

DC/DC Converters

- Isolated
- Point-of-Load
- Bus Converters
- Processor Support
- Memory Support

If you need a DC/DC converter
look no further than...

The World's No. 1

About Murata Power Solutions

Murata Power Solutions was established by Murata Manufacturing Corporation in September 2007 with its acquisition of the Power Electronics Division of C&D Technologies, Inc. In addition to C&D's extensive offering of DC/DC and AC/DC products, the acquisition also brought with it a comprehensive offering of products and capabilities from market leading companies previously acquired by C&D, including:

DATEL, Inc.

- Medium to high power DC/DCs
- Hybrid technologies
- Digital panel meters

Newport Components Ltd.

- Miniature low power DC/DCs
- Magnetic products

Power Systems Division of Celestica, Inc.

- AC/DC front end power supplies
- Processor power (VRMs)
- PoL DC/DCs

Celab Ltd.

- Power conversion products for hi-rel applications

Murata Power Solutions is currently the World's No.1 supplier of DC/DC converters, and one of the top 5 largest suppliers of power electronics overall, with global sales, manufacturing and design teams operating from facilities in the United States, Canada, China, Japan, Singapore, England, France and Germany.

Strengthened by a global network of the leading electronics distributors, Murata Power Solutions can effectively support your local and global requirements.

- ✓ The largest range of DC/DCs from a single manufacturer
- ✓ A wide variety of industry-standard configurations
- ✓ Modified-standard and custom design service available
- ✓ Global sales and technical support

DC/DC Converters

- Widest range available
- PoL converters
- Isolated single, dual & triple
- Processor & memory support



AC/DC Power Supplies

- Ultra compact
- Up to 2.8kW in 1U height
- High efficiency
- 19" power shelves



Magnetics

- Filtering inductors
- Common-mode chokes
- Current sense transformers
- Databus isolators



Digital Panel Meters

- Ammeters
- Voltmeters
- Process Monitors
- LED & LCD displays



Hybrid Technologies

- Data acquisition systems
- A/D & D/A converters
- Sample-hold amplifiers
- Custom design service



Supplier

How to use this databook

Look for your output voltage

In each of the major categories throughout the book, the products *are listed according to output voltage*.

Select the product category from the contents list on this page or use the edge tabs throughout the book.

1

For the latest products from Murata Power Solutions, see our New Products Catalog at www.murata-ps.com/new/

Find your output voltage from the product data tables.

2

Choose a suitable product series for your application using the information shown.

3

Download full data sheets at www.murata-ps.com using the drop-down list at the top of the screen.

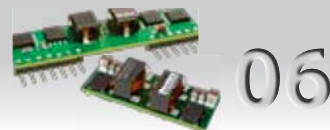
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NOTE: If you do not know the output voltage requirement, a **Quick Selection Guide** at the front of most sections lists products according to their output power (Isolated DC/DCs) or output current (PoLs).

Quick Selection Guides:

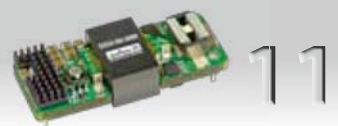
PoLs	Page 6
Isolated single	Page 12
Isolated dual (bipolar)	Page 25

PoL Converters



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Bus Converters



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Isolated Single



12

Isolated Dual/Bipolar



25

Isolated Dual/Asymmetric



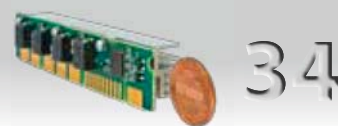
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Isolated Triple



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Processor Power



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Memory Support

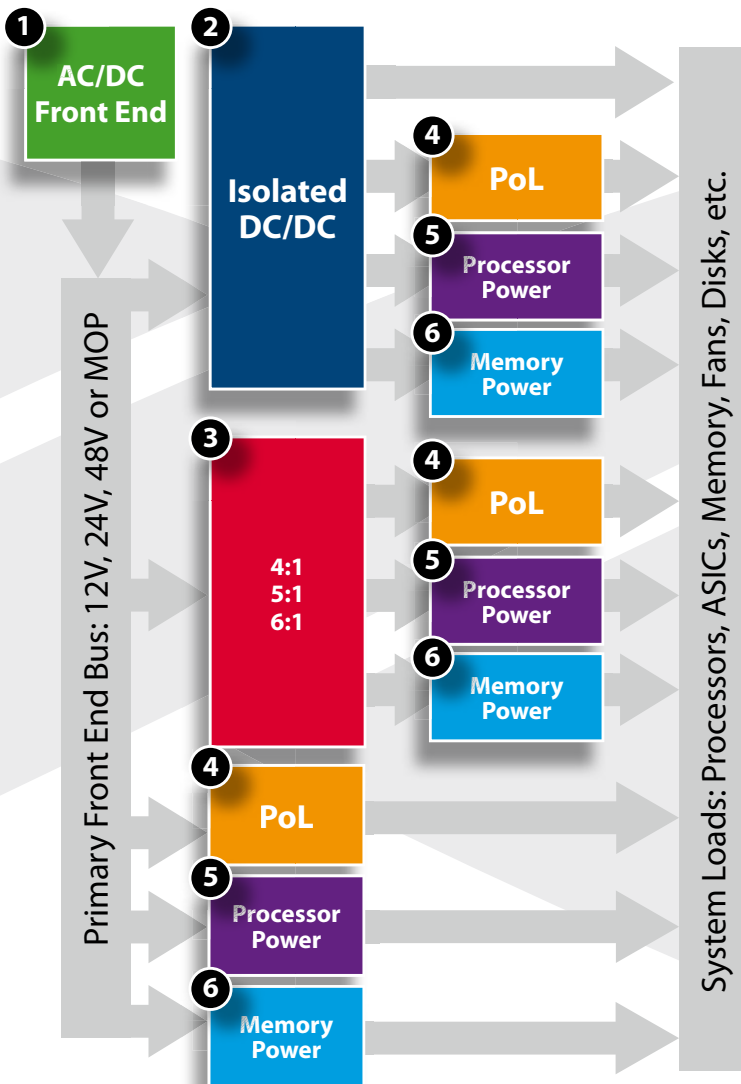


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Warranty

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A full range of power solutions . .



2 Isolated DC/DC Converters



Description	Type	Series	Output Voltages
Miniature Low Power (<2W) DIP and SIP packages Options include isolation up to 6kVDC	Single Output	LME	3.3/5.0 9 12 15 24
		NKE	
		NMF	
		NMJ	
		NMR	
		NNT	
	Dual Output	NKA	
		NMA	
		NMV	
		NMJ	
		NMA	
		NMA	
2W SIP	Single	NMG	
2W DIP/SIP	Dual	NMH	
2W SIP	Single	NMK	
2W SIP	Single	NML	
2W DIP	Dual	NMS	

Package	Series	Input Ranges	Output Voltages	Power	
Industrial Package	Go to murata-ps.com for full product specifications	4:5-9V	2:1	Single	Watts
		4:7-7.5V	4:1	Single	
		9-18V	Single	Dual	
		18-36V	Single	Triple	
		36-75V	Single	Triple	
		9-36V	3:3V	1:1.5V	
		18-75V	3:3V	1:1.5V	
		3:3V	3:3V	1:1.5V	
		3:3V	3:3V	1:1.5V	
		3:3V	3:3V	1:1.5V	
		3:3V	3:3V	1:1.5V	
		3:3V	3:3V	1:1.5V	
DIP	UST, UWR			3	
DIP	NDY, NDT, NDTD			3	
SIP	NDH			3	
1"x2"	UWR, BWR, TWR			6-22	
1"x2"	UEP, DWR, DSM			15-30	
1"x2"	NPH15			15	
1.4"x2"	NPH25			25	
1.6"x2"	UHE			30	
2"x2"	UWR, BWR, TWR			14-40	
2"x2"	BMP, UMP, TMP			25-40	
Brick Style	1/8	UCE, ULE		1.2-48V	30-66
	1/4	UCQ, ULQ, UVQ, UQQ		1.2-48V, 1.2V, 3.3V, 5V, 8V, 12V, 15V, 24V	100-120
	1/2	HPH, UCH, UHP, BCP		Single: 1.8V, 3.3V, 5V, 12V, 15V, 28V, 24V Dual: 3.3/5V, 3.3/2.5V	50-360 50-75

3 Bus Converters

Series	Vout	Iout	Power	Package
EUS15	12V	15A	180W	Eighth Brick
EUS20	12V	20A	240W	
QBC	12V	22A	240W	Quarter Brick
QUS20	12V	20A	240W	SIP

- 4:1, 5:1 or 6:1 step-down
- 2250VDC guaranteed isolation
- 40.5-57V input range
- 94-96% efficiencies



4 Point-of-Load Converters

Iout	Series	User-Selectable Output Voltages
6-16A	LSM2, LSN2	0.75-3.3V @ 6A, 10A, 16A
6-20A	LSM2, LSN2, NEA, NFA	0.75-5.0V @ 6A, 10A, 16A, 20A
		Fixed Output Voltages
		0.75V 0.8V 1.0V 1.2V 1.25V 1.3V 1.5V 1.8V 2.0V 2.5V 3.3V 3.8V 5.0V
2A	NGA, UNR	
2.5A	UNR	
3A	UNR, UNS	
5A	UNR, NCA	
8A	UNR	
10A	LSM, LSN, NEF, NCF, UNR	
12A	UNR	
15A	UNR, NCA	
16A	LSM, LSN	
20A	UNR	
25A	HEN	
28A	LEN	
45A	LQN	
50A	LQN	

5 Processor Power

Murata Power Solutions offers a range of processor power modules that support both Intel and AMD devices.

6 Memory Power

DDR1, DDR2, DDR3, and DDR termination PoLs are available with current ratings from 9A to 70A.

No matter which architecture, package style, or performance characteristic is required by your design, you can be sure that Murata Power Solutions has the technology and experience to deliver the power you need ... reliably and efficiently.

The tables on this page show a small sample of our range. For more standard product options, consult the catalog. Have a unique requirement? Give us a call to discuss a modification or custom design.

1 AC/DC Front End Power Supplies

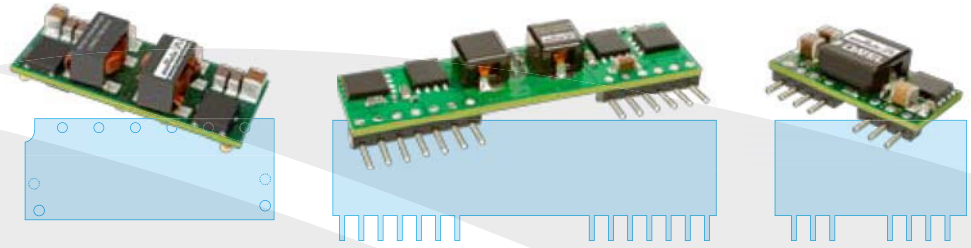
- Ultra-compact 1U height
- Industry-leading efficiency
- 1200W-2800W output power
- 12VDC or 48VDC output with 3.3/5/12VDC standby
- 19" power shelves available
- Fully featured - PFC, PFC, active current share, hot-plug...



.. in a variety of package styles

DOSA Standard PoLs

Fully compatible with the Distributed-power Open Standards Alliance, our PoL DC/DC converters are ideal regulation and supply elements for distributed power and intermediate bus architectures.

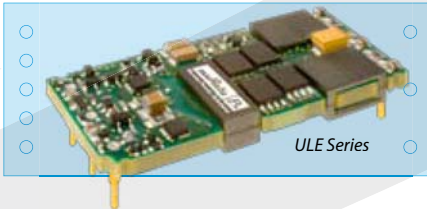


Standard Bricks

Brick-style DC/DC converters form the basis of most distributed power architectures. Our products offer surface-mount or through-hole package styles with 12V, 24V and 48V inputs and with output voltages from 0.8 to 48V.

1/8 Brick

Series	Power	Vin Nom.	Vout
EUS	180-240W	48V	1.2/2.5/8/9.6/12V
LEN	22.4-125W	12V	0.8/1/1.2/1.5/1.8/2/2.5/3.3/5V
UCE	30-100W	48V	1.2/1.5/1.8/2.5/3.3/5/12V
ULE	30-66.8W	12/24/48V	1.5/1.8/2.5/3.3/5/12/24/48V



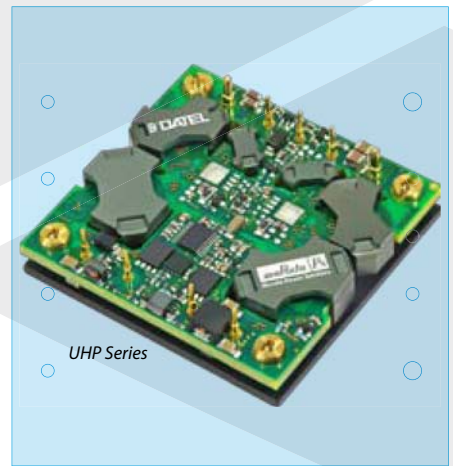
1/4 Brick

Series	Power	Vin Nom.	Vout 1
LQN	50-148.5W	12V	1/1.2/1.5/1.8/2/2.5/3.3/5V
QBC	240W	48V	12V
QHS	54-144W	48V	1.2/1.5/1.8/2.5/3.3/12V
QUS	240W	48V	8/9.6/12V
UCQ	36-115W	24/48V	1.2/1.5/1.8/2.5/3.3/5/12V
ULQ	22.5-120W	24/48V	1.2/1.5/1.8/2/2.5/3.3/5/12V
UQQ	82.5-105W	12/24/48V	3.3/5/12/15/24V
UVQ	88-120W	24/48V	1.5/2.5/3.3/5/12/15/18/24/48V



1/2 Brick

Series	Power	Vin Nom.	Vout 1	Vout 2	Vout 3
HPH	200-360W	48V	3.3/5/12V		
UCH	33-150W	24/48V	2.5/3.3/5/12/15V		
UHP	340W	48V	12/28V		
VKA	30-150W	24/48V	2/2.5/3.3/5/12/15/24V		
VKP	60-100W	24/48V	3.3/5/5.1V	12/15V	12/15V

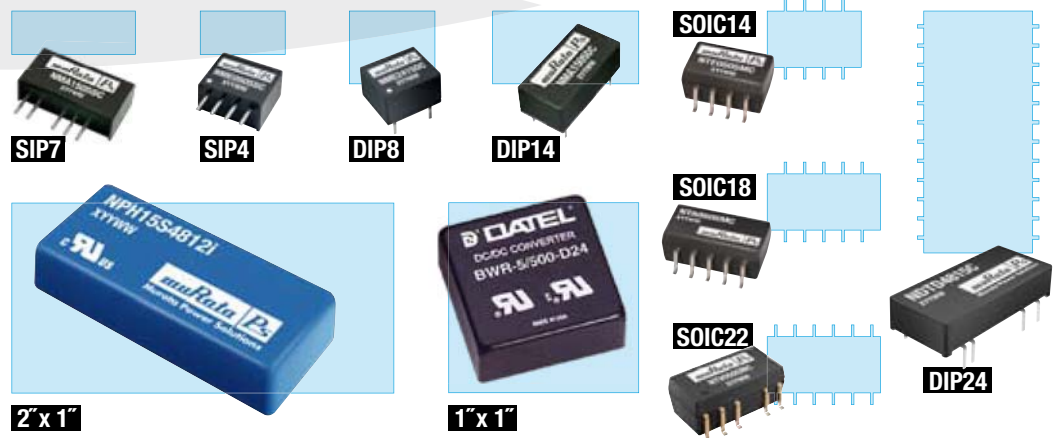


Industrial Footprint

In addition to our brick converters we also offer a wide range of isolated DC/DC converters in industry-standard footprints and pinouts including DIP, SIP and surface-mount options.



1.6" x 2" 2" x 2" 3" x 2"



Point-of-Load

Non-Isolated DC/DC Converters



Murata Power Solutions offers more non-isolated, point-of-load (PoL) DC/DCs, in standard packages and pinouts, than any other company.

Our PoL output voltages range from 0.75 to 5V at current levels from 0.5 to 50A. Input voltages are centered around traditional 3.3, 5 and 12V levels, with some devices operating

from 7.5 to 36V. Standard packages include SMT models (6-16A), SIPs (6-16 A), and new 1/8-bricks (28A) and 1/4-bricks (50A).

The newest SMT and SIP models offer user-selectable outputs (0.75-5V) while operating from wide-range inputs (2.4-5.5V or 8.3-14V). For many applications, they can be genuine "one-size-fits-all" solutions.

PoLs may be powered from AC/DC converters and DC/DC regulators, among other design options. Also, many designers find them a quick, cost-effective solution when isolation is not required and in-house designs are too expensive and time consuming.

Quick Selection Guide Listed by output current

Output Current	Series	Input Voltage			Output Voltage										Package Type				
		3	5	12	0.8	1.0	1.2	1.5	1.8	2	2.5	3.3	5	User Selectable	SIP	DIP	SMD	BRK	
2A	NGA	4.75-28V																	
2-3A	UNR 3.6-10W		4.75-5.5	10.8-13.6															
2.5-3A	UNR 8-40W		4.75-5.5	10.8-13.2															
5A	UNR 25-50W			10.8-13.6															
	NCA	3.0-5.5													0.75-3.63				
6A	NEA			8.3-14.0											0.75-5.0				
	LSN2	2.4-5.5		8.3-13.2											0.75-5.0				
7A	LSM2	2.4-5.5		8.3-13.2											0.75-5.0				
	S101		4.5-5.5																
8A	UNR 8-40W		4.75-5.5																
	UNR 15-25W	3.0-3.6																	
8 & 10A	UNR 18-33W		4.75-5.5	10.8-13.6															
	LSM	3.0-3.6	4.5-5.5	10.8-13.2											0.75-5.0				
10A	LSM2	2.4-5.5		8.3-13.2											0.75-5.0				
	LSN	3.0-3.6	4.5-5.5	10.8-13.2											0.75-5.0				
	LSN2	2.4-5.5		8.3-13.2											0.75-5.0				
	LSS			6-14											0.59-5.0				
	NCF	3.0-5.0																	
	NEA			8.3-14.0											1.00-5.0				
	NEF			8.3-14.0															
	NFA			6.0-14.0											0.75-5.0				
	S111	3.0-3.6	4.5-5.5																
	12A	UNR 30-40W		4.75-5.5															
15A	S151	3.0-3.6	4.5-5.5	10.8-13.2															
	NCA	3.0-5.5													0.75-3.3				
15-20A	UNR 30-66W		4.75-5.5																
	LSM	3.0-5.5		10.0-14.0											0.75-5.0				
16A	LSM2	2.4-5.5		8.3-13.2											0.75-5.0				
	LSN	3.0-5.5		10-14											0.75-5.0				
	LSN2	2.4-5.5		8.3-13.2											0.75-5.0				
	NEA			8.3-14.0											0.75-5.0				
	NFA			6.0-14.0											0.75-5.0				
	S016			10.8-12.6											1.20-5.0				
	NFA			6.0-14.0											0.75-5.0				
	S020			10.8-12.6											1.20-5.0				
20A	LSN2			8.3-14.0										0.80-5.0					
22A																			
25A	HEN			10.2-13.8															1/8
28A	LEN			10.2-13.8															1/8
30A	LSM2			6-14											0.80-5.0				
	LSN2			6-14											0.80-5.0				
50A	LQN			10.2-13.8															1/4

Output Characteristics			Input Voltage			Efficiency	Package Style						Package Dimensions						Further Information	
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.		Bricks						Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com
							1/8	1/4	1/2	SM	TH	DIP	SIP	H	W	D	H	W		

User-selectable output voltages

0.75-3.3V	5A	16.5W	5V	3V	5.5V	92%	Package Style						Package Dimensions						NCA005133xS0C	NCA005
							1/8	1/4	1/2	SM	TH	DIP	SIP	H	W	D	H	W		
													0.24	0.8	0.45	6.1	20.3	11.3		
													0.4	0.9	0.22	10.1	22.9	5.6		
	6A	19.8W	5V	2.4V	5.5V	96%							0.3	1.1	0.45	7.6	27.9	11.4		NCA005133xB0C
													0.5	1.0	0.28	12.7	25.4	7.0		LSM2-T/6-W3-C
													0.34	1.3	0.53	8.6	33.0	13.5		LSM2-T/10-W3-C
						95%							0.5	2.0	0.32	12.7	50.8	8.1		LSN2-T/10-W3-C
	15A	49.5W	5V	3V	5.5V	94%							0.34	1.3	0.53	8.6	33	13.5		NCA015133xS0C
													0.5	2.0	0.33	12.7	50.8	8.3		NCA015133xB0C
				3.0V	5.5V	95%							0.34	1.3	0.53	8.6	33.0	13.5		LSM-T/16-W3-C
				2.4V	5.5V	95%							0.34	1.3	0.53	8.64	33.0	13.5		LSM2-T/16-W3-C
													0.5	2.0	0.32	12.7	50.8	8.1		LSN2-T/16-W3-C

0.75-5V	5A	25W	12V	8.3V	14V	92%	Package Style						Package Dimensions						NEA005150xS0C	NEA005
							1/8	1/4	1/2	SM	TH	DIP	SIP	H	W	D	H	W		
													0.24	0.8	0.45	6.1	20.3	11.3		
													0.4	0.9	0.22	10.1	22.9	5.6		
	6A	30W	12V	8.3V	13.2V	93%							0.3	1.1	0.45	7.6	27.9	11.4		LSM2-T/6-D12-C
					14V	93%							0.5	1.0	0.28	12.7	25.4	7.0		LSN2-T/6-D12-C
													0.35	1.3	0.53	8.8	33	13.5		NFA01015xS0C
													0.51	2.0	0.33	13.0	50.8	8.3		NFA01015xB0C
													0.34	1.3	0.53	8.6	33.0	13.5		LSM2-T/10-D12-C
						95%							0.5	2.0	0.32	12.7	50.8	8.1		LSN2-T/10-D12-C
						95%							0.34	1.3	0.53	8.6	33	13.5		NEA010150xS0C
													0.5	2.0	0.33	12.7	50.8	8.3		NEA010150xB0C
													0.34	1.3	0.53	8.6	33.0	13.5		LSM-T/10-D12-C
						93%							0.34	1.3	0.53	8.6	33.0	13.5		LSM10A-D12
													0.35	1.3	0.53	8.8	33	13.5		NFA016150xS0C
													0.51	2.0	0.33	13.0	50.8	8.3		NFA016150xB0C
													0.34	1.3	0.53	8.6	33.0	13.5		LSM2-T/16-D12-C
						94%							0.5	2.0	0.32	12.7	50.8	8.1		LSN2-T/16-D12-C
													0.37	1.3	0.53	9.3	33	13.5		NEA016150xS0C
													0.5	2.0	0.33	12.7	50.8	8.3		NEA016150xB0C
													0.5	2.0	0.36	12.7	50.8	9.1		LSN-T/16-D12-C
						96%							0.34	1.3	0.53	8.6	33.0	13.5		LSM-T/16-D12-C
						95%							0.34	1.3	0.53	8.6	33.0	13.5		LSM16A-D12
													0.37	1.7	0.53	9.3	43.2	13.5		NFA020150xS0C
						94%							0.51	2.4	0.33	13.0	61	8.3		NFA020150xB0C

0.75-5.5V	10A	50W	12V	10V	14V	97%							0.55	2.0	0.36	13.97	50.8	9.14		LSN-T/10-D12-C	LSN-T10-D12J
0.8-5V	22A	112W	12V	8.3V	14V	95%							0.5	2.0	0.38	12.7	50.8	9.65		LSN-T/22-D12-C	LSN2-T22-D12
1-3.3V	16A	52W	5V	3.0V	5.5V	95%							0.5	2.0	0.36	12.7	50.8	9.14		LSN-T/16-W3-C	LSN16A-W3

Fixed output voltages

Output Characteristics			Input Voltage			Efficiency	Package Style						Package Dimensions						Further Information				
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.		Bricks						Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com			
							1/8	1/4	1/2	SM	TH	DIP	SIP	H	W	D	H	W			D		
0.75V	16A	12W	5V	3V	5.5V	82%								0.34	1.3	0.53	8.6	33.0	13.5		LSM-0.75/16-W3-C	LSM16A-W3	
					86%								0.5	2.0	0.36	12.7	50.8	9.1		LSN-0.75/16-W3-C	LSN16A-W3		
			12V	10V	14V	85%									0.34	1.3	0.53	8.6	33.0	13.5		LSM-0.75/16-D12-C	LSM16A-D12
					82.5%								0.5	2.0	0.36	12.7	50.8	9.1		LSN-0.75/16-D12-C	LSN16A-D12		

0.8V	10A	8W	3.3V	3V	3.6V	84%							0.34	1.3	0.53	8.6	33.0	13.5		LSM-0.8/10-D3-C	LSM10A-D3
			5V	4.5V	5.5V	84%								0.34	1.3	0.53	8.6	33.0	13.5		LSM-0.8/10-D5-C
	25A	20W	12V	10.2V	13.8V	85%							0.39	2.30	0.9	9.9	58.4	22.9		HEN-0.8/25-D12-C	HEN-D12
			12V	10.2V	13.8V	80%							0.46	2.30	0.9	11.7	58.4	22.9		LEN-0.8/28-D12-C	LEN-D12
			12V	10.2V	13.8V	85%							0.44	2.30	1.35	11.2	58.4	34.3		LQN-0.8/50-D12	LQN-D12

Output Characteristics			Input Voltage			Efficiency	Package Style							Package Dimensions						Further Information					
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.		Bricks							Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com				
							1/8	1/4	1/2	SM	TH	DIP	SIP	H	W	D	H	W	D						
1V	10A	10W	3.3V	3V	3.6V	86%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-1/10-D3-C	LSM10A-D3		
						86.5%													0.5	2.0	0.36	12.7	50.8	9.1	LSN-1/10-D3-C
			5V	4.5V	5.5V	85.5%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-1/10-D5-C	LSM10A-D5
						86%													0.5	2.0	0.36	12.7	50.8	9.1	LSN-1/10-D5-C
			12V	10.8V	13.2V	85%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-1/10-D12-C	LSM10A-D12
				10V	14V	86%												0.55	2.0	0.36	14.0	50.8	9.1	LSN-1/10-D12-C	LSN10A-D12
	16A	16W	5V	3V	5.5V	86%											0.34	1.3	0.53	8.6	33.0	13.5	LSM-1/16-W3-C	LSM16A-W3	
						85%													0.5	2.0	0.36	12.7	50.8	9.1	LSN-1/16-W3-C
			12V	10V	14V	86%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-1/16-D12-C	LSM16A-D12
						86%													0.5	2.0	0.36	12.7	50.8	9.1	LSN-1/16-D12-C
			25A	25W	12V	10.2V	13.8V	85%										0.39	2.30	0.9	9.9	58.4	22.9	HEN-1/25-D12-C	HEN-D12
			28A	28W	12V	10.2V	13.8V	82.5%										0.46	2.30	0.9	11.7	58.4	22.9	LEN-1/28-D12-C	LEN-D12
50A	50W	12V	10.2V	13.8V	86%										0.44	2.30	1.35	11.2	58.4	34.3	LQN-1/50-D12-C	LQN-D12			

1.1V	10A	11W	12V	10.8V	13.2V	88%										0.55	2.0	0.36	14.0	50.8	9.1	LSN-1.1/10-D12-C	LSN10A-D12
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1.2V	10A	12W	3.3V	3V	3.6V	88%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.2/10-D3-C	LSM10A-D3		
						87.5%														0.5	2.0	0.36	12.7	50.8	9.1
			5V	4.5V	5.5V	88%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.2/10-D5-C	LSM10A-D5
						88%														0.5	2.0	0.36	12.7	50.8	9.1
			12V	10.8V	13.2V	87%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.2/10-D12-C	LSM10A-D12
				10V	14V	88%												0.55	2.0	0.36	14.0	50.8	9.1	LSN-1.2/10-D12-C	LSN10A-D12
	16A	19.2W	5V	3V	5.5V	88%											0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.2/16-W3-C	LSM16A-W3	
						87%													0.5	2.0	0.36	12.7	50.8	9.1	LSN-1.2/16-W3-C
			12V	10V	14V	87%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.2/16-D12-C	LSM16A-D12
						89.5%														0.5	2.0	0.36	12.7	50.8	9.1
			25A	30W	12V	10.2V	13.8V	85%										0.39	2.30	0.9	9.9	58.4	22.9	HEN-1.2/25-D12-C	HEN-D12
			28A	33.6W	12V	10.2V	13.8V	86.5%										0.46	2.30	0.9	11.7	58.4	22.9	LEN-1.2/28-D12-C	LEN-D12
50A	60W	12V	10.2V	13.8V	89.5%										0.44	2.30	1.35	11.2	58.4	34.3	LQN-1.2/50-D12-C	LQN-D12			

1.25	10A	12.5W	3.3V	3V	3.6V	88%										0.5	2.0	0.36	12.7	50.8	9.1	LSN-1.25/10-D3-C	LSN10A-D3
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1.30	10A	13W	12V	10.8V	13.2V	88%										0.55	2.0	0.36	14.0	50.8	9.1	LSN-1.3/10-D12-C	LSN10A-D12
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1.5V	10A	15W	3.3V	3V	3.6V	90%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.5/10-D3-C	LSM10A-D3		
						90%														0.5	2.0	0.36	12.7	50.8	9.1
			5V	4.5V	5.5V	89.5												0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.5/10-D5-C	LSM10A-D5
						90%														0.5	2.0	0.36	12.7	50.8	9.1
			12V	10.8V	13.2V	88.5												0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.5/10-D12-C	LSM10A-D12
						89%														0.55	2.0	0.36	14.0	50.8	9.1
	16A	24W	5V	3V	5.5V	90%											0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.5/16-W3-C	LSM16A-W3	
						88.5														0.5	2.0	0.36	12.7	50.8	9.1
			12V	10V	14V	88%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.5/16-D12-C	LSM16A-D12
						88%														0.5	2.0	0.36	12.7	50.8	9.1
			25A	37.5W	12V	10.2V	13.8V	87%										0.39	2.30	0.9	9.9	58.4	22.9	HEN-1.5/25-D12-C	HEN-D12
			28A	42W	12V	10.2V	13.8V	88%										0.46	2.30	0.9	11.7	58.4	22.9	LEN-1.5/28-D12-C	LEN-D12
50A	75W	12V	10.2V	13.8V	91%										0.44	2.30	1.35	11.2	58.4	34.3	LQN-1.5/50-D12-C	LQN-D12			

Output Characteristics			Input Voltage			Efficiency	Package Style							Package Dimensions						Further Information			
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.		Bricks							Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com		
							1/8	1/4	1/2	SM	TH	DIP	SIP	H	W	D	H	W	D				
1.8V	2A	3.6W	5V	4.8V	5.5V	79%								0.45	1.00	1.00	11.4	25.4	25.4	UNR-1.8/2-D5-C	UNR3.6-10W		
			15V	4.8V	28V	89%									0.267	0.825	0.846	6.8	21.0	21.5	NGA10S15018DC	NGA	
	10A	18W	3.3V	3V	3.6V	91.5%								0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.8/10-D3-C	LSM10A-D3		
						85.5%												0.39	2.00	1.00	12.5	50.8	25.4
			5V	4.5V	5.5V	91%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.8/10-D5-C	LSM10A-D5
						91.5%												0.5	2.0	0.36	12.7	50.8	9.1
	10A	18W	5V	3V	5.5V	91%									0.5	2.0	0.33	12.7	50.8	8.3	NCF0100180B0C	NCF010	
				4.8V	5.5V	86%										0.48	2.00	1.00	12.2	50.8	25.4	UNR-1.8/10-D5-C	UNR18-33W
	10A	18W	12V	10.8V	13.2V	90%									0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.8/10-D12-C	LSM10A-D12	
				10.8V	13.2V	90.5%										0.55	2.0	0.36	14.0	50.8	9.1	LSN-1.8/10-D12-C	LSN10A-D12
	10A	18W	12V	8.3V	14V	90%									0.34	1.3	0.53	8.6	33.0	13.5	NEF0100181S0C	NEA-NEF010-SIP	
				8.3V	14V	90%										.5	2.0	0.33	12.7	50.8	8.3	NEF0100181B0C	NEA-NEF010-SIP
	16A	28.8W	5V	3V	5.5V	91.5%									0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.8/16-W3-C	LSM16A-W3	
				10V	14V	90%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-1.8/16-D12-C	LSM16A-D12
			12V	10V	14V	90.5%										0.5	2.0	0.36	12.7	50.8	9.1	LSN-1.8/16-D12-C	LSN16A-D12
20A	36W	5V	4.8V	5.5V	85%									0.49	2.00	2.00	12.5	50.8	50.8	UNR-1.8/20-D5	UNR30-66W		
25A	45W	12V	10.2V	13.8V	85%									0.39	2.30	0.9	9.9	58.4	22.9	HEN-1.8/25-D12-C	HEN-D12		
28A	50.4W	12V	10.2V	13.8V	90%									0.46	2.30	0.9	11.7	58.4	22.9	LEN-1.8/28-D12-C	LEN-D12		
45A	81W	12V	10.2V	13.8V	91%									0.44	2.30	1.35	11.2	58.4	34.3	LQN-1.8/50-D12-C	LQN-D12		

2V	10A	20W	3.3V	3V	3.6V	92.5%								0.34	1.3	0.53	8.6	33.0	13.5	LSM-2/10-D3-C	LSM10A-D3		
						92%												0.5	2.0	0.36	12.7	50.8	9.1
			5V	4.5V	5.5V	92.5%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-2/10-D5-C	LSM10A-D5
						92%												0.5	2.0	0.36	12.7	50.8	9.1
			12V	10.8V	13.2V	91%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-2/10-D12-C	LSM10A-D12
	91%															0.55	2.0	0.36	14.0	50.8	9.1	LSN-2/10-D12-C	LSN10A-D12
	16A	32W	5V	3V	5.5V	92.5%									0.34	1.3	0.53	8.6	33.0	13.5	LSM-2/16-W3-C	LSM16A-W3	
				10V	14V	91%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-2/16-D12-C	LSM16A-D12
			12V	10.2V	13.8V	85%										0.39	2.30	0.9	9.9	58.4	22.9	HEN-2/25-D12-C	HEN-D12
						90%												0.46	2.30	0.9	11.7	58.4	22.9
45A			90W	12V	10.2V	13.8V	91%									0.44	2.30	1.35	11.2	58.4	34.3	LQN-2/50-D12-C	LQN-D12

2.5V	2A	5W	5V	4.8V	5.5V	85%								0.45	1.00	1.00	11.4	25.4	25.4	UNR-2.5/2-D5-C	UNR 3.6-10W				
			15V	4.8V	28V	92%									0.267	0.825	0.846	6.8	21.0	21.5	NGA10S15025DC	NGA			
	10A	25W	3.3V	3V	3.6V	93.5%									0.34	1.3	0.53	8.6	33.0	13.5	LSM-2.5/10-D3-C		LSM10A-D3		
						94%												0.5	2.0	0.36	12.7	50.8	9.1	LSN-2.5/10-D3-C	LSN10A-D3
						89%												0.39	2.00	1.00	12.5	50.8	25.4	UNR-2.5/10-D3-C	UNR15-25W
						93.5%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-2.5/10-D5-C	LSM10A-D5
			5V	4.5V	5.5V	94%										0.5	2.0	0.36	12.7	50.8	9.1	LSN-2.5/10-D5-C	LSN10A-D5		
						93%												0.5	2.0	0.33	12.7	50.8	8.3	NCF0100250B0C	NCF010
			12V	10.8V	13.2V	92.5%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-2.5/10-D12-C	LSM10A-D12		
						92%												0.55	2.0	0.36	14.0	50.8	9.1	LSN-2.5/10-D12-C	LSN10A-D12
	15A	38W	5V	4.8V	5.5V	89%									0.49	2.00	2.00	12.5	50.8	50.8	UNR-2.5/15-D5	UNR30-66W			
				4.8V	5.5V	89%										0.34	1.3	0.53	8.6	33.0	13.5	LSM-2.5/16-W3-C	LSM16A-W3		
16A	40W	5V	3V	5.5V	93.5%									0.5	2.0	0.36	12.7	50.8	9.1	LSN-2.5/16-W3-C	LSN16A-W3				

Output Characteristics			Input Voltage			Efficiency	Package Style							Package Dimensions						Further Information					
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.		Bricks							Inches			mm			Part Number <small>Note: Root part numbers may be shown. Please refer to datasheets for available options.</small>	Datasheet Available at www.murata-ps.com				
							T/8	T/4	T/2	SM	TH	DIP	SIP	H	W	D	H	W	D						
2.5V	16A	40W	12V	10V	14V	92.5%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-2.5/16-D12-C	LSM16A-D12
																		0.5	2.0	0.36	12.7	50.8	9.1	LSN-2.5/16-D12-C	LSN16A-D12
	20A	50W	5V	4.8V	5.5V	86%												0.49	2.00	2.00	12.5	50.8	50.8	UNR-2.5/20-D5-C	UNR30-66W
	25A	62.5W	12V	10.2V	13.8V	85%												0.39	2.30	0.9	9.9	58.4	22.9	HEN-2.5/25-D12-C	HEN-D12
	28A	70W	12V	10.2V	13.8V	91%												0.46	2.30	0.9	11.7	58.4	22.9	LEN-2.5/28-D12-C	LEN-D12
	45A	112.5W	12V	10.2V	13.8V	92.5%												0.44	2.30	1.35	11.2	58.4	34.3	LQN-2.5/45-D12-C	LQN-D12
3.3V	.5A	1.7W	12V	7.5V	36V	82%												0.75	0.4	0.4	19.1	10.2	10.4	7803SR	78XXSR SERIES
			12V	8V	32V	93%												0.85	0.80	0.23	21.6	20.3	5.7	78SR-3.3/2-C	78SR 2A SERIES
	2A	6.6W	15V	4.8V	28V	94%												0.267	0.825	0.846	6.8	21.0	21.5	NGA10S15033DC	NGA
																		0.846	0.220	0.825	21.5	5.6	21.0	NGA10S15033SC	
	2.5A	8W	12V	10.8V	13.2V	82%												0.45	2.00	1.00	11.4	50.8	25.4	UNR-3.3/2500-D12	UNR8-40W
	3A	10W	5V	4.8V	5.5V	88%												0.45	1.00	1.00	11.4	25.4	25.4	UNR-3.3/3-D5-C	UNR3-6TO10W
																		0.45	2.00	1.00	11.4	50.8	25.4	UNR-3.3/3000-D5	UNR8-40W
	3A	10W	5V	4.8V	5.5V	85%												0.31	1.97	0.81	7.8	50.0	20.5	UNS-3.3/3-D5	UNS10-15W
				13.6V	90%													0.31	1.97	0.81	7.8	50.0	20.5	UNS-3.3/3-D5	UNS10-15W
				13.6V	90%													0.31	1.97	0.81	7.8	50.0	20.5	UNS-3.3/3-D5	UNS10-15W
				13.6V	90%													0.31	1.97	0.81	7.8	50.0	20.5	UNS-3.3/3-D5	UNS10-15W
	8A	26W	12V	10.8V	13.6V	89%												0.45	1.00	1.00	11.4	25.4	25.4	UNR-3.3/3-D12-C	UNR3-6TO10W
			5V	4.8V	5.5V	92%												0.48	2.00	1.00	12.2	50.8	25.4	UNR-3.3/8-D5-C	UNR18-33W
			12V	10.8V	13.6V	91%												0.48	2.00	1.00	12.2	50.8	25.4	UNR-3.3/8-D12	UNR18-33W
																		0.34	1.3	0.53	8.6	33.0	13.5	LSM-3.3/10-D5-C	LSM10A-D5
				4.5V	5.5V	95%												0.5	2.0	0.36	12.7	50.8	9.1	LSN-3.3/10-D5-C	LSN10A-D5
				4.8V	5.5V	91%												0.48	2.00	1.00	12.2	50.8	25.4	UNR-3.3/10-D5	UNR18-33W
				10.8V	13.2V	94%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-3.3/10-D12-C	LSM10A-D12
				8.3V	14V	93%												0.55	2.0	0.36	14.0	50.8	9.1	LSN-3.3/10-D12-C	LSN10A-D12
				10.8V	13.6V	89%												0.34	1.3	0.53	8.6	33.0	13.5	NEF010033150C	NEA-NEF010-SIP
				10.8V	13.6V	89%												0.5	2.0	0.33	12.7	50.8	8.3	NEF0100331B0C	NEA-NEF010-SIP
				10.8V	13.6V	89%												0.48	2.00	1.00	12.2	50.8	25.4	UNR-3.3/10-D12-C	UNR18-33W
	12A	40W	5V	4.8V	5.5V	90%												0.44	2.00	1.00	11.2	50.8	25.4	UNR-3.3/12-D5-C	UNR30-40W
15A	50W	5V	4.8V	5.5V	91%												0.49	2.00	2.00	12.5	50.8	50.8	UNR-3.3/15-D5-C	UNR30-66W	
			5V	3V	5.5V	95%											0.34	1.3	0.53	8.6	33.0	13.5	LSM-3.3/16-W3-C	LSM16A-W3	
			5V	4.5V	5.5V	95%											0.5	2.0	0.36	12.7	50.8	9.1	LSN-3.3/16-W3-C	LSN16A-W3	
			12V	10V	14V	94.5%											0.5	2.0	0.36	12.7	50.8	9.1	LSN-3.3/16-D12-C	LSN16A-D12	
			12V	10V	14V	94%											0.34	1.3	0.53	8.6	33.0	13.5	LSM-3.3/16-D12-C	LSM16A-D12	
25A	82.5W	12V	10.2V	13.8V	85%												0.39	2.30	0.9	9.9	58.4	22.9	HEN-3.3/25-D12-C	HEN-D12	
28A	92.4W	12V	10.2V	13.8V	93%												0.46	2.30	0.9	11.7	58.4	22.9	LEN-3.3/28-D12-C	LEN-D12	
45A	148.5W	12V	10.2V	13.8V	92.5%												0.44	2.30	1.35	11.2	58.4	34.3	LQN-3.3/45-D12-C	LQN-D12	
3.8V	10A	38W	5V	4.5V	5.5V	95%												0.5	2.0	0.36	12.7	50.8	9.1	LSN-3.8/10-D5-C	LSN10A-D5
			12V	10.8V	13.2V	95%												0.55	2.0	0.36	14.0	50.8	9.1	LSN-3.8/10-D12-C	LSN10A-D12
5V	.5A	2.5W	12V	7.5V	36V	86%												0.75	0.4	0.4	19.1	10.2	10.4	7805SR	78XXSR SERIES
			12V	8V	32V	95%												0.85	0.80	0.23	21.6	20.3	5.7	78SR-5/2-C	78SR 2A SERIES
	2A	10W	15V	7V	28V	95%												0.267	0.825	0.846	6.8	21.0	21.5	NGA10S15050DC	NGA
																		0.846	0.220	0.825	21.5	5.6	21.0	NGA10S15050SC	
	3A	15W	12V	6V	16.5V	92%												0.31	1.97	0.81	7.8	50.0	20.5	UNS-5/3-D12	UNS10-15W
	5A	25W	12V	10.8V	13.6V	91%												0.48	2.00	1.00	12.2	50.8	25.4	UNR-5/5-D12-C	UNR25-50W
				10.8V	13.2V	96%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-5/10-D12-C	LSM10A-D12
				8.3V	14V	95%												0.55	2.0	0.36	14.0	50.8	9.1	LSN-5/10-D12-C	LSN10A-D12
				8.3V	14V	95%												0.34	1.3	0.53	8.6	33.0	13.5	NEF010050150C	NEA-NEF010-SIP
				8.3V	14V	95%												0.5	2.0	0.33	12.7	50.8	8.3	NEF0100501B0C	NEA-NEF010-SIP
				8.3V	14V	95%												0.34	1.3	0.53	8.6	33.0	13.5	LSM-5/16-D12-C	LSM16A-D12
			8.3V	14V	95%												0.5	2.0	0.36	12.7	50.8	9.1	LSN-5/16-D12-C	LSN16A-D12	
16A	80W	12V	10V	14V	96%												0.39	2.30	0.9	9.9	58.4	22.9	HEN-5/25-D12-C	HEN-D12	
			10.2V	13.8V	85%												0.46	2.30	0.9	11.7	58.4	22.9	LEN-5/25-D12-C	LEN-D12	
			10.2V	13.8V	95%												0.46	2.30	0.9	11.7	58.4	22.9	LEN-5/25-D12-C	LEN-D12	
45A	225W	12V	10.2V	13.8V	95%												0.44	2.30	1.35	11.2	58.4	34.3	LQN-5/45-D12-C	LQN-D12	
12V	0.4A	4.8W	24V	15V	36V	95%												0.75	0.4	0.4	19.1	10.2	10.4	7812SR	78XXSR SERIES

Bus Converters



Also known as “DC transformers,” bus converters are unregulated DC/DCs that convert an available backplane voltage (typically 48VDC for telecom/datacom applications) into an effective on-board voltage (typically 8-12 Volts).

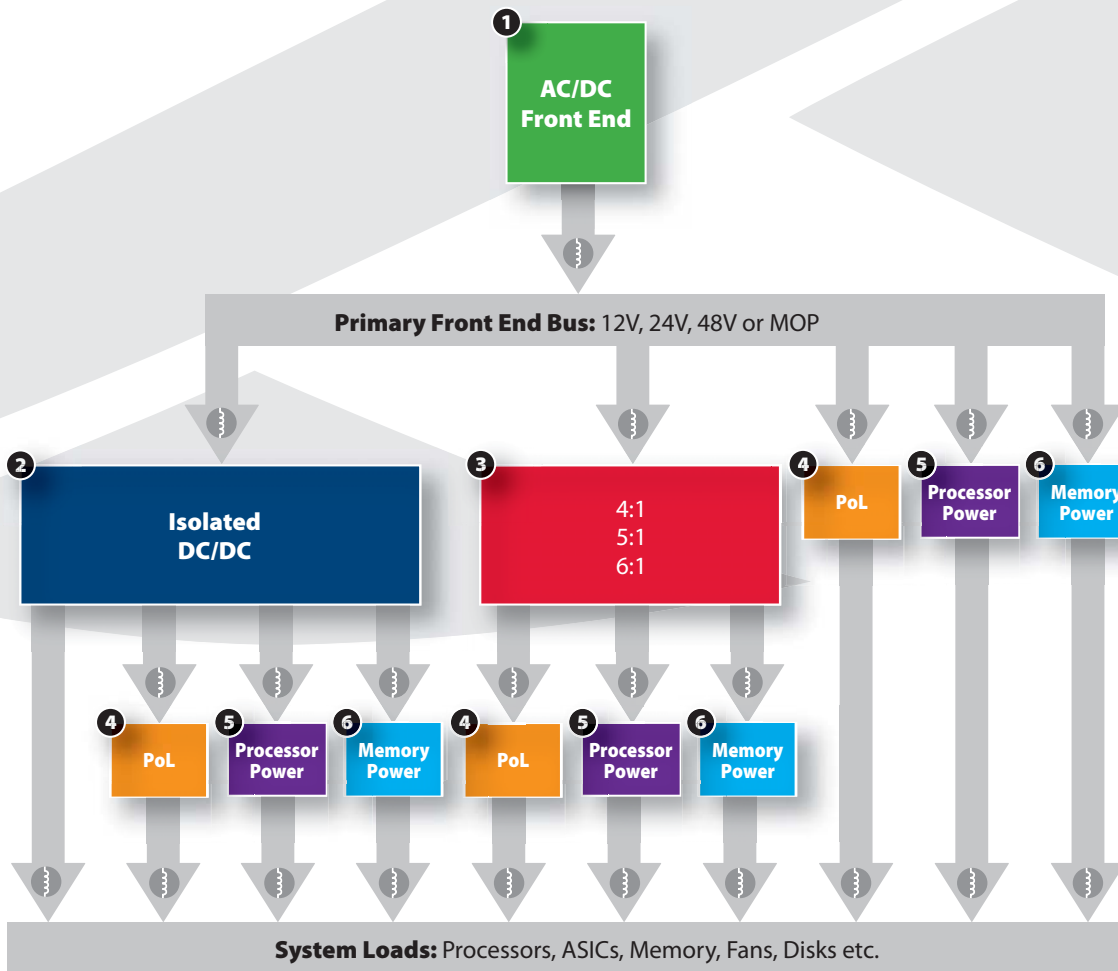
By sacrificing wide input voltage ranges

and full line/load regulation, bus converters can lower overall system costs and boost efficiency.

