AC-DC Power Adapters

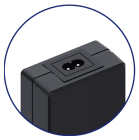
MKI series | Desktop power adapters | Constant-voltage DC output | Up to 120W

MKI - Desktop

Representative C14 configuration | DC output cord

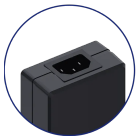


AC INLET OPTIONS



C8

Class II | 2-pole



C14

Class I | 3-pole



C6

Class I | 3-pole

GLOBAL CERTIFICATION OPTIONS

UL | CE | FCC | KCC | UKCA | cUL | RCM | CCC | CB

Certification availability depends on the model, construction, rating and market. See page 6 for documented scope.

REPRESENTATIVE OUTPUT RATINGS (Representative models and ratings; custom voltage/current available)

Output	Current	Power	Interface
5.0V DC	10.000A	50.0W	DC cord
12.0V DC	8.000A	96.0W	DC cord
15.0V DC	6.000A	90.0W	DC cord
18.0V DC	6.000A	108.0W	DC cord
20.0V DC	5.000A	100.0W	DC cord
24.0V DC	5.000A	120.0W	DC cord
36.0V DC	3.000A	108.0W	DC cord
48.0V DC	2.000A	96.0W	DC cord

Each model has a fixed output. Voltage, current, power and construction limits apply together; see page 2.

Electrical and Operating Data

Input ratings, output limits and evaluated operating conditions

INPUT AND OUTPUT

Parameter	Specification
Input voltage / frequency	100-240V AC, 50/60Hz
Rated input current	2.0A Max.
Output range	Class I: 5.0-60.0V DC; Class II: 5.0-48.0V DC. Up to 12.0A / 120W, subject to the limits below.
Output type	Fixed, constant-voltage DC output through an output cord

OUTPUT RATING LIMITS

Output voltage	Max. current	Max. power	Construction / scope
5.0-8.9V DC	12.000A	60.0W	Class I / Class II
9.0-12.0V DC	8.000A	96.0W	Class I / Class II
12.1-24.0V DC	7.000A	120.0W	Class I / Class II
24.1-48.0V DC	4.150A	120.0W	Class I; Class II PCB MK-A100D2
24.1-48.0V DC	4.150A	100.8W	Class II PCB MK-A100D1
48.1-60.0V DC	4.150A	120.0W	Class I PCB MK-A100D1 only

Class I: CB report S01A24060463P002. Class II limits: CCC certificate 2024010907605903. Current must also satisfy Iout <= Pmax / Vout. The final nameplate rating and regional certificate scope govern; the Class I 60V scope does not extend to all approvals.

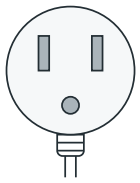
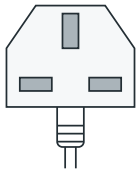
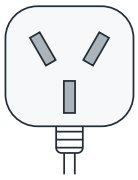
OPERATING CONDITIONS AND CONSTRUCTION

Parameter	Evaluated scope
Construction / application	Desktop; Class I C6 / C14 or Class II C8; indoor use. Power supply for audio/video and ICT equipment.
Maximum ambient temperature	+25 deg C in the supplied Class I CB report. Confirm the evaluated ambient rating for the selected Class II model.
Operating altitude	2,000m or less; applicable regional approval conditions govern.
Class I outputs above 100W	CB report requires the end equipment to be evaluated with a V-1 or better material enclosure before use.

Plug Options and Dimensions

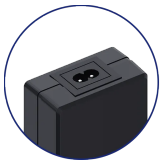
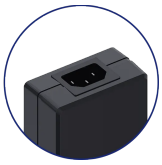
Regional AC cord plugs, desktop inlets and enclosure reference drawing

Worldwide Use

North America / US	Europe / EU	United Kingdom / UK	Australia / AU
			

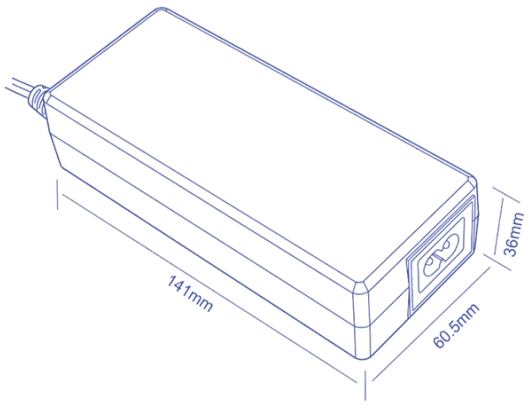
Representative earthed AC cord plug faces, not to scale. Select the cord set for the inlet, protection class and destination market. Class II cord sets use the corresponding approved plug construction.

