENCLOSED MANUAL MOTOR CONTROLLERS WITH DISCONNECTOR MEANS 25-125 A



KER 340UL Y/R

- 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   

GREY/BLACK-SERIES

Ampere rating (600 V)		Type	EAN-Code	208V	415V	480V	600V	Wire size Cu only	Enclosure	Weight kg
16 A	3P	KER 316UL	6419410347300	3HP	7.5HP	10HP	7.5HP	14-8AWG	H23	1,2
	4P	KER 416UL	6419410347324	3HP	7.5HP	10HP	7.5HP	14-8AWG	H23	1,2
	6P	KER 616UL	6419410347348	3HP	7.5HP	10HP	7.5HP	14-8AWG	H32	2,5
25 A	3P	KER 325UL	6419410347317	5HP	10HP	15HP	10HP	14-8AWG	H23	1,2
	4P	KER 425UL	6419410347331	5HP	10HP	15HP	10HP	14-8AWG	H23	1,2
	6P	KER 625UL	6419410347355	5HP	10HP	15HP	10HP	14-8AWG	H32	2,5
40 A	3P	KER 340UL	6419410347362	7,5HP	15HP	20HP	15HP	14-8AWG	H23	1,2
	4P	KER 440UL	6419410347379	7,5HP	15HP	20HP	15HP	14-8AWG	H23	1,2
	6P	KER 640UL	6419410347386	7,5HP	15HP	20HP	15HP	14-8AWG	H32	2,5
60 A	3P	KER 360UL	6419410347393	10HP	20HP	25HP	25HP	12-4AWG	H32	2,2
	4P	KER 460UL	6419410347409	10HP	20HP	25HP	25HP	12-4AWG	H32	2,2
	6P	KER 660UL	6419410347416	10HP	20HP	25HP	25HP	12-4AWG	H32	2,5
80 A	3P	KER 380UL	6419410347423	15HP	25HP	30HP	40HP	4-1/0AWG	H32	2,2
	4P	KER 480UL	6419410347430	15HP	25HP	30HP	40HP	4-1/0AWG	H32	2,2
100 A	3P	KER 3100UL	6419410347454	15HP	30HP	40HP	50HP	4-1/0AWG	H32	2,5
	4P	KER 4100UL	6419410347461	15HP	30HP	40HP	50HP	4-1/0AWG	H32	2,5
125 A	3P	KER 3125UL	6419410347485	20HP	40HP	50HP	60HP	4-1/0AWG	H32	2,5
	4P	KER 4125UL	6419410347492	20HP	40HP	50HP	60HP	4-1/0AWG	H32	2,5

YELLOW/RED-SERIES

Ampere rating (600 V)		Type	EAN-Code	208V	415V	480V	600V	Wire size Cu only	Enclosure	Weight kg
16 A	3P	KER 316UL Y/R	6419410347546	3HP	7.5HP	10HP	7.5HP	14-8AWG	H23	1,2
	4P	KER 416UL Y/R	6419410347560	3HP	7.5HP	10HP	7.5HP	14-8AWG	H23	1,2
	6P	KER 616UL Y/R	6419410347584	3HP	7.5HP	10HP	7.5HP	14-8AWG	H32	2,5
25 A	3P	KER 325UL Y/R	6419410347553	5HP	10HP	15HP	10HP	14-8AWG	H23	1,2
	4P	KER 425UL Y/R	6419410347577	5HP	10HP	15HP	10HP	14-8AWG	H23	1,2
	6P	KER 625UL Y/R	6419410347591	5HP	10HP	15HP	10HP	14-8AWG	H32	2,5
40 A	3P	KER 340UL Y/R	6419410347607	7,5HP	15HP	20HP	15HP	14-8AWG	H23	1,2
	4P	KER 440UL Y/R	6419410347614	7,5HP	15HP	20HP	15HP	14-8AWG	H23	1,2
	6P	KER 640UL Y/R	6419410347621	7,5HP	15HP	20HP	15HP	14-8AWG	H32	2,5
60 A	3P	KER 360UL Y/R	6419410347638	10HP	20HP	25HP	25HP	12-4AWG	H32	2,2
	4P	KER 460UL Y/R	6419410347645	10HP	20HP	25HP	25HP	12-4AWG	H32	2,2
	6P	KER 660UL Y/R	6419410347652	10HP	20HP	25HP	25HP	12-4AWG	H32	2,5
80 A	3P	KER 380UL Y/R	6419410347669	15HP	25HP	30HP	40HP	4-1/0AWG	H32	2,2
	4P	KER 480UL Y/R	6419410347676	15HP	25HP	30HP	40HP	4-1/0AWG	H32	2,2
100 A	3P	KER 3100UL Y/R	6419410347690	15HP	30HP	40HP	50HP	4-1/0AWG	H32	2,5
	4P	KER 4100UL Y/R	6419410347706	15HP	30HP	40HP	50HP	4-1/0AWG	H32	2,5
125 A	3P	KER 3125UL Y/R	6419410347720	20HP	40HP	50HP	60HP	4-1/0AWG	H32	2,5
	4P	KER 4125UL Y/R	6419410347737	20HP	40HP	50HP	60HP	4-1/0AWG	H32	2,5

