

OptiVert

↗ Strip-type fuse-switch-disconnectors



OptiVert strip-type fuse-switch-disconnectors (SFSD) are designed to switch on and off loads and protect three-phase AC electrical circuits from short circuits and overloads (when used in combination with fuses). SFSDs provide a visual clearance and completely replace the structure consisting of a conventional disconnector, cables and fuse holders. These devices provide significant savings in the working space of switchgears, reduce the number of electrical connections and conductive parts used.

► Designation

OptiVert - 00 - 6 - M

1 2 3 4

1	Series	OptiVert		
2	Device size designation	00 — up to 160 A	2 — up to 400 A	3 — up to 630 A
3	Switching mode	1 — phase-by-phase		
4	Type of clamp for external conductors	6 — three-phase		
		M — bolt clamp		

► Series advantages



Polyamide-based insulating materials do not sustain combustion, do not contain halogens, and are safe for humans and the environment.



Safe disconnection of short-circuit currents up to 120 kA (when used in combination with fuses). Visual break.



Contacts are made of high-quality electrical copper and plated with silver, nickel or tin, depending on the rated current and configuration. Operating temperature range from -40 to +80 °C*.



Modular compact design with a device width of max. 98 mm allows to organize the maximum number of outgoing lines in minimal dimensions, as well as simplify the low-voltage switchgear in terms of the use of metal structures, the location of supply and connecting cables.



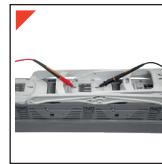
Shaped holes in the housing provide better heat dissipation.



Can be switched off under load. Effective arc extinguishing due to the design of arc extinguishing chambers as part of the product.



Dovetail mount significantly reduces the installation time of the device for standard sizes 400/630A.



Visual monitoring of the fuse status using inspection windows. A microswitch can be installed to indicate the device status.

* it is necessary to apply a reduction factor for the rated operating current at temperatures above +35 °C, see the graph of dependence of the rated current on the ambient temperature (page 266).

► Items

Appearance	Product name	Rated current, A	Method of operation	Fuse dimensions	Code
	OptiVert-00-1-M	160	phase-by-phase	NH00	337880
	OptiVert-00-6-M	160	three-phase	NH00	337881
	OptiVert-2-1-M	400	phase-by-phase	NH2	337882

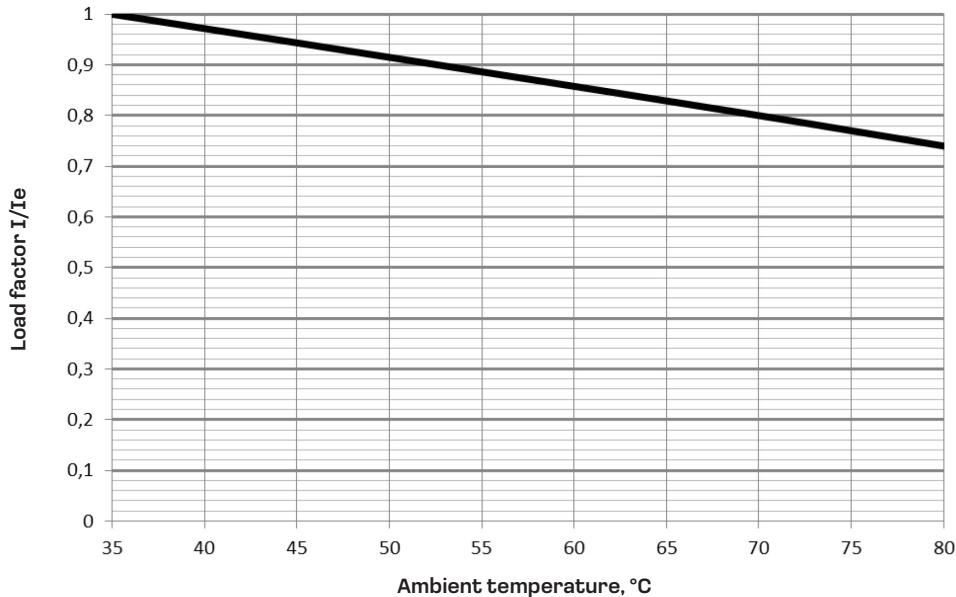
Appearance	Product name	Rated current, A	Method of operation	Fuse dimensions	Code
	OptiVert-2-6-M	400	three-phase	NH2	337883
	OptiVert-3-1-M	630	phase-by-phase	NH2,NH3	337884
	OptiVert-3-6-M	630	three-phase	NH2,NH3	337885
	OptiVert-2-1-M новый	400	phase-by-phase	NH2	368564
	OptiVert-2-6-M новый	400	three-phase	NH2	368565
	OptiVert-3-1-M новый	630	phase-by-phase	NH2,NH3	368569
	OptiVert-3-6-M новый	630	three-phase	NH2,NH3	368571

