



Version C (100x70x20mm) Version K



Version S (100x41x17mm)

- SMT - on ceramic technology
- Metal case in different shapes
- 100% burn-in & parameter test
- Assembling according to ANSI/IPC-A-610
- Laser trimmed thick film resistors
- High efficiency up to 94,5%
- Short circuit proof
- Extended temperature range: -40°C to +85°C
- Designed to meet EN50155 and EN50121-3-2
- Integrated Input filter
- Integrated reverse polarity protection
- OVP: Burst EN61000-4-4 2kV (5/50ns, 5kHz)
- Surge EN61000-4-5 2kV Line-Earth;1kV Line-Line
- RoHS compliant
- UL94V-0 compliant

Standard Part Number				
Model	Input	Output	Efficiency	Connection
EMF150-110-12-C	66V to 154V	12V / 12,5A	92%	Cable
EMF150-110-12-K				Connector
EMF150-110-12-S				Connector
EMF150-110-15-C		16V / 10A	92%	Cable
EMF150-110-15-K				Connector
EMF150-110-15-S				Connector
EMF150-110-18-C		18V / 8,33A	93%	Cable
EMF150-110-18-K				Connector
EMF150-110-18-S				Connector
EMF150-110-24-C		24V / 6,25A	94%	Cable
EMF150-110-24-K				Connector
EMF150-110-24-S				Connector

Part Numbering System				
EMF	150	110	24	K
Serie	Power	Input	Output	Mechanics
EMF	150: 150W	110: 66V to 154V	12: 12V 15: 15V 18: 18V 24: 24V XX: custom solution value between 12 and 24	C: Cable (100x70x20mm) K: Connector (100x70x20mm) S: Connector (110x42x15mm)



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General electrical specifications (Note1)					
Model		EMF150-110-12	EMF150-110-15	EMF150-110-18	EMF150-110-24
INPUT	Nominal input voltage	110V DC			
	Input voltage range	66V to 154V DC			
	Turn off / on voltage	Low side: 58V / 64V High side: 165V / 160V			
	Max. input voltage	± 200V DC			
	No load input current	50 mA			
	Nominal input current	1,47 A	1,46 A	1,45 A	1,44 A
	Efficiency	up to 92,3%	up to 92,8%	up to 93,5%	up to 94,5%
OUTPUT	Output voltage	12V	15V	18V	24V
	Output current	12,5A	10A	8,33A	6,25A
	Output voltage accuracy	± 1%			
	Regulation line ³ (Note 2)	± 1%			
	Regulation load (Note 3)	± 2%			
	Ripple (20 MHz)	< 80 mVpp	< 100 mVpp	< 125 mVpp	< 150 mVpp
	PROTECTION	Short circuit protection	current limiting		
Overload protection		Thermal shutdown @ ca 120°C			
Reverse polarity		-200V DC			
ISOLATION	Isolation I/O	1500V DC			
	Isolation I/ case	1000V DC			
	Isolation O/case	500V DC			
Environment (Note 4)	Operating temperature	-40 to +85°C			
	Storage temperature	-55 to +125°C			
Other	Temperature coefficient	0,02%/°C			

Notes:

1. Typical specifications at $T_a = 25^\circ\text{C}$ under normal line voltage and full load conditions, unless otherwise noted
2. $U_i \text{ min}$ to $U_i \text{ max}$
3. $I_{\text{min}} = 0$ to $I_{\text{max}} = 100\%$
4. Case temperature



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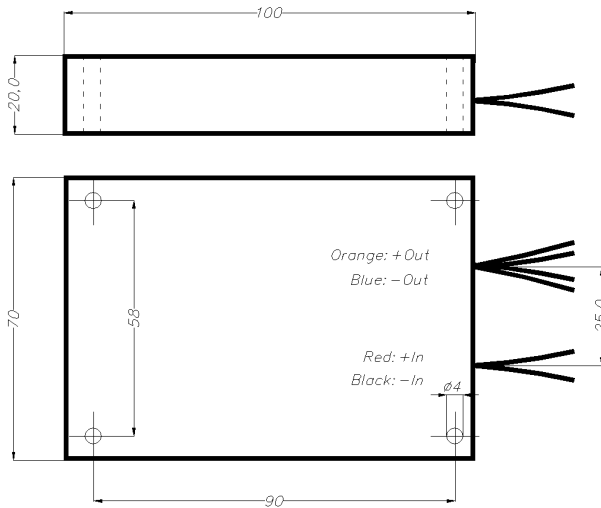
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Mechanic solution

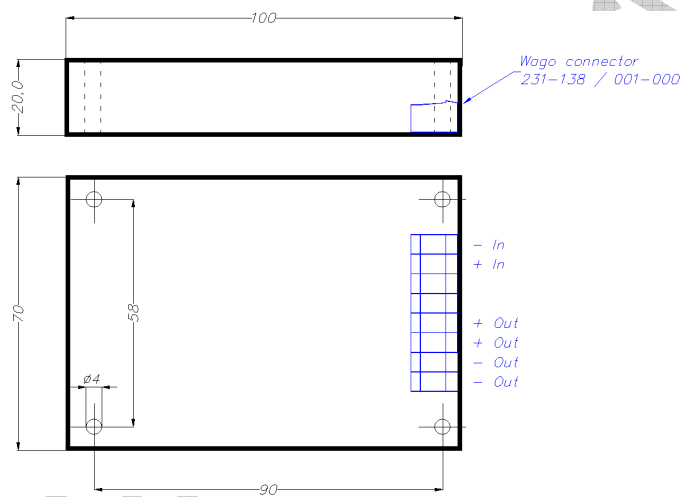
Version C



all dimensions in mm
tolerance: ± 1 mm

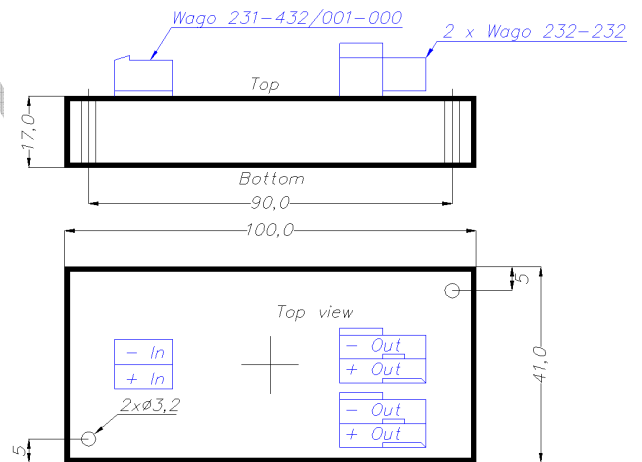
Red: 200mm / 0,75mm ²	+ Input
Black: 200mm / 0,75mm ²	- Input
Orange: 2 x 200mm / 0,75mm ²	+ Output
Blue: 2 x 200mm / 0,75mm ²	- Output

Version K



all dimensions in mm
tolerance: $\pm 0,5$ mm

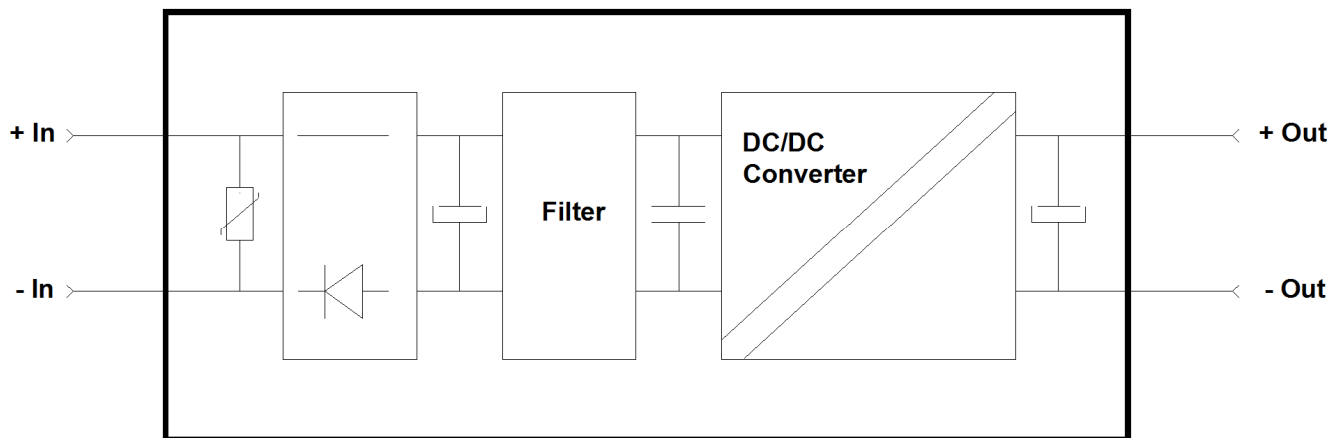
Version S



all dimensions in mm
tolerance: $\pm 0,5$ mm

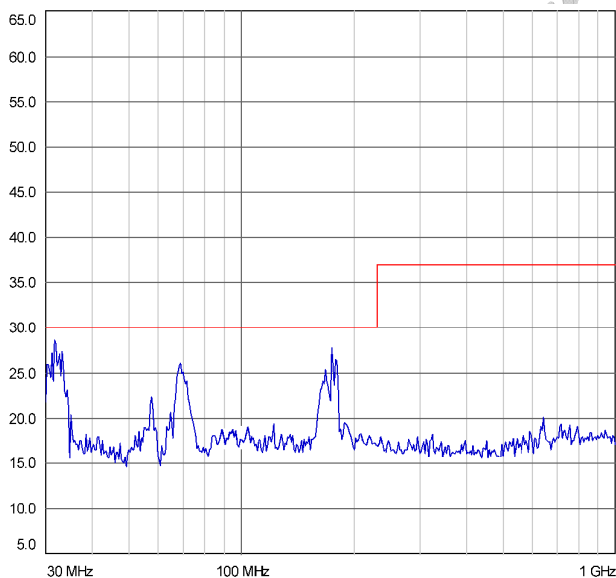
Schematic

Block diagram



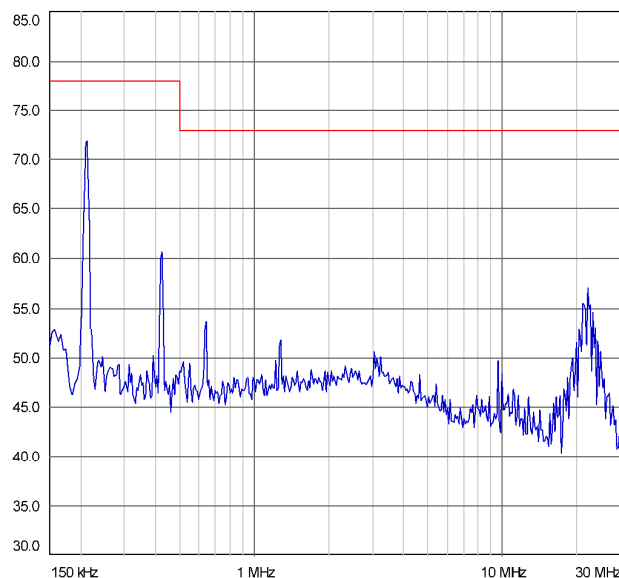
EMI/RFI

Radiated



EMF150-110-xx

Conducted



EMF150-110-xx



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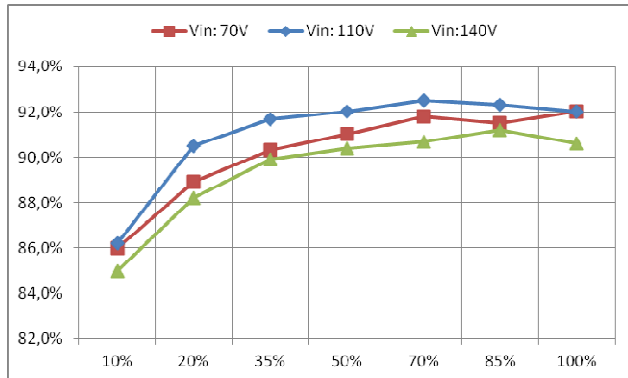


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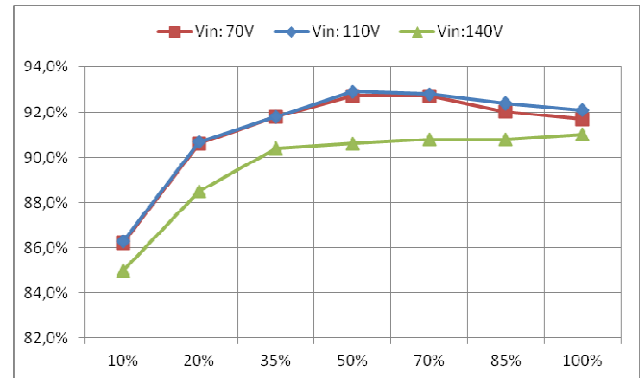


Efficiency

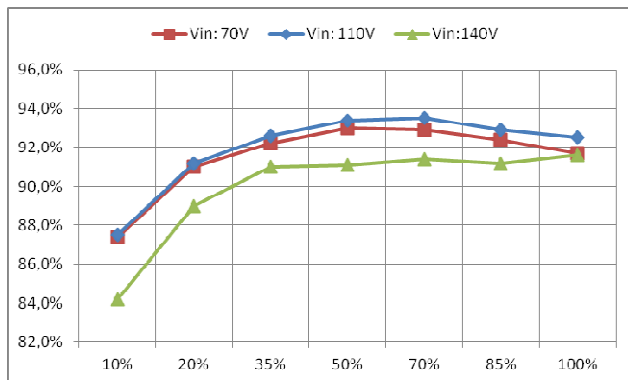
EMF150-110-12



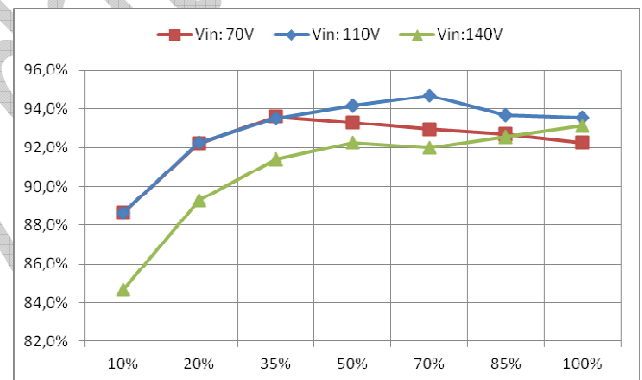
EMF150-110-15



EMF150-110-18



EMF150-110-24



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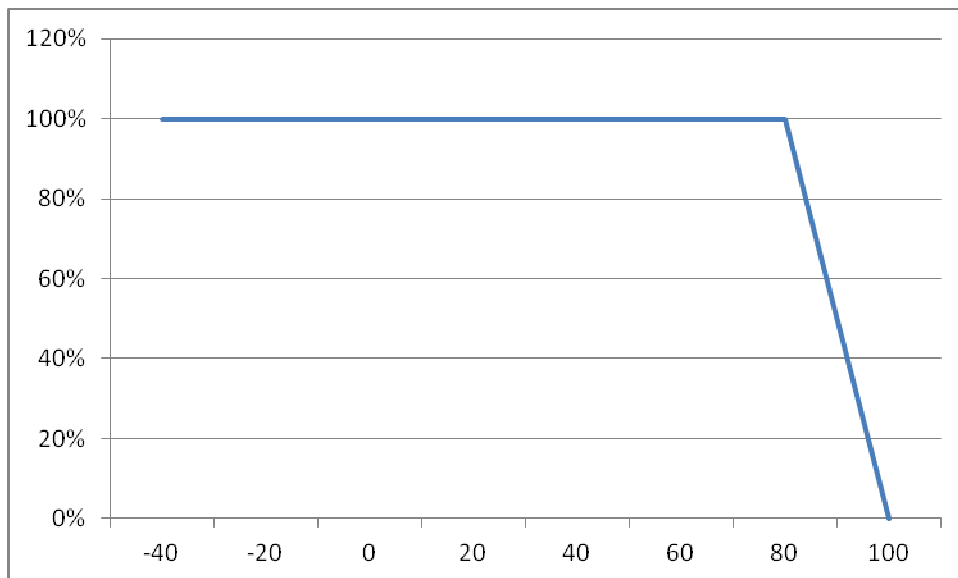


