

PROFINET/Industrial Ethernet

Industrial Ethernet Layer 3 Switches / Routers

Power supplies for SCALANCE X-500

Technical specifications

Article No.	6GK5598-1AA00-3AA0
Product-type designation	POWER SUPPLY PS598-1
Type of current supply	300 W, input: 85 - 264 V, output: DC 24 V
Electrical data	
<u>Electrical data</u> <u>Input</u>	
Form of voltage at the input	1-phase AC
Supply voltage	
• for AC	85 ... 264 V
• 1 at AC nominal value	230 V
Type of input wide range input	Yes
Overvoltage class	Category II (20 A rated branch circuit)
Stored energy time on nominal level of the output current: at mains power cut minimum	16 ms
Line frequency	
• 1 nominal value	50 Hz
• 2 nominal value	60 Hz
• initial value	47 Hz
• ultimate value	63 Hz
Input current at nominal level of the input voltage 230 V nominal value	1.8 A
Current limiting of input current at 25 °C maximum	40 A
Type of protection at input	replaceable
<u>Electrical data</u> <u>Output</u>	
Form of voltage secondary side	Controlled, isolated DC voltage
Output voltage for DC nominal value	24 V
Relative overall tolerance of the voltage	2 %
Relative regulation accuracy of the output voltage	
• On slow fluctuation of the input voltage	0.2 %
• on slow fluctuation of the ohm loading	0.4 %
Residual ripple maximum	0.36 V
Voltage peak maximum	240 V
Type of display for normal operation	Green LED for 24 V OK and fault LED
Behaviour of the output voltage on switching on	Overshoot of $U_a < 5 \%$
Startup delay time maximum	1.5 s
Voltage increase time of the output voltage maximum	15 ms
Output current	
• nominal value	12.5 A
• nominal range	0 ... 12.5 A
delivered active power typ.	300 W
Product feature Bridging of channels	Yes
Number of parallel-switched pieces of equipment for increasing the power	2
Efficiency in percentage	87 %
Resistive loss	39 W

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Product-type designation	POWER SUPPLY PS598-1
<u>Electrical data</u> <u>Closed-loop control</u>	
Relative regulation accuracy of the output voltage	
• with rapid fluctuation of the input voltage by +/- 15% typical	0.8 %
• load step of ohmic load 50/100/50 % typical	3.25 %
Setting time	
• load step 50 to 100% typical	2 ms
• load step 100 to 50% typical	2 ms
<u>Electrical data</u> <u>Protection and monitoring</u>	
Design of overvoltage protection at output	< 37 V
Pick-up level current limitation typical	1.15 A
Characteristic feature of the output short-circuit protected	Yes
Design of the short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current Effective level maximum	-
<u>Electrical data</u> <u>Safety</u>	
Galvanic isolation between entrance and outlet	Yes
Potential separation	Safety extra-low output voltage U_{out} acc. to EN 60950-1 and EN 50178
Operating resource protection class	Class I
stray current	
• maximum	3 mA
• typical	0.858 mA
Mechanical data	
Design of the electrical connection	
• at the input	IEC plug
• secondary side	for plugging into basic device or screw terminal in accordance with specification
Width	446 mm
Height	44 mm
Depth	140 mm
Net weight	1.7 kg
Product feature of the housing housing for side-by-side mounting	No
Type of mounting	
• 19-inch installation	Yes
• wall mounting	No
• standard rail mounting	No
• S7-300 rail mounting	No
Mounting type	Plugged into the basic unit or rack mounted

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Technical specifications (continued)

Article No.	6GK5598-1AA00-3AA0
Product-type designation	POWER SUPPLY PS598-1
Permitted ambient conditions	
Ambient temperature	
• during operating	0 ... 60 °C
• during storage	-25 ... +70 °C
• during transport	-25 ... +70 °C
• Comment	Operation with integral fan, non-replaceable
Climatic class according to EN 60721	Climate class 3K3, without condensation
Protection class IP	IP20
Standards, specifications, approvals	
Standard	
• for EMC	-
• for EMC from FM	-
• for hazardous zone	-
• for safety of CSA and UL	UL 60950-1, CSA C22.2 Nr. 60950-1
• for hazardous area of CSA and UL	-
• for emitted interference	EN 55022 (Class B)
• for interference immunity	EN 61000-6-2
Verification of suitability	EN 55022, EN 61000-6-4
• CE mark	Yes
• C-Tick	Yes

Ordering data

Article No.

Power supplies for SCALANCE X-500

24 V power supplies are designed for installation in 19" control cabinets or for direct mounting on SCALANCE X-500 Industrial Ethernet switches; degree of protection IP20

PS598-1

300 W output power, input voltage range of 85 V to 264 V AC, operating temperature of 0 °C to +60 °C

6GK5598-1AA00-3AA0

Accessories

Appliance cable

- Grounded Continental European plug, region: D/F/NL/ESP/B/A/S/FIN
- Grounded British plug; region: UK
- Grounded Swiss plug; region: CH
- Grounded North American and Japanese plug; region: USA
- Grounded Italian plug; region: Italy
- Grounded Chinese plug; region: China

6ES7900-0AA00-0XA0

6ES7900-0BA00-0XA0

6ES7900-0CA00-0XA0

6ES7900-0DA00-0XA0

6ES7900-0EA00-0XA0

6ES7900-0FA00-0XA0