Codes indicated in the chapter tables are subject to change. If you did not find the necessary codes on the website, please contact KEAZ customer service.

► Technical specification

Parameter	Configuration	00-1			2-1			3-1			2x3-1											
		00-6			2-6			3-6			2x3-6											
Number of poles		3			3			3			3											
Fuse dimensions		NH00			NH2			NH3			NH3											
Rated current, A(max)	160	125	100	400	400	315	630	630	500	1250	1250	1000										
Power dissipation rating with fuse Pn, W	12	12	12	28	34	45	40	48	60	-	-	-										
Conventional thermal current with short-circuit plate Ith, A	160	125	100	400	400	315	630	630	500	1250	1250	1000										
Power dissipation rating with short-circuit plate Pn, W		12			28			40			-											
Rated operating voltage Ue, V	AC400	AC500	AC690	AC400	AC500	AC690	AC400	AC500	AC690	AC400	AC500	AC690										
Utilization category	AC-23B	AC-23B	AC-22B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B										
Rated insulation voltage Ui, V		1000																				
Rated impulse withstand voltage Uimp, kV		12																				
Rated frequency, Hz		50-60																				
Ingress protection rating		IP00 for terminals IP20 for enclosure																				
Pollution degree		3																				
Rated operating mode		Continuous																				
Rated short-time withstand current Icw, kA/1s	8	12			12			12			12											
Power loss without fuse link, W	12	28			40			40			40											
Distance between busbars, mm		185																				
Conductor connection																						
Thread diameter		M8			M10			M12			M12											
Conductor cross-section, mm ²		16-70			35-240			70-240			70-240											

► Dependence of rated current on ambient temperature



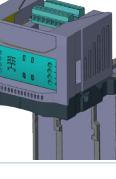
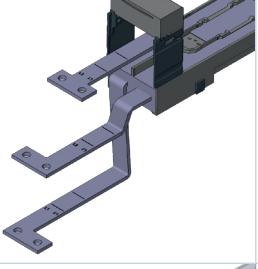
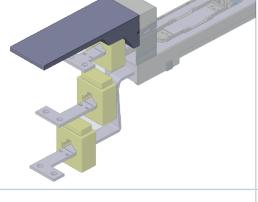
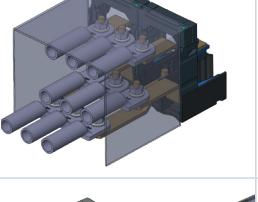
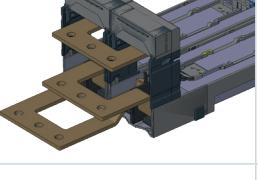
Dependence of rated current on number of adjacent devices

Number of adjacent devices	Acceptable factor
2 and 3	0.8
4 and 5	0.7
6 to 9 inclusive	0.6
10 and higher	0.5

Calculation example for three adjacent OptiVert 630 A at an ambient temperature of +50 °C:

