

## Power Supply

# SVC-N Voltage Stabilizer



### General

SVC-N Voltage Stabilizer is a power supply circuit or equipment that can automatically adjust the output voltage.

### Type designation

SVC-N-500VA

| Model | New | Power  |
|-------|-----|--|
| SVC   | N   | 500VA  |
| Model | New | 500VA=500VA<br>1000VA=1000VA<br>1500VA=1500VA<br>2000VA=2000VA<br>3000VA=3000VA<br>5000VA=5000VA<br>8000VA=8000VA<br>10000VA=10000VA |

### Operating conditions

1. Ambient temperature:  $-5^{\circ}\text{C}\sim+40^{\circ}\text{C}$
2. Relative humidity:  $\leq 20\%$  at  $40^{\circ}\text{C}$ ;  $\leq 90\%$  at  $20^{\circ}\text{C}$
3. Altitude:  $\leq 2000\text{m}$
4. Environmental conditions: no harmful gases and vapors, no conductive or explosive dust, no severe mechanical vibration

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### Technical data

| Model                 | 0.5kVA  | 1kVA | 2kVA | 3kVA | 5kVA | 7kVA | 10kVA | 15kVA | 20kVA | 30kVA |
|-----------------------|---|------|------|------|------|------|-------|-------|-------|-------|
| Input voltage         | 100V-260V   |      |      |      |      |      |       |       |       |       |
| Frequency             | 50/60Hz   |      |      |      |      |      |       |       |       |       |
| Output                |   |      |      |      |      |      |       |       |       |       |
| Output voltage        | 220V  |      |      |      |      |      |       |       |       |       |
| Output accuracy       | ±3%   |      |      |      |      |      |       |       |       |       |
| Power factor          | 0.8   |      |      |      |      |      |       |       |       |       |
| Efficiency            | 98%   |      |      |      |      |      |       |       |       |       |
| Phase                 | Single-phase  |      |      |      |      |      |       |       |       |       |
| Relative time         | <1s (when external voltage changes by 10%)  |      |      |      |      |      |       |       |       |       |
| Relative humidity     | ≤90%  |      |      |      |      |      |       |       |       |       |
| Waveform distortion   | No waveform distortion  |      |      |      |      |      |       |       |       |       |
| Insulation resistance | >2M Ω   |      |      |      |      |      |       |       |       |       |
| Digital display       |   |      |      |      |      |      |       |       |       |       |
| Input voltage         | Digital display shows the exact value   |      |      |      |      |      |       |       |       |       |
| Output voltage        | Digital display shows the exact value   |      |      |      |      |      |       |       |       |       |
| Input current         | Digital display shows the exact value (Digital display shows load percentage)         |      |      |      |      |      |       |       |       |       |
| Abnormal display      | Digital display can indicate overvoltage, undervoltage, overcurrent, and overheating. |      |      |      |      |      |       |       |       |       |
| Protection            |   |      |      |      |      |      |       |       |       |       |
| Overload protection   | The switch is automatically switched off.   |      |      |      |      |      |       |       |       |       |
| AutomaticSwitch-off   | Overvoltage protection  |      |      |      |      |      |       |       |       |       |
|                       | Undervoltage protection   |      |      |      |      |      |       |       |       |       |
|                       | Overcurrent protection  |      |      |      |      |      |       |       |       |       |
|                       | Overheating Protection  |      |      |      |      |      |       |       |       |       |
|                       | Power failure, interruption!  |      |      |      |      |      |       |       |       |       |
| Short circuit         |   |      |      |      |      |      |       |       |       |       |

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### Efficiency

If the input voltage is within the range of 100-260V the stabilizer can easily provide an output of 220 V  $\pm$  3%. The maximum output power is 100% when the input voltage is 200V. If the input voltage is below 200V, the maximum output power of the stabilizer changes according to the curve shown in the graph below. The power reserve of the stabilizer should be no less than 20-30% of the total connected load.