Bus converters available from Murata Power Solutions deliver the critical stepdown (4:1, 5:1 or 6:1), isolation (2,250VDC guaranteed), and insulation (UL/EN60950

BASIC) functions in standard 1/8- and 1/4-brick packages. They operate over the full ETS 300 132-2 input range of 40.5 to 57 Volts (typical usage may be over more narrow 48V ±10% ranges) and boast full-load efficiencies of 94-96%.

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style						Package Dimensions						Further Information	
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks		SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com
								1/8	1/4					1/2	H	W	D	H	W		
8V	30A	240W	48V	36V	55V	2.25kV	94.8%	•					0.48	0.90	2.28	12.2	22.9	57.9	EUS30-080	EUS30-080	
9.6V	25A	240W	48V	36V	55V	2.25kV	94.2%	•					0.48	0.90	2.28	12.2	22.9	57.9	EUS25-096	EUS25-096	
	34A	326W	48V	38V	55V	2.25kV	96%	•					0.48	0.90	2.28	12.2	22.9	57.9	EUS34-096	EUS36-096	
	40A	384W	48V	38V	55V	2.25kV	96.6%	•					0.48	1.45	2.28	12.2	36.8	57.9	QUS40-096	QUS40-096	
12V	15A	180W	48V	36V	55V	2.25kV	96%	•					0.48	0.90	2.28	12.2	22.9	57.9	EUS15-120	EUS15-120	
	20A	240W	48V	36V	55V	2.25kV	95.6%					•	1.25	2.50	0.40	31.2	63.5	10.2	QUS20-120	QUS20-120	
			48V	36V	55V	2.25kV	95.5%	•					•	0.48	0.90	2.28	12.2	22.9	57.9	EUS20-120	EUS20-120



Single Output

Isolated DC/DC Converters

Power from 0.25 to 340 Watts; currents from 0.02 to 80 Amps; voltages from 1.2 to 48 Volts; inputs from 3 to 75 Volts . . . Murata Power Solutions offers the broadest line of single-output, isolated DC/DC converters in the entire power industry.

Our low-power encapsulated products (mini SIPs, DIPs and SMDs) are among the smallest available. Many use contemporary ceramic-substrates and copper-lead-frame technologies to achieve their small size.

At the other extreme, our high-power 1/8, 1/4 and 1/2 bricks are open-frame assemblies using multi-layer, heavy-copper pc boards and planar magnetics. Their high efficiencies enable full-power operation to high ambient temperatures, and optional baseplates deliver the best thermal performance in the industry.

If you can't find the DC/DC power solution you need in the tables below, contact us, and we'll develop one for you.



Quick Selection Guide Listed by output power

	Output Voltages						Series
	3.3V	5V	6V	9V	12V	15V	
<1W		•			•	•	HPR1XXC
		•			•	•	HPR4XXC
		•	•	•	•	•	LME
		•	•	•	•	•	NMF
1-2W		•					HB01UYC
		•					HB01UZXC
					•		HL01RYC
					•		HL01RZC
		•			•		HPR10XXC
		•			•		NKE
		•			•		NME
		•			•		NMJ
		•			•		NMR
		•			•		NMV
		•			•		NTE
		•			•		PWR11XXC
	•			•		PWR13XXC	
2-3W		•			•		HL02R
		•			•		LP02U
		•			•		NDL
		•			•		NML
		•			•		UST 3W
3-4W	•	•			•		NDTS
	•	•			•		NDY
	•	•			•		PWR12XXC
	•	•			•		UWR 3W
	•	•			•		WPC03R
5-6W					•		NMXSO
					•		NMXU
					•		UWR 5W

	Output Voltages												Series	
	1.2V	1.5V	1.8V	2V	2.5V	3.3V	5V	5.2V	9.6V	12V	15V	24V		96V
6-10W	•													UWR 15W
		•												UWR 6-10W
														UWR 9.6W
10-15W														NPH10
														UHE 12-30W
														UWR 14-20W
														UWR 15W
														WPC10R
15-18W														NPH15
														NPX20
														UEP 15-30W
														UWR 14-20W
18-25W	•													EHS20-012
		•												UHE 12-30W
			•											ULQ
				•										UWR 14-20W
					•									WPN20R
25-35W														NPH25
														UEP 15-30W
														ULE
														ULQ
														UMP 25-40W
35-50W	•	•												UCQ
	•	•												ULE
	•	•												ULQ
	•	•												
	•	•												UMP 25-40W

	Output Voltages												Series		
	1.2V	1.5V	1.8V	2V	2.5V	3.3V	5V	8V	9.6V	12V	15V	18V		24V	48V
50-75W	•														QHS55-012
															UCQ
															ULE
															ULQ
75-100W															UVQ
															QHS50-015
															QHS50-018
															UCQ
															ULQ
100-120W															UQQ
															UVQ
															UQQ
															UVQ
															VKA100
120-240W															QHS35-033
															QHS40-025
															UVQ
240-300W															EUS15-120
															EUS20-120
															QHS12-120
> 300W															ULQ
															EUS25-096
															EUS30-080
> 300W															QBC
															UHP
															EUS34-096
> 300W															QUS40-096

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information				
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks		SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com				
								1/8	1/4					1/2	H	W	D	H	W			D			
1.2V	6A	7.2W	12V	10V	18V	1.5kV	78%						0.49	2	1	12.5	50.8	25.4	UWR-1.2/6000-D12A-C	UWR15WA-SERIES					
			24V	18V	36V	1.5kV	79%							0.49	2	1	12.5	50.8	25.4		UWR-1.2/6000-D24A-C				
	10A	12W	12V	9V	18V	1.5kV	82%						0.4	2	1.6	10.2	50.8	40.6	UHE-1.2/10000-D12-C	UHE12-30W					
			24V	18V	36V	1.5kV	83%							0.4	2	1.6	10.2	50.8	40.6		UHE-1.2/10000-D24-C				
	25A	30W	24V	18V	36V	2kV	88%						0.38	2.3	1.45	9.5	58.4	36.8	ULQ-1.2/25-D24P-C	ULQ-15A					
			48V	36V	75V	2.25kV	87.5%							0.38	2.3	1.45	9.5	58.4	36.8		ULQ-1.2/25-D48N-C				
30A	36W	48V	36V	75V	2.25kV	83%						0.4	2.3	1.45	10.2	58.4	36.8	UCQ-1.2/30-D48N-C	UCQ-SERIES						
55A	66W	48V	36V	75V	1.5kV	86.5%						0.47	1.45	2.28	11.8	36.8	57.9	QHS55-012-NHCRC	QHS55-012						
1.5V	6A	9W	12V	10V	18V	1.5kV	79.5%						0.49	2	1	12.5	50.8	25.4	UWR-1.5/6000-D12A-C	UWR15WA-SERIES					
			24V	18V	36V	1.5kV	80%							0.49	2	1	12.5	50.8	25.4		UWR-1.5/6000-D24A-C				
	10A	15W	12V	9V	18V	1.5kV	83%						0.4	2	1.6	10.2	50.8	40.6	UHE-1.5/10000-D12-C	UHE12-30W					
			24V	18V	36V	1.5kV	86%							0.4	2	1.6	10.2	50.8	40.6		UHE-1.5/10000-D24-C				
	20A	30W	48V	36V	75V	2.25kV	87%						0.37	2.3	0.9	9.4	58.4	22.9	UCE-1.5/20-D48N-C	UCE-SERIES					
			24V	18V	36V	2kV	88%							0.41	2.3	0.9	10.4	58.4	22.9	ULE-1.5/20-D24P-C	ULE20A				
	25A	37.5W	48V	36V	75V	2.25kV	84.5%						0.41	2.3	0.9	10.4	58.4	22.9	ULE-1.5/20-D48N-C	ULE20A					
			24V	18V	36V	2kV	87.5%							0.38	2.3	1.45	9.5	58.4	36.8	ULQ-1.5/25-D24P-C	ULQ-15A				
	25A	37.5W	48V	36V	75V	2.25kV	83%						0.4	2.3	1.45	10.2	58.4	36.8	UCQ-1.5/25-D48N-C	UCQ-SERIES					
			48V	36V	75V	2.25kV	87%							0.38	2.3	1.45	9.5	58.4	36.8	ULQ-1.5/25-D48N-C	ULQ-15A				
40A	60W	48V	36V	75V	2.25kV	86%						0.4	2.3	1.45	10.2	58.4	36.8	UCQ-1.5/40-D48N-C	UCQ-SERIES						
		24V	18V	36V	2kV	88%							0.42	2.3	1.45	10.7	58.4	36.8	UVQ-1.5/40-D24P-C	UVQ-SERIES					
50A	75W	48V	36V	75V	1.5kV	86%						0.47	1.45	2.28	11.8	36.8	57.9	QHS50-015-NHCRC	QHS50-015						
1.8V	6A	10.8W	12V	10V	18V	1.5kV	83%						0.49	2	1	12.5	50.8	25.4	UWR-1.8/6000-D12A-C	UWR15WA-SERIES					
							76%						0.36	1	2	9.3	25.7	51.2	NPX20S24018DC	NPX20					
							76%						0.33	1	2	8.5	25.7	51.2	NPX20S24018MC						
			24V	18V	36V	1.5kV	84.5%								0.33	1.17	1.92	8.5	29.6	48.6	NPX20S24018PMC	NPX20S24018PMC			
							84.5%											0.49	2	1	12.5	50.8	25.4	UWR-1.8/6000-D24A-C	UWR15WA-SERIES
							78%											0.36	1	2	9.25	25.7	51.2	NPX20S48018DC	NPX20
	78%											0.33	1	2	8.5	25.7	51.2	NPX20S48018MC							
	85%											0.49	2	1	12.5	50.8	25.4	UWR-1.8/6000-D48A-C	UWR15WA-SERIES						
	10A	18W	12V	9V	18V	1.5kV	85.5%						0.4	2	1.6	10.2	50.8	40.6	UHE-1.8/10000-D12-C	UHE12-30W					
			24V	18V	36V	1.5kV	87%							0.4	2	1.6	10.2	50.8	40.6		UHE-1.8/10000-D24-C				
20A	36W	48V	36V	75V	1.5kV	85%						0.4	2	1.6	10.2	50.8	40.6	UHE-1.8/10000-D48-C	UHE12-30W						
		24V	18V	36V	2kV	86%							0.41	2.3	0.9	10.4	58.4	22.9	ULE-1.8/20-D24P-C	ULE20A					
25A	45W	48V	36V	75V	2.25kV	86.5%						0.41	2.3	0.9	10.4	58.4	22.9	ULE-1.8/20-D48N-C	ULE20A						
		24V	18V	36V	2kV	87.5%							0.38	2.3	1.45	9.5	58.4	36.8	ULQ-1.8/25-D24P-C	ULQ-15A					
25A	45W	48V	36V	75V	2.25kV	87.5%						0.38	2.3	1.45	9.5	58.4	36.8	ULQ-1.8/25-D48N-C	ULQ-15A						
		48V	36V	75V	2.25kV	87.5%							0.38	2.3	1.45	9.5	58.4	36.8	ULQ-1.8/25-D48N-C						
30A	54W	48V	36V	75V	2.25kV	88%						0.37	2.3	0.9	9.4	58.4	22.9	UCE-1.8/30-D48N-C	UCE-SERIES						
		48V	36V	75V	2.25kV	86%							0.4	2.3	1.45	10.2	58.4	36.8	UCQ-1.8/30-D48N-C	UCQ-SERIES					
50A	90W	48V	36V	75V	1.5kV	88%						0.47	1.45	2.28	11.8	36.8	57.9	QHS50-018-NHCRC	QHS50-018						
2V	25A	50W	24V	18V	36V	2kV	88%						0.38	2.3	1.45	9.5	58.4	36.8	ULQ-2/25-D24P-C	ULQ-15A					
			48V	36V	75V	2.25kV	88%							0.38	2.3	1.45	9.5	58.4	36.8		ULQ-2/25-D48N-C				
2.5V	6A	15W	12V	10V	18V	1.5kV	86%						0.49	2	1	12.5	50.8	25.4	UWR-2.5/6000-D12A-C	UWR15WA-SERIES					
							80%											0.36	1	2	9.3	25.7	51.2	NPX20S24025DC	NPX20
							80%											0.33	1	2	8.5	25.7	51.2	NPX20S24025MC	
			24V	18V	36V	1.5kV	85%								0.33	1.165	1.915	8.5	29.6	48.6	NPX20S24025PMC	NPX20S24025PMC			
							85%											0.49	2	1	12.5	50.8	25.4	UWR-2.5/6000-D24A-C	UWR15WA-SERIES
							81%											0.36	1	2	9.3	25.7	51.2	NPX20S48025DC	NPX20
	81%											0.33	1	2	8.5	25.7	51.2	NPX20S48025MC							
	86%											0.33	1.165	1.915	8.5	29.6	48.6	NPX20S48025PMC	NPX20S48025PMC						
10A	25W	12V	9V	18V	1.5kV	87%						0.4	2	1.6	10.2	50.8	40.6	UHE-2.5/10000-D12-C	UHE12-30W						
		24V	18V	36V	1.5kV	88%							0.4	2	1.6	10.2	50.8	40.6	UHE-2.5/10000-D24-C						

