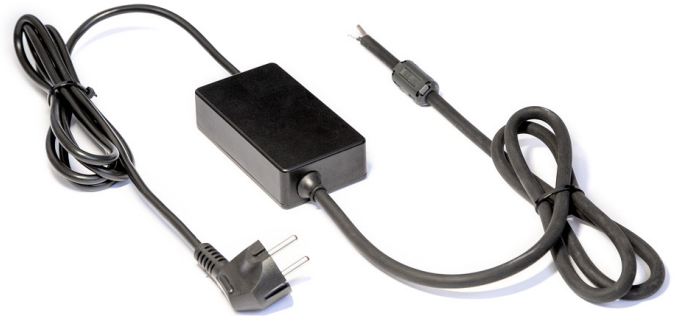


KAM150-1S19NK

Laptop AC/DC power supply



Advantages

- ◀ Made in Russia
- ◀ Laptop ready
- ◀ Mechanical strength
- ◀ IP54
- ◀ Efficiency up to 92%
- ◀ All type of protections: short circuit, overload, overvoltage
- ◀ 2 years warranty

Description

MIL-grade laptop power supply for harsh environment.

Main features:

Operating temperature range	-50...+55 °C
Storage temperature range	-55...+85 °C
EMI	Class A
Dimensions	115×64×29 mm

Электрические характеристики

Mains frequency	50 Hz
Input voltage	~187...264 VAC
Output voltage	=12; =18; =24 VDC
Output power	150 W
Ripple and noise	100 mV
Overcurrent protection	+
Short current protection (auto restart)	+
Output overvoltage protection	+
Input overvoltage range	+
Efficiency	92 %

Connector type

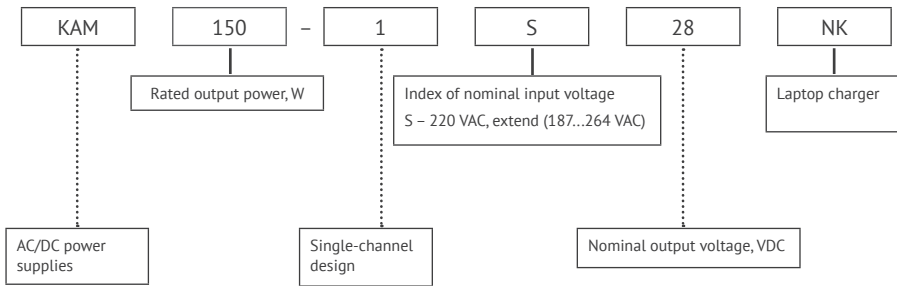
Input connector as agreed with the customer

It is allowed to change the connection connectors and cable lengths according to the customer's requirement in agreement with the manufacturer.

Customer support

Yuri Kazaryan
+7 920 223 04 16 techsupport@kwsystems.ru

Ordering information



Input specifications*

Parameter	Value
Input voltage range, VAC	S 187-242 (= 263-340 VDC)
Transient deviation range, VAC	S 176-264
Transient time	S 1S
Mains frequency range, Hz	S 47...53
Consumed current, A	<1
I ² t (Joule integral) for pulse-type current	50
Pre-fuse	Slow blow 3 A

Output specifications*

Parameter	Value		
Nominal output voltage, VDC	12	18	24
Efficiency, %	92	93	93
Rated output current, A	12.5	8.33	6.25
Ripple and noise (peak-to-peak), mV	<30	<30	<25
Line and load regulation, %	max 1		max 0.5
Start-up time, ms	<50		
Maximum load capacity	not limited		

Protections

Type of protection	
Short-circuit protection*	auto recovery
Overload protection	P _{max} <1.2 P _{nom}
Overvoltage protection level*	<125% U _{out nom.}
Overheat protection	triggers at case temperature > 85°C

* All specifications are valid for normal climatic conditions (ambient temp. +15...+35°C; relative humidity 45...80%; air pressure 8.6*10⁴...10.6*10⁴ Pa), U_{in nom.}, I_{out nom.}, unless otherwise noted.