| Model                            | Under Voltage-Over Voltage & Current(A) |      |      |      |      |      |      |      |      |      |      |          |
|----------------------------------|---|------|------|------|------|------|------|------|------|------|------|----------|
|                                  | Input voltage                           | 100V | 110V | 120V | 130V | 140V | 150V | 160V | 170V | 180V | 190V | 200-260V |
| SVC-N-0.5kVA(Input Current 2.3A) | Load percentage                         | 30%  | 35%  | 40%  | 45%  | 50%  | 55%  | 65%  | 75%  | 85%  | 90%  | 95%      |
|                                  | Watt                                    | 150  | 175  | 200  | 225  | 250  | 275  | 325  | 375  | 425  | 450  | 475      |
| SVC-N-1kVA(Input Current 4.5A)   | Output Current(A)                       | 0.65 | 0.75 | 0.9  | 1    | 1.1  | 1.25 | 1.45 | 1.7  | 1.9  | 2    | 2.15     |
|                                  | Watt                                    | 300  | 350  | 400  | 450  | 500  | 550  | 650  | 750  | 850  | 900  | 950      |
| SVC-N-1.5kVA(Input Current 6.8A) | Output Current(A)                       | 1.3  | 1.5  | 1.8  | 2    | 2.2  | 2.5  | 2.9  | 3.4  | 3.8  | 4    | 4.3      |
|                                  | Watt                                    | 450  | 525  | 600  | 675  | 750  | 825  | 975  | 1125 | 1275 | 1350 | 1425     |
| SVC-N-2kVA(Input Current 9A)     | Output Current(A)                       | 1.95 | 2.25 | 2.7  | 3    | 3.3  | 3.75 | 4.35 | 5.1  | 5.7  | 6    | 6.45     |
|                                  | Watt                                    | 600  | 700  | 800  | 900  | 1000 | 1100 | 1300 | 1500 | 1700 | 1800 | 1900     |
| SVC-N-3kVA(Input Current 13.5A)  | Output Current(A)                       | 2.6  | 3    | 3.6  | 4    | 4.4  | 5    | 5.8  | 6.8  | 7.6  | 8    | 8.6      |
|                                  | Watt                                    | 900  | 1050 | 1200 | 1350 | 1500 | 1650 | 1950 | 2250 | 2550 | 2700 | 2850     |
| SVC-N-5kVA(Input Current 22.5A)  | Output Current(A)                       | 3.9  | 4.5  | 5.4  | 6    | 6.6  | 7.5  | 8.7  | 10.2 | 11.4 | 12   | 12.9     |
|                                  | Watt                                    | 1500 | 1750 | 2000 | 2250 | 2500 | 2750 | 3250 | 3750 | 4250 | 4500 | 4750     |
| SVC-N-8kVA(Input Current 36A)    | Output Current(A)                       | 6.5  | 7.5  | 9    | 10   | 11   | 12.5 | 14.5 | 17   | 19   | 20   | 21.5     |
|                                  | Watt                                    | 2400 | 2800 | 3200 | 3600 | 4000 | 4400 | 5200 | 6000 | 6800 | 7200 | 7600     |
| SVC-N-10kVA(Input Current 45A)   | Output Current(A)                       | 10.4 | 12   | 14.4 | 16   | 17.6 | 20   | 23.2 | 27.2 | 30.4 | 32   | 34.4     |
|                                  | Watt                                    | 3000 | 3500 | 4000 | 4500 | 5000 | 5500 | 6500 | 7500 | 8500 | 9000 | 9500     |
|                                  | Output Current(A)                       | 13   | 15   | 18   | 20   | 22   | 25   | 29   | 34   | 38   | 40   | 43       |