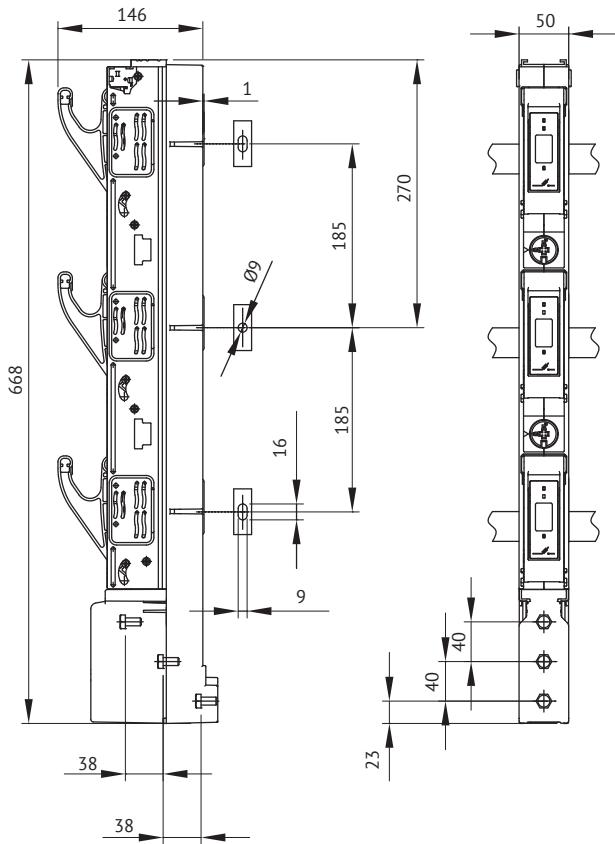
$$\text{Load} = 630 \times 0.91 \times 0.8 = 458.64 \text{ A}$$

► Accessories

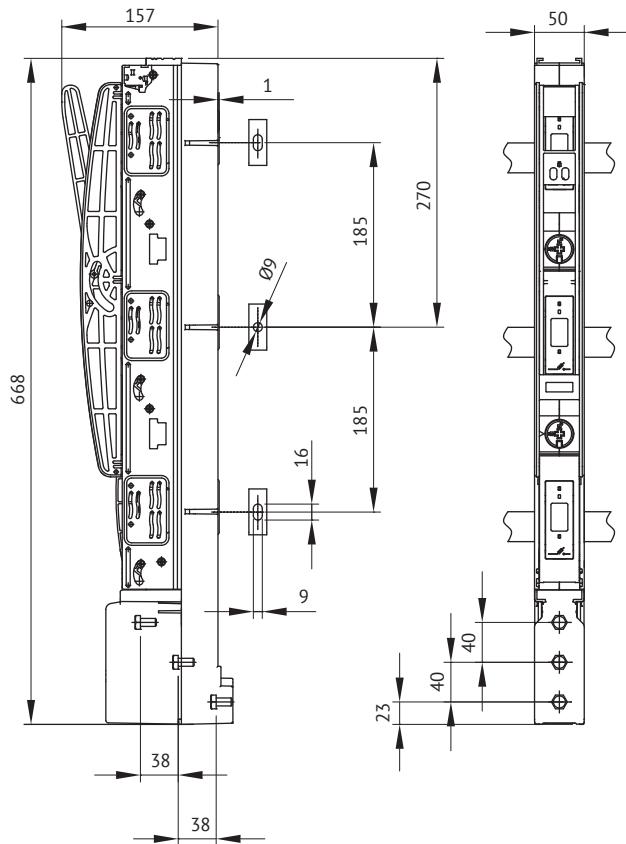
Appearance	Size	Product name	Code
	2/3	Auxiliary contact OptiBlock, OptiVert	332786
	00	Fuse monitoring device for OptiVert-00	368574
	2/3	Fuse monitoring device for OptiVert-2/3	368575
	2/3	Set of terminals for installing CTs on OptiVert-2/3	368573
	2/3	Terminal cover for OptiVert-2/3	368576
	3	Terminal cover for two OptiVert-3 (new)	368577
	3	Terminal connection kit of two OptiVert-3 (new)	368580
-	3	Kit for combining handles of OptiVert-3-1 (new)	368661
-	3	Kit for combining handles of OptiVert-3-6 (new)	368578

