## Data sheet

SIPLUS S7-1500 DO 8x230V AC/2A -40...+70 °C with conformal coating based on 6ES7522-5FF00-0AB0 . Digital output module "DQ 8xAC 230V/2A; TRIAC;" "8 channels in groups of 1;" "2 A per group;" Substitute value



Figure similar

General information	
Product type designation	DQ 8x230 V AC/2A ST (triac)
Product function	
● I&M data	Yes; I&M0 to I&M3
Output voltage	
Rated value (AC)	120/230 V AC, 50/60 Hz
Power	
Power available from the backplane bus	0.9 W
Power loss	
Power loss, typ.	10.8 W
Digital outputs	
Type of digital output	Triac
Number of digital outputs	8; > +60 °C number of simultaneously controllable outputs max.
	8x 0.25 A, max. total current 2 A
Size of motor starters according to NEMA, max.	5
Switching capacity of the outputs	

• with resistive load, max.	2 A
• on lamp load, max.	50 W
Output voltage	
● for signal "1", min.	L1 (-1.5 V) at maximum output current; L1 (-8.5 V) at minimum output current
Output current	
● for signal "1" rated value	2 A
• for signal "1" permissible range, min.	10 mA
• for signal "1" permissible range, max.	15 A; max. 1 AC cycle
<ul><li>for signal "0" residual current, max.</li></ul>	2 mA
Output delay with resistive load	
● "0" to "1", max.	1 AC cycle
• "1" to "0", max.	1 AC cycle
Parallel switching of two outputs	
• for logic links	No
• for uprating	No
<ul> <li>for redundant control of a load</li> </ul>	Yes
Switching frequency	
• with resistive load, max.	10 Hz
<ul><li>with inductive load, max.</li></ul>	0.5 Hz
• on lamp load, max.	1 Hz
Total current of the outputs	
Current per channel, max.	2 A; = Tmax; > +60 °C number of simultaneously controllable
	outputs max. 8x 0.25 A, max. total current per group 2 A
<ul><li>Current per group, max.</li></ul>	2 A; = Tmax; > +60 °C number of simultaneously controllable
	outputs max. 8x 0.25 A, max. total current per group 2 A
<ul> <li>Current per module, max.</li> </ul>	10 A; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current per group 2 A
Cable length	outputs max. ox o.25 %, max. total current per group 2 %
• shielded, max.	1 000 m
• unshielded, max.	600 m
- unsilieucu, max.	333
Isochronous mode	
Isochronous operation (application synchronized up to terminal)	No
Interrupts/diagnostics/status information	
Diagnostics function	No
Substitute values connectable	Yes
Alarms	
Diagnostic alarm	No
Diagnostic messages	
Monitoring the supply voltage	No
Wire-break	No

Short-circuit	No	
• Fuse blown	No	
Diagnostics indication LED		
• RUN LED	Yes; Green LED	
• ERROR LED	Yes; Red LED	
<ul> <li>Monitoring of the supply voltage (PWR-LED)</li> </ul>	No	
Channel status display	Yes; Green LED	
• for channel diagnostics	No	
• for module diagnostics	Yes; Red LED	
Potential separation		
Potential separation channels		
between the channels	Yes	
<ul> <li>between the channels, in groups of</li> </ul>	1	
<ul> <li>between the channels and backplane bus</li> </ul>	Yes	
<ul> <li>Between the channels and load voltage L1</li> </ul>	Yes	
Permissible potential difference		
between different circuits	250 V AC between the channels and the backplane bus; 500 V	
	AC between the channels	
Isolation		
Isolation Isolation tested with	2500 V DC	
	2500 V DC	
Isolation tested with	2500 V DC	
Isolation tested with  Ambient conditions	2500 V DC  -40 °C; = Tmin	
Ambient conditions  Ambient temperature during operation		
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.	-40 °C; = Tmin 70 °C; = Tmax; > +60 °C number of simultaneously controllable	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.	-40 °C; = Tmin 70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • vertical installation, min.	-40 °C; = Tmin  70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A  -40 °C; = Tmin	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • vertical installation, min.  • vertical installation, max.	-40 °C; = Tmin  70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A  -40 °C; = Tmin	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • vertical installation, min.  • vertical installation, max.  Altitude during operation relating to sea level	-40 °C; = Tmin 70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A -40 °C; = Tmin 40 °C; = Tmax	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • vertical installation, min.  • vertical installation, max.  Altitude during operation relating to sea level  • Installation altitude above sea level, max.	-40 °C; = Tmin 70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A -40 °C; = Tmin 40 °C; = Tmax	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • vertical installation, min.  • vertical installation, max.  Altitude during operation relating to sea level  • Installation altitude above sea level, max.  • Ambient air temperature-barometric pressure-	-40 °C; = Tmin 70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A -40 °C; = Tmin 40 °C; = Tmax	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • vertical installation, min.  • vertical installation, max.  Altitude during operation relating to sea level  • Installation altitude above sea level, max.  • Ambient air temperature-barometric pressure-altitude	-40 °C; = Tmin 70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A -40 °C; = Tmin 40 °C; = Tmax	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • vertical installation, min.  • vertical installation, 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 70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A -40 °C; = Tmin 40 °C; = Tmax  2 000 m Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m)	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • vertical installation, min.  • vertical installation, 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 IEC 60068-2-38, max.	-40 °C; = Tmin 70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A -40 °C; = Tmin 40 °C; = Tmax  2 000 m Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m)	
Isolation tested with  Ambient conditions  Ambient temperature during operation  • horizontal installation, min.  • horizontal installation, max.  • vertical installation, min.  • vertical installation, 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 IEC 60068-2-38, max.  Resistance	-40 °C; = Tmin 70 °C; = Tmax; > +60 °C number of simultaneously controllable outputs max. 8x 0.25 A, max. total current 2 A -40 °C; = Tmin 40 °C; = Tmax  2 000 m Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m)	

Use in stationary industrial systems

to EN 60721-3-3

- to biologically active substances according

Yes; Class 3B2 mold, fungus and dry rot spores (with the

exception of fauna); Class 3B3 on request

<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); *
<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	
<ul> <li>Coatings for printed circuit board assemblies acc. to EN 61086</li> </ul>	Yes; Class 2 for high availability
<ul> <li>Military testing according to MIL-I-46058C, Amendment 7</li> </ul>	Yes; Discoloration of coating possible during service life
<ul> <li>Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul>	Yes; Conformal coating, Class A
Decentralized operation	
Fast Startup supported	Yes; 500 ms
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	290 g

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last modified: