

160 Watts

- Exceptional small size
- Gallium nitride switch technology
- EU CoC Tier 2 requirements, Level VI and ErP stage 2
- EN55032 Level B conducted & radiated
- Class I (C14/C6) or II (C8)
- Single outputs 12 to 56V
- 5 Year warranty



The GDA160 range of external AC-DC power adapters offer excellent power density of 10W/In³, approximately 2 x smaller. They are compliant with the latest energy efficiency Level VI standard, CoC tier 2 and ErP stage 2. The units offer 150-160 watts of output power with output voltages available between 12 and 56VDC. The range is reliable, class leading in size and comes with an impressive FiDUS 5 year warranty.

Dimensions:

C14/C6: 6.33 x 2.12 x 1.3" (161 x 54 x 33mm)
C8: 5.9 x 2.12 x 1.3" (150 x 54 x 33mm)

Models & Ratings

Model Number ⁽¹⁾	Output Power	Output voltage	Output Current
GDA16012-C14	150W	12V	12.50A
GDA16019-C14	160W	19V	8.40A
GDA16024-C14	160W	24V	6.60A
GDA16048-C14	160W	48V	3.30A
GDA16056-C14	160W	56V	2.86A

Notes

1. For C8 & C6 version please change -C14 for -C8 or C6
2. Alternative output connectors available for production quantities.
3. For UK/ US/ EU mains power cable please order UK-14, US-C14 or EU-C14 separately

Key specifications

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
AC Input range	90		264	VAC	No derating
Operating temperature	0		60/70	°C	60°C for 12/15V models and 70°C for others. See derating curve page 2
Efficiency		95		%	
Dimensions	C14/C6: 6.33 x 2.12 x 1.3" (161 x 54 x 33mm), C8: 5.9 x 2.12 x 1.3" (150 x 54 x 33mm)				
EMC	EN55032 Level B conducted and radiated. EN61000-3 and EN61000-4, harmonics, flicker, surge, EFT, ESD, conducted and radiated immunity				

Safety Approvals

	Safety standard	Notes & Conditions
UL	UL 60950-1: 2nd edition, UL62368-1	
CB	IEC 60950-1:2005 /A2:2013, IEC 62368-1	PSE, BSMI
TUV	EN 60950-1:2006 /A2:2013, EN 62368-1	
CE		2015/863/EU RoHS Directive and 2014/35/EU Low voltage directive
Equipment protection class		Class I or II (please choose C14/C6 or C8 respectively)

Input

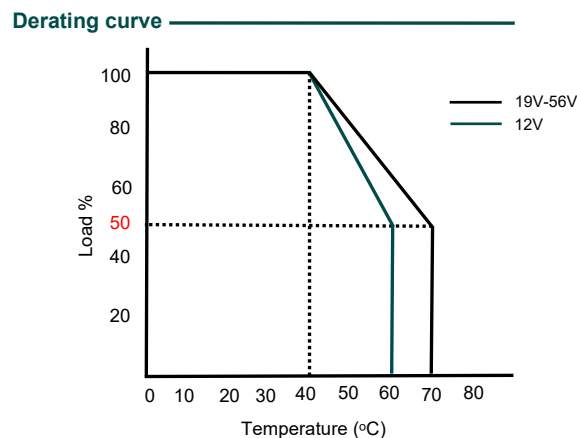
Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Input voltage	90		264	VAC	No derating
Input frequency	47		63	Hz	
Power factor					EN61000-3-2 class A compliant
Input current			2.2	A	
Inrush current			100	A	High line. Full load, 25°C cool start, Vin=230VAC
No load input power			0.15	W	230VAC

Output

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Output voltage	12		56	VDC	See models and ratings table pg 1
Total regulation			±5	%	Includes set accuracy, line & load regulation.
Minimum load	0			%	
Transient response		0.5		mS	50% load change
Ripple & Noise		1		%Pk-Pk	All models measured with 10uF and 0.1uf capacitor. 20MHz bandwidth
Hold up time	10			ms	At full load
Overload protection			180	%	Automatic recovery
Short circuit protection					Automatic recovery
Over voltage protection			180	%	Latch off reset
Over temperature protection					Latch off reset
Earth leakage			0.25	mA	

