

PRODUCT Information

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MODELL 9660

Switch mode voltage converter 48 VDC to 12 VDC.
Designed for forklift trucks and electromotive
applications where high voltage transients may occur.



Technical specifications - 48/12 V version:

Input voltage:	40 to 96 VDC, transients up to 150 VDC.
Input voltage without transients:	40 VDC to 120 VDC.
Utgangsspenning:	13,2 VDC, regulated.
* Internally adjustable:	11,5 - 14,5 VDC
Output power:	158 W kontinuerlig, 211 W kortvarig
Load current:	12 A continuous, 16 A intermittent. 12 A at -20 to +30°C ambient temperature, linearly derating to 6,5 A at +60°C ambient temperature.
Load regulation:	2% for 0 til 12 A load variation and 48 V input voltage.
Line regulation:	5% for 40 to 120 V variation og 12 A load current.
Switch frequency:	approx. 30 kHz
No load current:	approx. 30 mA at 48 V input voltage.
Temperature range:	-20 - +30°C
Ripple:	50 mV p-p at 12 A load current and 48 V input voltage.
Efficiency:	82% at 48 V input voltage and 12 A load current.
Protection:	The converter is protected against reversed input polarity. A fuse of 8 AT is in series with input. Voltage over 150 V will be protected with transorb diode. The output is protected against overvoltage at approx. 16 V. Short circuit protected. The converter has thermal protection.
Insulation:	Input and output are electrically separated from chassis. The input is electrically separated from output.
EMC standards	
* Emission:	EN 50081-1
* Immunity:	EN 50082-1
Terminals:	Input and output have 6.3 mm push-on terminals.
Dimensions (LxWxH):	215 x 151 x 62 mm.
Weight:	1,1 kg.

Survey of voltage versions on the reverse.

pi9660-e / 120399 / s.1/2

Survey of voltage versions Model 9660

Data	Version	48/12	48/24	80/12	80/24
Input voltage	(VDC)	40-96	40-96	70-140	70-140
* Transients up to	(VDC)	150	150	220	220
Input voltage without transients	(VDC)	40-120	40-120	70-170	70-170
Output voltage (regulated)	(VDC)	13,2	24	13,2	24
* Internally adjustable	(VDC)	11,5-14,5	20-28	11,5-14,5	20-28
Output power					
* Continuous	(W)	158	168	158	168
* Intermittent	(W)	211	216	211	216
Load current					
* Continuous	(A)	12	7	12	7
* Intermittent	(A)	16	9	16	9
Load regulation		2 %	2 %	2 %	2 %
Line regulation		5 %	5 %	5 %	5 %
Switch frequency	(kHz)	ca. 30	ca. 30	ca. 30	ca. 30
No load current	(mA)	ca. 30	ca. 40	ca. 30	ca. 40
Temperature range	(°C)	-20 - +30	-20 - +30	-20 - +30	-20 - +30
Ripple	(mV p-p)	50	50	50	50
Efficiency		82 %	84 %	84 %	86 %
Protection					
* against reversed polarity		Input	Input	Input	Input
* fuse in series with input		8 AT	8 AT	6,3 AT	6,3 AT
* transorb diode		> 150 V	> 150 V	> 220 V	> 220 V
* overvoltage protection at output		approx. 16 V	approx. 33 V	approx. 16 V	approx. 33 V
* thermal protection		Yes	Yes	Yes	Yes
* short circuit proof		Yes	Yes	Yes	Yes
Insulation					
* electrically sep. from chassis		Yes	Yes	Yes	Yes
* input electrically sep. from output		Yes	Yes	Yes	Yes
EMC standards					
* Emission		EN 50081-1	EN 50081-1	EN 50081-1	EN 50081-1
* Immunity		EN 50082-1	EN 50082-1	EN 50082-1	EN 50082-1
Terminals		6,3 mm push-on	6,3 mm push-on	6,3 mm push-on	6,3 mm push-on
Dimensions (LxWxH)	(mm)	215x151x62	215x151x62	215x151x62	215x151x62
Weight	(kg)	1,1	1,1	1,1	1,1