

# CP3-SVE-M75DC-24

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## 75 W M-Type DC Power Supply for CPCI Systems

- ▶ Cost effective for limited demands
- ▶ 18 ... 36 VDC input voltage
- ▶ 3.3 V and 5 V DC output
- ▶ For 0 °C – 50 °C environments
- ▶ Power input via front connector

POSSIBILITIES START HERE

## CP3-SVE- M75DC-24

### 75W M-Type DC Power Supply for CPCI Systems

The product description provided with this data sheet is regarded as part of the general Kontron CPCI Power Supply manual ID 24139. For further information, in particular general details, disclaimer, safety and warranty statements, refer to the CPCI Power Supply Manual.

This power supply is designed for use with CPCI systems as well for integration in electronic or electrical enclosures. It is the perfect choice for low power demands and limited environmental temperature range.

#### ▶ TECHNICAL INFORMATION

FORM FACTOR	3U
FRONT PANEL SIZE	40.64 mm x 133.35 mm
HEIGHT OF POWER SUPPLY UNIT	3U (128 mm)
WIDTH OF POWER SUPPLY UNIT	8HP (40 mm)
DEPTH OF POWER SUPPLY UNIT	171.9 mm (without connector and handle)
MECHANICS	19" rack
PLUG-IN COMPATIBILITY	yes
POWER SUPPLY CONNECTOR	DIN M24/8 connector
INPUT VOLTAGE	18 V DC ... 36 V DC
OUTPUT VOLTAGES / CURRENTS	$V_1 = +5.1 \text{ V}$ at 7.5 A symmetrical, max. 15 A $V_2 = +3.3 \text{ V}$ at 7.5 A symmetrical, max. 15 A $V_3 = V_{\text{FAN}} = +12 \text{ V}$ at 0.16 A
OUTPUT POWER	75 W
TOTAL MINIMUM OUTPUT LOAD	0 W (for 3.3 V and 5.0 V)
COOLING FORCED AIR COOLING	Forced air cooling, 1 m/s recommended minimum
REDUNDANT SUPPLY CAPABILITY	-
STATUS INDICATION	Separate LEDs for $V_1$ and $V_2$
SPECIAL FEATURE(S)	Input power either via DIN M24/8 rear connector or Phoenix 3-contact D-Sub front connector (depends of variant ordered)



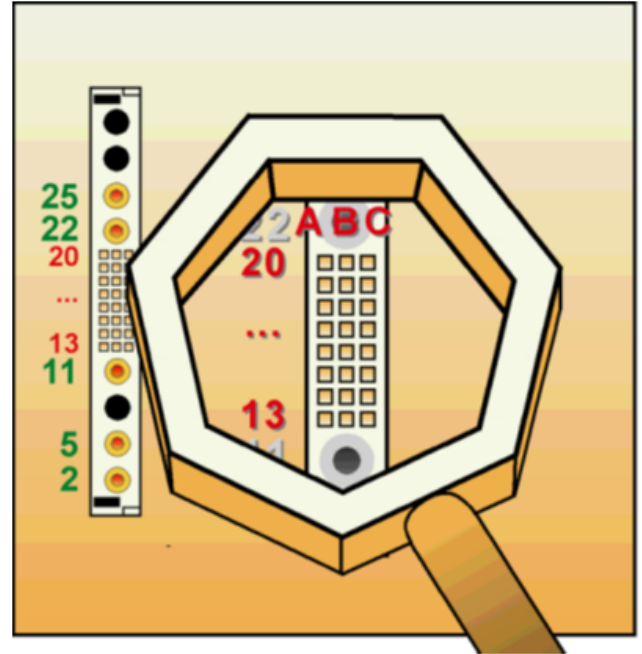
// View of Power Supply Unit CP3-SVE-M75DC-24

## ► DIN M24/8 POWER SUPPLY CONNECTOR

Depending on the power supply version, DC power input may either be via the M24/8 connector or the front panel connector. The V1 ... V3 output voltages from the power supply unit to the backplane are connected via a 32-pole DIN 24/8 male power supply connector.

For the pinouts of the DIN M24/8 power supply connector please refer to the following table.

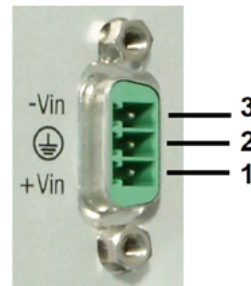
PIN	FUNCTION	PIN	FUNCTION
2	+Vin or NC (depends on version)	B.17	+3.3 VL
5	-Vin or NC (depends on version)	B.18	+3.3 VL
11	PE	B.19	+12 VL
A.13	NC	B.20	NC
A.14	NC	C.13	NC
A.15	NC	C.14	NC
A.16	NC	C.15	NC
A.17	NC	C.16	+3.3 VL
A.18	+3.3 VL	C.17	+3.3 VL
A.19	+12 VL	C.18	+3.3 VL
A.20	NC	C.19	+12 VL
B.13	+3.3 VL	C.20	NC
B.14	+3.3 VL	22	+5 VL
B.15	+3.3 VL	25	OVL
B.16	+3.3 VL		



