

SIEMENS

SICAM RTUs

PS-663x

Power Supply Modules 24-60/110-220 VDC (EMC+)



PS-6630



PS-6632

Power supply module

- Input voltage
 - PS-6630: 24 .. 60 VDC
 - PS-6632: 110 .. 220 VDC
- System voltage output U1 5.1 VDC, max. 8 W
- System voltage output U2 switchable
 - 5.2 VDC, max. 2.5 W or
 - 10 VDC, max. 2.5 W
- Environmental conditions according to EMC+
- Removable screw terminals
- Function indication via LED
- Supervision of the output voltage
- Can be connected in parallel for redundancy

Application

The PS-6630 and PS-6632 power supply modules are being used in SICAM TM, SICAM MIC, SICAM EMIC and for supplying interface modules.

Supplying Power to	Note
Peripheral control module PE-6410, PE-6411, PE-6412 ¹⁾	SICAM TM
Master control modules CP-6020, CP-6040 ¹⁾	SICAM MIC
Master control module CP-6010 ¹⁾	SICAM EMIC
Interface modules CM-0821, CM-0822, CM-0823 (also a combination thereof) ²⁾	up to 6 of these interface modules can be supplied by one power supply
Interface module CM-0819	up to 8 of these interface modules can be supplied by one power supply

¹⁾ Installed I/O modules included

²⁾ Only according to configurations shown in ACP 1703 Platforms Configuration Automation Units and Automation Networks

Features and Notes

- The power supply modules can be connected in parallel for redundancy, but not to increase power
- CP-6020 is able to supply power to an external modem using the DTR interface circuit of the serial interface (refer to Technical Specifications)

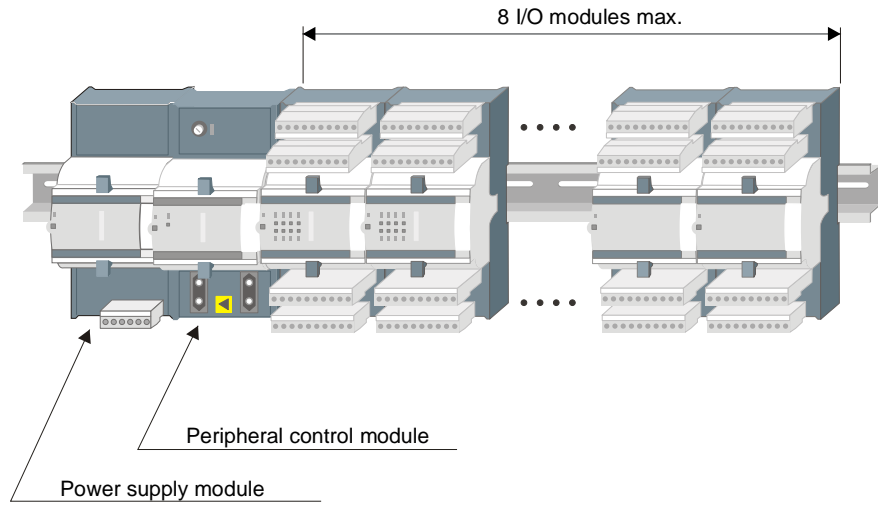
Area of Application

The content of this document is at the time of its release dedicated to the actual product version. The following table shows which document revision is valid for which product version.

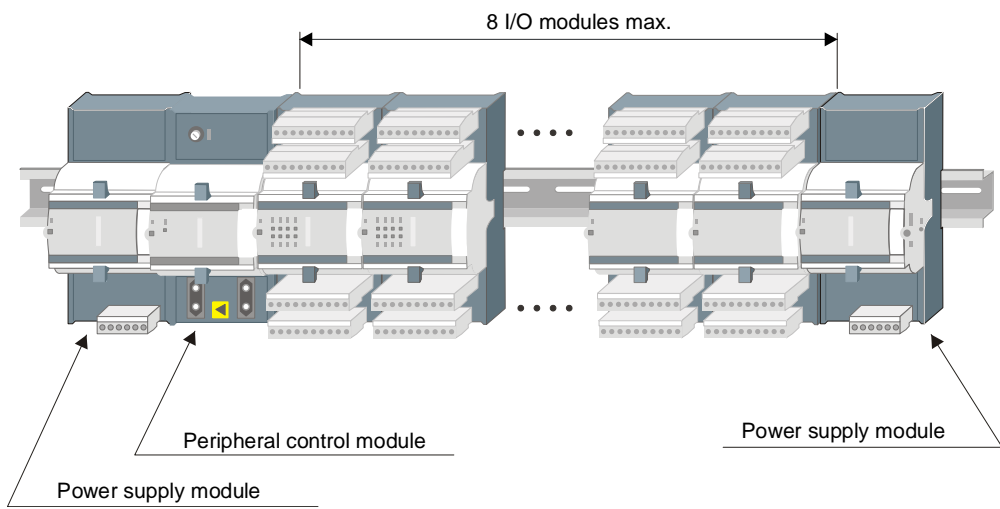
Document revision	Product designation	Product version
MC6-026-2.03 (this document)	PS-6630 Power Supply 24-60 VDC EMC+	GC6-630-G / 6MF11130GG300AA0JJ
	PS-6632 Power Supply 110-220 VDC EMC+	GC6-632-G / 6MF11130GG320AA0JJ
MC6-026-2.02	PS-6630 Power Supply 24-60 VDC EMC+	GC6-630-F / 6MF11130GG300AA0HH
	PS-6632 Power Supply 110-220 VDC EMC+	GC6-632-F / 6MF11130GG320AA0HH
MC6-026-2.01	PS-6630 Power Supply 24-60 VDC EMC+	GC6-630-E / 6MF11130GG300AA0GG
	PS-6632 Power Supply 110-220 VDC EMC+	GC6-632-E / 6MF11130GG320AA0GG

Configuration

SICAM TM

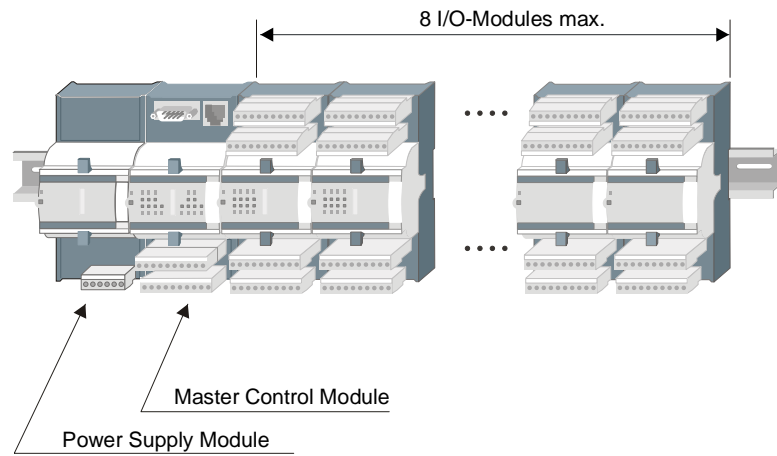


Single Power Supply

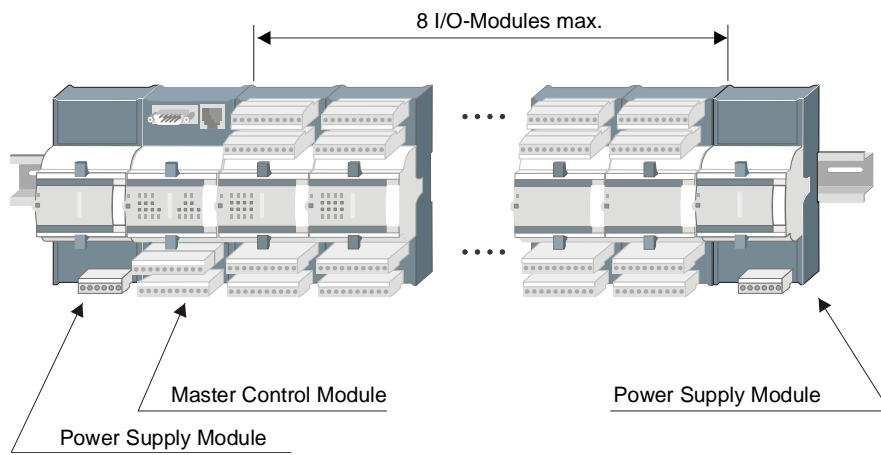


Redundant Power Supply

SICAM MIC

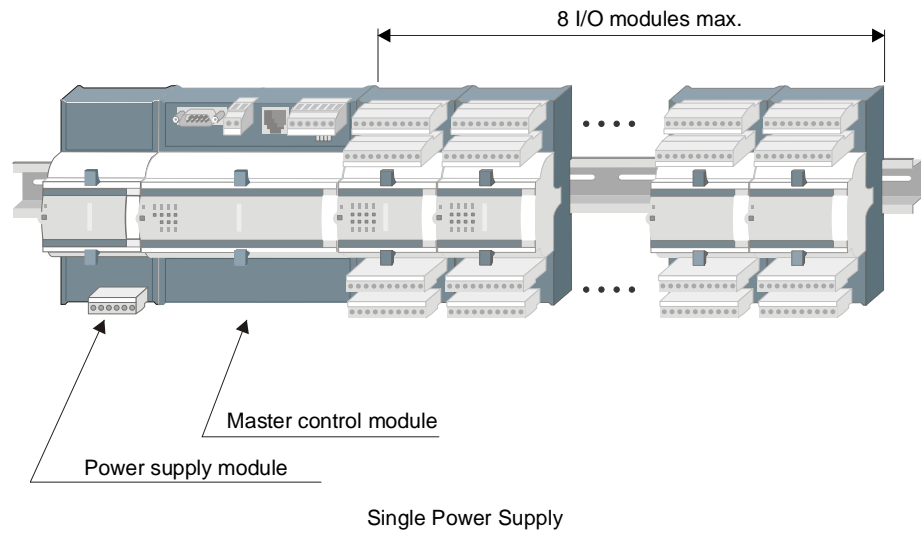


Single Power Supply

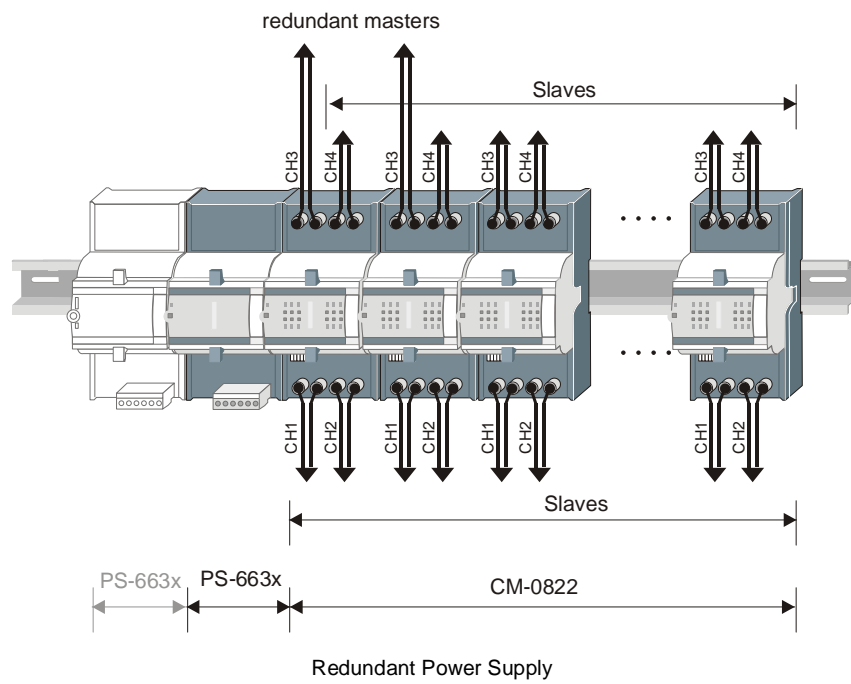


Redundant Power Supply

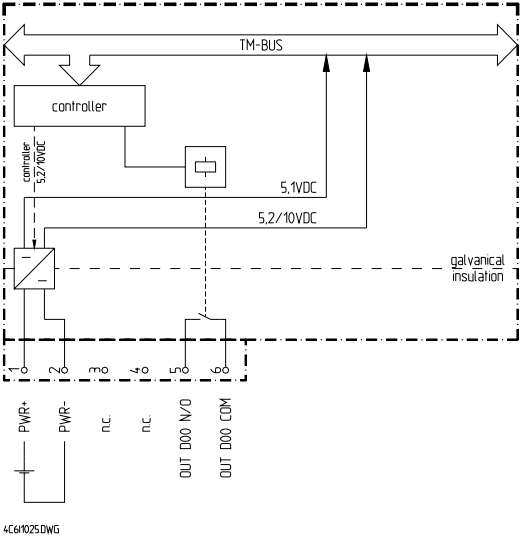
SICAM EMIC



CM-0822



Block Diagram



Technical Specification

Power Supply	
Operating voltage	PS-6630: 18 ... 78 VDC (incl. all tolerances) PS-6632: 82.5 ... 286 VDC (incl. all tolerances) The voltage is supplied via terminals
Output Voltages	System voltage outputs
system-internal/system-internal	U1 5.25 VDC ±2% <ul style="list-style-type: none"> · SICAM TM · SICAM MIC · SICAM EMIC · Interface module (CM-0821/22/23)
system-internal/system-internal	U2 (switchable ¹⁾) 5.1 ... 5.4 VDC <ul style="list-style-type: none"> · SICAM TM · SICAM MIC, SICAM EMIC (modem voltage²⁾) 9 ... 10 VDC <ul style="list-style-type: none"> · SICAM MIC, SICAM EMIC (modem voltage²⁾) no voltage (Tristate) <ul style="list-style-type: none"> · Interface module (CM-0821/22/23)
for external modem ²⁾	U2 switchable ¹⁾ 5.1...5.4 VDC <ul style="list-style-type: none"> · SICAM MIC (only CP-6020/CPC60) 9...10 VDC <ul style="list-style-type: none"> · SICAM EMIC
Output power P_{U1}	$P_{U1,min}$ 8.4 W - $P_{U2,max}$ $P_{U1,max}$ 8.4 W (bei $P_{U2} = 0$ W)
Output power P_{U2}	$P_{U2,max}$ 2.5 W
Total output power	$P_{U1+U2,max}$ 8.4 W $P_{U1+U2,peak}$ 9.0 W
Efficiency	approx. 65%
Power consumption $P_{in} = P_{U1}/\eta_{U1} + P_{U2}/\eta_{U2}$	$P_{in,max}$ 12.9 W
Guaranteed interruption time PS-6630	<p>Abgegebene Leistung P_{out} [W]</p> <p>Unterbrech. Zeit (typ.) T_i [ms]</p> <p>Labels: $U_{in}=24VDC$, $U_{in}=48VDC$, $U_{in}=60VDC$</p>
Guaranteed interruption time PS-6632	<p>Abgegebene Leistung P_{out} [W]</p> <p>Unterbrech. Zeit (typ.) T_i [ms]</p> <p>Labels: $U_{in}=110VDC$, $U_{in}=220VDC$</p> <p>Bei $P=4W, \dots, T=1000ms$ ($U_{in}=220VDC$) Bei $P=2W, \dots, T=1640ms$ ($U_{in}=220VDC$)</p>

Inrush peak current	PS-6630	<10 A	at 18 VDC	500 ms
		<10 A	at 78 VDC	500 ms
	PS-6632	<10 A	at 82.5 VDC	500 ms
		<10 A	at 286 VDC	500 ms
Reverse voltage protection	yes			
Overload protection	No			
Short-Circuit Protection	No			
Can be connected in parallel	Yes (for redundancy, not to increase power)			

Fault Output	Potential free output In case of fault the OptoMOS relay becomes highly resistive			
Maximum switching voltage ³⁾	PS-6630: $U_{max}=115 \text{ VAC}_{RMS}$, $U_{max}=150 \text{ VDC}$ PS-6632: $U_{max}=230 \text{ VAC}_{RMS}$, $U_{max}=286 \text{ VDC}$			
Maximum output current ³⁾	PS-6630: 120 mA permanent, on resistance 35 Ohm PS-6632: 70 mA permanent, on resistance 60 Ohm			
Maximum short-time current ³⁾	PS-6630: 350 mA for 10 ms PS-6632: 120 mA for 10 ms			

- 1) switching to the higher voltage is induced exclusively by CP-6020/CPC60 (SICAM MIC) or CP-6010/CPC30 (SICAM EMIC) and depends on its parameter setting; without switching, only the lower voltage is available
- 2) via DTR circuit of the CP-6020 (SICAM MIC) or CP-6010 (SICAM EMIC) master control module's serial interface
- 3) Attention! Other values are valid for older product versions. See chapter „Area of Application“.

