SIEMENS

Data sheet



SIMATIC S7-1500, System power supply PS 25W 24 V DC, supplies the backplane bus of the S7-1500 with operating voltage

Product type designation Ps 28W 24VDC HW functional status FS02 Firmware version V1.0.0 Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 ton/figurable/integrated from version • SUPPLY voltage Rated value (DC) permissible range, lower limit (DC) • 19.2 V; Static 19.2 V, dynamic 18.5 V permissible range, lower limit (DC) permissible range, lower limit (DC) • 28.8 V; Static 28.8 V, dynamic 30.2 V Reverse polarity protection Yes Short-circuit protection • Yes Mains buffering • Mains/voltage failure stored energy time Input current Rated value at 24 V DC • 1.3 A Output current Short-circuit protection • Yes Power Infeed power to the backplane bus Power Infeed power to the backplane bus Power loss at nominal rating conditions • 6.2 W Interrupts/diagnoss/tes/status information Status indicator Yes Potential separation primary/secondary * Yes Potential separation primary/secondary * Yes Potential separation primary/secondary • Interference immunity against voltage surge • Interference immunity against voltage surge • Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000- 4.5 1995; surge ssymm.), no external protective circuit required Degree and class of protection IP degree of protection Equipment protection (ass Altitude during operation relating to sea level • Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	General information	
Firmware version V1.0.0 Engineering with • STEP 7 TIA Portal configurable/integrated from version • STEP 7 ton Fortal portal position for version • STEP 7 ton Fortal position version Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible	Product type designation	PS 25W 24VDC
e STEP 7 TIA Portal configurable/integrated from version • STEP 7 To configurable/integrated from version • STEP 7 configurable/integrated from version V5.5 SP3 or higher Supply voltage Rated value (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Short-circuit protection • Mains-voltage failure stored energy time • Mains-voltage failure stored energy time mput current Rated value at 24 V DC 1.3 A Output current Short-circuit protection Yes Power Infeed power to the backplane bus 25 W Power loss Power loss Power loss at nominal rating conditions Status indicator Potential saparation primary/secondary Yes Solution	HW functional status	FS02
• STEP 7 TIA Portal configurable/integrated from version • STEP 7 Total purable/integrated from version • STEP 7 Total purable/integrated from version Supply voltage Rated value (DC) permissible range, lower limit (DC) Permissible range, upper	Firmware version	V1.0.0
STEP 7 configurable/integrated from version Supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Yes Short-circuit protection Rated value at 24 V DC Output current Rated value at 24 V DC Infeed power to the backplane bus Power Infeed power to the backplane bus Power loss Power loss at nominal rating conditions Status indicator Yes Potential separation primary/secondary Solation tested with 707 V DC (type test) EMC Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge symm.), no external protective circuit required Doggee and class of protection IP degree of protection Pic degree of protection lessel with Installation altitude above sea level, max. 5 000 m; Restrictions on installation altitudes > 2 000 m, see manual	Engineering with	
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 • Mains Voltage failure stored energy time 20 ms Input current Rated value at 24 V DC 1.3 A Output current Short-circuit protection Yes Power Infeed power to the backplane bus 25 W Power loss at nominal rating conditions Interrupts/diagnostics/status information Status indicator Yes Potential separation primary/secondary Yes Potential separation primary/secondary Yes Interference immunity against voltage surge • Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection Lips Sea level • Installation relating to sea level • Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	 STEP 7 TIA Portal configurable/integrated from version 	V12 / V12
Rated value (DC) permissible range, lower limit (DC) Reverse polarity protection Reverse polarity protection Yes Short-circuit protection Amins buffering • Mains/voltage failure stored energy time Input current Rated value at 24 V DC Output current Short-circuit protection Yes Yes Rated value at 24 V DC 1.3 A Output current Short-circuit protection Yes Power Infeed power to the backplane bus Power loss Power loss Power loss Power loss Potential separation primary/secondary Isolation Isolation Isolation Isolation Isolation Isolation Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge symm.), no external protective circuit required Pogree and class of protection IP 20 Equipment protection class Ambient conditions Altitude during operation relating to sea level • Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	 STEP 7 configurable/integrated from version 	V5.5 SP3 or higher
permissible range, lower limit (DC) permissible range, upper limit (DC) permissible (DC) permissible (DC) permissible (DC) permissible (DC	Supply voltage	
permissible range, upper limit (DC) Reverse polarity protection Yes Short-circuit protection Mains buffering Mains/voltage failure stored energy time Mains/voltage failure stored energy time Mains buffering Mains buffering Mains voltage failure stored energy time Nated value at 24 V DC 1.3 A Output current Short-circuit protection Yes Power Infeed power to the backplane bus Power loss Power loss at nominal rating conditions Status indicator Potential separation primary/secondary Yes Interrupts/diagnostics/status information Status indicator Potential separation primary/secondary Yes Interference immunity against voltage surge Interference immunity against voltage surge Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000- 4-5; 1995; surge asymm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection IP degree of protection class Ill, with protective conductor Amblent conditions Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Rated value (DC)	24 V
