DC-DC Converters

Series PC Single and Series PC Dual

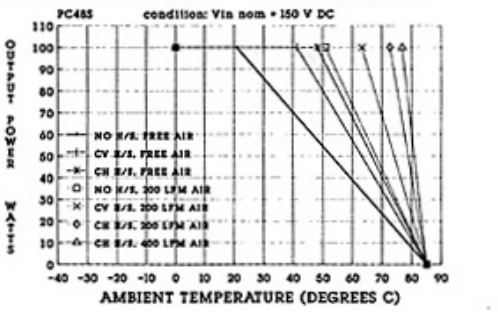
Isolated Regulated 100 Watts, Wide Input Range/100-180 VDC
Fully Regulated, Short Circuit Protected
Parallel Operation Available

Features:
• Dual isolated outputs
• Short circuit protection
• Input voltage protection
• Thermal, over temp. shutdown
• Line regulation
• Load regulation
• No external components required
• Hi density, hi efficiency design
• Remote shutdown
• Trim capabilities
• Fixed frequency-100 Khtz

Typical Characteristics:
Frequency: 100 Khtz
Base plate: Max. +85° C
Operating temperature: See thermal chart, Min. 0° C ambient, Max. +85° C base plate temp.
Test conditions: 25° C ambient
Isolation Base Input: 2121 VDC
Isolation Input Output: 2424 VDC
Isolation Output to Base: 1000 VDC
Storage temperature: -55° C to +105° C
• 25 Standard Models
100 VDC Output Models
Hi Density 100 Watts
Fixed Frequency
• For all variations, call factory.
For Parallel Operation: Add suffix "P" (i.e. PC5SP). Consult factory to optimize for your application

The PICO PC Series of high power DC-DC Converters, allow a wide input voltage of 100-180 VDC, while maintaining a regulated output. They are fully safeguarded for over voltage, over temperature and continuous short circuit protection.
The availability of Dual Isolated Outputs, small size, and the capability of parallel operations as standard features should reduce your design and component costs, while the fixed frequency operation helps parallel connections for higher power requirements. This high density unit is assembled in the USA with PICO quality and component selection, allowing it to meet the most stringent commercial requirements.

Full thermal analysis can be determined using application notes on page 124. By using the efficiency and thermal resistance of your desired unit to the formula you can complete your evaluation. The curves below were generated for Part #PC48S using Application Notes. Please consult factory with any questions.



Larger Version of Graph

Series PC Single * 100 Watts * Input 100-180 VDC

Pico Part No.	Input Voltage Range (V DC)	Output Voltage (V DC)	Max. Output Power * (W)	EFF. Full Load Typical ** (%)	Max. Load Regulation (%) ***		Max. Line Regulation At Full Load (%)		Output Voltage Ripple (Full Load) 1-1MHz BW (MV P-P)	Output Voltage Tolerance ** (± %)	Price (US $)
					10-50%	50-100%	100-150V	150-180V			
PC3.3S	100-180	3.3	50	76	1.00	1.00	0.75	0.75	50	2.0	171.63
PC5S	100-180	5	75	78	1.00	1.00	0.75	0.75	50	1.5	171.63
PC5.2S	100-180	5.2	75	78	1.00	1.00	0.75	0.75	50	1.5	171.63
PC9S	100-180	9	100	84	0.75	0.75	0.50	0.50	50	1.0	171.63
PC12S	100-180	12	100	86	0.75	0.75	0.50	0.50	50	1.0	171.63
PC15S	100-180	15	100	87	0.75	0.75	0.50	0.50	50	1.0	171.63
PC24S	100-180	24	100	88	0.50	0.50	0.30	0.30	50	0.5	171.63
PC28S	100-180	28	100	88	0.50	0.50	0.20	0.20	50	0.5	171.63
PC48S	100-180	48	100	88	0.50	0.50	0.20	0.20	50	0.5	171.63
PC100S	100-180	100	100	87	0.50	0.50	0.30	0.30	50	0.5	236.49

10% Minimum load required at all times.
* Using proper thermal management, maximum temp. of +85° C (case)
** Reading taken at nominal 150 VDC input

Series PC Dual * 100 Watts * Input 100-180 VDC

Pico Part No.	Input Voltage Range (V DC)	Output Voltage (V DC)	Max. Output Power * (W)	EFF. Full Load Typical ** (%)	Max. Load Regulation (%) ***		Max. Line Regulation At Full Load (%)		Output Voltage Ripple (Full Load) 1-1MHz BW (MV P-P)	Output Voltage Tolerance ** (± %)	Price (US $)
					10-50%	50-100%	100-150V	150-180V			
PC5D	100-180	5	37.5/37.5	78	1.00	1.00	0.75	0.75	50	1.5	245.90
PC9D	100-180	9	50/50	84	0.75	0.75	0.50	0.50	50	1.0	245.90
PC12D	100-180	12	50/50	86	0.75	0.75	0.50	0.50	50	1.0	245.90
PC15D	100-180	15	50/50	87	0.75	0.75	0.50	0.50	50	1.0	245.90
PC24D	100-180	24	50/50	88	0.50	0.50	0.30	0.30	50	0.5	245.90
PC28D	100-180	28	50/50	88	0.50	0.50	0.20	0.20	50	0.5	245.90

PC48D	100-180	48	50/50	88	0.50	0.50	0.20	0.20	50	0.5	264.28

10% Minimum load required at all times.
* Using proper thermal management, maximum temp. of +85° C (case)
** Reading taken at nominal 150 VDC input
*** Balance Load

****HIGH VOLTAGE SERIES PC
TO 300 VDC - 150 WATTS - INPUT 100-180 VDC

PICO PART NUMBER	INPUT VOLTAGE RANGE (VDC)	OUTPUT VOLTAGE DC	MAX. OUTPUT POWER (W)*	EFF. @ FULL LOAD TYPICAL (%)**	MAX. LOAD REGULATION (%)**		MAX. LINE REGULATION AT FULL LOAD (%)		OUTPUT VOLTAGE RIPPLE FULL LOAD 1-1MHzBW (%)	OUTPUT VOLTAGE Tolerance (±%)**	PRICE (US $)
					20-50%	50-100%	100-150V	150-180V			
PC125S	100-180	125	150	85	0.5	0.5	0.3	0.3	1	0.5	236.49
PC150S	100-180	150	150	85	0.5	0.5	0.3	0.3	1	0.5	236.49
PC175S	100-180	175	150	85	0.5	0.5	0.3	0.3	1	0.5	236.49
PC200S	100-180	200	150	85	0.5	0.5	0.3	0.3	1	0.5	315.32
PC225S	100-180	225	125	85	0.5	0.5	0.3	0.3	1	0.5	315.32
PC250S	100-180	250	125	85	0.5	0.5	0.3	0.3	1	0.5	315.32
PC275S	100-180	275	100	85	0.5	0.5	0.3	0.3	1	0.5	315.32
PC300S	100-180	300	100	85	0.5	0.5	0.3	0.3	1	0.5	394.15

10% Minimum load required at all times
*Using proper thermal management maximum temp of +85°C (case)
**Reading taken at nominal 150 VDC input
****UL approval pending

GO TO APPLICATION NOTES GO TO HEAT SINK INFORMATION GO TO MECHANICAL CONFIGURATION

For immediate engineering assistance or to place an order: **Call Toll Free: 800-431-1064**

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