

SIPLUS S7-1500 DQ 8x230V AC ST 5A T1 RAIL -25 ... +55°C T1 with 70°C for 10 min with conformal coating Based on: 6ES7522-5HF00-0AB0 . DQ 8xAC 230V/5A; relay; 8 channels in groups of 1 5 A per group; diagnostics; Substitute value

General information

Product type designation	DQ 8x230 V AC/5 A ST (relay)
Product function	
<ul style="list-style-type: none"> I&M data 	Yes; I&M0 to I&M3

Supply voltage

Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V

Power

Power available from the backplane bus	0.8 W
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Power loss

Power loss, typ.	5 W
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Digital outputs

Type of digital output	Relays
Number of digital outputs	8
Controlling a digital input	possible

Switching capacity of the outputs

<ul style="list-style-type: none"> on lamp load, max. 	1 500 W; 10 000 operating cycles
<ul style="list-style-type: none"> Low energy/fluorescent lamps with electronic control gear 	10x 58 W (25 000 operating cycles)
<ul style="list-style-type: none"> Fluorescent tubes, conventionally compensated 	1x 58 W (25 000 operating cycles)
<ul style="list-style-type: none"> Fluorescent tubes, uncompensated 	10x 58 W (25 000 operating cycles)

Output current

<ul style="list-style-type: none"> for signal "1" rated value 	5 A
<ul style="list-style-type: none"> for signal "1" permissible range, min. 	5 mA; 10 V
<ul style="list-style-type: none"> for signal "1" permissible range, max. 	8 A; thermal continuous current
<ul style="list-style-type: none"> for signal "0" residual current, max. 	0 A

Parallel switching of two outputs

<ul style="list-style-type: none"> for logic links 	Yes
<ul style="list-style-type: none"> for uprating 	No
<ul style="list-style-type: none"> for redundant control of a load 	Yes

Switching frequency

• with resistive load, max.	2 Hz
• with inductive load, max.	0.5 Hz
• on lamp load, max.	2 Hz
Total current of the outputs	
• Current per channel, max.	8 A; see additional description in the manual
• Current per group, max.	8 A; see additional description in the manual
• Current per module, max.	64 A; see additional description in the manual
Relay outputs	
• Number of relay outputs	8
• Rated supply voltage of relay coil L+ (DC)	24 V
• Current consumption of relays (coil current of all relays), max.	80 mA
• external protection for relay outputs	With miniature circuit breaker with characteristic B for: $\cos \varphi$ 1.0: 600 A $\cos \varphi$ 0.5 ... 0.7: 900 A with 8 A Diazed fuse: 1000 A
• Contact connection (internal)	No
• Size of motor starters according to NEMA, max.	5
• Number of operating cycles, max.	4 000 000; see additional description in the manual
• Relay approved acc. to UL 508	Yes; 250 V AC/5 A g.p.; 120 V AC TV-4 tungsten; A300, R300
Switching capacity of contacts	
— with inductive load, max.	see additional description in the manual
— with resistive load, max.	see additional description in the manual
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Substitute values connectable	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnostic messages	
• Monitoring the supply voltage	Yes
• Wire-break	No
• Short-circuit	No
Diagnostics indication LED	
• RUN LED	Yes; Green LED
• ERROR LED	Yes; Red LED
• Monitoring of the supply voltage (PWR-LED)	Yes; Green LED
• Channel status display	Yes; Green LED

- for channel diagnostics
- for module diagnostics

No
Yes; Red LED

Potential separation

Potential separation channels

- between the channels
- between the channels, in groups of
- between the channels and backplane bus
- Between the channels and load voltage L+

Yes; Switching of different phases permitted
1
Yes
Yes

Isolation

Isolation tested with

Between the channels: 2 500 V DC; between the channels and backplane bus: 2 500 V DC; between L+ and backplane bus 707 V DC (type test) and according to EN 50155 (routine test)

Standards, approvals, certificates

Railway application

- EN 50121-3-2
- EN 50121-4
- EN 50124-1
- EN 50125-1
- EN 50125-2
- EN 50125-3
- EN 50155
- EN 61373
- Fire protection acc. to EN 45545-2

Yes; EMC for rail vehicles
Yes; EMC for signal and telecommunications systems
Yes; Railway applications - overvoltage category OV2; pollution degree PD2; rated surge voltage UNi = 0.5 kV; UNm = 24 V DC
Yes; Rail vehicles - see ambient conditions
Yes; Stationary electrical equipment - see ambient conditions
Yes; Signal and telecommunications systems - see ambient conditions; vibrations and shocks: Application point outside of tracks (1 m to 3 m away from track)
Yes; Rail vehicles - temperature class T1, horizontal mounting position, salt spray Class ST2
Yes; Rail vehicles - vibrations and shocks: Category 1 Class A/B
Yes; Rail vehicles - verification on request

Ambient conditions

Ambient temperature during operation

- horizontal installation, min.
- horizontal installation, max.

-25 °C; = Tmin
60 °C; = Tmax; +70 °C for 10 min (T1 acc. to EN 50155)

Altitude during operation relating to sea level

- Installation altitude above sea level, max.
- Ambient air temperature-barometric pressure-altitude

2 000 m
Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m)

Relative humidity

- With condensation, tested in accordance with IEC 60068-2-38, max.

100 %; RH incl. condensation/frost (no commissioning under condensation conditions)

Resistance

Coolants and lubricants

- Resistant to commercially available coolants and lubricants

Yes

Use in stationary industrial systems	
— to biologically 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
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on land craft, rail vehicles and special-purpose vehicles	
— to biologically active substances according to EN 60721-3-5	Yes; Class 5B2 mold, fungus and dry rot spores (with the exception of fauna); Class 5B3 on request
— to chemically active substances according to EN 60721-3-5	Yes; Class 5C3 (RH < 75 %) incl. salt spray acc. to EN 50155 (ST2); *
— to mechanically active substances according to EN 60721-3-5	Yes; Class 5S3 incl. sand, dust; *
from supply voltage 1L+	
— Note regarding classification of environmental conditions acc. to EN 60721	* The supplied plug covers must remain in place over the unused interfaces during operation!
Decentralized operation	
Fast Startup supported	Yes; 500 ms
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	350 g
Other	
Note:	For use in railway applications, also observe the product information "SIPLUS extreme RAIL" A5E37661960A Online Support article 109736776
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