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Derating

Output power vs. case temperature



Preliminary data



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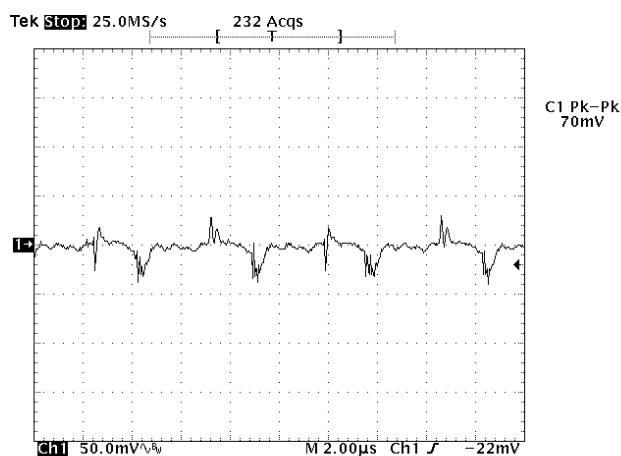
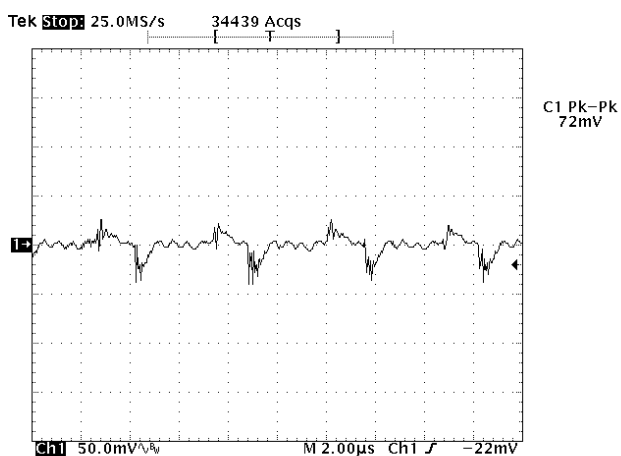
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Output ripple (nominal Input and full load)

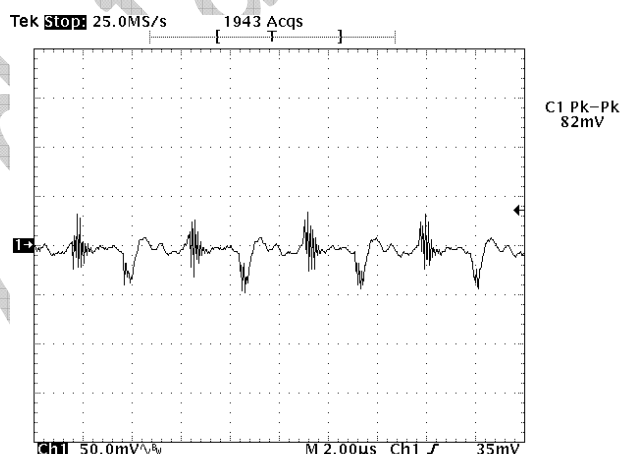
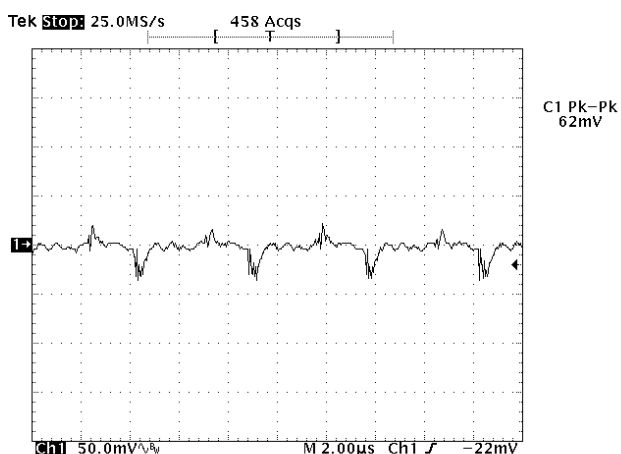
EMF150-110-12

EMF150-110-15



EMF150-110-18

EMF150-110-24



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