BI18L-Series

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.

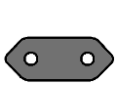
Features

- 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
CE, GS, ETL Intertek, EAC, IECEE CB SCHEME, UKCA

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

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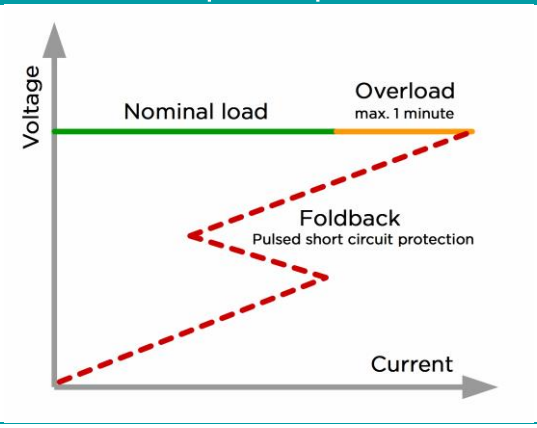
Parameter	Symbol	Min	Typ.	Max	Unit	Test Cond.
Specifications are subject to change without any notice.						
Input Voltage	U_{IN}	90		264	V_{AC}	
	Operation above the specified maximum input voltage may cause damage. Below the minimum input voltage the unit does not meet the specification.					
Input Current	I_{IN}			800	mA	
Input Frequency	f_{IN}	47	50	63	Hz	
Efficiency	η		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	ΔU_{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	µA	
Operating Temperature	T_{OP}	0		40	°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	°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 in Volt after dividing by 10	**Current** in Ampere after dividing by 100		**Housing Type** I Interchangeable plug A Horizontal Case Type C Vertical Case Tye	**Primary plug** dV EU fixed plug dU US fixed plug dB UK fixed plug dA AUS fixed plug	**Secondary connection** 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	CE	Conformity with the relevant EU directives.
	UKCA	Conformity with the relevant UK directives.
	GS	Certification Mark, indicating that the product meets the German porduct safety law.
	c ETL US LISTED Intertek	NRTL Canada / USA Mark issued by Intertek
	RoHS conform	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
	VI	Energy Efficiency Level VI
	FC	EMC mark

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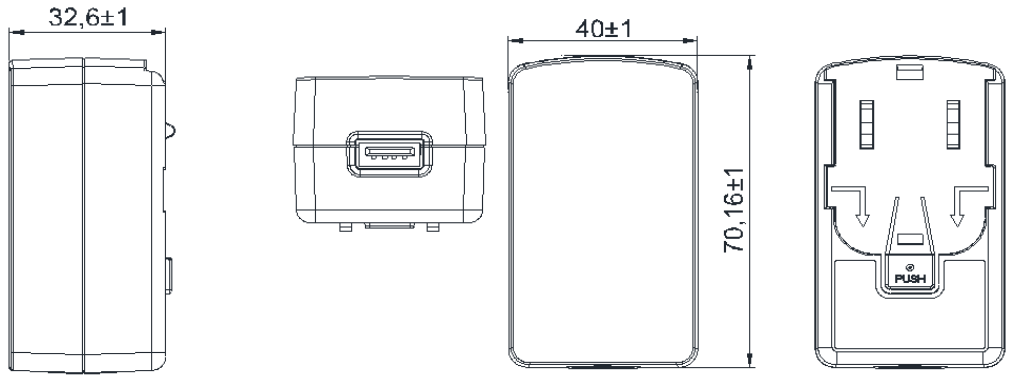
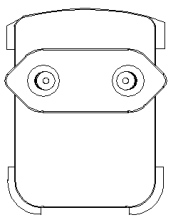
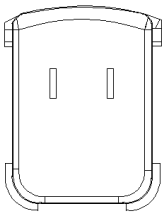
Certification overview	
Interchangeable Plug	
EU, UK	
US, Canada	
AUS	