Basic specifications**

Nominal output voltage, VDC		12	18	24
Type of connection		screw terminals and blade contacts		
Protection level		IP20		
Case temperature, operating		-50...+55°C		
Case temperature, storage		-55...+100°C		
Humidity		98% / 35°C		
Isolation voltage	in /case	~1500 VAC		
	in /out	~1500 VAC		
	out /case, out/out	~500 VAC		
Isolation resistance @ 500 VDC		≥ 20 MOhm min		
Cooling		convective		
Environmental influence standards		design to meet MIL-STD-810G		
EMC standards		MIL-STD-461E		
Thermal resistance case-ambient		6.4°C / W		
Typical MTBF, Hrs		2 000 000	2 200 000	2 400 000
Case material		metal		
Dimensions, mm		111×61×23.5		
Weight, kg		< 0.3		
Warranty		2 year		

Terminal specification, input/output

Cross section of the flexible conductor, mm ² (max)	0.5...1.5
Cross section of AWG conductor, min	28
Cross section of AWG conductor, max	12
Strip length, mm	6

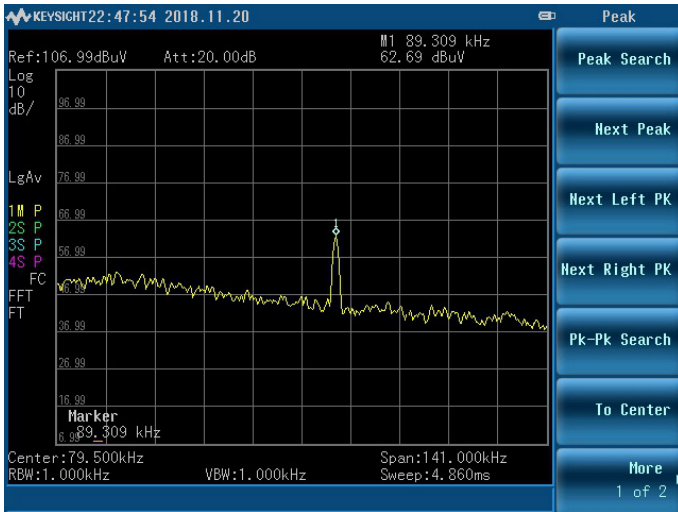
Environmental conditions

Item	Environmental specification, units	Value
Sinusoidal vibration	Frequency range, Hz	1-500
	Acceleration amplitude, m/sec ² (g)	50 (5)
	Vibratory displacement amplitude, mm	0.5
Single mechanical shock	Peak shock acceleration, m/sec ² (g)	1000 (100)
	Duration of shock acceleration, msec	1-2

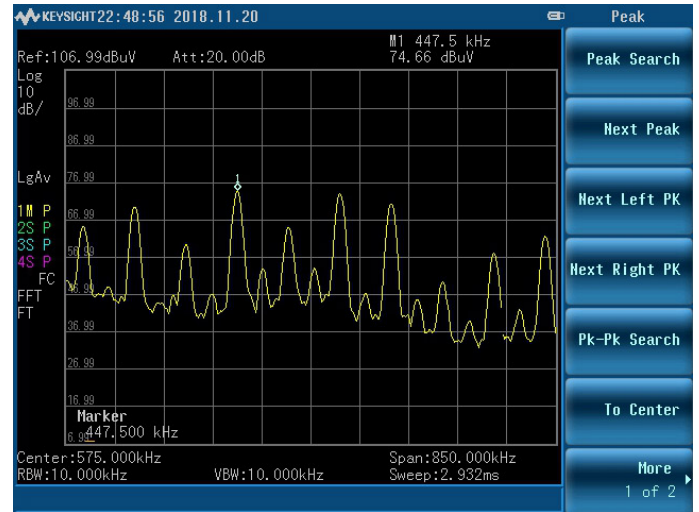
* Parameters are stated for the information purposes and could not be used at long term work, exceeding maximum output current, operating outside of a working temperatures range or when output voltage is over the range of adjustment.