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information	
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks		SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com	
								T/8	T/4					T/2	H	W	D	H	W			D
2.5V	10A	25W	48V	36V	75V	1.5kV	88%						0.4	2	1.6	10.2	50.8	40.6	UHE-2.5/10000-D48-C	UHE12-30W		
	15A	37.5W	48V	36V	75V	2.25kV	89.5%						0.38	2.3	1.45	9.5	58.4	36.8	ULQ-2.5/15-D48N-C	ULQ-15A		
	20A	50W	24V	18V	36V	2kV	88.5%							0.41	2.3	0.9	10.4	58.4	22.9	ULE-2.5/20-D24P-C	ULE20A	
			48V	36V	75V	2.25kV	88%							0.41	2.3	0.9	10.4	58.4	22.9	ULE-2.5/20-D48N-C	ULE20A	
							88.5%								0.38	2.3	1.45	9.5	58.4	36.8	ULQ-2.5/20-D24P-C	ULQ-15A
	30A	75W	48V	36V	75V	2.25kV	87%							0.4	2.3	1.45	10.2	58.4	36.8	UCQ-2.5/30-D48N-C	UCQ-SERIES	
	35A	87.5W	24V	18V	36V	2kV	88%							0.42	2.3	1.45	10.7	58.4	36.8	UVQ-2.5/35-D24P-C	UVQ-SERIES	
	40A	100W	24V	18V	36V	2.25kV	84%							0.4	2.3	1.45	10.2	58.4	36.8	UCQ-2.5/40-D24P-C	UCQ-SERIES	
			48V	36V	75V	1.5kV	88.5%							0.47	1.45	2.28	11.8	36.8	57.9	QHS40-025-NHCRC	QHS40-025	
						2.25kV	91%								0.42	2.3	1.45	10.7	58.4	36.8	UVQ-2.5/40-D48N-C	UVQ-SERIES

3.3V	0.3A	1W	3.3V	2.97V	3.63V	3kV	75%						0.21	0.39	0.45	5.4	9.8	11.5	NKE0303DC	NKE				
						1kV	73%					0.29	0.24	0.45	7.5	6	11.5	NKE0303SC	NKE					
						5.2kV	66%					0.26	0.30	0.5	6.6	7.7	12.7	NTE0303MC	NTE					
			5V	4.5V	5.5V	3kV	75%								0.49	0.39	0.77	12.5	9.8	19.5	NMJ0303SAC	NMJ		
						5.2kV	64%					0.21	0.39	0.45	5.4	9.8	11.5	NKE0503DC	NKE					
						1kV	74%					0.29	0.24	0.45	7.5	6	11.5	NKE0503SC	NKE					
	0.9A	3W	5V	4.5V	9V	1kV	63%							0.49	0.39	0.77	12.5	9.8	19.5	NMJ0503SAC	NMJ			
						12V	9V	18V	1kV	71%							0.26	0.30	0.5	6.6	7.7	12.7	NTE0503MC	NTE
						24V	18V	36V	1kV	71%							0.28	0.58	1.27	7	14.7	32.3	NDTS0503C	NDTS
										70%							0.28	0.58	1.27	7	14.7	32.3	NDTS1203C	NDTS
										71%							0.28	0.58	1.27	7	14.7	32.3	NDTS2403C	NDTS
	2.94A	10W	48V	36V	72V	1kV	71%							0.28	0.58	1.27	7	14.7	32.3	NDY2403C	NDY			
										71%							0.28	0.58	1.27	7	14.7	32.3	NDTS4803C	NDTS
										71%							0.28	0.58	1.27	7	14.7	32.3	NDY4803C	NDY
										71%							0.28	0.58	1.27	7	14.7	32.3	NDTS4803C	NDTS
	4.25A	14W	24V	18V	36V	1.5kV	79%							0.39	0.98	1.26	10	25	32	NPH10S2403EIC	NPH10S			
										80%							0.39	0.98	1.26	10		25	32	NPH10S2403IC
										80%							0.39	0.98	1.26	10		25	32	NPH10S4803EIC
	4.25A	14W	5V	4.7V	7.5V	1.5kV	77%							0.45	2	2	11.4	50.8	50.8	UWR-3.3/4250-D5-C	UWR14-20WA-SERIES			
						12V	10V	18V	1.5kV	86%							0.49	2	1	12.5	50.8	25.4	UWR-3.3/4250-D12A-C	UWR15WA-SERIES
						24V	18V	36V	1.5kV	87%							0.49	2	1	12.5	50.8	25.4	UWR-3.3/4250-D24A-C	
						48V	36V	75V	1.5kV	87%							0.49	2	1	12.5	50.8	25.4	UWR-3.3/4250-D48A-C	
	4.4A	15W	24V	18V	36V	1.5kV	81%							0.39	1	2	10	25	50	NPH15S2403EIC	NPH15S			
										81%							0.39	1	2	10		25	50	NPH15S2403IC
										83%							0.39	1	2	10		25	50	NPH15S4803EIC
	4.5A	14.85W	12V	10V	18V	1.5kV	84.5%							0.49	2	1	12.5	50.8	25.4	UEP-3.3/4500-D12-C	UEP15-30W			
						24V	18V	36V	1.5kV	87.5%							0.49	2	1	12.5		50.8	25.4	UEP-3.3/4500-D24-C
						48V	36V	75V	1.5kV	87.5%							0.49	2	1	12.5		50.8	25.4	UEP-3.3/4500-D48-C
		14.9W	24V	9V	36V	1.5kV	87.5%							0.36	1.1	0.96	9.1	27.9	24.4	UEI15-033-Q12P-C	UEI 15W			
	4.85A	16W	24V	9V	36V	1.5kV	79%							0.45	2	2	11.4	50.8	50.8	UWR-3.3/4850-D12-C	UWR14-20WA-SERIES			
48V			18V	75V	1.5kV	80%							0.45	2	2	11.4	50.8	50.8	UWR-3.3/4850-D48-C					
5A	16.5W	48V	18V	75V	1.5kV	88%							0.36	1.1	0.96	9.1	27.9	24.4	UEI15-033-Q48NR-C	UEI15W				
6A	19.8W	24V	18V	36V	1.5kV	83%							0.36	1	2	9.3	25.7	51.2	NPX20S24033DC	NPX20				
						84%											0.33	1	2		8.5	25.7	51.2	NPX20S24033MC
						83%											0.33	1.17	1.92		8.5	29.6	48.6	NPX20S24033PMC
		48V	36V	75V	1.5kV	84%								0.44	2	1.59	11.2	50.6	40.4	WPN20R24503C	WPN20R			
						84%											0.36	1	2	9.3	25.7	51.2	NPX20S48033DC	NPX20
						84%											0.33	1	2	8.5	25.7	51.2	NPX20S48033MC	
					89%							0.33	1.17	1.92	8.5	29.6	48.6	NPX20S48033PMC						
					89%							0.49	2	1	12.5	50.8	25.4	UEP-3.3/6000-D48-C	UEP15-30W					
7.3A	25W	24V	18V	36V	1.5kV	81%							0.39	1.38	1.97	10	35	50	NPH25S2403EIC	NPH25S				
										81%							0.39	1.38	1.97		10	35	50	NPH25S2403IC
						48V	36V	75V	1.5kV	83%							0.39	1.38	1.97		10	35	50	NPH25S4803EIC

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information	
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks		SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com	
								1/8	1/4					1/2	H	W	D	H	W			D
3.3V	7.3A	25W	48V	36V	75V	1.5kV	83%						0.39	1.38	1.97	10	35	50	NPH25S4803IC	NPH25S		
	7.5A	24.75W	24V	9V	36V	1.5kV	88%							0.4	2	1.6	10.2	50.8	40.6	UHE-3.3/7500-Q12-C	UHE12-30W	
			48V	18V	75V	1.5kV	91%								0.4	2	1.6	10.2	50.8	40.6		UHE-3.3/7500-Q48-C
				36V	75V	1.5kV								0.4	2	1.6	10.2	50.8	40.6	UHE-3.3/7500-D48-C		
	8A	26.4W	12V	10V	18V	1.5kV	87.5%							0.45	2	2	11.4	50.8	50.8	UWR-3.3/8-D12A-C	UWR26-40W	
	9A	29.7W	24V	18V	36V	1.5kV	88.5%							0.45	2	2	11.4	50.8	50.8	UWR-3.3/9-D24A-C		
			48V	36V	75V	1.5kV	88.5%								0.45	2	2	11.4	50.8	50.8	UWR-3.3/9-D48A-C	
	10A	33W	24V	18V	36V	2.25kV	89%							0.4	2.4	2.3	10.2	61	58.4	UCH-3.3/10-D24P-C	UCH-SERIES	
			48V	36V	75V	2.25kV									0.4	2.4	2.3	10.2	61	58.4		UCH-3.3/10-D48N-C
	15A	49.5W	24V	9V	36V	1.5kV	87.5%							0.375	1.95	1.55	9.5	49.5	39.4	UEI-3.3/15-Q12PR-C	UEI-50/60	
			48V	36V	75V	2.25kV	90%								0.37	2.3	0.9	9.4	58.4	22.9	UCE-3.3/15-D48N-C	UCE-SERIES
			48V	36V	75V	2.25kV	89%								0.4	2.4	2.3	10.2	61	58.4	UCH-3.3/15-D48N-C	UCH-SERIES
	18A	59.4W	48V	36V	75V	2.25kV	90.5%							0.38	2.3	1.45	9.5	58.4	36.8	ULQ-3.3/15-D48N-C	ULQ-15A	
			48V	18V	75V	2.25kV	89.5%								0.375	1.95	1.55	9.5	49.5	39.4	UEI-3.3/18-Q48NR-C	UEI-50/60
			24V	18V	36V	2kV	89%								0.41	2.3	0.9	10.4	58.4	22.9	ULE-3.3/20-D24P-C	ULE20A
	20A	66W	48V	36V	75V	2.25kV	90%							0.38	2.3	1.45	9.5	58.4	36.8	ULQ-3.3/20-D24P-C	ULQ-15A	
			48V	36V	75V	2.25kV	90%							0.4	2.3	1.45	10.2	58.4	36.8	UCQ-3.3/20-D48N-C	UCQ-SERIES	
			48V	36V	75V	2.25kV	89%								0.41	2.3	0.9	10.4	58.4	22.9	ULE-3.3/20-D48N-C	ULE20A
			48V	36V	75V	2.25kV	90%								0.38	2.3	1.45	9.5	58.4	36.8	ULQ-3.3/20-D48N-C	ULQ-15A
	25A	82.5W	12V	9V	36V	2kV	88%							0.43	2.22	1.45	10.9	56.4	36.8	UQQ-3.3/25-Q12P-C	UQQ7-15A	
48V			18V	75V	2.25kV	88.5%								0.43	2.22	1.45	10.9	56.4	36.8	UQQ-3.3/25-Q48N-C		
30A	99W	24V	18V	36V	2kV	89%							0.42	2.3	1.45	10.7	58.4	36.8	UVQ-3.3/30-D24P-C	UVQ-SERIES		
		48V	36V	75V	2.25kV	91%								0.37	2.3	0.9	9.4	58.4	22.9	UCE-3.3/30-D48N-C	UCE-SERIES	
		48V	36V	75V	2.25kV	89%								0.4	2.3	1.45	10.2	58.4	36.8	UCQ-3.3/30-D48N-C	UCQ-SERIES	
35A	115.5W	48V	36V	75V	2.25kV	89%							0.4	2.4	2.3	10.2	61	58.4	UCH-3.3/30-D48N-C	UCH-SERIES		
		24V	18V	36V	2.25kV	90%								0.4	2.4	2.3	10.2	61	58.4	UCH-3.3/35-D24P-C	UCH-SERIES	
		48V	36V	75V	1.5kV	90.5%								0.4	2.3	1.45	10.2	58.4	36.8	UCQ-3.3/35-D24P-C	UCQ-SERIES	
		48V	36V	75V	2.25kV	92%								0.42	2.3	1.45	10.7	58.4	36.8	UVQ-3.3/35-D48N-C	UVQ-SERIES	
50A	165W	48V	36V	75V	2.25kV	90%							0.4	2.3	1.45	10.2	58.4	36.8	HPQ-3.3/50-D48N-C	HPQ-SERIES		
70A	231W	48V	36V	75V	2.25kV	90%							0.4	2.4	2.3	10.2	61	58.4	HPH-3.3/70-D48N-C	HPH-SERIES		

