

SIPLUS S7-1500 PS 1505 25 W 24 V DC based on 6ES7505-0KA01-0AB0 with conformal coating -40...+70 °C . system power supply supplies the backplane bus of S7-1500 with operating voltage, integrated power meter function

General information	
Product type designation	PS 25W 24VDC
Firmware version	
<ul style="list-style-type: none"> FW update possible 	Yes
based on	6ES7505-0KA01-0AB0
Product function	
<ul style="list-style-type: none"> Voltage measurement 	Yes; 19.2 ... 28.8 V DC ($\pm 2.5\%$)
<ul style="list-style-type: none"> Current measurement 	Yes; 0 ... 1.67 A ($\pm 2.5\%$)
<ul style="list-style-type: none"> Power measurement 	Yes; 0 ... 25 W ($\pm 5\%$)
<ul style="list-style-type: none"> I&M data 	Yes
Engineering with	
<ul style="list-style-type: none"> STEP 7 TIA Portal configurable/integrated from version 	see entry ID: 109746275
Redundancy	
<ul style="list-style-type: none"> Redundancy capability 	Yes
<ul style="list-style-type: none"> — for uprating 	Yes
Installation type/mounting	
Rail mounting	Yes
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V; Static 19.2 V, dynamic 18.5 V
permissible range, upper limit (DC)	28.8 V; Static 28.8 V, dynamic 30.2 V
Reverse polarity protection	Yes
Short-circuit protection	Yes
Mains buffering	
<ul style="list-style-type: none"> Mains/voltage failure stored energy time 	20 ms
Input current	
Current consumption, max.	1.6 A
Rated value at 24 V DC	1.3 A
Output current	
Short-circuit protection	Yes
Power	
Infeed power to the backplane bus	25 W; > +60 °C max. power input 12.5 W
Power loss	
Power loss at nominal rating conditions	6.2 W
Interrupts/diagnostics/status information	
Status indicator	Yes
Potential separation	
primary/secondary	Yes
Isolation	
Isolation tested with	707 V DC (type test)
EMC	
Interference immunity against voltage surge	
<ul style="list-style-type: none"> Interference immunity on supply lines acc. to IEC 61000-4-5 	Yes; ± 0.5 kV (acc. to IEC 61000-4-5; 2014; surge line to line), ± 1 kV (acc. to IEC 61000-4-5; 2014; surge line to earth), no external protective circuit required
Degree and class of protection	
IP degree of protection	20
Equipment protection class	III
Security	

signed firmware update	Yes	
Ambient conditions		
Ambient temperature during operation		
<ul style="list-style-type: none"> • min. • max. • horizontal installation, min. • horizontal installation, max. • vertical installation, min. • vertical installation, max. 	-40 °C; = Tmin (incl. condensation/frost) 70 °C; = Tmax; > +60 °C max. infeed power 12.5 W -40 °C; = Tmin (incl. condensation/frost) 70 °C; = Tmax; > +60 °C max. infeed power 12.5 W -40 °C; = Tmin 40 °C; = Tmax	
Ambient temperature during storage/transportation		
<ul style="list-style-type: none"> • min. • max. 	-40 °C 70 °C	
Altitude during operation relating to sea level		
<ul style="list-style-type: none"> • Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	
Relative humidity		
<ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation	
Resistance		
Coolants and lubricants		
<ul style="list-style-type: none"> — Resistant to commercially available coolants and lubricants 	Yes; Incl. diesel and oil droplets in the air	
Use in stationary industrial systems		
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 3S4 incl. sand, dust, *	
Use on ships/at sea		
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-6 — to chemically active substances according to EN 60721-3-6 — to mechanically active substances according to EN 60721-3-6 	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna) Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes; Class 6S3 incl. sand, dust; *	
Usage in industrial process technology		
<ul style="list-style-type: none"> — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 	Yes; Class 3 (excluding trichlorethylene) Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	
Remark		
<ul style="list-style-type: none"> — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 	* The supplied plug covers must remain in place over the unused interfaces during operation!	
Conformal coating		
<ul style="list-style-type: none"> • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • Military testing according to MIL-I-46058C, Amendment 7 • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A 	Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A	
Dimensions		
Width	35 mm	
Height	147 mm	
Depth	129 mm	
Weights		
Weight, approx.	350 g	
Classifications		
	Version	Classification
eClass	14	27-24-22-09
eClass	12	27-24-22-09

eClass	9.1	27-24-22-09
eClass	9	27-24-22-09
eClass	8	27-24-22-09
eClass	7.1	27-24-22-09
eClass	6	27-24-22-09
ETIM	10	EC000599
ETIM	9	EC000599
ETIM	8	EC000599
ETIM	7	EC000599

Approvals / Certificates

General Product Approval

[China RoHS](#)

[Manufacturer Declaration](#)



last modified:

1/7/2026 