Dimensions on page 20

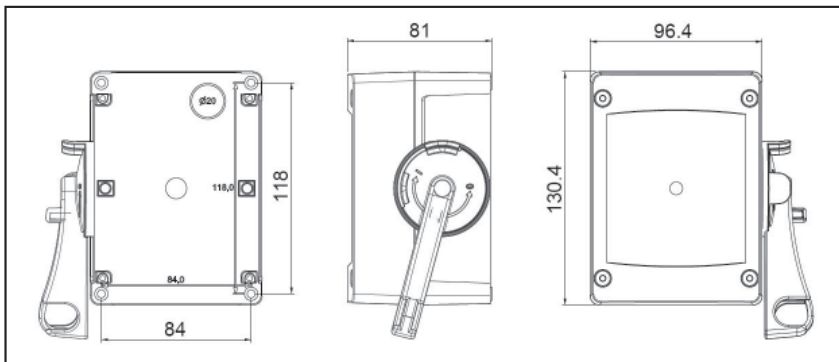
SIDE OPERATED SWITCHES POLYCARBONATE ENCLOSED 3- AND 4-POLE 16-40 A

- Available in gray/black or yellow/red
- Also 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 mm²



KE 325M Y/R

DIMENSIONS



400 V AC-21 415 V 690 V	400 V AC-22 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	Number of poles	Type	EAN-Code	Enclosure	Weight kg
I _e / A	I _e / A	I _e / A	P / kW	I _e / A	P / kW					
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P 4P	KE 316M KE 416M	6419410304006 6419410304037	U2 U2	0,5 0,5
40 A	25 A	25 A	11 kW	25 A	22 kW	3P 4P	KE 325M KE 425M	6419410304013 6419410304044	U2 U2	0,5 0,5
63 A	40 A	32 A	15 kW	32 A	30 kW	3P 4P	KE 340M KE 440M	6419410304020 6419410304051	U2 U2	0,5 0,5

Type + Y/R = Yellow/red

FIREMAN SWITCH

400 V AC-21 415 V 690 V	400 V AC-22 415 V 690 V	AC-23	400 V 415 V	AC-23	690 V	Number of poles	Type	EAN-Code	Enclosure	Weight kg
I _e / A	I _e / A	I _e / A	P / kW	I _e / A	P / kW					
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P 4P	KEF 316M KEF 416M	6419410304365 6419410304396	U2 U2	0,5 0,5
40 A	25 A	25 A	11 kW	25 A	22 kW	3P 4P	KEF 325M KEF 425M	6419410304372 6419410304402	U2 U2	0,5 0,5
63 A	40 A	32 A	15 kW	32 A	30 kW	3P 4P	KEF 340M KEF 440M	6419410304389 6419410304419	U2 U2	0,5 0,5

Further technical data on pages 6-7



Data subject to change without notice

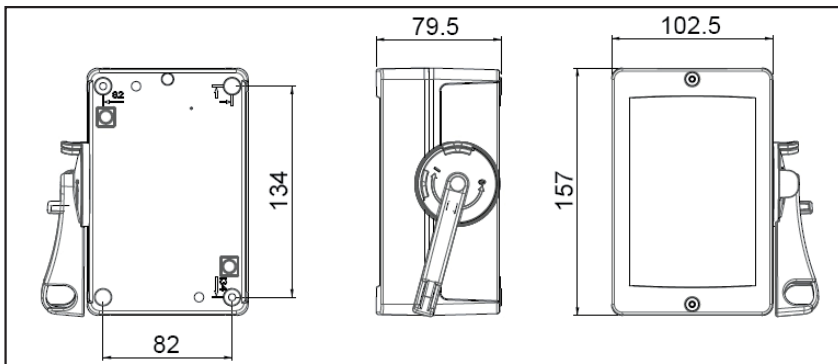
**SIDE OPERATED SWITCHES
ALUMINIUM ENCLOSED
3- AND 4-POLE 16-40 A**

- Available in gray/black or yellow/red
- Also 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: 213,0 x 144,0
- 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 mm²



KEF 440A

DIMENSIONS



AC-21 400 V 415 V 690 V	AC-22 400 V 415 V 690 V	AC-23 400 V 415 V	AC-23 400 V 415 V	AC-23 690 V	Number of poles	Type	EAN-Code	Enclosure	Weight kg	
I _e / A	I _e / A	I _e / A	P / kW	I _e / A						P / kW
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P 4P	KE 316A KE 416A	6419410304488 6419410304518	A2 A2	0,9 0,9
40 A	25 A	25 A	11 kW	25 A	22 kW	3P 4P	KE 325A KE 425A	6419410304495 6419410304525	A2 A2	0,9 0,9
63 A	40 A	32 A	15 kW	32 A	30 kW	3P 4P	KE 340A KE 440A	6419410304501 6419410304532	A2 A2	0,9 0,9

Type + Y/R = Yellow/red

FIREMAN SWITCH

AC-21 400 V 415 V 690 V	AC-22 400 V 415 V 690 V	AC-23 400 V 415 V	AC-23 400 V 415 V	AC-23 690 V	Number of poles	Type	EAN-Code	Enclosure	Weight kg	
I _e / A	I _e / A	I _e / A	P / kW	I _e / A						P / kW
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P 4P	KEF 316A KEF 416A	6419410305003 6419410304860	A2 A2	0,9 0,9
40 A	25 A	25 A	11 kW	25 A	22 kW	3P 4P	KEF 325A KEF 425A	6419410304846 6419410304877	A2 A2	0,9 0,9
63 A	40 A	32 A	15 kW	32 A	30 kW	3P 4P	KEF 340A KEF 440A	6419410304853 6419410304884	A2 A2	0,9 0,9

Further technical data on pages 6-7

Update your information from www.katko.com



ATEX SWITCHES ALUMINIUM ENCLOSED AND STAINLESS STEEL ENCLOSED 16-160 A

- Conforming to EN 61241
- Suitable for use in Zone 22 (Category 3D)
- IP66
- Frontal impact test of 7 J
- Temperature range from -20 °C to +40 °C
- ATEX Cable glands included
- 3, 4, 6 and 8 poles



KEA 316U EX




You will find the following marking
in the rating plate:

Ex II 3D T6	II	= Equipment group (II = surface industries, I = mining)
Ex tD A22 T65°C	3	= Equipment category (suitable for zone 22)
VTT 07 ATEX 038X	D	= Explosive atmospheres caused by dust
	Ex	= Complies with the ATEX directive
	tD A22	= Ex construction
	T65°C	= Temperature class (maximum surface temperature 65 °C)
	VTT...	= Certificate number

