



**Industrial DC/DC converter
Serial Ha-VIS pCon 7000**
for centralised power supply
with degree of protection IP 20 / IP 65

General Description

These primary switched DC/DC converters of the product family Ha-VIS pCon 7000 are designed for the decentralised supply of control units, Ethernet components or automation devices in industrial areas and harsh environments.

With their wide range of input voltage, the units are suitable for world-wide use. The converters need no ground load and are short-circuit protected by primary and secondary power limitation.

The converters are maintenance free, vacuum potted and prepared for the use in devices with Protection Class I or II, depending on the type of the converter.

Features

- Wide input range
- Easy installation
- Galvanically separated
- Short circuit protected
- Ambient Temperature up to 70 °C

Advantages

- Wide input range for world-wide use
- Wide operating temperature range
- Mechanical stability for highest demands
- Can be used directly in industrial and railway environments
- Compact design and high power density
- Proofed against short-circuits, overloads and no-load operation
- International approvals

Application fields

- Industrial automation
- Automotive industry
- Railway applications



DC/DC converter
HARTING pCon 7150-110/48
 for centralised power supply
 with degree of protection IP 65

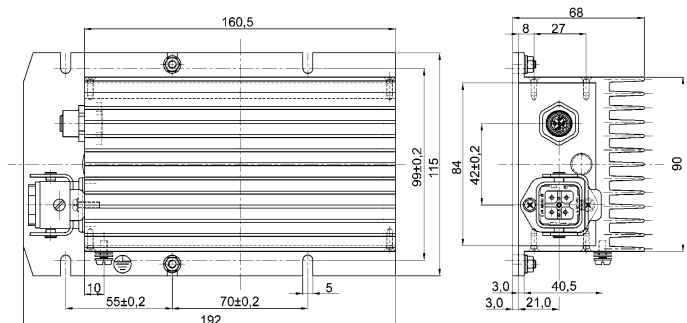
Han® 3 A / M12 A-coding	IP 65	110 V DC	48 V DC
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Input		Output	
Input voltage	50.4 ... 154 V DC (wide range input)	Output voltage	48 V DC -1 % / +2 %
Inrush current	$< 7 \times I_{in\ nom}$	Ripple	$\leq 1\ %\ p-p$
Switching frequency	approx. 70 kHz	Noise	$\leq 2\ %\ p-p$
Efficiency	$\geq 88\ %$	Starting time	$\leq 200\ ms$
Input filter	two-step filter	No load characteristics	no ground load
Reverse polarity protection	by means of connector with coding	Current limiting	105 ... 130 % stabilised current
Termination	Han® 3 A	Termination	M12 A-coding
Protection class	I		
General data			
Operating temperature	-40 °C ... +70 °C		
MTBF	tbd		
Cooling	free convection		
Weight	approx. 1400 g		

Identification	Part number	Drawing	Dimensions in mm
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HARTING pCon 7150-110/48
 DC/DC converter

20 80 300 3026





DC/DC converter
HARTING pCon 7060-110/24
 for centralised power supply
 with degree of protection IP 20

2x spring-type terminals	IP 20	110 V DC	24 V DC
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Input		Output	
Input voltage	43.2 ... 154 V DC (wide range input)	Output voltage	24 V DC ±2 %
Switching frequency	approx. 70 kHz	Ripple	≤ 1.5 % p-p
Efficiency	≥ 85 %	Noise	≤ 2 % p-p
Input filter	LC filter	Starting time	≤ 200 ms
Transient protection	1.8 kV / 5/50 µs	No load characteristics	no ground load
Reverse polarity protection	cross diode (together with external fuse)	Current limiting	105 ... 130 % stabilised current
Termination	Spring clamps	Termination	Spring clamps
Protection class	II (no earth connection necessary)		
General data			
Operating temperature	-40 °C ... +70 °C		
MTBF	> 1,400,000 h		
Cooling	mounting on heat sink with $R_{th} < 2.5$ K/W, thermal coupling with Al base plate		
Weight	approx. 400 g		

Identification	Part number	Drawing	Dimensions in mm
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HARTING pCon 7060-110/24 DC/DC converter	20 80 300 3025	<p>Technical drawing showing top and side views of the DC/DC converter. Dimensions are in mm.</p> <ul style="list-style-type: none"> Top view dimensions: 69 (width), 112 (height), 3.4 (top terminal offset), 4 (top terminal height), 4 (bottom terminal height), 7 (bottom terminal offset), 55±0.2 (bottom terminal width), 9.2 (bottom terminal offset). Side view dimensions: 30 (total height), 28 (main body height), 2 (top terminal height). 	
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