** All specifications are valid for normal climatic conditions, U_{in}. nom., I_{out}. nom., unless otherwise noted.

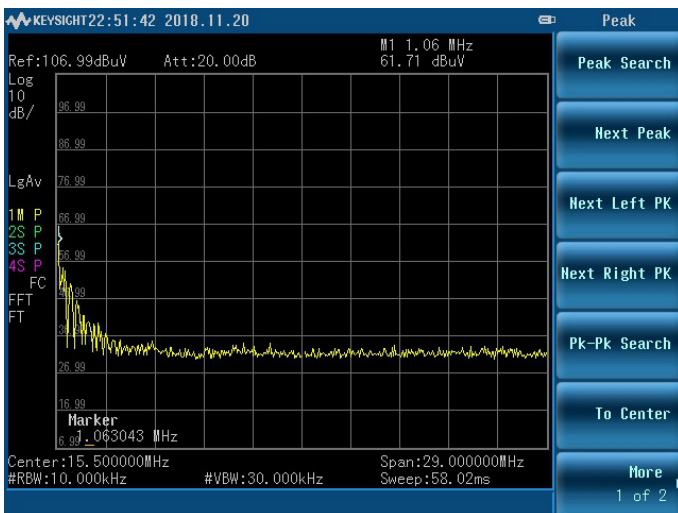
EMC spectrograms



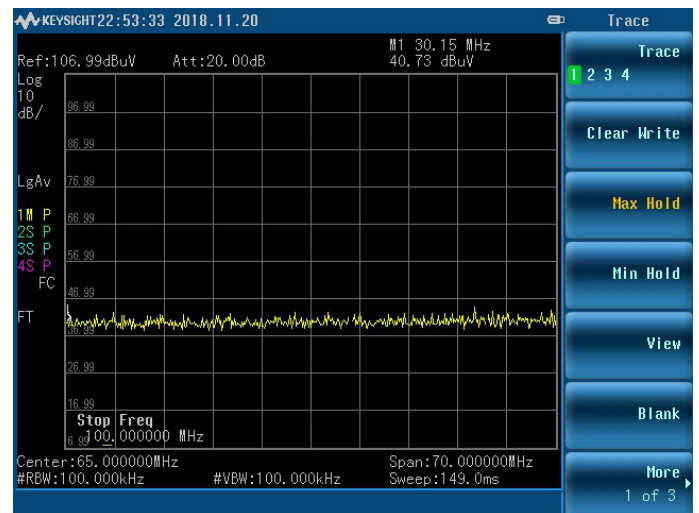
9 kHz - 150 kHz



150 kHz - 1 MHz

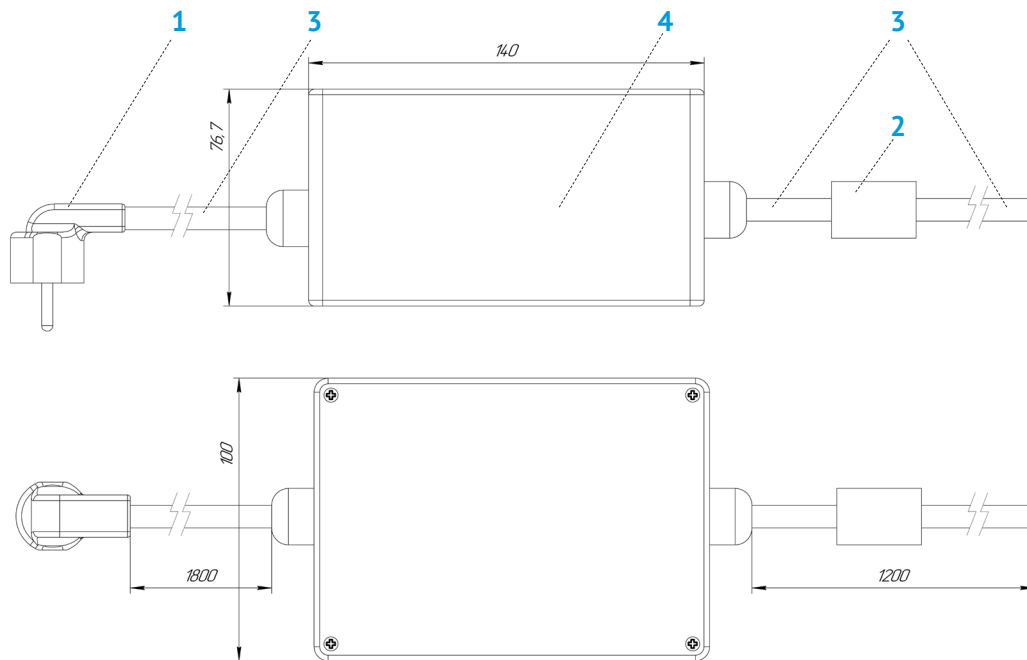


1 MHz - 30 MHz



30 MHz - 100 MHz

Dimensions



- 1 Plug (IP54 not compliant)
- 2 EMI filter
- 3 Cable
- 4 KAM100-1S19NK module



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KW Systems, LLC is the leading Russian developer and manufacturer of AC/DC converters and power supply systems for mission critical applications.

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