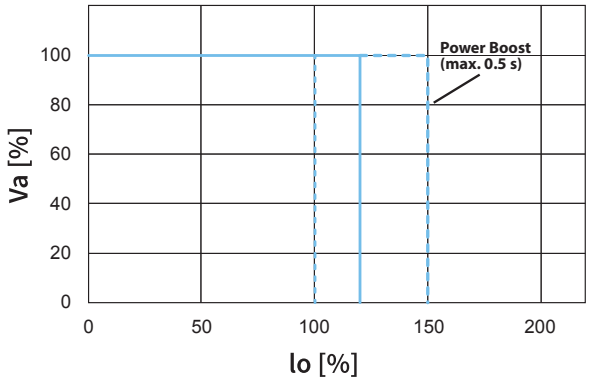
Power Supplies 24 V and 72 V

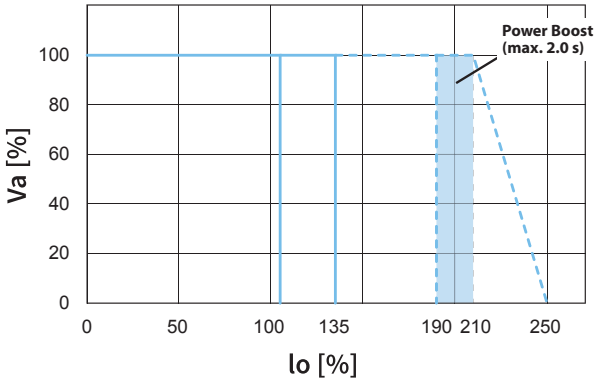
Power Supplies	S01-24/500	S01-72/500	S01-72/1000
Input			
Input voltage range	90...132VAC / 180...264VAC automatical switchover		AC 3 x 340-550V
Power frequency	50/60Hz		50/60Hz
Efficiency	typ. 86%	typ. 88%	typ. 91,5%
Input current limitation	≤ 70A$_{peak}$ typ. cold, ≤ 150A$_{peak\ factory\ setting}$		< 35A$_{peak}$ typ. cold, < 70A$_{peak}$ hot
Internal fuse	16ATH/250VAC		
External fuse			16A (IEC), 20A (USA) required
Output			
Preset range Vo	22 - 29VDC, factory setting 24VDC ± 0.5% (Vo will be saved after 1s)	54 - 80VDC, factory setting 72VDC ± 0.5% (Vo will be saved after 1s)	72V: 56 - 80VDC factory setting Vo$_{nom}$ ± 0,15/0,2V
Max. Ouputpower	480W - Powerboost 720W at (Vo≥ Vo$_{nenn}$)		1000W
Powerboost (only in Boostmode)	up to 150% (see chart)		up to 190 - 210% (see chart)
Ripple	120mV$_{ss}$ typ.		72V: 40mV$_{ss}$ typ.
Noise voltage (20MHz)	200mV$_{ss}$ typ.		200mV$_{ss}$ typ.
Temperature coefficient	≤ 0,025% / K		≤ 0,025% / K
Start-up delay	< 1,5s (at 230VAC)		250 ms typ.
Rise time	40 ms typ.	80 ms typ.	72V:20ms typ./155ms typ.at 50.000 µF load
Back feeding voltage	up to 35Vdc	up to 100 Vdc	up to 100 Vdc
Parallel connection	yes - only in parallel mode (max. 3 identical power supplies)		yes, max. 3 identical power supplies
Regulation			
Line regulation	< 0.2% for Vo at Vi$_{min}$ - Vi$_{max}$		< 0.3% for Vo at Vi$_{min}$ - Vi$_{max}$
Load regulation	< 0.5% for Vo at Io 0 - 100% Boost-M. < 3.0% for Vo at Io 0 - 100% Parallel-M.		< 0.5% for Vo at Io 0 - 100% single operation < 3% for Vo at Io 0 - 100% parallel operat.
Response time	typ. 1ms at Io 20 - 80%		typ. 1ms at Io 20 - 80%
Protection and Controlling			
Overtemperature protection	Switches off if inside temperature becomes to high, reconnection with hysteresis		Switches off if inside temperature becomes to high, reconnection with hysteresis
Safety/Standards	IEC60950 / UL60950 / UL508 / CSA22.2-60950 / CSA22.2-107.1 / IP20, safety class 1 / pollution degree 2		EN 60950-1 / IEC 60950-1 / VDE 0160 safety class I / VDE 0100 / IP20 / CSA-C22.2 No 107 / CSA-C22.2 No. 60950-1-03 / UL Std. 60950-1 / UL Std. 508 (Operation in Delta mains only for UL508) / SELV-output according EN60950-1 at 48V / pollution degree 2
EMV			
Mains feedback / PFC	EN 61000-3-2 Class A only with ext. PFC 12mH/4,5A/230VAC		
Flicker	EN 61000-3-3		EN 61000-3-3
Interference immunity	EN 61000-6-2 Industrial generic standard		EN 61000-6-2
ESD	EN 61000-4-2 8/15KV		EN 61000-4-2 8/15 kV
Electrical fields	EN 61000-4-3 noise level 10V/m (Krit. A)		EN 61000-4-3 noise level 10V/m
Burst	EN 61000-4-4 4KV (Krit.A)		Input: EN 61000-4-4 4kV / Output: EN 61000-4-4 2kV
Surge	EN 61000-4-5 4/2KV (Krit.A)		Input: EN 61000-4-5 2/4kV / Output: EN 61000-4-5 0,5kV
HF Immunity	EN 61000-4-6 noise level 10V (Krit.A)		EN 61000-4-6 noise level 10V
Voltage drop	EN 61000-4-11		EN 61000-4-11
Interference emission	EN 61000-6-4 Industrial generic standard EN 55011 class B, Radiation depends on assembly		EN 61000-6-3 / EN 61204-3
Operating Data			
Temperature range	-25°C...70°C integral, temperature regulated fan, sucking in air from below		-25...+70°C, integral, temperature controlled fan, air intake bottom-up (fan swichted on/off in two steps dependent on temperature)
Derating	3% / K ab +60°C		2% / K at +60°C
Weight	1.0 kg		2.0 kg
Mechanics			
Assembly	All systems can be snapped onto a symmetrical 35mm DIN-rail according to EN 50022 with a diameter of 1 to 2.5 mm or directly be screwed onto the wall.		All devices can be attached to a back wall using the mounting tabs.

