

Series S 600

Features

- DC input: 10 - 380 V
- AC input: 115 / 230 V, 47 - 400 Hz
- DC output: 5 / ... / 250 V
- Continuous short circuit protection
- Overvoltage protection with auto restart
- Industrial grade components
- Compact and robust design



DC / DC Converters

▶ 200 W		▶ 300 W		▶ 350 W							
Input VDC										Output VDC	
10–16 VDC	Output Amps	18–36 VDC	Output Amps	36–75 VDC	45–90 VDC	80–160 VDC	160–320 VDC	320–380 ¹⁾ VDC	Output Amps	Adj.	Range
S 600	30	S 620	50	S 630	S 640	S 650	S 670	S 680 Z	50	5	4.5– 5.5
S 601	20	S 621	30	S 631	S 641	S 651	S 671	S 681 Z	32	9	8– 10
S 602	15	S 622	24	S 632	S 642	S 652	S 672	S 682 Z	26	12	11– 13
S 603	12	S 623	20	S 633	S 643	S 653	S 673	S 683 Z	22	15	14– 16
S 604	8	S 624	12	S 634	S 644	S 654	S 674	S 684 Z	14	24	23– 26
S 605	7	S 625	10	S 635	S 645	S 655	S 675	S 685 Z	12	28	26– 30
S 609	4.4	S 629	6	S 639	S 649	S 659	S 679	S 689 Z	6.5	48	45– 55
S 606	3.6	S 626	5	S 636	S 646	S 656	S 676	S 686 Z	5.2	60	58– 68
S 607	1.8	S 627	2.5	S 637	S 647	S 657	S 677	S 687 Z	3	110	100– 130
S 608	0.9	S 628	1.25	S 638	S 648	S 658	S 678	S 688 Z	1.5	220	200– 250



AC / DC Converters

► 350 W					
Input VAC, 1-Phase				Output VDC	
115 ±20%	230 ^{+15%} –20%	115 ±20% / 230 ^{+15%} –20%	Output Amps	Adj.	Range
S 660	S 680	S 690	50	5	4.5– 5.5
S 661	S 681	S 691	32	9	8– 10
S 662	S 682	S 692	26	12	11– 13
S 663	S 683	S 693	22	15	14– 16
S 664	S 684	S 694	14	24	23– 26
S 665	S 685	S 695	12	28	26– 30
S 669	S 689	S 699	6.5	48	45– 55
S 666	S 686	S 696	5.2	60	58– 68
S 667	S 687	S 697	3	110	100– 130
S 668	S 688	S 698	1.5	220	200– 250

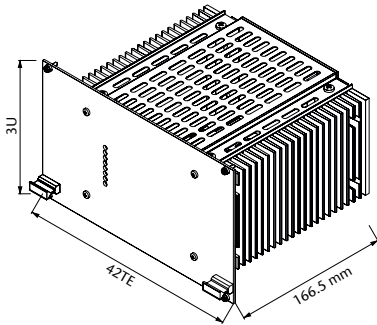
Assistance in table use:

- 1 Select the column for input voltage range.
- 2 Select the row for the appropriate output voltage.
- 3 The intersection of both results in the module required.

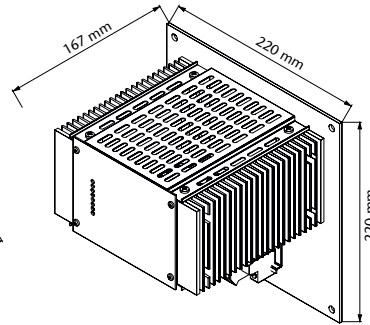
For example:

- 1 input voltage = 24 VDC
- 2 output voltage = 5 VDC @ 50 A
- 3 results in a S 620 module.

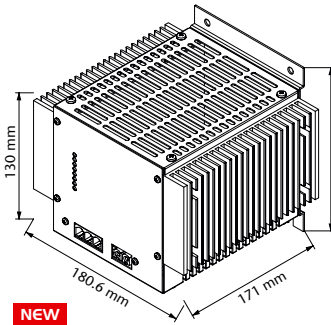
¹⁾ input supply from PFC also suitable



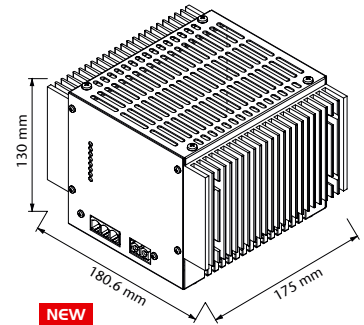
Eurocassette / approx. 2.6 kg
(pluggable module for 19" sub-rack)



Wall mount / approx. 3.6 kg



NEW
Chassis mount / approx. 3.1 kg



NEW
DIN rail mount / approx. 3.0 kg

Specifications

Input

Voltage range see table, unit switches off
at under- and overvoltage
No-load input power. 5 - 6 W
Switch-on time 500 ms typical
Inrush current AC input: limited by thermistor
Hold-up time AC input: 10 ms typical

Immunity

- ESD. acc. to DIN / EN 61000-4-2 level 3
- Fast transients acc. to DIN / EN 61000-4-4 level 3
- Surges acc. to DIN / EN 61000-4-5 level 3

Output

Line regulation ($\pm 10\%$) 0.1 %
Load regulation (10 - 90 %) . . . 0.2 %
Load transient (10-90-10 %) . . 6 % typical
Response time to $\pm 1\%$ 2 - 3 ms
Turn-on rise time Soft-start, 100 ms typical
Ripple. $\leq 1\% + 30 \text{ mV}_{\text{p-p}}$
Overload protection current limited to 105 - 110 % of I_{nom}
Overvoltage protection. OVP switches off module
with automatic return to operation
Remote sense. standard for C series, up to
10 % of U_{nom} for output $< 60 \text{ VDC}$,
up to 6 V for output $> 60 \text{ VDC}$

General

Efficiency 70 - 90 %
Operating temperature. -20 to $+75\text{ }^{\circ}\text{C}$
Load derating 2.5% / $^{\circ}\text{C}$ from $+55\text{ }^{\circ}\text{C}$
Storage temperature -40 to $+85\text{ }^{\circ}\text{C}$
Humidity up to 95 % RH, non-condensing
Cooling natural convection
Temperature coefficient 0.02% / $^{\circ}\text{C}$ typical
Safety / Construction. acc. to DIN / EN 60950-1: 2003
Protection category. IP 20, others or NEMA upon request
EMI. acc. to EN 55022, class A,
optionally class B
MTBF approx. 120,000 h @ $40\text{ }^{\circ}\text{C}$
acc. to MIL - HDBK - 217 E (notice 1)
Connector for
eurocassette - std. design H 15
Marking CE

Options

Input

- Inrush current limiting for DC input
- Reverse polarity protection for DC input
- Autoranging for 115 / 230 VAC input

Output

- Parallel operation
- Redundant operation
- Inhibit (remote on / off)

Signals

via open collector or relay contacts

- Power ok (input)
- DC ok (output)
- Sys-reset

Programming

- Output voltage or current via
 - external potentiometer
 - analog signal
 - interface card RS232 or IEEE488 (external)

Battery charger

- Temperature compensated charging voltage
- Automatic / manual selection of charging characteristic (external)

Monitoring

- Input / output voltage or current via
 - analog signal
 - interface card RS232 or IEEE488 (external)

Mechanics / environment:

- 19" sub-rack for eurocassette
- Wall mount
- Chassis mount
- DIN rail mount
- Increased mechanical strength
- Tropical protection
- Extended temperature range to $-40\text{ }^{\circ}\text{C}$