5V	0.05A	0.25W	3.3V	2.97V	3.63V	1kV	70%							0.39	0.24	0.45	10	6	11.5	LME0305SC	LME	
			5V	4.5V	5.5V	1kV	70%								0.27	0.39	0.45	6.8	9.8	11.5		LME0505DC
			12V	10.8V	13.2V	1kV	70%								0.39	0.24	0.45	10	6	11.5		LME0505SC
			12V	10.8V	13.2V	1kV	70%								0.27	0.39	0.45	6.8	9.8	11.5		LME1205DC
	0.1A	0.5W	5V	4.75V	5.25V	1kV	50%							0.27	0.39	0.77	6.8	9.8	19.5	NMF0505DC	NMF	
			12V	11.4V	12.6V	1kV	50%								0.39	0.24	0.77	10	6	19.5		NMF0505SC
			12V	11.4V	12.6V	1kV	50%								0.27	0.39	0.77	6.8	9.8	19.5		NMF1205DC
			24V	22.8V	25.2V	1kV	50%								0.39	0.24	0.77	10	6	19.5		NMF1205SC
	0.1A	0.5W	48V	45.6V	50.4V	1kV	50%							0.27	0.39	0.77	6.8	9.8	19.5	NMF2405DC	NMF	
			48V	45.6V	50.4V	1kV	50%								0.39	0.24	0.77	10	6	19.5		NMF2405SC
	0.15A	0.75W	5V	4.5V	5.5V	0.75kV	69%							0.4	0.77	0.24	10.1	19.6	6.1	HPR100C	HPR1XXC	
						1kV	69%										0.38	0.79	0.53	9.5	19.9	13.3
			12V	10.8V	13.2V	0.75kV	69%								0.4	0.77	0.24	10.1	19.6	6.1	HPR400C	HPR4XX
			15V	13.5V	16.5V	0.75kV	69%								0.4	0.77	0.24	10.1	19.6	6.1	HPR106C	HPR1XXC
			24V	21.6V	26.4V	0.75kV	65%								0.4	0.77	0.24	10.1	19.6	6.1	HPR112C	
						1kV	65%										0.4	0.77	0.24	10.1	19.6	6.1
	0.2A	1W	3.3V	2.97V	3.63V	3kV	76%							0.212	0.39	0.45	5.4	9.8	11.5	NKE0305DC	NKE	
						1kV	78%										0.26	0.30	0.5	6.6		7.7
			5V	4.5V	5.5V	3.5kV	68%								0.38	1.29	0.53	9.5	32.6	13.3	HB01U05S05YC	HB01UYC

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information						
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks			SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet <i>Available at www.murata-ps.com</i>					
								1/8	1/4	1/2					H	W	D	H	W	D							
5V	0.2A	1W	5V	4.5V	5.5V	3.5kV	68%							0.38	1.29	0.53	9.5	32.6	13.3	HB01U05S05ZC	HB01UZC						
				4.75V	5.25V	0.5kV	58%									0.38	1.29	0.53	9.5	32.6	13.3	HL01R05S05YC	HL01RYC				
						1kV	68%										0.4	0.77	0.24	10.1	19.6	6.1	HPR1000C	HPR10XXC			
						3kV	69%										0.21	0.39	0.45	5.4	9.8	11.5	NKE0505DC	NKE			
							78%										0.21	0.39	0.45	5.4	9.8	11.5	NKE0505SC				
																		0.21	0.39	0.45	5.4	9.8	11.5		NKE0505DEC		
						4.5V	5.5V	1kV	69%									0.27	0.39	0.45	6.8	9.8	11.5	NME0505DC	NME		
																				0.39	0.24	0.45	10	6		11.5	NME0505SC
								5.2kV	68%											0.49	0.39	0.77	12.5	9.8	19.5	NMJ0505SAC	NMJ
								1kV	69%											0.39	0.24	0.77	10	6	19.5	NMR100C	NMR
					12V	10.8V	13.2V	3kV	68%									0.27	0.39	0.77	6.8	9.8	19.5	NMV0505DAC	NMV		
																				0.39	0.24	0.77	10	6		19.5	NMV0505SAC
								1kV	68%											0.26	0.30	0.5	6.6	7.7	12.7	NTE0505MC	NTE
								1kV	77%											0.26	0.30	0.5	6.6	7.7	12.7	NTE0505MEC	
					15V	13.5V	16.5V	3kV	71%									0.21	0.39	0.45	5.4	9.8	11.5	NKE1205DC	NKE		
																					0.29	0.24	0.45	7.5		6	11.5
								1kV	69%											0.27	0.39	0.45	6.8	9.8	11.5	NME1205DC	NME
								5.2kV	69%											0.39	0.24	0.45	10	6	11.5	NME1205SC	
								1kV	69%											0.49	0.39	0.77	12.5	9.8	19.5	NMJ1205SAC	NMJ
								3kV	69%											0.39	0.24	0.77	10	6	19.5	NMR106C	NMR
			24V	21.6V	26.4V	1kV	67%									0.26	0.30	0.5	6.6	7.7	12.7	NTE1205MC	NTE				
																			0.39	0.24	0.77	10	6	19.5	NMV1205SAC		
			48V	43.2V	52.8V	1kV	70%									0.30	0.39	0.45	7.7	9.8	11.5	NME4805DC	NME2				
																			0.39	0.3	0.45	10		7.5	11.5	NME4805SC	
						3kV	70%											0.30	0.39	0.77	7.7	9.8	19.5	NMV4805DAC	NMV2		
																		0.39	0.3	0.77	10	7.5	19.5	NMV4805SAC			
		0.30A	1.5W	5V	4.5V	5.5V	8kV	75%							0.4	1.27	0.81	10.2	32.3	20.5	PWR1300AC	PWR13XXC					
					12V	10.8V	13.2V	8kV	75%								0.4	1.27	0.81	10.2	32.3		20.5	PWR1306AC			
		0.4A	2W	5V	4.75V	5.25V	0.5kV	62%							0.38	1.29	0.53	9.5	32.6	13.3	HL02R05S05YC	HL02R					
																					0.38		1.29	0.53	9.5	32.6	13.3
		0.4A	2W	5V	9V	1kV	66%								0.44	0.36	0.86	11.1	9.2	21.8	NDL0505SC	NDL					
																			0.4	0.30	0.77		10	7.5	19.5	NMG0505SC	
							4.5V	5.5V	3kV	80%								0.4	0.30	0.77	10	7.5	19.5	NMK0505SAC	NMK		
																				0.39	0.30	0.55	10	7.5		14	NML0505SC
						12V	10.8V	13.2V	1kV	73%							0.44	0.36	0.86	11.1	9.2	21.8	NDL1205SC	NDL			
																				0.4	0.30	0.77	10		7.5	19.5	NMG1205SC
												3kV	80%							0.4	0.30	0.77	10	7.5	19.5	NMK1205SAC	
									1kV	81%							0.39	0.30	0.55	10	7.5	14	NML1205SC	NML			
						15V	14.3V	15.8V	0.5kV	58%							0.38	1.29	0.53	9.5	32.6	13.3	HL02R15S05YC	HL02R			
						24V	22.8V	25.2V	0.5kV	62%							0.38	1.29	0.53	9.5	32.6	13.3	HL02R24S05YC				
			24V	18V	36V	1kV	74%							0.44	0.36	0.86	11.1	9.2	21.8	NDL2405SC	NDL						
			48V	36V	72V	1kV	73%							0.44	0.36	0.86	11.1	9.2	21.8	NDL4805SC							
	0.5A	2.5W	5V	4.5V	9V	1kV	74%							0.45	1.25	0.8	11.4	31.8	20.3	UST-5/500-D5-C	UST-3W						
																			0.45	1.25	0.8	11.4	31.8	20.3	UWR-5/500-D5-C	UWR-3W	