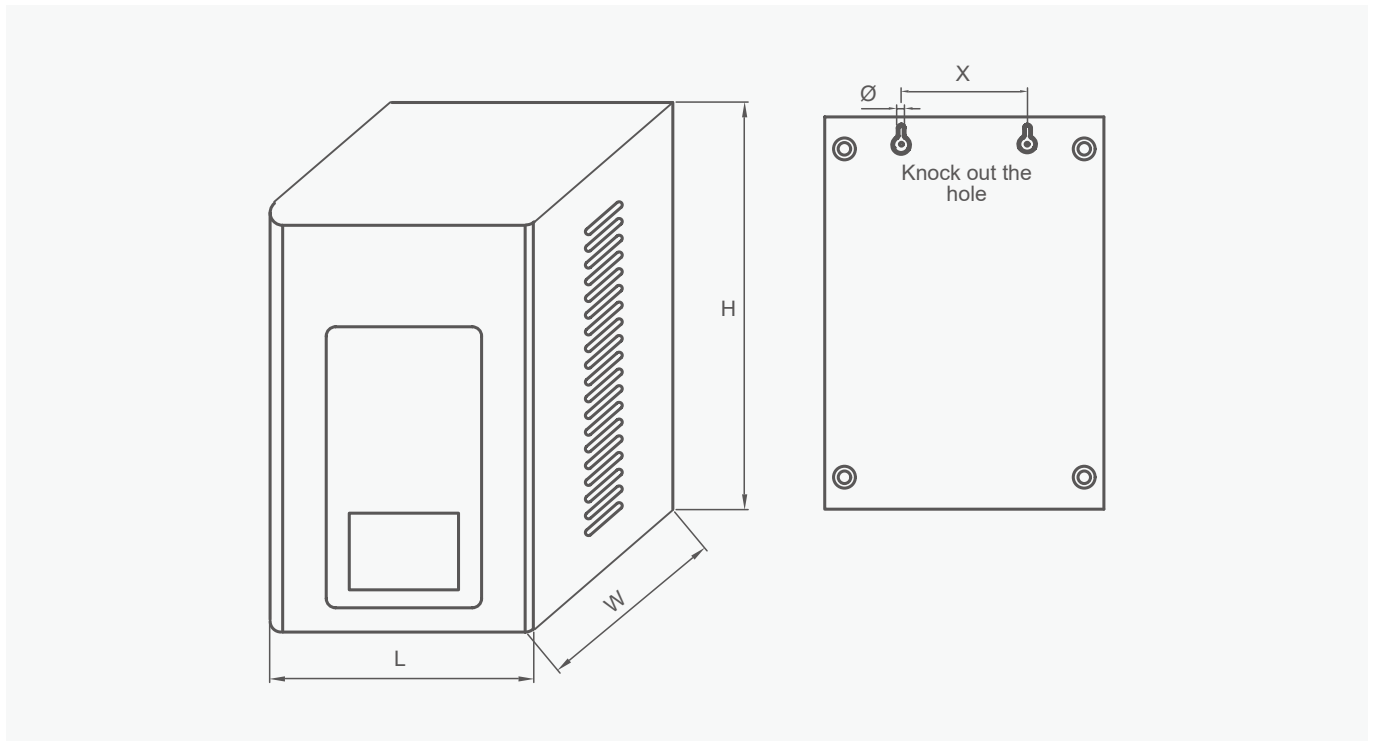
### Caution

- Avoid Overloading  
Do not use the stabilizer beyond its maximum power capacity.
- When connecting to any device that operates with a compressor, the starting power (transient power) is usually several times higher than the power indicated by the device.
- Ensure that the total starting power of all connected devices does not exceed the specified maximum output power of the stabilizer.
- Ensure that the stabilizer's output voltage and frequency match the connected device.
- Ensure that the power supply voltage is within the specified input voltage range of the stabilizer.
- Always place the stabilizer under the following conditions:
  - In a well-ventilated area.
  - Away from direct sunlight or heat sources.
  - Out of reach of children.
  - Away from water, moisture, oil, or grease.
  - Away from flammable substances.

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### Overall and mounting dimensions(mm)



| Model and specification (VA) | Dimensions (mm) |     |     | Wall Mounted Installation (mm) |     |
|------------------------------|-----------------|-----|-----|--------------------------------|-----|
|                              | L               | W   | H   | X(hole pitch)                  | Ø   |
| SVC-N-500                    | 160             | 130 | 255 | 108                            | 8.4 |
| SVC-N-1000                   | 190             | 150 | 275 | 108                            | 8.4 |
| SVC-N-1500                   | 190             | 150 | 275 | 108                            | 8.4 |
| SVC-N-2000                   | 220             | 175 | 315 | 135                            | 8.4 |
| SVC-N-3000                   | 255             | 195 | 365 | 135                            | 8.4 |
| SVC-N-5000                   | 255             | 195 | 365 | 135                            | 8.4 |
| SVC-N-8000                   | 310             | 215 | 420 | 135                            | 8.4 |
| SVC-N-10000                  | 310             | 215 | 420 | 135                            | 8.4 |