Interchangeable Plug Housing

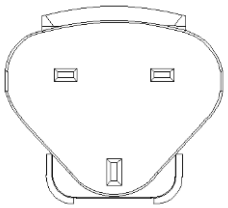




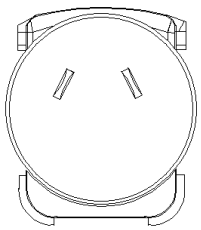
EU Plug
according EN50075



US Plug
according UL1310



UK Plug
according BS1363



Australia Plug
acc. AS/NZS 3112

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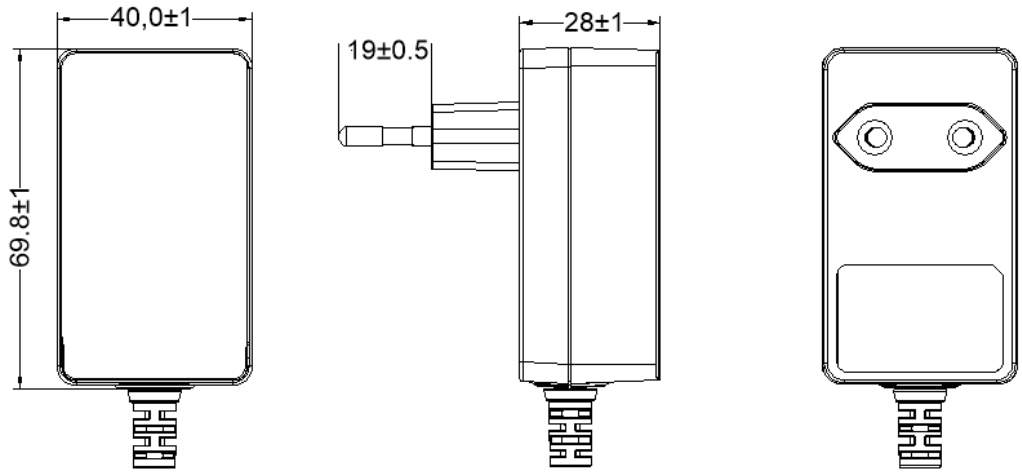
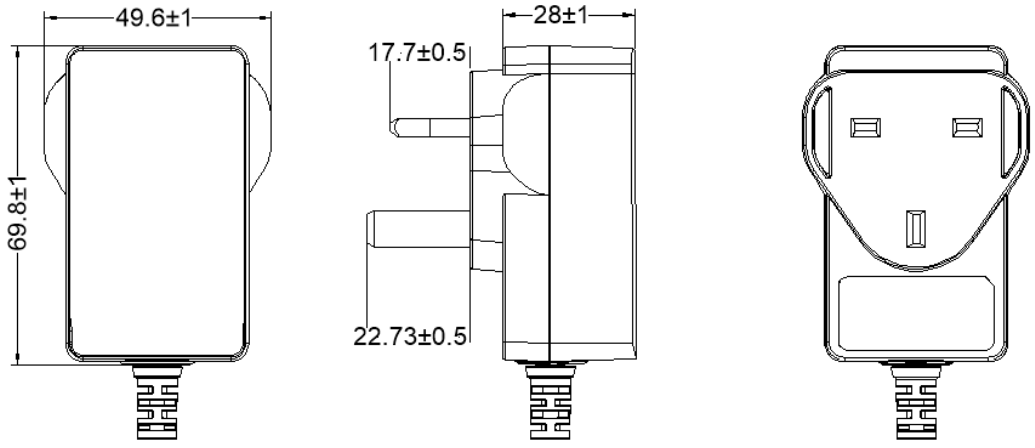
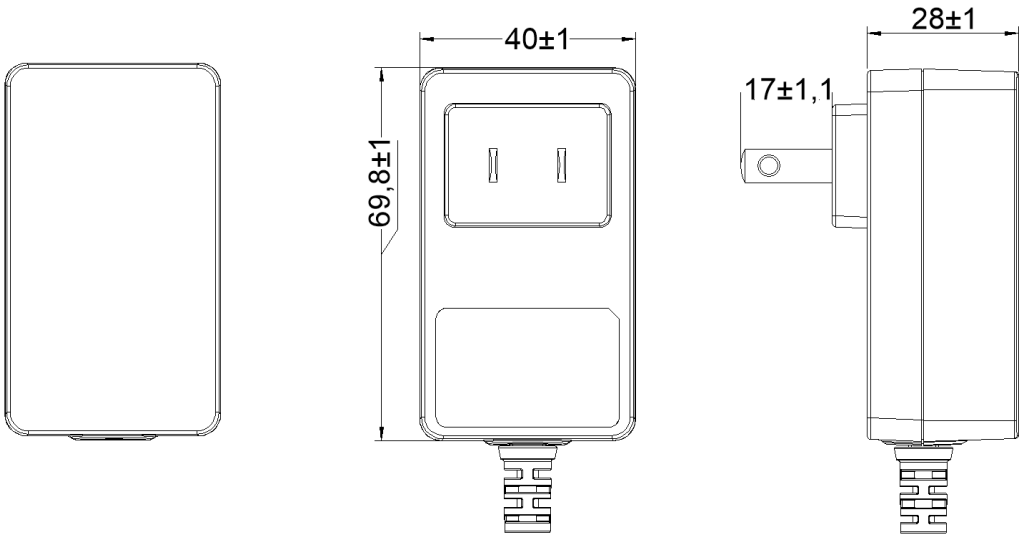
EU Housing



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