Reverse polarity protection Short-circuit protection Mains buffering • Mains/voltage failure stored energy time Input current Rated value at 24 V DC Output current Short-circuit protection Yes Power Infeed power to the backplane bus Power loss Power loss Power loss Power loss at nominal rating conditions Interrupts/diagnostics/status information Status indicator Yes Potential separation primary/secondary Isolation Isolation tested with 707 V DC (type test) EMC Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000- 4-5 Degree and class of protection IP degree of protection class Ambient conditions Altitude during operation relating to sea level • Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	permissible range, lower limit (DC)	19.2 V; Static 19.2 V, dynamic 18.5 V
Short-circuit protection Mains buffering Mains voltage failure stored energy time 20 ms Input current Rated value at 24 V DC Output current Short-circuit protection Yes Power Infeed power to the backplane bus Power loss at nominal rating conditions Power loss at nominal rating conditions Status indicator Yes Potential separation primary/secondary Isolation Isolation tested with 707 V DC (type test) EMC Interreprence immunity against voltage surge Interreprence immunity on supply lines acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection IP degree of protection IP degree of protection IP degree of protection ass Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	permissible range, upper limit (DC)	28.8 V; Static 28.8 V, dynamic 30.2 V
Mains buffering Mains/voltage failure stored energy time Mains/voltage failure stored energy time Nated value at 24 V DC Output current Short-circuit protection Yes Power Infeed power to the backplane bus Power loss at nominal rating conditions Status indicator Potential separation primary/secondary Isolation Isolation tested with 707 V DC (type test) EMC Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection Equipment protection class Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Reverse polarity protection	Yes
Mains/voltage failure stored energy time Input current Rated value at 24 V DC Output current Short-circuit protection Yes Power Infeed power to the backplane bus Power loss Power loss at nominal rating conditions Status indicator Potential separation primary/secondary Insolation Isolation tested with 707 V DC (type test) EMC Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection class Ambient conditions Altitude during operation relating to sea level Interference installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Short-circuit protection	Yes
Input current Rated value at 24 V DC Output current Short-circuit protection Yes Power Infeed power to the backplane bus 25 W Power loss Power loss at nominal rating conditions 6.2 W Interrupts/diagnostics/status information Status indicator Potential separation primary/secondary Isolation Isolation Isolation Interrence immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000- 4-5 Degree and class of protection IP degree of protection Equipment protection class Ambient conditions Altitude during operation relating to sea level • Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Mains buffering	
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Short-circuit protection Yes Power Infeed power to the backplane bus 25 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 Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection Equipment protection class Altitude during operation relating to sea level Interface installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Input current	
Short-circuit protection Yes Power Infeed power to the backplane bus 25 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 Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Rated value at 24 V DC	1.3 A
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Infeed power to the backplane bus Power loss Power loss at nominal rating conditions Status indicator Yes Potential separation primary/secondary Isolation Isolation tested with 707 V DC (type test) EMC Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection IP degree of protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Short-circuit protection	Yes
Power loss at nominal rating conditions Interrupts/diagnostics/status information Status indicator Yes Potential separation primary/secondary Isolation Isolation tested with 707 V DC (type test) EMC Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000- 4-5 Interference immunity on supply lines acc. to IEC 61000- 4-5; 1995; surge asymm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection IP degree of protection IP20 Equipment protection class Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. Installation altitude so 2 000 m, see manual	Power	
Power loss at nominal rating conditions Interrupts/diagnostics/status information Status indicator Yes Potential separation primary/secondary Isolation Isolation tested with 707 V DC (type test) EMC Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000-4-5 4-5 Pegree and class of protection IP degree of protection IP degree of protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level Interference immunity on see manual For V DC (type test) Yes Yes 1000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge symm.), no external protective circuit required IP20 Equipment protection class Altitude during operation relating to sea level Installation altitude above sea level, max. Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Yes; ±1 kV (acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of prot	Infeed power to the backplane bus	25 W