400 V AC-21 415 V 690 V		400 V AC-22 415 V 690 V		AC-23 400 V 415 V		AC-23 690 V		Number of poles	Type	EAN-Code	Enclosure	Cable glands	Weight kg
I ₀ / A	I ₀ / A	I ₀ / A	P / kW	I ₀ / A	P / kW								
Aluminium enclosures (IP66)													
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P 4P	KEA 316U EX KEA 416U EX	6419410305508 6419410305539	A2EX A2EX	2xM25 2xM25	0,9 1,0		
40 A	25 A	25 A	11 kW	25 A	22 kW	3P 4P	KEA 325U EX KEA 425U EX	6419410305515 6419410305546	A2EX A2EX	2xM25 2xM25	0,9 1,0		
63 A	40 A	32 A	15 kW	32 A	30 kW	3P 4P	KEA 340U EX KEA 440U EX	6419410305522 6419410305553	A2EX A2EX	2xM25 2xM25	0,9 1,0		
80 A	63 A	40 A	22 kW	40 A	37 kW	3P 4P	KEA 363U EX KEA 463U EX	6419410305560 6419410305607	A3EX A3EX	2xM40 2xM40	2,3 2,4		
100 A	80 A	63 A	30 kW	40 A	37 kW	3P 4P	KEA 380U EX KEA 480U EX	6419410305577 6419410305614	A3EX A3EX	2xM40 2xM40	2,3 2,4		
160 A	125 A	80 A	45 kW	80 A	55 kW	3P 4P	KEA 3125U EX KEA 4125U EX	6419410305584 6419410305621	A3EX A3EX	2xM40 2xM40	3,8 3,9		
200 A	160 A	135 A	75 kW	125 A	90 kW	3P 4P	KEA 3160U EX KEA 4160U EX	6419410305591 6419410305638	A3EX A3EX	2xM40 2xM40	3,8 3,9		
Stainless steel enclosures (IP66)													
25 A	16 A	16 A	7,5 kW	16 A	11 kW	3P 4P	KER 316 EX KER 416 EX	6419410305645 6419410305676	H23EX H23EX	2xM25 2xM25	1,3 1,4		
40 A	25 A	25 A	11 kW	25 A	22 kW	3P 4P	KER 325 EX KER 425 EX	6419410305652 6419410305683	H23EX H23EX	2xM25 2xM25	1,3 1,4		
63 A	40 A	32 A	15 kW	32 A	30 kW	3P 4P	KER 340 EX KER 440 EX	6419410305669 6419410305690	H23EX H23EX	2xM25 2xM25	1,3 1,4		
80 A	63 A	40 A	22 kW	40 A	37 kW	3P 4P	KER 363 EX KER 463 EX	6419410305706 6419410305744	H32EX H32EX	2xM32 2xM32	2,5 2,6		
100 A	80 A	63 A	30 kW	40 A	37 kW	3P 4P	KER 380 EX KER 480 EX	6419410305713 6419410305751	H32EX H32EX	2xM32 2xM32	2,5 2,6		
160 A	125 A	80 A	45 kW	80 A	55 kW	3P 4P	KER 3125 EX KER 4125 EX	6419410305720 6419410305768	H02EX H02EX	2xM40 2xM40	7,2 7,3		
200 A	160 A	135 A	75 kW	125 A	90 kW	3P 4P	KER 3160 EX KER 4160 EX	6419410305737 6419410305775	H02EX H02EX	2xM40 2xM40	7,2 7,3		

Available also in yellow/red. Add Y/R at the end of type code.
Further technical data on pages 6-7

CHANGE-OVER SWITCHES POLYCARBONATE ENCLOSED 3- AND 4-POLE 16-160 A

- TKM-models with cam switch from 16 to 40 A
- KEM change-over switches consist of two KU or VKA switches connected by a change-over kit and range from 40 to 160 A
- For more details of non-enclosed change-over switches, see Load Break Switch catalogue.
- IP66, IP65
- Padlockable   



