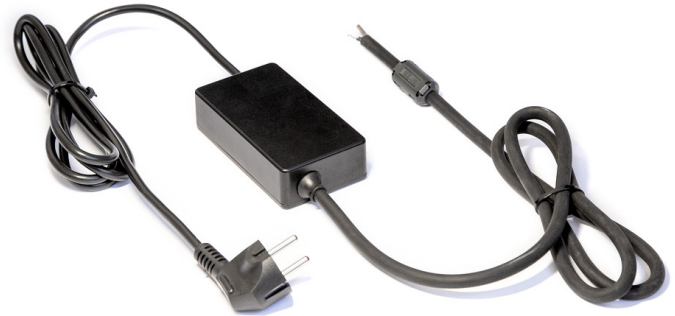


KAM100-1S19NK

Laptop AC/DC power supply



Advantages

- ◀ Made in Russia
- ◀ Laptop ready
- ◀ Mechanical strength
- ◀ IP54
- ◀ Potted for environmental protection MTBF greater than 2,000 khours
- ◀ Efficiency up to 93%
- ◀ 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
Design to meet	MIL-STD461E, MIL-STD810
Dimensions	115×64×29 mm
Mains frequency	50 Hz
Input voltage range	~187...264 VAC
Output voltage	=18 VDC (12 or 24 VDC optional)
Output power	100 W
Ripple and noise	< 30mV
Overcurrent protection	+
Short current protection (auto restart)	+
Output overvoltage protection	+
Input overvoltage protection	+
Internal Over Temperature Protection	+

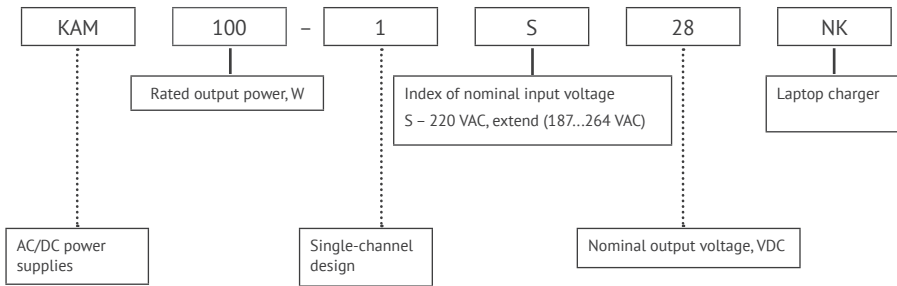
Connector type

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

Customer support

Yuri Kazaryan
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Ordering information



Input specifications*

Parameter	Value
Input voltage range, VAC	187-242 (= 263-340 VDC)
Transient deviation range, VAC	176-264
Transient time	1S
Mains frequency range, Hz	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	8.33	5.56	4.17
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*	<120% 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
Protection level		IP54		
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		
Typical MTBF, Hrs		2 000 000	2 200 000	2 400 000
Case material		metal		
Dimensions, mm		115×64×29		
Weight, kg		0,6 w/o o/p connector		
Warranty		2 year		

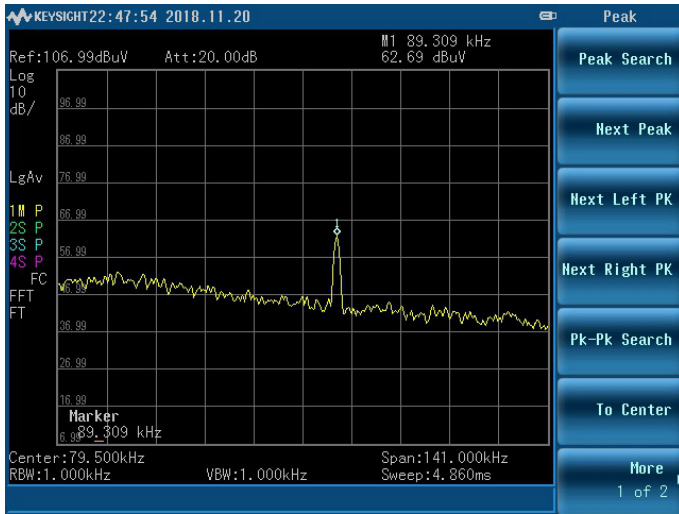
Environmental conditions

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

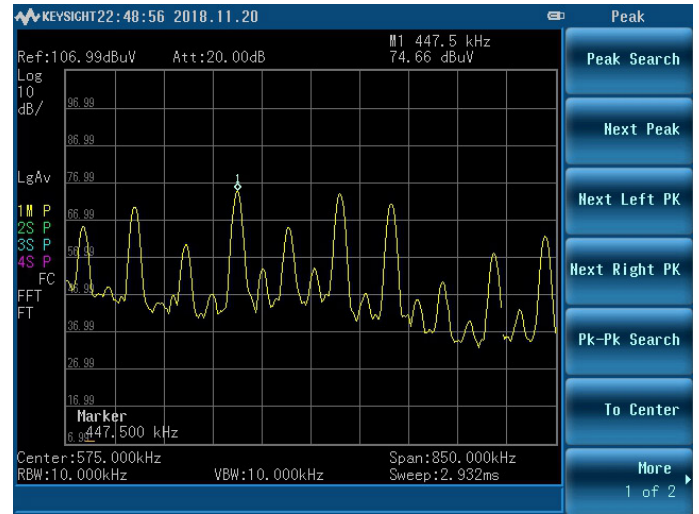
* Parameters are stated for the information purposes and could not be used at long term work, exceeding maximum output current, operating outside of a working temperatures range or when output voltage is over the range of adjustment.

