SIEMENS

SICAM RTUs • Ax 1703

PS-562x

24-60 VDC, 110-220 VDC, 115-230 VAC

Power supply

- Input voltage PS-5620
  24…60 VDC
- Input voltage PS-5622
  110…220 VDC
  115…230 VAC
- Voltage output
  5 VDC, max. 80 W
- Can be connected in parallel (for redundancy, to increase power)
- Failure self monitoring
- Screw terminals
- Function indication via LED

Application

The PS-5620 and PS-5622 power supplies are used in SICAM AK, SICAM BC and AK 1703.

Features:

- the voltage can be supplied either on the front of the housing or, using CM-5680 connection p.c.b., on the rear side
- the 5V output is galvanically insulated and protected against continued short-circuit
- the power supplies can be arbitrarily connected in parallel to increase the operation reliability (redundancy) as well as the output power
- supervision of the output voltage, signaling in case of a failure
- indication of the operating state by means of a LED on the front panel

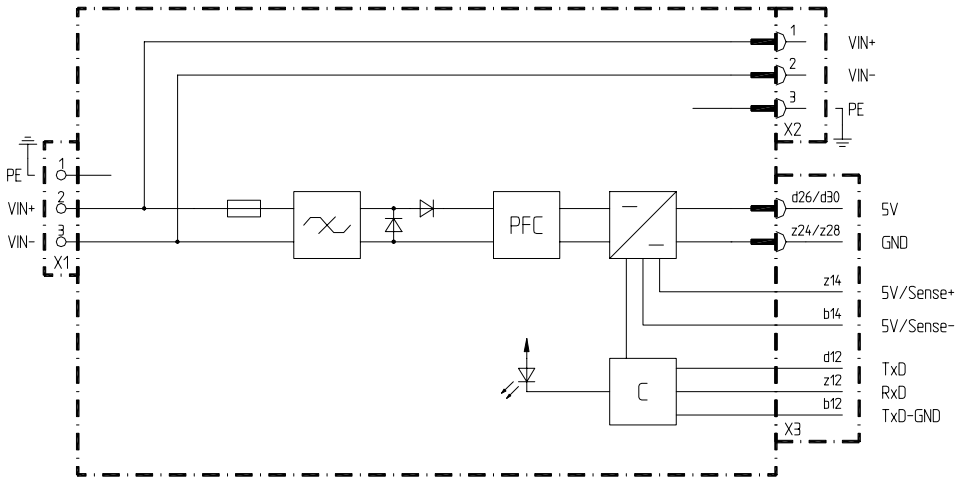
If used with AK 1703, the CM-5680 connection board provides the error information "power supply failure" by means of relay contacts.

If used with SICAM AK and SICAM BC, the following diagnostic information is set:

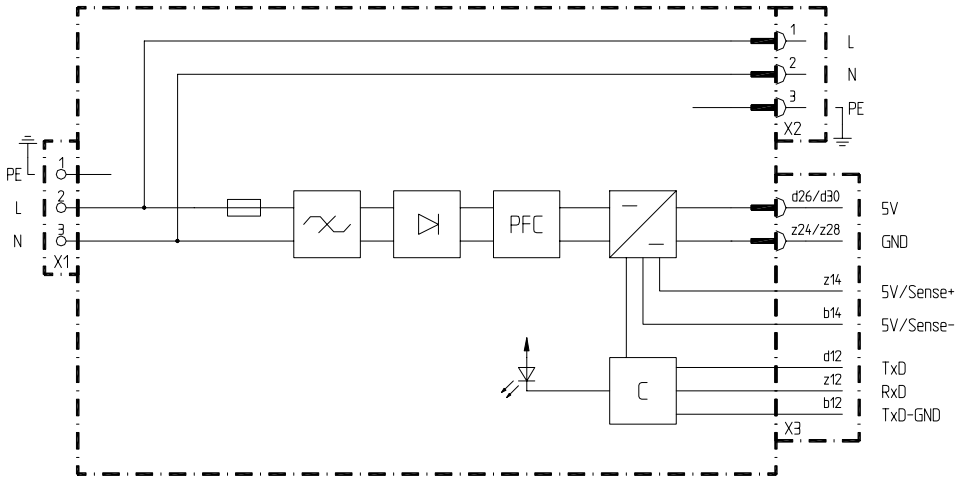
- Power supply failed
- Power supply is not monitored on failure
- Temperature rise at power supply