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		Number of poles	Type	EAN-Code G/B	EAN-Code Y/R	Enclosure	Weight kg
		I_e / A	P / kW	I_e / A	P / kW						
25 A *	25 A *	25 A	11 kW	-	-	3P	TKM 325U VV	6419410345733	6419410345740	U2	0,5
				4P	TKM 425U VV	6419410345948	6419410347072	U2	0,5		
63 A	40 A	32 A	15 kW	32 A	30 kW	3P	KEM 340VV.1-0-2	6419410320105	6419410320150	MF11	2,5
						4P	KEM 440VV.1-0-2	6419410320129	6419410320174	MF11	2,5
80 A	63 A	40 A	22 kW	40 A	37 kW	3P	KEM 363VV.1-0-2	6419410320204	6419410320259	MF11	2,5
						4P	KEM 463VV.1-0-2	6419410320228	6419410320600	MF11	2,5
100 A	80 A	63 A	30 kW	40 A	37 kW	3P	KEM 380VV.1-0-2	6419410320303	6419410320358	MF11	2,5
						4P	KEM 480VV.1-0-2	6419410320327	6419410320372	MF11	2,5
160 A	125 A	80 A	45 kW	80 A	55 kW	3P	KEM 3125VV.1-0-2	6419410320402	6419410320457	MF11	3,7
						4P	KEM 4125VV.1-0-2	6419410320426	6419410320471	MF11	4,0
200 A	160 A	135 A	75 kW	125 A	90 kW	3P	KEM 3160VV.1-0-2	6419410320501	6419410320556	MF11	3,7
						4P	KEM 4160VV.1-0-2	6419410320525	6419410320570	MF11	4,0




* 400/415 V

Y/R= Yellow/red G/B= Grey/black

Dimensions on page 11

Further technical data on pages 6-7

MOTOR CONTROL SWITCHES (CAM SWITCHES) POLYCARBONATE ENCLOSED 3 POLE 16-40 A

- IEC 60 947-3
- Rated thermal current (I_{the}) 16-40 A
- IP 66
- Padlockable   
- Terminals: Cu 1,5 - 16 mm²
- Max. terminal torque: 1,8 Nm



TKM 325U TK

AC-21 400 V 415 V	AC-22 400 V 415 V	AC-23 400 V 415 V		Switch type	Type	EAN-Code	Enclosure	Weight kg
		I_e / A	P / kW					
16 A	16 A	16 A	7,5 kW	Star-Delta switch	TKM 316U TK	6419410344828	U2	0,5
				Reverse switch	TKM 316U TK Y/R	6419410344842	U2	0,5
25 A	25 A	25 A	11 kW	Star-Delta switch	TKM 316U SK	6419410344729	U2	0,5
				Reverse switch	TKM 316U SK Y/R	6419410344743	U2	0,5
40 A	40 A	40 A	18,5 kW	Star-Delta switch	TKM 325U TK	6419410345023	U2	0,5
				Reverse switch	TKM 325U TK Y/R	6419410345030	U2	0,5
40 A	40 A	40 A	18,5 kW	Star-Delta switch	TKM 325U SK	6419410345221	U2	0,5
				Reverse switch	TKM 325U SK Y/R	6419410345238	U2	0,5
40 A	40 A	40 A	18,5 kW	Star-Delta switch	TKM 340U TK	6419410345627	U2	0,5
				Reverse switch	TKM 340U TK Y/R	6419410345641	U2	0,5
40 A	40 A	40 A	18,5 kW	Star-Delta switch	TKM 340U SK	6419410345962	U2	0,5
				Reverse switch	TKM 340U SK Y/R	6419410345986	U2	0,5

Y/R = Yellow/red

Enclosure dimensions on page 11

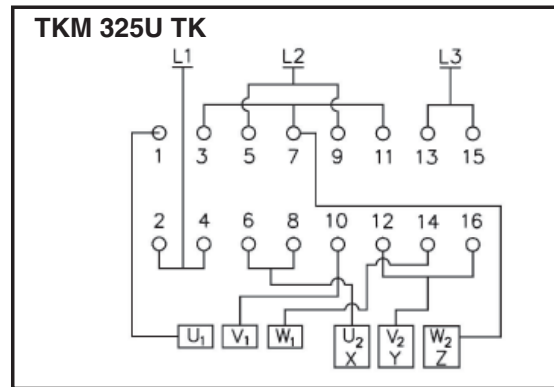
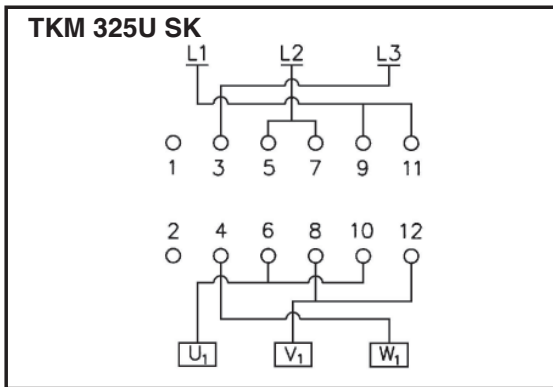
Connection diagrams on the next page