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

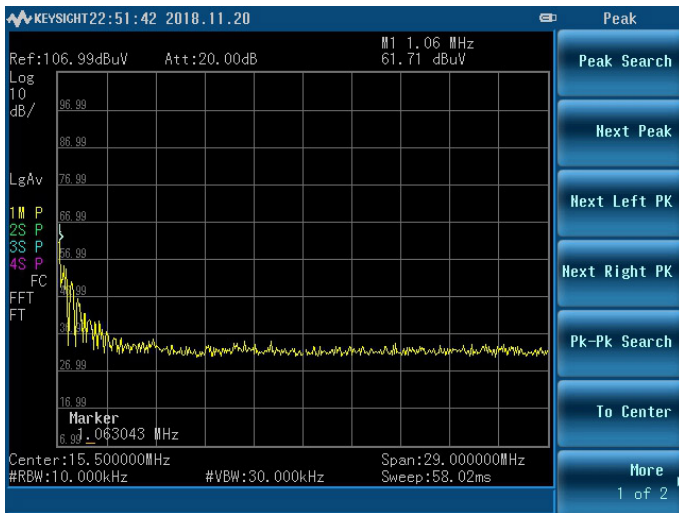
EMC spectrograms



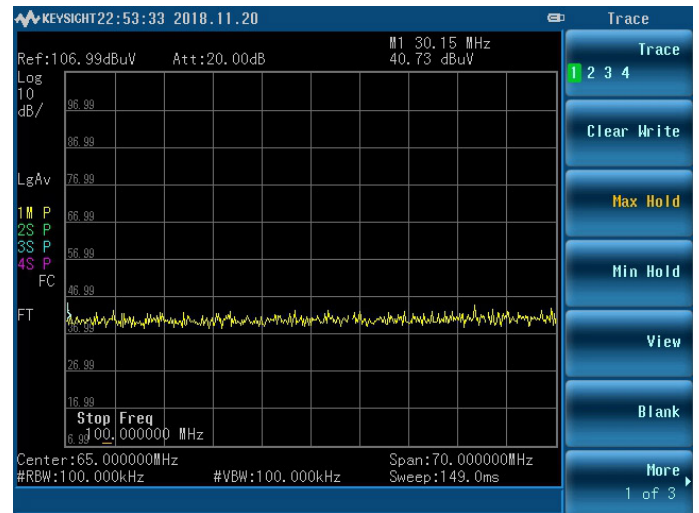
9 kHz - 150 kHz



150 kHz - 1 MHz

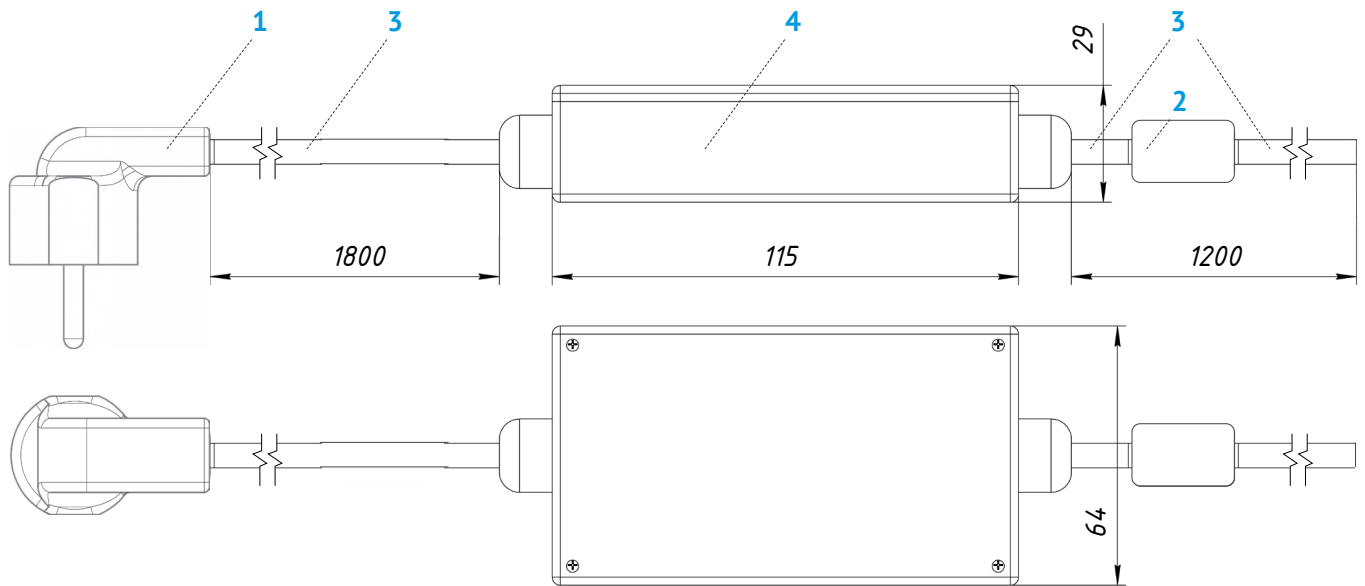


1 MHz - 30 MHz



30 MHz - 100 MHz

Dimensions



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