► Overall dimensions (mm)

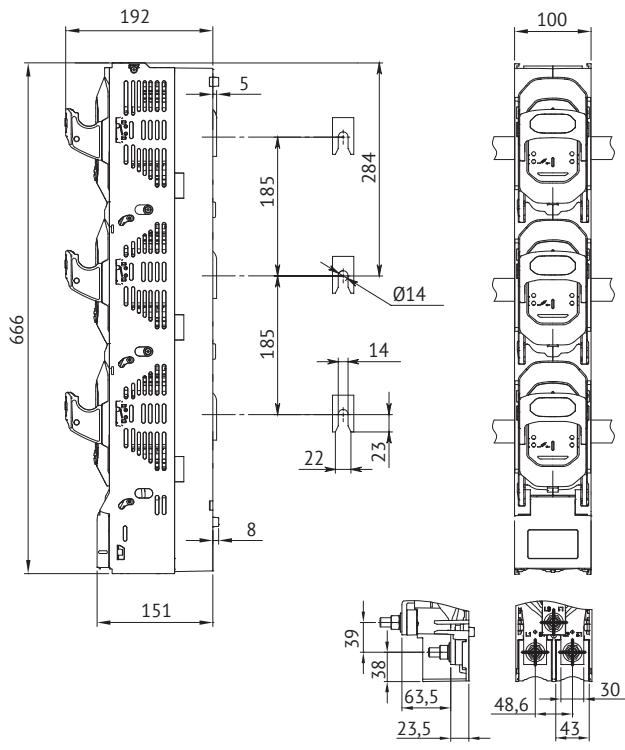
OptiVert-00-1



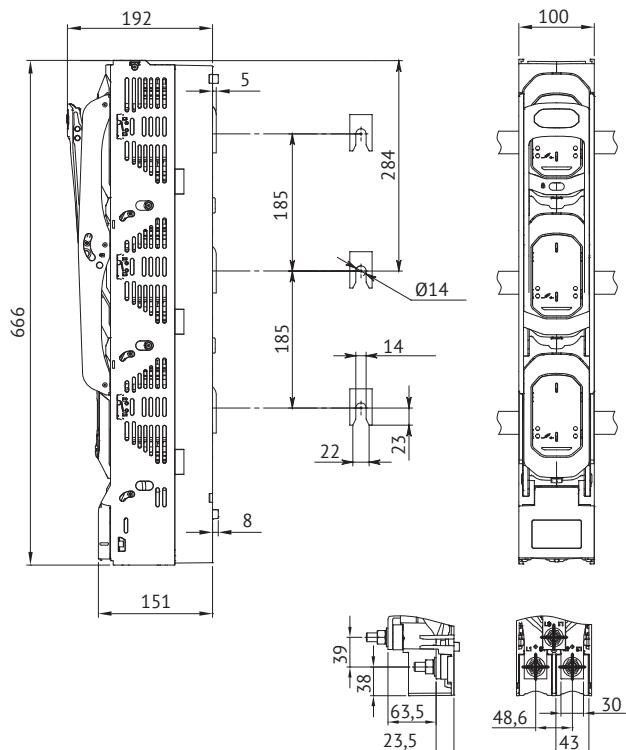
OptiVert-00-6



