## Data sheet

SIPLUS S7-1500 PS 1505 25W 24VD -25 ... +70°C with conformal coating based on 6ES7505-0KA00-0AB0 . SYSTEM POWER SUPPLY SUPPLIES THE OPERATING VOLTAGE THE S7-1500 VIA THE BACKPLANE B



General information	
Product type designation	PS 25W 24VDC
HW functional status	E01
Firmware version	V1.0.0
Engineering with	
<ul> <li>STEP 7 TIA Portal configurable/integrated as of version</li> </ul>	V12 / V12
<ul> <li>STEP 7 configurable/integrated as of version</li> </ul>	V5.5 SP3 or higher
Redundancy	
Redundancy capability	Yes
— for uprating	Yes
Supply voltage	
Rated value (DC)	24 V; SELV
permissible range, lower limit (DC)	Static 19.2 V, dynamic 18.5 V
permissible range, upper limit (DC)	Static 28.8 V, dynamic 30.2 V
Reverse polarity protection	Yes
Short-circuit protection	Yes
Mains buffering	
Mains/voltage failure stored energy time	20 ms

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
1 Ower 1033 at Hornman rating conditions	0.2 VV
Interrupts/diagnostics/status information	
Status indicator	Yes
Potential separation	
primary/secondary	Yes; Electrical isolation for max. 60 V AC/75 V DC (base isolation)
Isolation	
Isolation tested with	707 V DC (type test)
	· · · · · /
EMC Interference immunity against voltage surge	
• on the supply lines acc. to IEC 61000-4-5	Yes; ±1 kV (acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV
• on the supply lines acc. to IEC 61000-4-3	(acc. to IEC 61000-4-5; 1995; surge asymm.), no external
	protective circuit required
Degree and class of protection	
Degree of protection acc. to EN 60529	IP20
Equipment protection class	III, with protective conductor
Equipment protection class	III, with protective conductor
Ambient conditions	III, with protective conductor
Ambient conditions  Ambient temperature during operation	
Ambient conditions  Ambient temperature during operation  • min.	-40 °C; = Tmin; Startup @ -25 °C
Ambient conditions  Ambient temperature during operation  • min.  • max.	
Ambient conditions  Ambient temperature during operation  • min.  • max.  Altitude during operation relating to sea level	-40 °C; = Tmin; Startup @ -25 °C 70 °C; = Tmax; for vertical mounting position Tmax = +40 °C
Ambient conditions  Ambient temperature during operation  • min.  • max.  Altitude during operation relating to sea level  • Installation altitude above sea level, max.	-40 °C; = Tmin; Startup @ -25 °C 70 °C; = Tmax; for vertical mounting position Tmax = +40 °C 5 000 m
Ambient conditions  Ambient temperature during operation  • min.  • max.  Altitude during operation relating to sea level  • Installation altitude above sea level, max.  • Ambient air temperature-barometric pressure-	-40 °C; = Tmin; Startup @ -25 °C 70 °C; = Tmax; for vertical mounting position Tmax = +40 °C
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Ambient conditions  Ambient temperature during operation  • min.  • max.  Altitude during operation relating to sea level  • Installation altitude above sea level, max.  • Ambient air temperature-barometric pressure-	-40 °C; = Tmin; Startup @ -25 °C 70 °C; = Tmax; for vertical mounting position Tmax = +40 °C  5 000 m Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500
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Ambient conditions  Ambient temperature during operation  • min.  • max.  Altitude during operation relating to sea level  • Installation altitude above sea level, max.  • Ambient air temperature-barometric pressure-altitude  Relative humidity  • With condensation, tested in accordance with	-40 °C; = Tmin; Startup @ -25 °C 70 °C; = Tmax; for vertical mounting position Tmax = +40 °C  5 000 m Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)  100 %; RH incl. condensation/frost (no commissioning under
Ambient conditions  Ambient temperature during operation  • min.  • max.  Altitude during operation relating to sea level  • Installation altitude above sea level, max.  • Ambient air temperature-barometric pressurealtitude  Relative humidity  • With condensation, tested in accordance with IEC 60068-2-38, max.	-40 °C; = Tmin; Startup @ -25 °C 70 °C; = Tmax; for vertical mounting position Tmax = +40 °C  5 000 m Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m) // Tmin (Tmax - 10 K) at 795 hPa 658 hPa (+2 000 m +3 500 m) // Tmin (Tmax -20 K) at 658 hPa 540 hPa (+3 500 m +5 000 m)
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<ul> <li>to chemically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); $^{\star}$
<ul> <li>to mechanically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
<ul> <li>to biologically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
<ul> <li>to chemically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); $^{\star}$
<ul> <li>to mechanically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6S3 incl. sand, dust; *
Remark	
<ul> <li>Note regarding classification of environmental conditions acc. to EN 60721</li> </ul>	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating	
Comornia Coating	
Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high availability
Coatings for printed circuit board assemblies	Yes; Class 2 for high availability  Yes; Discoloration of coating possible during service life
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>Military testing according to MIL-I-46058C,</li> </ul>	
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>Military testing according to MIL-I-46058C, Amendment 7</li> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board</li> </ul>	Yes; Discoloration of coating possible during service life
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>Military testing according to MIL-I-46058C, Amendment 7</li> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul>	Yes; Discoloration of coating possible during service life
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>Military testing according to MIL-I-46058C, Amendment 7</li> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul> Dimensions	Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>Military testing according to MIL-I-46058C, Amendment 7</li> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> <li>Dimensions</li> <li>Width</li> </ul>	Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A  35 mm
Coatings for printed circuit board assemblies acc. to EN 61086  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  Dimensions  Width  Height	Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A  35 mm 147 mm

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last modified: