

## PropSava Single Phase, 230V, 5-23KVA Series – Mark V

### Specifications:

<b>PropSava Type Mark V:</b>	VR-201	VR-202	VR-203	VR-204	
<b>Capacity:</b>	5KVA	12KVA	18KVA	23KVA	
<b>Input voltage for all models:</b>	220V $\pm$ 15% 50Hz				
<b>Output voltage for all models:</b>	Normal mode: 220V $\pm$ 1% Optimal mode: 210V $\pm$ 1%				
<b>Output Maximum Current:</b>	27A	65A	96A	123A	
<b>Efficiency:</b>	$\geq$ 98%				
<b>Response time:</b>	$\leq$ 40ms				
<b>Output wave:</b>	Additional Waveform deformation less than 0.4%.				
<b>Protection:</b>	<b>Over voltage:</b>	If output voltage is above 250V for 5 seconds the system will activate automatic by-pass.			
	<b>Under voltage:</b>	If output voltage is under 180V for 5 seconds the system will automatically enter by-pass state.			
	<b>Over load:</b>	If output current exceeds 100% of maximum rated current for 20 seconds, then system will automatically enter by-pass state.			
	<b>Surge Protection:</b>	IEC class II surge protection. Nominal discharge surge current is 20KA.			
	<b>By-pass:</b>	Automatic/Manual			
<b>EMC and Safety</b>	<b>EMC:</b>	EN61000-6-1, EN61000-6-3, EN61000-3-2, EN61000-3-3			
	<b>LVD:</b>	EN61558-2-12			
<b>Life cycle:</b>	Designed for 10 years minimum , up to 25 years subject to 10 year service intervals.				
<b>Others:</b>	<b>Display:</b>	Digital meter shows output voltage and power			
	<b>Cooling:</b>	Temperature controlled, low noise, long life Fan			
	<b>Working temperature:</b>	$\leq$ 65C			
	<b>Ambient temperature:</b>	-15 - 40C			
	<b>Humidity :</b>	0~95% (Not freezing point)			
<b>Physical:</b>	<b>Dimensions</b>	300mm (H) x450mm (W) x450mm (D)	350mm (H) x500mm (W) x520mm (D)	380mm (H) x600mm (W) x570mm (D)	380mm (H) x600mm (W) x570mm (D)
	<b>Weight:</b>	42KG (Net 55KG)	71KG (Net 90KG)	91KG (Net 110KG)	108KG (Net 130KG)
	<b>Enclosure:</b>	IP22			
	<b>Feet:</b>	4 wheels			

**PropSava-Single Phase Standard Surge Arrestor installed V 20-C/1+NPE-280 technical data:**

**Note: alternatives such as ABB, DEHN, PHOENIX, Schneider maybe used without notice.**

Surge Controller surge arrester Description	V 20-C/1+NPE-280
Maximum continuous operating voltage $U_c$	280 V~
LPZ	1 → 2
Requirement class to VDE 0675, Part 6 (Draft 11.89) A1, A2 to IEC 61643-1	C Class II
Tested to:	IEC 61643-1, pr EN 61643-1, E DIN VDE 0675-6:1989-11 and Part 6/A1
Nominal discharge current of the upper part $I_n$ (8/20)	20KA
Maximum discharge current of the upper part $I_{max}$ (8/20)	50 kA
Voltage protection level at 1 kA (8/20) $U_p$ at 5 kA (8/20) $U_p$ at $I_n$ $U_p$	$\leq 1.2$ kV $\leq 1.5$ kV $\leq 1.8$ kV
Response time $T_a$	<25 ns
Short-circuit withstand strength 25 kA with max. upstream fuse	125 A gL/gG
Connection cross-section	2.5-35 mm <sup>2</sup> (single and multi stranded); 2.5-25 mm <sup>2</sup> (fine-stranded with core end sleeves)
Mounting	Snap-fitting on 35 mm top-hat rail to DIN EN 50 022
IP Code	IP20
Temperature range $\vartheta$	-40 °C to +80 °C

**PropSava-Single Phase Optional Surge Arrestor type V 25-B+C/1+NPE-280 technical data:**

**Note: alternatives such as ABB, DEHN, PHOENIX, Schneider maybe used without notice.**

Surge Controller surge arrester Description	V 25-B+C/1+NPE-280
Maximum continuous operating voltage $U_c$	280 V $\sim$
LPZ	0 $\rightarrow$ 2
Requirement class to VDE 0675, Part 6 (Draft 11.89) A1, A2 to IEC 61643-1	B+C Class I+II
Tested to:	IEC 61643-1, pr EN 61643-1, E DIN VDE 0675-6:1989-11 and Part 6/A1
Nominal discharge current of the upper part $I_n$ (8/20)	30KA
Maximum discharge current of the upper part $I_{max}$ (8/20)	50 kA
Voltage protection level at 1 kA (8/20) $U_p$ at 5 kA (8/20) $U_p$ at $I_n$ $U_p$	$\leq 0.9$ kV $\leq 1.2$ kV $\leq 1.5$ kV
Response time $T_a$	<25 ns
Short-circuit withstand strength 25 kA with max. upstream fuse	160 A gl/gG
Connection cross-section	2.5-35 mm <sup>2</sup> (single and multi-stranded); 2.5-25 mm <sup>2</sup> (fine-stranded with core end sleeves)
Mounting	Snap-fitting on 35 mm top-hat rail to DIN EN 50 022
IP Code	IP20
Temperature range $\vartheta$	-40 °C to +80 °C