AC INLET OPTIONS

C8 inlet	C14 inlet	C6 inlet
		
Class II | 2-pole	Class I | 3-pole	Class I | 3-pole

ENCLOSURE OUTLINE AND DIMENSIONS (Representative outline dimensions; for drawings of other versions, please email info@merryking.com.)

MKI - Desktop (C8)



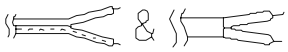
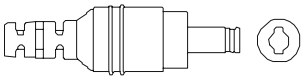
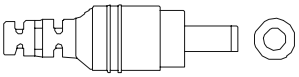
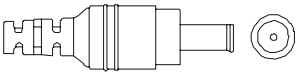
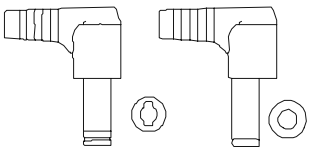
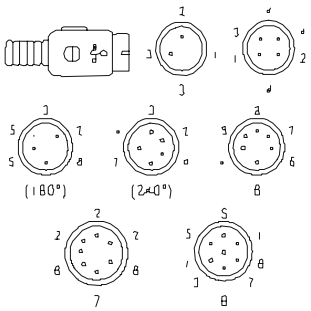
Dimensions (mm): 141 x 60.5 x 36

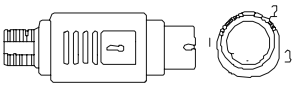
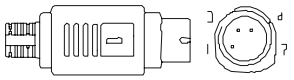
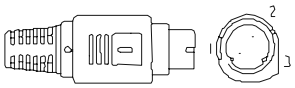
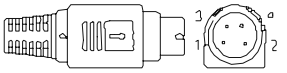
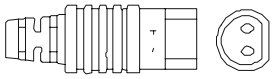
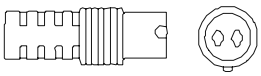
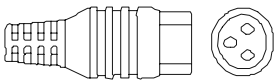
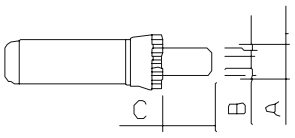
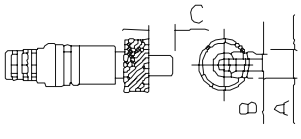
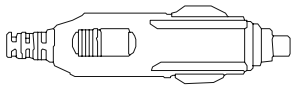
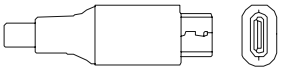
Reference drawing is not to scale; units: mm. Confirm approved drawings and tolerances for the selected C6, C14 or attached-cord version.

Output Cable Plug Options

Connector styles, dimensions and outline drawings (Representative specifications; other requirements can be customized.)

Dimension values in mm unless stated otherwise. Connector choice is configuration-dependent.

Plug type	Specification	Outline / drawing
Stripped & tinned	NC	
Barrel type	5.5 x 2.1	
	5.5 x 2.5	
	4.75 x 1.7	
	4.0 x 1.7	
	3.5 x 1.35	
	2.35 x 0.7	
	6.3 x 3.0	
Barrel type	6.5 x 1.4	
Barrel type Right angle	5.5 x 2.1	
	5.5 x 2.5	
	4.75 x 1.7	
	4.0 x 1.7	
	3.5 x 1.35	
	2.35 x 0.7	
	6.3 x 3.0	
	6.5 x 1.4	
DIN (male)	3Pin	
	4Pin	
	5Pin (180 deg)	
	5Pin (240 deg)	
	6Pin	
	7Pin	
	8Pin	

Plug type	Specification	Outline / drawing
Power mini-DIN (male)	3Pin Molding	
	4Pin Molding	
	3Pin Assembly / lock	
	4Pin Assembly / lock	
Interchangeable connector	2Pin	
	2Pin	
	3Pin	
Switchcraft locking type	A:5.5 B:2.5 C:0.375 in (9.52 mm)	
	A:5.5 B:2.5 C:0.475 in (12.06 mm)	
	A:5.5 B:2.1 C:0.375 in (9.52 mm)	
	A:5.5 B:2.1 C:0.475 in (12.06 mm)	
DC plug with screw	A:5.5 B:2.1 / 2.5 C:7.5	
	A:5.5 B:2.1 / 2.5 C:10.1	
Cigarette lighter	-	
USB Type-C	-	