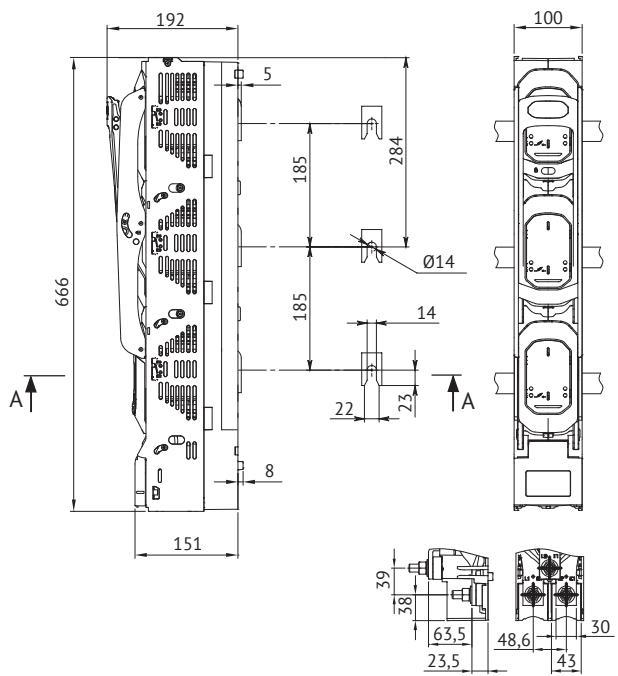
OptiVert-2-1, OptiVert-3-1



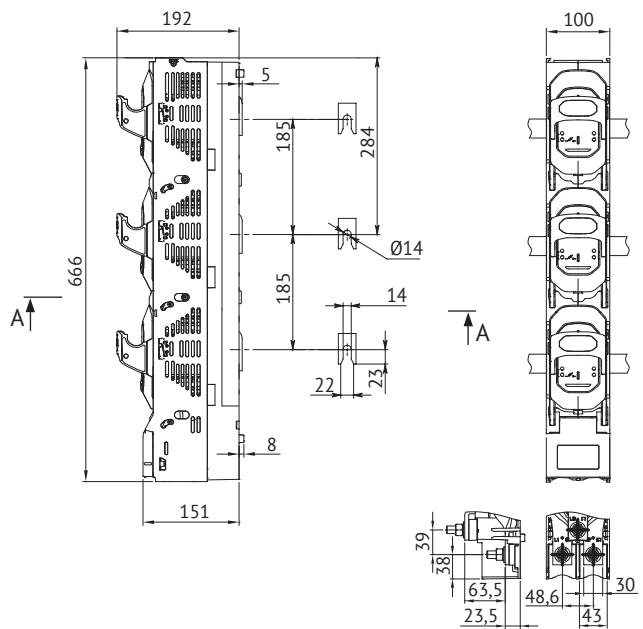
OptiVert-2-6, OptiVert-3-6



OptiVert-2-1 (new), OptiVert-3-1 (new)