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ENCLOSED SWITCHES

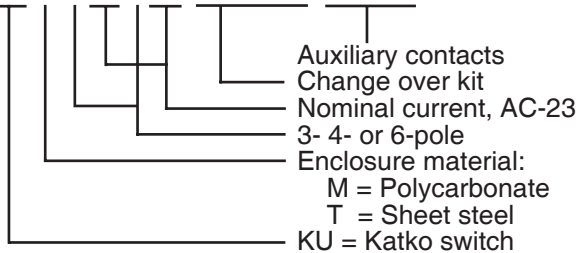
MOTOR CONTROL SWITCHES: CONNECTION DIAGRAMS



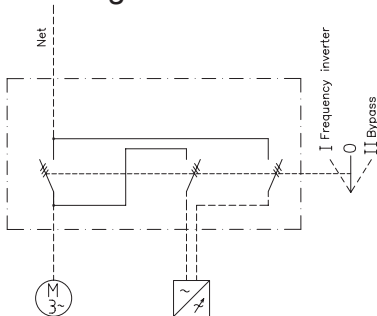
BYPASS SWITCH FOR FREQUENCY INVERTER

- Tested according to IEC 60 947-3
- CB certificates
- R.M.S value 50kA
- IP65
- Padlockable
- Product codes, e.g.

KUM 616/316 VV.1-0-2 2xKU1.V



- Circuit diagram:



POLYCARBONATE ENCLOSURES

400 V AC-21 415 V 690 V	400 V AC-22 415 V 690 V	400 V AC-23 415 V	400 V AC-23 690 V	Type		EAN-Code	Enclosure	
I_e / A	I_e / A	I_e / A	P / kW	I_e / A	P / kW			
40 A	25 A	20 A	7,5 kW	20 A	15 kW	KUM 616/316 VV.1-0-2 2xKU1.V	6419410301661	MF11
63 A	40 A	25 A	11 kW	25 A	22 kW	KUM 625/325 VV.1-0-2 2xKU1.V	6419410302057	MF11
90 A	70 A	50 A	22 kW	32 A	30 kW	KUM 640/340 VV.1-0-2 2xKU1.V	6419410302453	MF11
100 A	80 A	63 A	30 kW	40 A	37 kW	KUM 663/363 VV.1-0-2 2xKU1.V	6419410302903	MF11

EMC-protected sheet steel enclosures available on request.

Dimensions on page 11

Further technical data on pages 6-7



Data subject to change without notice

ACCESSORIES

Terminal covers for 125-630A

LS 125
LS 250
LS 400
LS 630

6419410286937
6419410287729
6419410287866
6419410284957

Terminal covers for C-models

VS / VKAC
LS / VKAC

6419410218082
6419410218099

Auxiliary contacts for 16-80A

KU 1.V (1NO+1NC) (1 changeover contact)
KU 2.V (2NO+2NC) (2 changeover contacts)

6419410300008
6419410300107

Auxiliary contacts

for 125-160A (KEM, KEA, KET, KER)

VKA 1.V (1 changeover contact)
VKA 2.V (2 changeover contacts)

6419410300206
6419410300305

Auxiliary contacts

for 200-250A (C-models)

VKAC 1.V (1 changeover contact)
VKAC 2.V (2 changeover contacts)