Summary for the use in SICAM TM			
Available power U1	$P_{U1,max}$	8.4 W	(U2 not used)

Summary for the use in SICAM MIC and SICAM EMIC			
Available power U1	$P_{U1,max}$	5.9 W	(U2 used for external modem, 2.5W)
		7.4 W	(U2 used for external modem, 1W)
		8.4 W	(U2 not used)
Available power U2	$P_{U2,max}$	2.5 W	

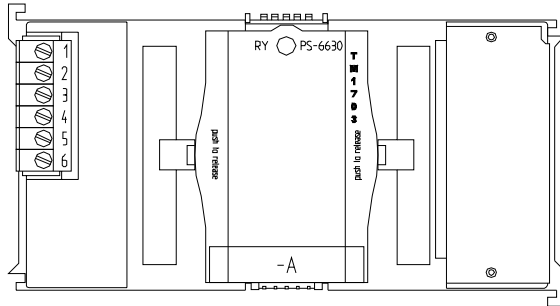
Summary for the use with interface modems			
Available power U1	$P_{U1,max}$	8.4 W	(U2 not used)

Mechanics	
Terminals	Removeable screw terminals for direct conductor assembly up to 2.5 mm ² cross-section
Dimensions	131x63x73 mm (LxWxH, dimensions without DIN rail)
Weight	approx. 190 g (PS-6630)
	approx. 210 g (PS-6632)

General Data	
Degree of pollution	PD2 EN 61 010-1
Overvoltage category	OV3 (prim.)
	OV2 signalling contact
Altitude	3000 m

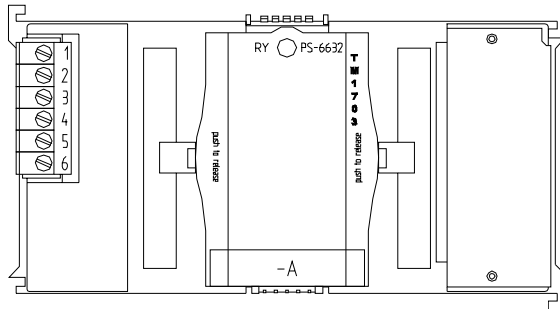
Engineering

Front View and Connectors



Power Supply 24-60VDC

4C61025FWG



Power Supply 110-220VDC

4C61076FWG

pin	signal
1	PWR+
2	PWR-
3	n.c.
4	n.c.
5	OUT D00 N/O
6	OUT D00 COM

4C61025DWG

PWR+/- input voltage (power supply)
 n.c. not connected
 OUT D00 N/O monitoring normally open contact
 OUT D00 COM monitoring common contact
 RY Ready LED, output voltage +5VDC available

4C61025DWG

Literature

Folder SICAM TM	MC6-003-2
System Datasheet SICAM TM	MC6-007-2
Data Sheet CM-0821	MC0-031-2
Data Sheet CM-0822	MC0-033-2
ACP 1703 Platforms Configuration Automation Units and Automation Networks	DC0-021-2

Disclaimer of Liability

Although we have carefully checked the contents of this publication for conformity with the hardware and software described, we cannot guarantee complete conformity since errors cannot be excluded. The information provided in this manual is checked at regular intervals and any corrections that might become necessary are included in the next releases. Any suggestions for improvement are welcome.

Subject to change without prior notice.
Document Label:
SICRTUS_DSPS633X_ENG_V2.03
Issuing date
2016.02.04

Copyright

Copyright © Siemens AG 2016
The reproduction, transmission or use of this document or its contents is not permitted without express written authority. Offenders will be liable for damages. All rights, including rights created by patent grant or registration of a utility model or design, are reserved.