

## 18W POWER SUPPLY

The BI family of AC/DC switch mode power supplies offers the best mix of cost efficiency and European quality standard. The standardized product is available in a variety of housings, secondary cables / plugs and options of customization.



### Features

- Ultra low standby losses
- High Efficiency
- Protection class II
- Wide selection of output plugs
- Manufacturing according to ISO 9001
- Short circuit proof

### Options

- Customized product marking
- Different secondary cables / plugs available
- Housing modifications possible
- Additional country versions on request

Specification		
Output Power	18	W
Output Voltage	5 - 24	V
Output current	3	A
Universal input voltage	90 - 264	V
Operating temperature	0 - 40	°C
Efficiency	typ. 87,6	%
Standby Power	typ. 70	mW
Efficiency level	VI	
Insulation of output	SELV	
Leakage current	≤ 250	μA

Housing versions			
Wall plug-in, fix or interchangeable			
EU	UK	US	AUS
Secondary Connection Cable/Plug		USB Typ A port	

Approvals					
		Intertek			

Test standards	
EN 55032 EN 55035 EN 61000-3-2 EN 61000-3-3	General EMC standards
EN 62368-1 UL 62368-1 AS/NZS 62368.1 GB 4943.1	Information technology equipment

Parameter	Symbol	Min	Typ.	Max	Unit	Test Cond.
Specifications are subject to change without any notice.						
Input Voltage	$U_{IN}$	90		264	$V_{AC}$	
	Operation above the specified maximum input voltage may cause damage. Below the minimum input voltage the unit does not meet the specification.					
Input Current	$I_{IN}$			800	mA	
Input Frequency	$f_{IN}$	47	50	63	Hz	
Efficiency	$\eta$		87,6		%	at full load
Stand-by power	$P_{stb}$		70	100	mW	without load
International efficiency mark		VI				
Output Power	$P_{out}$			18	W	
Output Voltage	$U_{out}$	5		24	$V_{DC}$	
Output voltage tolerance	$\Delta U_{out}$			5	%	
Ripple Voltage	$U_{r\ rms}$			200	$mV_{rms}$	
Output Current	$I_{out}$			3	A	
Max. Overload current	$I_{out\ overload}$			200	% of $I_{out}$	
	Maximum 1 minute overload duration, followed by 15 minute cooldown period.					
Isolation	Galvanic isolation with safety extra low voltage (SELV) output					
Means of protection	SELV					
Dielectric Strength	Standard	3			$kV_{AC}$	50Hz sinusoidal waveform
Leakage current	$I_{LK}$			250	$\mu A$	
Operating Temperature	$T_{OP}$	0		40	$^{\circ}C$	free convection
Thermal protection	A thermal shut down protects the power supply and the surroundings form hazardous temperatures. To reset the thermal protection, unplug the unit and allow it to cool down.					
Storage Temperature	$T_{ST}$	-20	25	60	$^{\circ}C$	
Humidity		5		95	%	non condensing
Single component failure	A single component failure does not cause any damage to persons or ambient (fire, explosions, etc).					
Disconnecting device	Direct plug-in	The power supply itself is the disconnecting device				

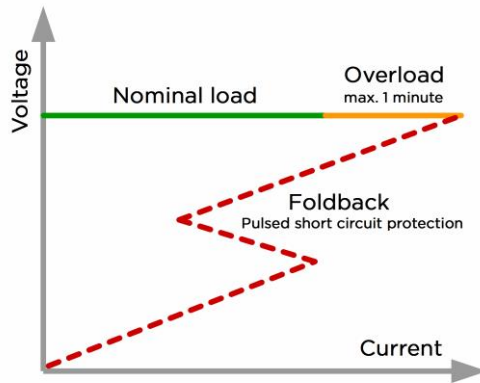
### Ordering information and part number example

BI18L	-	xxx	yyy	-	w	z	u
		Voltage	Current		Housing Type	Primary plug	Secondary connection
		in Volt after dividing by 10	in Ampere after dividing by 100		I Interchangeable plug A Horizontal Case Type C Vertical Case Tye	dV EU fixed plug dU US fixed plug dB UK fixed plug dA AUS fixed plug	U USB Typ A port Blank Cable version

### Reliability

MTBF	60.000 h	at 25°C ambient
Maintainability	The power supply is not to be repaired	

## Output template



The power supply is protected against short circuit.  
A shorted output does not cause any damage, and normal operation will resume once the short is removed.

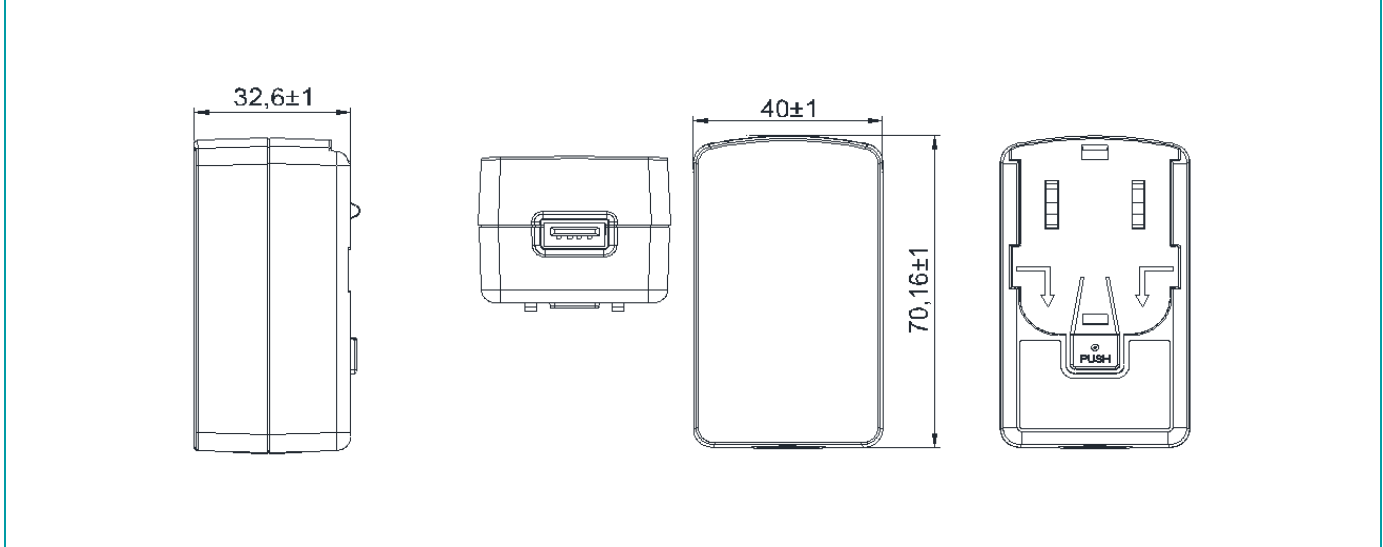
## Marking

## Marking plate symbol explanation

Product name Input parameters Output parameters Safety instructions Date code of production CE marking Approval marks		Conformity with the relevant EU directives.
		Conformity with the relevant UK directives.
		Certification Mark, indicating that the product meets the German product safety law.
		NRTL Canada / USA Mark issued by Intertek
		The power supply has to be disposed appropriately according the local regulations for Waste Electrical and Electronic Equipment.
		For indoor use only.
		Read instruction manual.
		Approval mark for Australia
		Energy Efficiency Level VI
		EMC mark

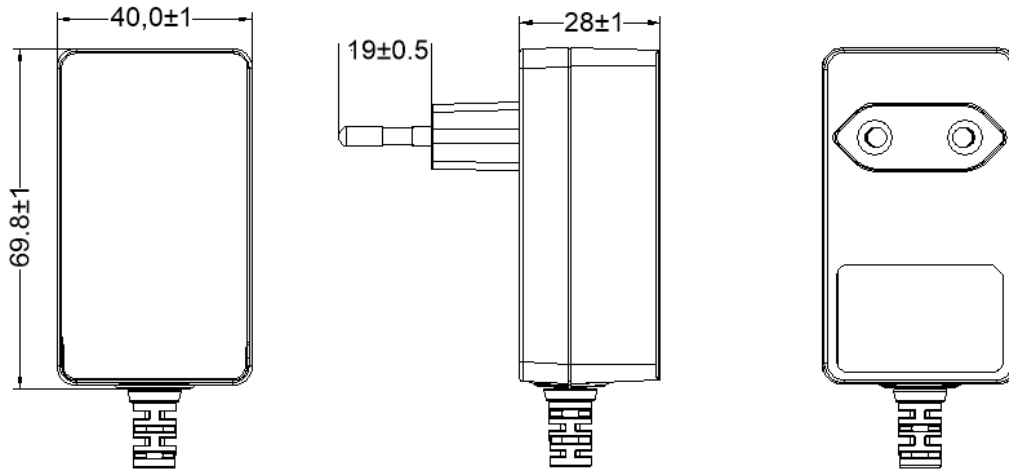
Certification overview	
Interchangeable Plug	
EU, UK	
US, Canada	
AUS	

