

Low-Noise Switch Mode Power Supplies With User-Configurable Multiple Outputs

Base Units



C300
300 W

C450
450 W

C650
650 W

DC output modules slide into Base Units



Plug-in connection
Single screw mounting



The C Series power supplies save design and production time and cost by allowing end-of-line selection of multiple output voltages to match alternative application circuit requirements, while using the same power supply base unit. DC voltage output modules are slot-mounted inside the base units to provide various combinations of single, dual, or parallel output voltages.

Features and Benefits

- DC modules can be easily substituted to handle a wide range of voltage combinations:
 - Single output: 3.3 V / 5 V / 12 V / 15 V / 24 V
 - Dual output: ± 12 V / ± 15 V
 - Parallel drive: 24 V 132 W
- Modular design eliminates individual safety approvals
- High reliability with low noise
- High withstand voltage and low leakage current
- OCP, OVP, and OHP, remote sensing and control, and alarm for AC power failure, fan failure, and low output fault

Applications

- General industrial and commercial equipment
- Medical and information equipment (approved to UL60950-1, C-UL, EN60950 and EN60601-1 3rd)

Base Unit Specifications

	C300	C450	C650
Total Output Power	300 W	450 W	650 W
DC Modules Capacity	4 modules	5 modules	5 modules (1 isolated)
Auxiliary Outputs	1 auxiliary 12 V	1 auxiliary 12 V	2 auxiliary 12 V (1 isolated)
Rated Input Voltage	100/240 VAC		
Input Current	2.0 A	3.1 A	4.2 A
Rated Frequency	50 to 60 Hz		
Power Factor	0.95		
Inrush Current	20 A/40 A		
Efficiency	87%/89%	89%/91%	89%/92%
Leakage Current	0.3 mA (max)/0.5 mA (max)		
Hold-Up Time	20 ms (typ) at 100 VAC and $I_O = 100\%$		
Safety Standard	UL60950-1, UL60601-1, EN60950-1, EN60601-1, C-UL		
Conducted Noise	Comply with FCC-B, VCC I-B, CISPR22-B, EN55022-B		
Harmonic Attenuator	Comply with IEC61000-3-2		
Cooling	Forced Air (Built-in fan)		
Operation Temperature and Humidity	-20°C to 70°C, 20% to 90% RH (Load derating above 50°C)		
Storage Temperature and Humidity	-20°C to 75°C, 20% to 90% RH		
Dimensions (mm)	63.5 × 254 × 103	63.5 × 254 × 127	63.5 × 279 × 127

DC Modules Electrical Specifications

	Model Number	Voltage (V)	Wattage (W)	Current (A)	Ripple/ Noise (mV _{PP})	Voltage Range (V)	Voltage Regulation (%)
Single Output 150 W	C150S03	+3.3	85.8	26	180	3.2 to 3.3	±3
	C150S05	+5	130	26	180	4.8 to 5.1	
	C150S12	+12	156	13	200	11.6 to 12.3	
	C150S15	+15	150	10	200	14.5 to 15.4	
	C150S24	+24	156	6.5	180	22.8 to 24.7	±5
Dual Output 75 W	C075M12	±12	76.8	3.2	200	11.6 to 12.3	±3
	C075M15	±15	75	2.5	200	14.5 to 15.4	
Single Output 50 W	C050S03	+3.3	33	10	180	3.2 to 3.3	±3
	C050S05	+5	50	10	180	4.8 to 5.1	
	C050S12	+12	60	5	200	11.6 to 12.3	
	C050S15	+15	60	4	200	14.5 to 15.4	
	C050S24	+24	60	2.5	180	22.8 to 24.7	±5
Parallel Connection	C130x24	+24	132	5.5	250	22.8 to 24.7	±5



Important Information



- The products described in this document are built-in type DC stabilized power supplies with special structures and are designed for installation in equipment. Be sure to use the products only for installation in equipment.
- The products should be handled only by persons who have competent electrical knowledge.
- Be sure to read through all safety precaution and operation manuals before installation, operation, or maintenance and to use the products only for the intended use and in accordance with all applicable safety standards and regulations in the location of use.

Sanken reserves the right to make, from time to time, such departures from the detail specifications as may be required to permit improvements in the performance, reliability, or manufacturability of its products. Therefore, the user is cautioned to verify that the information in this publication is current before placing any order.

When using the products described herein, the applicability and suitability of such products for the intended purpose shall be reviewed at the users' responsibility.

Although Sanken undertakes to enhance the quality and reliability of its products, the occurrence of failure and defect of semiconductor products at a certain rate is inevitable.

Users of Sanken products are requested to take, at their own risk, preventative measures including safety design of the equipment or systems against any possible injury, death, fires or damages to society due to device failure or malfunction.

Sanken products listed in this publication are designed and intended for use as components in general-purpose electronic equipment or apparatus (home appliances, office equipment, telecommunication equipment, measuring equipment, etc.). Their use in any application requiring radiation hardness assurance (e.g., aerospace equipment) is not supported.

When considering the use of Sanken products in applications where higher reliability is required (transportation equipment and its control systems or equipment, fire- or burglar-alarm systems, various safety devices, etc.), contact a company sales representative to discuss and obtain written confirmation of your specifications.

The use of Sanken products without the written consent of Sanken in applications where extremely high reliability is required (aerospace equipment, nuclear power-control stations, life-support systems, etc.) is strictly prohibited.

The information included herein is believed to be accurate and reliable. Application and operation examples described in this publication are given for reference only and Sanken assumes no responsibility for any infringement of industrial property rights, intellectual property rights, or any other rights of Sanken or any third party that may result from its use. The contents in this document must not be transcribed or copied without Sanken's written consent.