

DC-DC Converters

Series PD Single and Series PD Dual

Isolated Regulated 100 Watts, Wide Input Range/200-380 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

The PICO PD Series of high power DC-DC Converters, allow a wide input voltage of 200-380 VDC, while maintaining a regulated output. They are fully safeguarded for over voltage, over temperature and continuous short circuit protection.

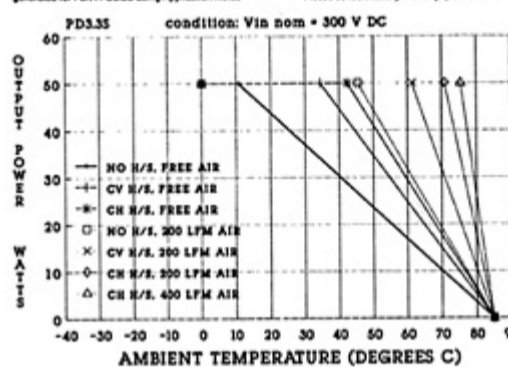
The availability of Dual Isolated Outputs, small size, and the capability of parallel operations as standard features should reduce your design and component costs, while the fixed frequency operation helps parallel connections for higher power requirements.

This high density unit is assembled in the USA with PICO quality and component selection, allowing it to meet the most stringent commercial requirements.

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: 4242 VDC
Isolation Output to Base: 1000 VDC
Storage temperature: -55° C to +105° C

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 #PD3.3S using Application Notes. Please consult factory with any questions.



Larger Version of Graph [1]

27 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. PD5SP). Consult factory to optimize for your application.

Series PD Single * 100 Watts * Input 200-380 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%	200-300V	300-380V			
PD3.3S	200-380	3.3	50	76	1.50	1.50	1.25	1.25	50	2.0	156.03
PD5S	200-380	5	75	78	1.25	1.25	1.00	1.00	50	1.5	156.03
PD5.2S	200-380	5.2	75	78	1.25	1.25	1.00	1.00	50	1.5	156.03
PD9S	200-380	9	100	84	1.25	1.25	1.00	1.00	50	1.0	156.03
PD12S	200-380	12	100	85	1.00	1.00	0.75	0.75	50	1.0	156.03

PD15S	200-380	15	100	86	1.00	1.00	0.75	0.75	50	1.0	156.03
PD24S	200-380	24	100	87	0.75	0.75	0.50	0.50	50	0.5	156.03
PD28S	200-380	28	100	87	0.50	0.50	0.50	0.50	50	0.5	156.03
PD48S	200-380	48	100	88	0.50	0.50	0.20	0.20	50	0.5	156.03
PD100S	200-380	100	100	88	0.50	0.50	0.20	0.20	50	0.5	214.99

10% Minimum load required at all times.

* Using proper thermal management, maximum temp. of +85° C (case)

** Reading taken at nominal 300 VDC input

Series PD Dual * 100 Watts * Input 200-380 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%	200-300V	300-380V			
PD5D	200-380	5	37.5/37.5	78	1.25	1.25	1.00	1.00	50	1.5	223.54
PD9D	200-380	9	50/50	84	1.25	1.25	1.00	1.00	50	1.0	223.54
PD12D	200-380	12	50/50	85	1.00	1.00	0.75	0.75	50	1.0	223.54
PD15D	200-380	15	50/50	86	1.00	1.00	0.75	0.75	50	1.0	223.54
PD24D	200-380	24	50/50	87	0.75	0.75	0.50	0.50	50	0.5	223.54
PD28D	200-380	28	50/50	87	0.50	0.50	0.50	0.50	50	0.5	223.54
PD48D	200-380	48	50/50	88	0.50	0.50	0.20	0.20	50	0.5	240.25

10% Minimum load required at all times.

* Using proper thermal management, maximum temp. of +85° C (case)

** Reading taken at nominal 300 VDC input

*** Balance Load

****HIGH VOLTAGE SERIES PD

TO 350 VDC - 150 WATTS - INPUT 200-380 VDC

Pico Part No.	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 1-1MHz BW (%)	Output Voltage Tolerance (±%)**	PRICE (US \$)
					20-50%	50-100%	200-300V	300-380V			
PD125S	200-380	125	150	85	0.5	0.5	0.3	0.3	1	0.5	214.99
PD150S	200-380	150	150	85	0.5	0.5	0.3	0.3	1	0.5	214.99
PD175S	200-380	175	150	85	0.5	0.5	0.3	0.3	1	0.5	214.99
PD200S	200-380	200	150	85	0.5	0.5	0.3	0.3	1	0.5	286.66
PD225S	200-380	225	125	85	0.5	0.5	0.3	0.3	1	0.5	286.66
PD250S	200-380	250	125	85	0.5	0.5	0.3	0.3	1	0.5	286.66
PD275S	200-380	275	100	85	0.5	0.5	0.3	0.3	1	0.5	286.66
PD300S	200-380	300	100	85	0.5	0.5	0.3	0.3	1	0.5	358.32
PD325S	200-380	325	100	85	0.5	0.5	0.3	0.3	1	0.5	358.32
PD350S	200-380	350	100	85	0.5	0.5	0.3	0.3	1	0.5	358.32

10% Minimum load required at all times
*Using proper thermal management maximum temp of +85°C (case)
**Reading taken at nominal 300 VDC input
****UL approval pending

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[GO TO HEAT SINK INFORMATION \[3\]](#)

[GO TO MECHANICAL CONFIGURATION \[4\]](#)

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

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