CURRENT LIMITING CHARACTERISTICS (TYP.) S01-24/500 AND S01-72/500

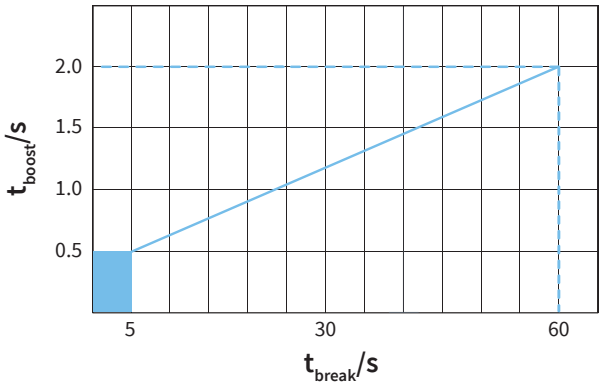


Up to 150% I_{nom} possible for 500ms, then the power boost is min. 500ms not available. (Indications for boost mode only).

CURRENT LIMITING CHARACTERISTICS (TYP.) S01-72/1000

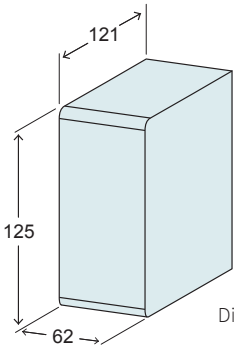


Start-up takes place with power boost between 190% and 210% of the nominal current for a period of approx. 2s. You can use power boost also in running operation.



Context between powerboost time and minimum break time

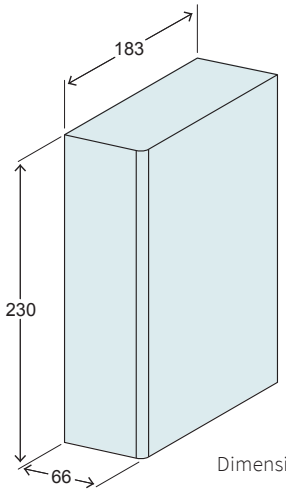
DIMENSIONS S01-24/500 AND S01-72/500



Dimensions in mm

The distance between the surrounding components and the air admission and air exit holes should be at least 20 mm. Please ensure that exhaust air is not immediately sucked in again.

DIMENSIONS S01-72/1000



Dimensions in mm

Operation in any assembly position possible. The distance between the surrounding components and the air admission and air exit holes should be at least 50 mm. Please ensure that exhaust air is not immediately sucked in again.

ORDERING INFORMATION

Item	Description	Item-No.
S01-24/500	Power Supply 24V/500W, 1x120/230VAC	0150-2480
S01-72/500	Power Supply 72V/500W	0150-1874
S01-72/1000	Power Supply 72V/1000W	0150-1872