// Orientation of the DIN M24/8 Power Supply Connector

## ► FRONT PANEL DC INPUT POWER CONNECTOR PINOUT

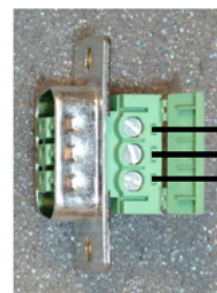
This connector is available for applications requiring input power from the front of the chassis. If required, this connector must be specified when ordering. This is a Phoenix, 3-contact, D-Sub receptacle type connector (VS-PSC-1.5/3-M). The following figure and table provide pinout information.



PIN	SIGNAL
1	+Vin
2	PE
3	-Vin

## ► LINE INPUT CONNECTOR PINOUT

This connector is the complementary connector for the application side for connecting to this power supply. If the front panel DC input power connector is specified, this connector is delivered with the power supply. This is a Phoenix, 3-contact, D-Sub plug type connector (PSC1,5/3-F). The following figure and table provide pinout information.



PIN	SIGNAL
1	+Vin
2	PE
3	-Vin

## ▶ INSTALLATION

Thanks to its plug-in compatibility this DIN M-type power supply unit allows for an easy installation, by which the power supply unit's male DIN M24/8 power connector is inserted into the

backplane's mating female connector without the need of any intermediate adaptation.

### Note ...

The minimum input voltage for turn-on is 18 V. Use DC input power cable with a minimum cross-section of 0.75 mm<sup>2</sup>.

## ▶ ELECTRICAL SPECIFICATION

### INPUT

INPUT VOLTAGE	18 V ... 36 V DC
EFFICIENCY	typical 83 %
INPUT FUSE F1 (MAY NOT BE REPLACED BY THE CUSTOMER)	6.3 AT, type "Wickmann", no. 374/TR5

### OUTPUT

OUTPUT POWER V1 (5.1 V), V2 (3.3 V)	min. 0 A, typical 7.5 A, max. 15 A
OUTPUT POWER V3 (12 V)	min. 0.05 A - max. 0.16 A (15 - 17 V without load)
OUTPUT FUSE F2 (V3) (MAY NOT BE REPLACED BY THE CUSTOMER)	0.16 AT, type "Wickmann", no. 374/TR5
TOTAL OUTPUT LOADS	min. 0 W, max. 75 W
STATUS INDICATION	Green LED's for V1, V2
RIPPLE	V1, V2 < 100 mVpp, V3 < 200 mVpp
NOISE VOLTAGE	Typ. 75 mV @ 7.5 A
TEMPERATURE REGULATION COEFFICIENT	0.03 % / K for V1, V2, and V3
SWITCH ON / SWITCH OFF PERFORMANCE	No overshooting of Vout (soft-start)
RISE-DELAY TIME	< 0.5 s
START-UP TIME	≤ 5 ms

### REGULATION

LINE REGULATION	< 0.2 % for V1, V2 at a load of 7.5 A each
LOAD REGULATION	< 0.5 % for V1, V2

### PROTECTION AND CONTROL

OVERVOLTAGE PROTECTION	trip range 115 - 140 % $V_{0, nom}$
OUTPUT CURRENT LIMITATION	100% - 140% nominal output Effective for all outputs, outputs short-circuit proof, "hiccup-mode" is used. Resettable fuse on V1 and V2 Non-resettable fuse on V3
OVER TEMPERATURE PROTECTION	Switches off when inside temperature becomes too high, switches on again with hysteresis. Switch off at typ. 100 °C base plate. Output short circuit duration: continuous

### ENVIRONMENT

OPERATING AMBIENT TEMPERATURE	0 °C to + 50 °C
DERATING TEMPERATURE	< 50 °C / 0 % power derating
HUMIDITY	93 % RH at 40 °C, non-condensing (according to IEC60068-2-78)

### EMC

INTERFERENCE SUPPRESSION/ IMMUNITY	EN 61000-6-2, EN 55024
INTERFERENCE EMISSION	EN 61000-6-4, EN 55022

### SAFETY

CB SCHEME	EN 62368-1
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**WARNING!**

Adequate thermal cooling of the power supply must be ensured. Failure to comply with this warning may result in damage to your equipment. Therefore do not obstruct or hinder cooling air circulation or heat conduction within the power supply or surrounding equipment.

► **ORDERING INFORMATION**

ARTICLE	DESCRIPTION
CP3-SVE-M75DC-24	CompactPCI DC/DC converter, 75 W, Input 18-36 V, Output +3.3 V/15 A, +5 V/15 A, MAX 75 Watt!! Power input on Front connector. 8HP/3U Frontpanel, LED.

► **GLOBAL HEADQUARTERS**

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