Environmental

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating temperature	0		60/70	°C	60°C for 12V models and 70°C for others. See derating curve below
Storage temperature	-20		80	°C	
Cooling					Convection cooled
Operating Humidity	20		80	% RH	
Storage Humidity	10		90	% RH	



General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		95		%	
Isolation	Input to Output: 3000			VAC	For 1 minute
Insulation resistance		10		MOhm	500Vdc
Power density			9.84	W/In ³	
MTBF	300			kHrs	As per Telcordia SR-332
Weight		530		g	
Switching Frequency		200		kHz	

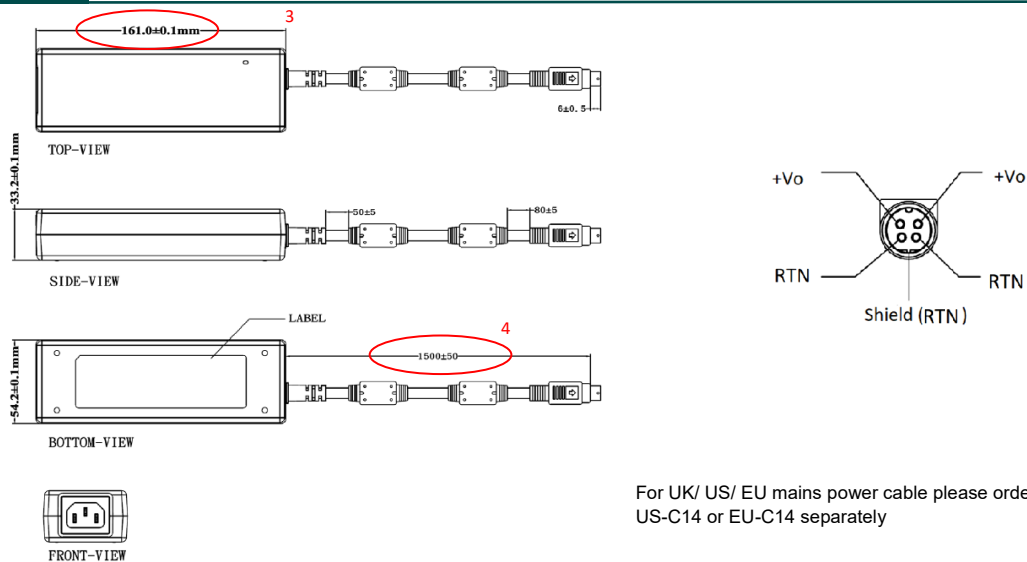
EMC: Emissions

	Standard	Test level	Criteria	Notes & Conditions
Conducted	EN55032	B		
Radiated	EN55032	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

EMC: Immunity

	Standard	Test level	Criteria	Notes & Conditions
ESD	EN61000-4-2	2,3	A	Contact: 4kV, Air: 8kV
Radiated	EN61000-4-3	2	A	3V/m
EFT	EN61000-4-4	2	A	1kV
Surges	EN61000-4-5	Installation Class 3	A	Line to Neutral 1kV, Line/Neutral to PE 2kV
Conducted	EN61000-4-6	2	A	3Vrms
PFMF	EN61000-4-8	1	A	1A/m
Dips and interruptions	EN61000-4-11	>95% interruption 250 periods, >95% dip 0.5 periods, 30% dip 25 periods. Perf criteria: B,A,A		

Mechanical Details



For UK/ US/ EU mains power cable please order UK-C14, US-C14 or EU-C14 separately

Notes

- All dimensions in mm
- Output connector : Kycon 4 pole power adapter, mates with board mount KPJX, panel mount KPJX-PM and cable mount KPJX-CM
- C8 inlet models are shorter at 150mm
- Output cable for 12V units is reduced to 1200mm AWG16 4 core for energy efficiency. AWG18 4 Core 19V-56V 1500mm single ferrite only nearest PSU.