6419410300800
6419410300909

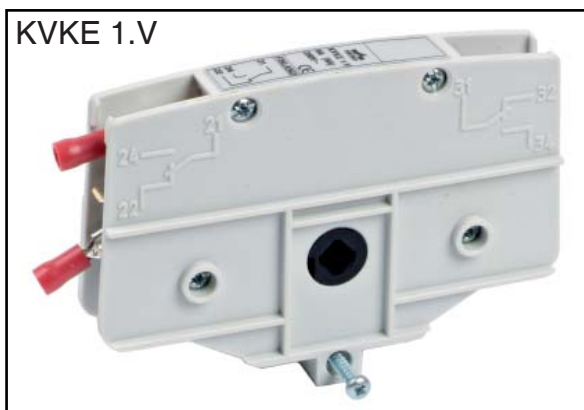
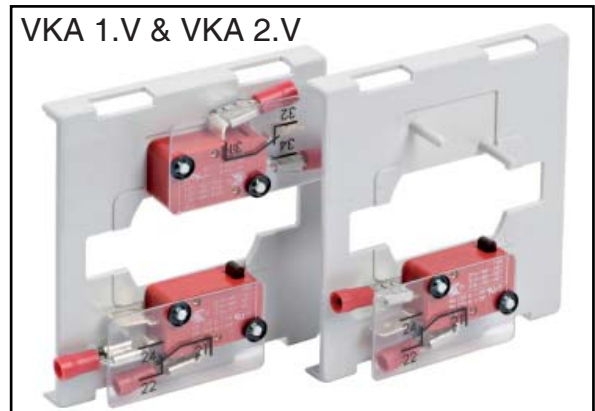
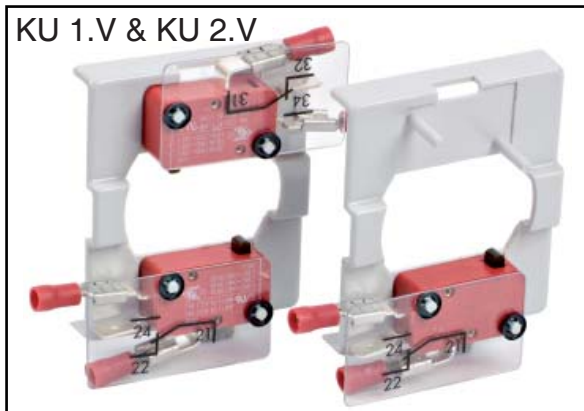
Auxiliary contacts

for 200-630A (KEM, KEA, KET, KER) and 63-630A (KVKEM)

KVKE 1.V (1 changeover contact)
KVKE 2.V (2 changeover contacts)

6419410286982
6419410287781

Electrical ratings: 8 (8) A 250V~



IP / NEMA Classifications of protection

IP CLASSIFICATIONS		NEMA/UL CLASSIFICATIONS	
Ingress protection class of enclosures is according to IEC 529 given in form of IP classification, a two digit coding which is shown below.		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.	
FIRST NUMBER Protection against solid objects IP	SECOND NUMBER Protection against liquids IP	NEMA	(Approximate IP equivalents in parentheses)
0 No protection.	0 No protection.	1	Indoor use primarily to provide a degree of protection against contact with the enclosed equipment and against a limited amount of falling dirt (IP30).
1 Protected against solid objects up to 50mm eg accidental touch by hands.	1 Protected against vertically falling drops of water.	2	Indoor use to provide a degree of protection against limited amounts of falling water and dirt (IP31).
2 Protected against solid objects up to 12mm eg fingers.	2 Protected against direct sprays of water up to 15° from the vertical.	3	Outdoor use to provide a degree of protection against wind-blown dust, rain and sleet; undamaged by the formation of ice on the enclosure (IP64).
3 Protected against solid objects up to 2,5mm eg (tools + small wires).	3 Protected against sprays up to 60° from the vertical.	3R	Outdoor use to provide a degree of protection against rain and sleet; undamaged by the formation of ice on the enclosure (IP32).
4 Protected against solid objects up to 1mm eg (tools + small wires).	4 Protected against water sprayed from all directions - limited ingress permitted.	3S	Outdoor use to provide a degree of protection against wind-blown dust, rain and sleet; external mechanisms remain operable while ice laden.
5 Protected against dust - limited ingress permitted (no harmful deposit).	5 Protected against low pressure jets of water from all directions - limited ingress permitted.	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 (IP66).
6 Totally protected against dust.	6 Protected against strong jets of water eg for use on shipdecks - limited ingress permitted.	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 (IP66).
	7 Protected against the affects of immersion between 15cm and 1m.	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.
	8 Protected against long periods of immersion under pressure.	6P	Indoor or outdoor use to provide a degree of protection against the entry of water during prolonged submersion at a limited depth.
		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.
		12/12K	Indoor use to provide a degree of protection against dust, falling dirt and dripping noncorrosive liquids (IP65).
		13	Indoor use to provide a degree of protection against dust, and spraying of water oil and noncorrosive coolants (IP65).

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.

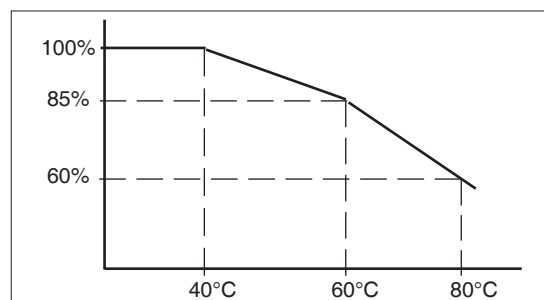
Overvoltage protection is ensured by choosing the equipment according to U_{imp} . The 4 impulse withstand categories of use at 400V/ 690V (IEC 60 364-4-44) are:

Category	U_{imp}	Applications
1	2,5 kV	specially 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 -20 to +40°C. For higher ambient temperatures than 40°C the switch has to be derated accordingly. The figure below shows the maximum load as a function of ambient temperature. Maximum operating temperature in continuous use is +80°C.



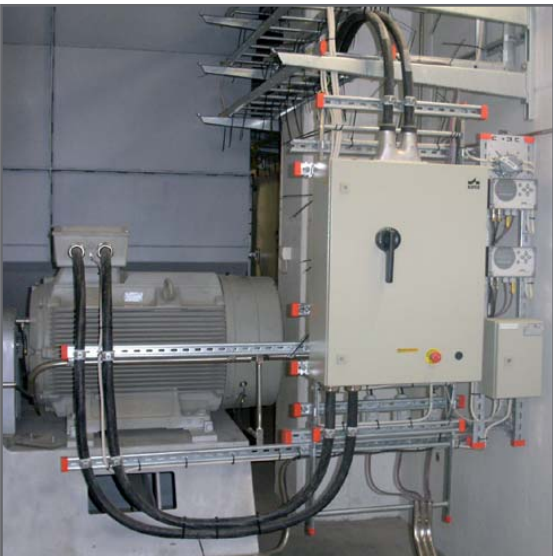
CONFORMITY TO STANDARDS

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

- Switches tested acc. to IEC 60 947-3
- AC 23 / 690V ratings
- 50 kA R.M.S values
- CB certificates
- UL, cUL listed (UL 508)
- Fuse holder acc. to IEC 269 / UL512

ENCLOSED SWITCHES

KATKO WORLDWIDE



ENCLOSED SWITCHES



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 2000. 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.

KATKO'S CATALOGUES

AC-22	Type	EAN
63A	KVKE 163 BS	6419410286661
80A	KVKE 180 BS	6419410286655

easy to install

Technical drawing showing dimensions: 45, 5, 165(4P), 132(3P), 99, 33, 33, 25, 99, 157, 163.

20h 13h
4h 2h 2h
10h 10h

KUORMANKYTKIMET & KYTKINVAROKKEET **KATKO**

easy to install

Technical drawing showing dimensions: 4.5, 165(4P), 132(3P), 99, 33, 33, 25, 99, 157, 163.

KOTELOIDUT KYTKIMET **KATKO**

easy to install

Technical drawing showing dimensions: 45, 5, 165(4P), 132(3P), 99, 33, 33, 25, 99, 157, 163.

20h 13h
4h 2h 2h
10h 10h

LOAD BREAK SWITCHES & SWITCH FUSES **KATKO**

easy to install

Technical drawing showing dimensions: 4.5, 165(4P), 132(3P), 99, 33, 33, 25, 99, 157, 163.

ENCLOSED SWITCHES **KATKO**

PLEASE SEE ALSO:

WWW.KATKO.COM



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