## Interchangeable Plug Housing

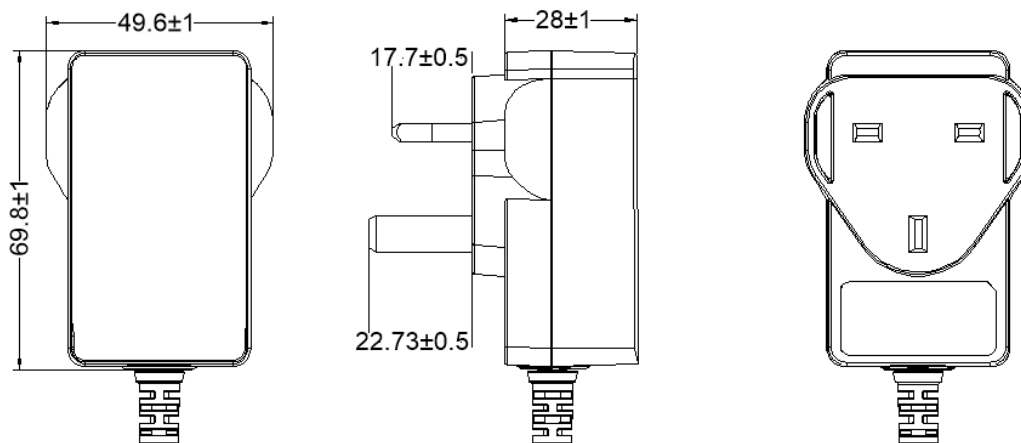


<p>EU Plug according EN50075</p>	<p>US Plug according UL1310</p>	<p>UK Plug according BS1363</p>	<p>Australia Plug acc. AS/NZS 3112</p>
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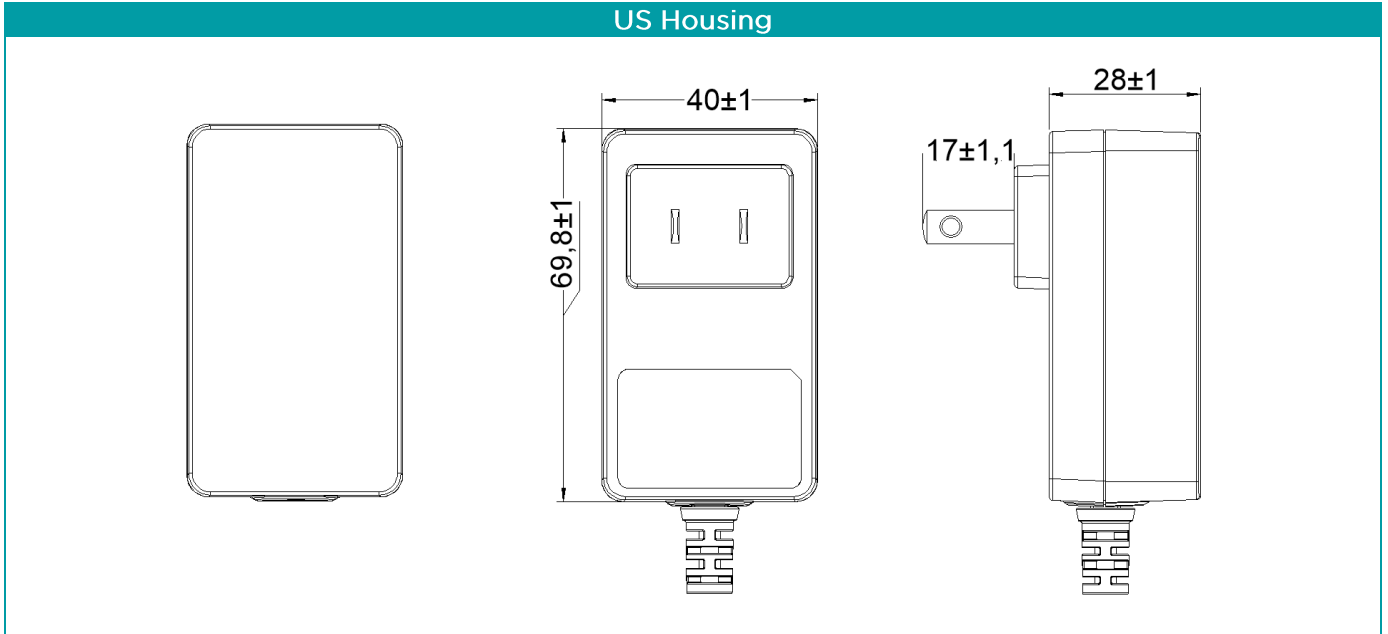
## EU Housing



## UK Housing



## US Housing



## AUS Housing

On request

**Packaging and weight**  
Information on request - depending on configuration of power supply and primary adapters

**Energy Efficiency**

This power supply family fulfils Directive 2009/125/EC with Commission Regulation (EU) 2019/1782. The vales “Average active efficiency”, “Efficiency at low load” and “No-load power consumption” are typical measured values, measured at one representative sample at an input voltage of 230VAC.

Input specification		
Input Voltage	100-240	VAC
Input Frequency	50-60	Hz

Output specification				
Output voltage	5	12	24	VDC
Output current	3	1,5	0,75	A
Output power	15	18	18	W
Average active efficiency (100%/75%/50%/25%)	84,3	87,1	87,6	%
Efficiency at low load (10 %)	TBD	TBD	TBD	%
No-load power consumption	70	70	70	mW

Revision	Date	Author	Change
A	08.06.2022	Himmelmaier	First edition
B	22.09.2022	Mauritz	Test standards changed

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