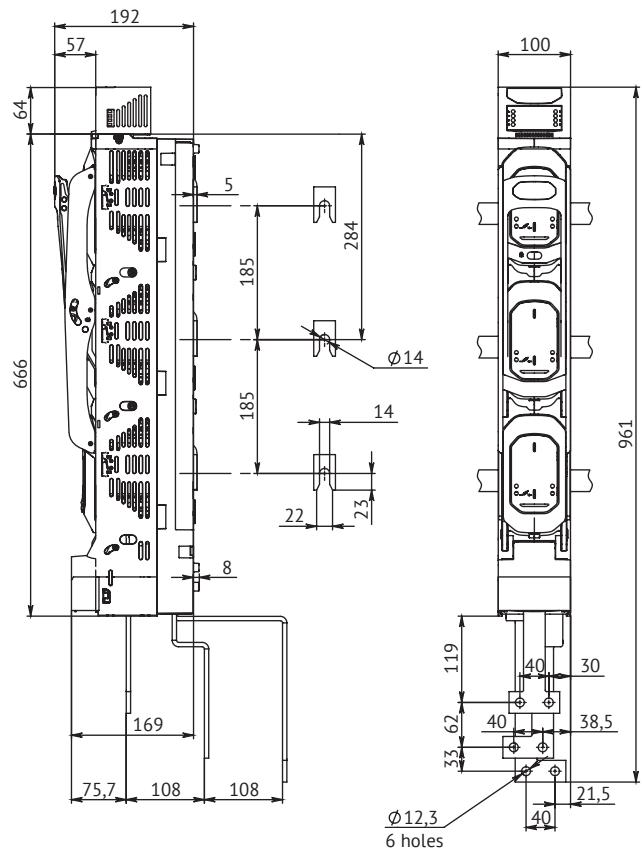
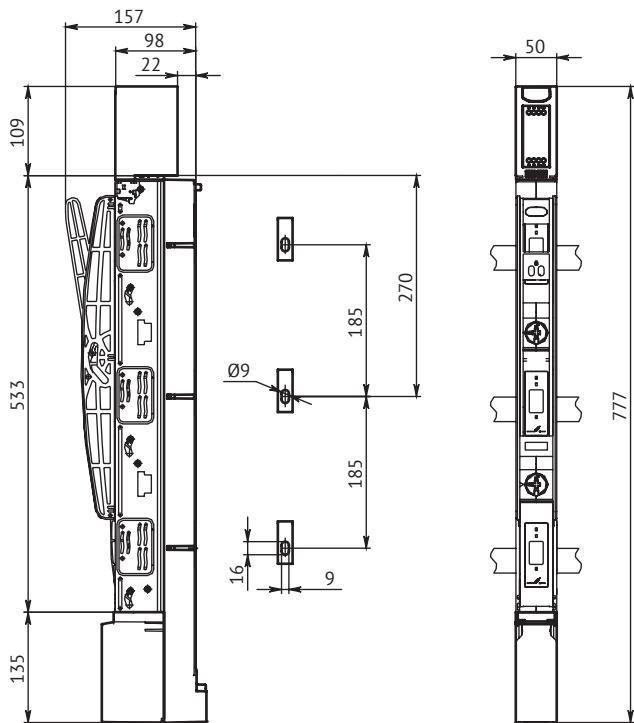


OptiVert-2-6 (new), OptiVert-3-6 (new)



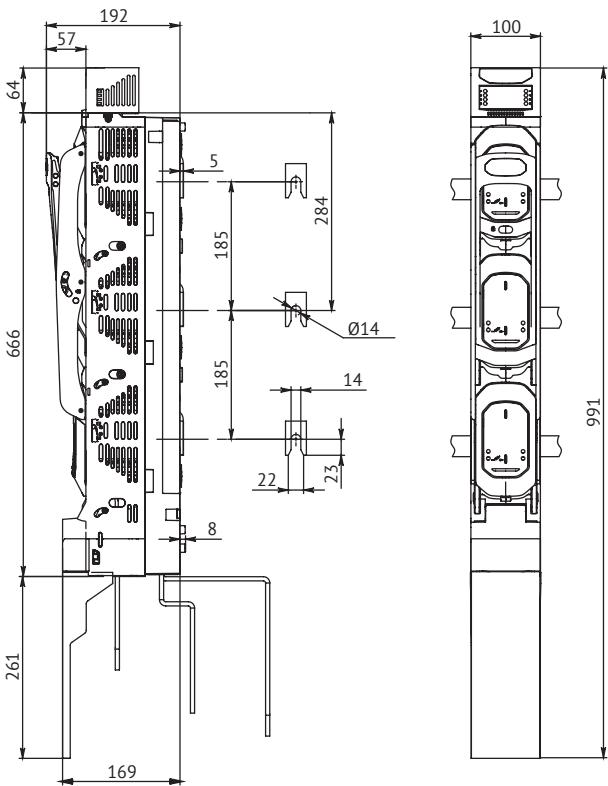
OptiVert-00

OptiVert-(2-3)
with installed fuse monitoring device,
with installed set of terminals for installing current transformers