Interrupts/diagnostics/status information Status indicator Potential separation primary/secondary Isolation Isolation tested with 707 V DC (type test) EMC Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000- 4-5 Degree and class of protection IP degree of protection IP degree of protection Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level • Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Power loss	
Status indicator Potential separation primary/secondary Isolation Isolation tested with To7 V DC (type test) EMC Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required Degree and class of protection IP degree of protection IP degree of protection IP20 Equipment protection class Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Power loss at nominal rating conditions	6.2 W
Potential separation primary/secondary Isolation Isolation tested with 707 V DC (type test) EMC Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000- 4-5 Pegree and class of protection IP degree of protection IP20 Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Interrupts/diagnostics/status information	
primary/secondary Isolation Isolation tested with 707 V DC (type test) EMC Interference immunity against voltage surge ● Interference immunity on supply lines acc. to IEC 61000- 4-5 Pegree and class of protection IP degree of protection IP degree of protection IP20 Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level ● Installation altitude above sea level, max. Yes (type test) Yes (type test) Yes; ±1 kV (acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required IP20 Equipment protection class Altitude during operation relating to sea level ● Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Status indicator	Yes
Isolation Isolation tested with To7 V DC (type test) EMC Interference immunity against voltage surge Interference immunity on supply lines acc. to IEC 61000- 4-5 Pegree and class of protection IP degree of protection IP degree of protection Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. Interference immunity against voltage surge Yes; ±1 kV (acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required IP20 Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. Installation altitudes > 2 000 m, see manual	Potential separation	
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Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000- 4-5 Pegree and class of protection IP degree of protection IP20 Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level • Installation altitude above sea level, max. INV (acc. to IEC 61000-4-5; 1995; surge symm.), no external protective circuit required IP20 III, with protective conductor Ambient conditions 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Isolation	
Interference immunity against voltage surge • Interference immunity on supply lines acc. to IEC 61000- 4-5 Degree and class of protection IP degree of protection Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level • Installation altitude above sea level, max. Interference immunity against voltage surge Yes; ±1 kV (acc. to IEC 61000-4-5; 1995; surge symm.), no external protective circuit required IP20 III, with protective conductor Ambient conditions 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Isolation tested with	707 V DC (type test)
● Interference immunity on supply lines acc. to IEC 61000- 4-5 Pegree and class of protection IP degree of protection Equipment protection class Altitude during operation relating to sea level ● Installation altitude above sea level, max. Yes; ±1 kV (acc. to IEC 61000-4-5; 1995; surge symm.), ±2 kV (acc. to IEC 61000-4-5; 1995; surge asymm.), no external protective circuit required IP20 III, with protective conductor Ambient conditions Altitude during operation relating to sea level ● Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	EMC	
4-5 Degree and class of protection IP degree of protection Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. 61000-4-5; 1995; surge asymm.), no external protective circuit required IP20 III, with protective conductor And during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Interference immunity against voltage surge	
IP degree of protection Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. IP20 III, with protective conductor Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual		
Equipment protection class III, with protective conductor Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. III, with protective conductor Solve the protective conductor Solve the protective conductor Solve the protective conductor Ambient conditions Solve the protective conductor Ambient conditions Solve the protective conductor	Degree and class of protection	
Ambient conditions Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	IP degree of protection	IP20
Altitude during operation relating to sea level Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Equipment protection class	III, with protective conductor
• Installation altitude above sea level, max. 5 000 m; Restrictions for installation altitudes > 2 000 m, see manual	Ambient conditions	
	Altitude during operation relating to sea level	
Dimensions	 Installation altitude above sea level, max. 	5 000 m; Restrictions for installation altitudes > 2 000 m, see manual
	Dimensions	

Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	350 g

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