Cable and Configuration Options

AC/DC cord construction and final configuration requirements

AC AND DC CORDS

Option	Description
AC cord options	EU / KC / UK / AU / US / JP / AR / CN plug options. 1.5 m, 2.0 m and other lengths by agreement.
AC connection	Detachable cord with C8 / C14 / C6 inlet. Non-detachable AC cord versions are also listed in the certificates.
DC cord style / length	Round or flat cord; 1.2 m, 1.5 m and 2.0 m; other lengths by agreement.
Conductor and connector selection	Specify wire gauge and connector current rating for the selected output. Confirm cable length, voltage drop and temperature rise.

Confirm conductor gauge, cord resistance, length tolerance and connector current rating for the final assembly. Cable construction and length affect voltage drop and operating temperature.

COMPLETE THE CONFIGURATION WITH

Selection	Details to confirm
Electrical output	Output voltage, current and power; individual nameplate rating.
Enclosure and AC connection	C8 / C14 / C6 inlet or approved attached-cord construction. Protection class, regional AC cord and destination market.
Output interface	DC output cord; connector style from the preceding page.
Connector and cord	Connector dimensions, insertion length, polarity, cable length and gauge.
Approvals	Certificate scope for the exact voltage, current, power and construction.

Every configuration must satisfy both the 120W family ceiling and its voltage-band / construction limits. Confirm the complete configuration against the applicable approval and final production sample.

Class I configurations require protective earthing and a matching approved AC cord. Select a DC connector rated for the required output voltage and current.

Safety, EMC and Compliance

Documented standards and model-specific approval references

SAFETY AND EMC

Area	Standard / documented scope
CB safety - Class I	IEC 62368-1:2018; EN IEC 62368-1:2020/A11:2020. Certificate DK-156024-UL; report S01A24060463P002. C6 / C14 and specified Class I attached-cord models; up to 60V DC.
CB safety - Class II	IEC 62368-1:2014; EN 62368-1:2014/A11:2017. Certificate DK-130246-A1-UL; report 210628006. C8 and specified Class II attached-cord models; 5.0-48.0V DC.
European safety / LVD	EN 62368-1:2014; EN 62368-1:2014/A11:2017. UL Type Examination Certificate UL TEC-01694. Report 210628006; documented output scope 5.0-48.0V DC.
North American safety	UL 62368-1, 2nd edition; CSA C22.2 No. 62368-1-14. UL-US-2231271-0 / UL-CA-2230560-0; E361658-20220728. Listed C6 / C8 / C14 and attached-cord models; 5.0-48.0V DC.
EMC emissions / immunity	EN 55032:2015/A1:2020; EN 55035:2017/A11:2020; EN IEC 61000-3-2:2019/A1:2021; EN 61000-3-3:2013/A2:2021. Statement 4790218597.2-S-R; report 4790218597.2.
US emissions	FCC Part 15 Subpart B; ANSI C63.4-2014. Statement 4789466616.3-2-S; report 4789466616.3-2.

REGIONAL APPROVALS

Market / mark	Reference / scope
United Kingdom / UKCA	Safety: ITL-D220715018; BS EN 62368-1:2014/A11:2017. EMC: ITL-D220715019. Confirm the listed models and ratings.
Australia / New Zealand / RCM	AS/NZS 62368.1:2018; certificate GMA-517829-EA Rev. 00. Specified models and ratings only. RCM use is subject to the applicable responsible-supplier and compliance requirements.
Korea / KCC	Registration R-R-M6E-MKI-100D1; EMC report DST-23E-1030. Base model MKI-2400500C8 and listed derived C8 models.
China / CCC	Certificate 2024010907605903; Class II C8 / ACN models. GB 4943.1-2022; GB/T 9254.1-2021; GB 17625.1-2022. Power limits vary with output voltage and PCB version; see page 2.

Page 1 marks reflect the supplied documentation. Confirm certificate coverage for the exact model, rating, AC connection and construction. Regional approval scope may be narrower than the family maximum.