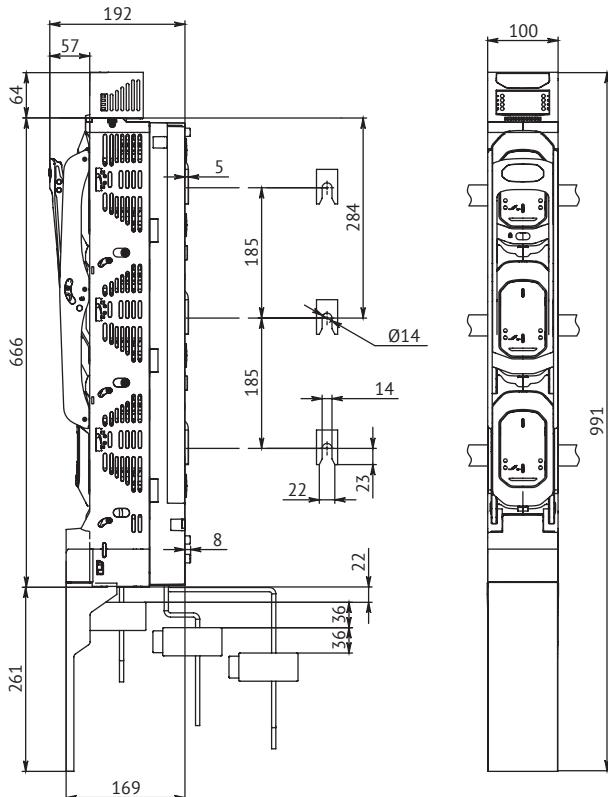
OptiVert-(2-3)

with installed fuse monitoring device,
with installed set of terminals for installing current transformers,
with installed terminal cover



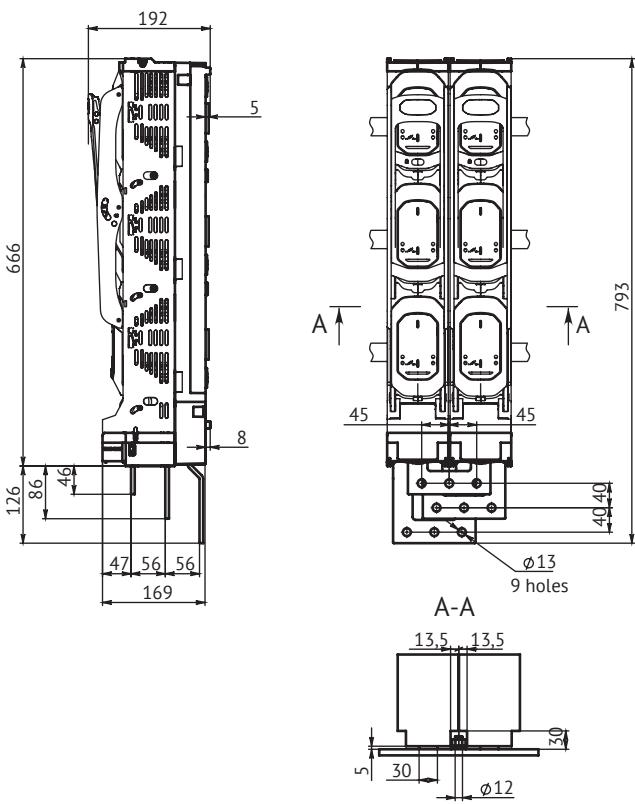
OptiVert-(2-3)

with installed fuse monitoring device,
with installed set of terminals for installing current transformers,
with installed terminal cover, with installed current transformers TTK-40/TTK-30 (KEAZ)



Two OptiVert-3-6

installed side by side on the busbar, connected using terminal connection kit



Two OptiVert-3-1

installed side by side on the busbar, connected using terminal connection kit