Block Diagrams

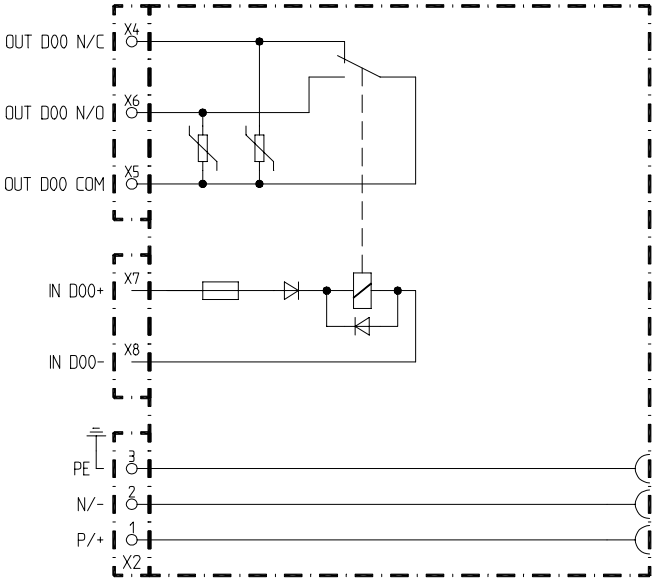
PS-5620



PS-5622



CM-5680


OUT DO0 N/C
X4
OUT DO0 N/O
X6
OUT DO0 COM
X5
IN DO0+
X7
IN DO0-
X8
PE
3
N/-
2
P/+
1
X2

Technical Specification

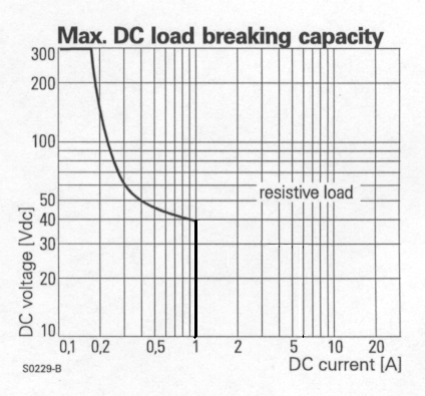
PS-562x

Power Supply			
	PS-5620	PS-5622	
Operating voltage	18…78 VDC	82.5…286 VDC 45…70 Hz	93.5…253 VAC 45…70 Hz
Input current at P_{out} =80 W	4.4 A (24 VDC) 2.13 A (48 VDC) 1.69 A (60 VDC)	950 mA (110 VDC) 460 mA (220 VDC)	935 mA (115 VAC) 490 mA (230 VAC)
Power consumption at P_{out} =80 W	106 W (24 VDC) 102 W (48 VDC) 101 W (60 VDC)	104 W (110 VDC) 102 W (220 VDC)	107 W (115 VAC) 103 W (230 VAC)
Efficiency at P_{out} =80 W	76 % (24 VDC) 79 % (48 VDC) 80 % (60 VDC)	78 % (110 VDC) 80 % (220 VDC)	77 % (115 VAC) 80 % (230 VAC)
Inrush peak current	Inrush current limitation according to IEC 60870-4 (90) class S1		
Bridgeable interruption of the operating voltage	min. 50 ms	min. 50 ms	
Reverse voltage protection	no *)	can be operated with either polarity	
Overload protection	yes	yes	
Short-circuit protection	yes	yes	
Can be connected in parallel	yes (to increase power, or for redundancy)		

*) fuse is blown, change by authorized personnel only

Voltage Output	
Output nominal voltage	5 VDC (±1 % static, ±3 % dynamic)
Output nominal current	16 A
Output nominal power (P_{out})	• 80 W at -25°C…+55°C from +55°C derating: -10%/3°C • 40 W at +70°C
Proof against continued short-circuit	yes
Mechanics	
Connector	Front side: 3-pin screw terminal Rear side: 3-pin removable screw terminal male connector (type H24 + 7) All screw terminals for direct conductor assembly, up to 2.5 mm² cross-section
Dimensions	Euro format, 8WU
Weight	Approx. 1300 g

CM-5680

Binary Outputs	
1 fault output (relay) (X4)	• Potential-free output the relay is released in case of a fault • The output is galvanically insulated from logic circuits and ground by a monostable relay • Change-over contact
Nominal voltage	• 24 / 48 / 60 / 110 / 220 VDC • 115 / 230 VAC
Maximum output current	• 1 A AC or DC permanent • sufficient external protection must be ensured
Maximum short-time current	3 A for 0.5 s
Maximum switching voltage	• 250 VDC • 253 VAC
Minimum number of switching cycles	• 10^5 5 A, 250 VAC, cos φ = 1 • $2 \cdot 10^5$ 2 A, 250 VAC, cos φ = 0.4 • $2 \cdot 10^5$ 1 A, 24 VDC, L/R = 48 ms
Minimum switching capacity	• 50 mW @5VDC • 50 mVA @5VAC
Electric strength with open contacts	n/a (varistor protected contact)
Output circuits	• 24…220 VDC • 115…230 VAC The circuits are operated by means of an external voltage.
Maximum switching capacity AC	250 V 250 VA @ cos φ = 1 250 V 250 VA @ cos φ ≥ 0.4
Maximum switching-on capacity DC	0…40 V ≤ 1 A 40…110 V ≤ 0.2 A 110…250 V ≤ 0.15 A
Maximum breaking capacity DC	

Literature

SICAM BC System Manual	DC5-014-2
AK 1703 Functional Description	MA2-009-2