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information					
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks			SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com				
								1/8	1/4	1/2					H	W	D	H	W	D						
5V	0.5A	2.5W	12V	9V	18V	1kV	74%						•	0.45	1.25	0.8	11.4	31.8	20.3	UST-5/500-D12-C	UST-3W					
						1kV	70%							•	0.45	1.25	0.8	11.4	31.8	20.3	UWR-5/500-D12-C	UWR-3W				
			48V	18V	72V	1kV	75%								•	0.45	1.25	0.8	11.4	31.8	20.3	UST-5/500-D48-C	UST-3W			
						1kV	75%									•	0.45	1.25	0.8	11.4	31.8	20.3	UWR-5/500-D48-C	UWR-3W		
	0.6A	3W	5V	4.5V	9V	1kV	71%							•	•	0.28	0.58	1.27	7	14.7	32.3	NDTS0505C	NDTS			
						66%								•	•	0.28	0.58	1.27	7	14.7	32.3	NDY0505C	NDY			
					5.5V	0.5kV	75%										•	•	0.4	1.27	0.81	10.2	32.3	20.5	PWR1200C	PWR12XXC
							73%								•	•	0.28	0.58	1.27	7	14.7	32.3	NDTS1205C	NDTS		
			12V	9V	18V	1kV	71%								•	•	0.28	0.58	1.27	7	14.7	32.3	NDY1205C	NDY		
							75%								•	•	0.4	1.27	0.81	10.2	32.3	20.5	PWR1206C	PWR12XXC		
			24V	18V	36V	1kV	78%								•	•	0.28	0.58	1.27	7	14.7	32.3	NDTS2405C	NDTS		
							70%								•	•	0.28	0.58	1.27	7	14.7	32.3	NDY2405C	NDY		
						1.5kV	74%										•	•	0.4	1.27	0.81	10.2	32.3	20.5	WPC03R24S05LC	WPC03R
							75%										•	•	0.28	0.58	1.27	7	14.7	32.3	NDTS4805C	NDTS
			48V	36V	72V	1kV	73%								•	•	0.28	0.58	1.27	7	14.7	32.3	NDY4805C	NDY		
							76%								•	•	0.4	1.27	0.81	10.2	32.3	20.5	WPC03R48S05LC	WPC03R		
	34V	72V	1.5kV	76%									•	•	0.4	1.27	0.81	10.2	32.3	20.5	WPC03R48S05LC	WPC03R				
				80%								•	•	0.4	2	1	10.2	50.8	25.4	HB04U05S05QC	HB04UC					
	0.8A	4W	5V	4.5V	5.5V	8kV	87%							•	•	0.4	2	1	10.2	50.8	25.4	HB04U12S05QC	HB04UC			
							85%								•	•	0.4	2	1	10.2	50.8	25.4	HB04U12S05QC	HB04UC		
1A	5W	5V	4.5V	5.5V	1kV	65%							•	•	0.39	0.93	1.59	10	23.5	40.5	NMXS0505SOC	NMXSO				
						75%								•	•	0.39	0.93	0.99	10	23.5	25.0	NMXS0505UC	NMXU			
		12V	10.8V	13.2V	1kV	65%								•	•	0.39	0.93	1.59	10	23.5	40.5	NMXS1205SOC	NMXSO			
						75%								•	•	0.39	0.93	0.99	10	23.5	25.0	NMXS1205UC	NMXU			
		24V	18V	36V	1kV	78%								•	•	0.45	1	1	11.4	25.4	25.4	UWR-5/1000-D24-C	UWR-5W			
						78%								•	•	0.45	1	1	11.4	25.4	25.4	UWR-5/1000-D48-C	UWR-5W			
1.6A	8W	5V	4.7V	7.25V	1.5kV	76%						•	•	0.45	2	1	11.4	50.8	25.4	UWR-5/1600-D5-C	UWR 6-10W A-SERIES					
1.8A	9W	48V	18V	75V	1.5kV	81%						•	•	0.45	2	1	11.4	50.8	25.4	UWR-5/1800-D48-C	UWR 6-10W A-SERIES					
1.96A	10W	24V	18V	36V	1.5kV	83%							•	•	0.39	0.98	1.26	10	25	32	NPH10S2405EIC	NPH10S				
						83%								•	•	0.39	0.98	1.26	10	25	32		NPH10S2405IC			
		48V	36V	75V	1.5kV	83%								•	•	0.39	0.98	1.26	10	25	32		NPH10S4805EIC			
2A	10W	12V	9V	18V	1.5kV	81%							•	•	0.45	2	1	11.4	50.8	25.4	UWR-5/2000-D12A-C	UWR 6-10W A-SERIES				
						85%								•	•	0.45	2	1	11.4	50.8	25.4		UWR-5/2000-D24E-C			
		24V	18V	36V	1.5kV	77%								•	•	0.42	2	1	10.54	50.8	25.4		WPC10R24S05NC	WPC10R		
						84%								•	•	0.45	2	1	11.4	50.8	25.4		UWR-5/2000-D48E-C	UWR 6-10W A-SERIES		
3A	15W	5V	4.7V	7.5V	1.5kV	79%							•	•	0.45	2	2	11.4	50.8	50.8	UWR-5/3000-D5-C	UWR 14-20W A-SERIES				
						85%								•	•	0.49	2	1	12.5	50.8	25.4	UWR-5/3000-D12A-C	UWR 15W A-SERIES			
		24V	9V	36V	1.5kV	87%								•	•	0.36	1.1	0.96	9.1	27.9	24.4	UEI15-050-Q12P-C	UEI 15W			
						84%								•	•	0.39	0.98	1.97	10	25	50	NPH15S2405EIC	NPH15S			
		24V	18V	36V	1.5kV	84%								•	•	0.39	0.98	1.97	10	25	50	NPH15S2405IC	NPH15S			
						88%								•	•	0.49	2	1	12.5	50.8	25.4	UWR-5/3000-D24A-C	UWR 15W A-SERIES			
3A	15W	18V	75V	2.25kV	86%								•	•	0.36	1.1	0.96	9.1	27.9	24.4	UEI15-050-Q48N-C	UEI15W				
					85%								•	•	0.39	0.98	1.97	10	25	50	NPH15S4805EIC	NPH15S				
		48V	36V	75V	1.5kV	85%								•	•	0.39	0.98	1.97	10	25	50	NPH15S4805IC	NPH15S			
						88%								•	•	0.49	2	1	12.5	50.8	25.4	UWR-5/3000-D48A-C	UWR 15W A-SERIES			
3.50A	17.5W	12V	10V	18V	1.5kV	86%							•	•	0.49	2	1	12.5	50.8	25.4	UEP-5/3500-D12-C	UEP 15-30W				
						88%								•	•	0.49	2	1	12.5	50.8	25.4		UEP-5/3500-D24-C			
		48V	36V	75V	1.5kV	88%								•	•	0.49	2	1	12.5	50.8	25.4		UEP-5/3500-D48-C			
4A	20W	12V	9V	36V	1.5kV	82%							•	•	0.45	2	2	11.4	50.8	50.8	UWR-5/4000-D12-C	UWR 14-20W A-SERIES				
						84%								•	•	0.44	1.99	1.59	11.2	50.6	40.4	WPN20R12S05C	WPN20RC			
		24V	18V	36V	1.5kV	84%								•	•	0.44	1.99	1.59	11.2	50.6	40.4	WPN20R24S05C	WPN20RC			
						84%								•	•	0.45	2	2	11.4	50.8	50.8	UWR-5/4000-D48-C	UWR 14-20W A-SERIES			
48V	33V	75V	1.5kV	85%								•	•	0.44	1.99	1.59	11.2	50.6	40.4	WPN20R48S05C	WPN20RC					
				84%								•	•	0.39	1.38	1.97	10	35	50	NPH25S2405EIC	NPH25S					
5A	25W	24V	18V	36V	1.5kV	84%							•	•	0.39	1.38	1.97	10	35	50	NPH25S2405IC	NPH25S				
						87.5%								•	•	0.4	2	1.6	10.2	50.8	40.6	UHE-5/5000-Q12-C	UHE12-30W			
		10V	36V	1.5kV	79%									•	•	0.55	3.04	2.04	14	77.2	51.8	UMP-5/5-Q12-C	UMP25-40W			

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information					
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks			SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com				
								1/8	1/4	1/2					H	W	D	H	W	D						
5V	5A	25W	48V	36V	75V	1.5kV	85%						0.39	1.38	1.97	10	35	50	NPH25S4805EIC	NPH25S						
				18V	75V	1.5kV	90%								0.39	1.38	1.97	10	35		50	NPH25S4805IC				
	6A	30W	24V	36V	9V	36V	1.5kV	91.5%						0.4	2	1.6	10.2	50.8	40.6	UHE-5/5000-Q48-C	UHE12-30W					
					75V	1.5kV	89%								0.49	2	1	12.5	50.8	25.4		UEP-5/6000-D48-C				
					75V	1.5kV	91.5%									0.4	2	1.6	10.2	50.8		40.6	UHE-5/6000-D48-C			
					75V	1.5kV	80%									0.4	2	1.6	10.2	50.8		40.6	UHE-5/6000-Q48-C			
	7A	35W	12V	10V	18V	1.5kV	89.5%							0.45	2	2	11.4	50.8	50.8	UWR-5/7-D12A-C	UWR26-40W					
					24V	18V	36V	1.5kV	83%							0.55	3.04	2.04	14	77.2		51.8	UMP-5/7-D24-C			
	8A	40W	24V	18V	36V	1.5kV	90%							0.45	2	2	11.4	50.8	50.8	UWR-5/8-D24A-C	UWR26-40W					
					48V	36V	75V	1.5kV	84%							0.55	3.04	2.04	14	77.2		51.8	UMP-5/8-D48-C			
	10A	50W	12V	9V	18V	2kV	89%							0.41	2.3	0.9	10.4	58.4	22.9	ULE-5/10-D12P-C	ULE20A					
					24V	9V	36V	1.5kV	90%							0.375	1.95	1.55	9.5	49.5		39.4	UEI-5/10-Q12PR-C			
					48V	36V	75V	2.25kV	89%							0.4	2.4	2.3	10.2	61		58.4	UCH-5/10-D48N-C			
	12A	60W	24V	18V	36V	2kV	90%							0.41	2.3	0.9	10.4	58.4	22.9	ULE-5/12-D24P-C	ULE20A					
					48V	18V	75V	2.25kV	91%							0.375	1.95	1.55	9.5	49.5		39.4	UEI-5/12-Q48NR-C			
					48V	36V	75V	2.25kV	90%							0.41	2.3	0.9	10.4	58.4		22.9	ULE-5/12-D48N-C			
	15A	75W	24V	18V	36V	2kV	91%							0.38	2.3	1.45	9.5	58.4	36.8	ULQ-5/15-D24P-C	ULQ-15A					
					48V	36V	75V	2.25kV	91%							0.38	2.3	1.45	9.5	58.4		36.8	ULQ-5/15-D48N-C			
	17A	85W	12V	9V	36V	2kV	90.5%								0.43	2.22	1.45	10.9	56.4	36.8	UQQ-5/17-Q12P-C	UQQ7-15A				
							86%											0.53	2.4	2.28	13.5		61	57.9	VKA100LS05-1C	
91.5%																	0.53	2.4	2.28	13.46	61		57.9	VKA100LS05C		
90.5%																	0.4	2.3	1.45	10.2	58.4		36.8	UCQ-5/20-D24P-C		
93%																	0.4	2.3	1.45	10.2	58.4		36.8	UCQ-5/20-D48N-C		
91%																	0.43	2.22	1.45	10.9	56.4		36.8	UQQ-5/20-Q48N-C		
89%																	0.42	2.3	1.45	10.7	58.4		36.8	UVQ-5/20-D48N-C		
30A	150W	48V	36V	75V	2.25kV	91%								0.4	2.4	2.3	10.2	61	58.4	UCH-5/30-D48N-C	UCH-SERIES					
						91%											0.53	2.4	2.28	13.5		61	57.9	VKA100MS05-1C		
40A	200W	48V	36V	75V	2.25kV	91%								0.4	2.4	2.3	10.2	61	58.4	HPH-5/40-D48N-C	HPH-SERIES					
						91%											0.4	2.4	2.3	10.2		61	58.4	HPH-5/40-D48N-C		
5.2V	1.5A	8W	5V	4.7V	7.25V	1.5kV	76%							0.45	2	1	11.4	50.8	25.4	UWR-5.2/1500-D5A-C	UWR 6-10W A-SERIES					
				3A	16W	5V	4.7V	7.5V	1.5kV	80%							0.45	2	2	11.4		50.8	50.8	UWR-5.2/3000-D5A-C		
6V	0.167A	1W	5V	4.5V	5.5V	1kV	72%							0.26	0.30	0.5	6.6	7.7	12.7	NTE0506MC	NTE					
8V	30A	240W	48V	36V	55V	2.25kV	95.6%							0.48	0.9	2.28	12.20	22.9	57.9	EUS30-080-NHBRC	EUS30-080					
9V	0.028A	0.25W	5V	4.5V	5.5V	1kV	75%							0.27	0.39	0.45	6.8	9.8	11.5	LME0509DC	LME					
				12V	10.8V	13.2V	1kV	75%									0.39	0.24	0.45	10		6	11.5	LME0509SC		
				12V	10.8V	13.2V	1kV	75%									0.27	0.39	0.45	6.8		9.8	11.5	LME1209DC		
	0.1A	0.9W	5V	4.75V	5.25V	1kV	62%								0.27	0.39	0.77	6.8	9.8	19.5	NMF0509DC	NMF				
							62%												0.39	0.24	0.77		10	6	19.5	NMF0509SC
							62%												0.39	0.24	0.77		10	6	19.5	NMF1209SC
							62%												0.27	0.39	0.77		6.8	9.8	19.5	NMF1209DC
							62%												0.27	0.39	0.77		6.8	9.8	19.5	NMF2409DC
							62%												0.39	0.24	0.77		10	6	19.5	NMF2409SC
	0.111A	1W	3.3V	2.97V	3.63V	3kV	75%								0.21	0.39	0.45	5.4	9.8	11.5	NKE0309DC	NKE				
							77%												0.29	0.24	0.45		7.5	6	11.5	NKE0309SC
							75%												0.26	0.30	0.5		6.6	7.7	12.7	NTE0309MC
			5V	4.5V	5.5V	3kV	75%							0.21	0.39	0.45	5.4	9.8	11.5	NKE0509DC	NKE					

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style						Package Dimensions						Further Information	
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks		SM	TH	DIP	SIP	Inches			mm			Part Number <small>Note: Root part numbers may be shown. Please refer to datasheets for available options.</small>	Datasheet Available at www.murata-ps.com
								1/8	1/4					1/2	H	W	D	H	W		

9V	0.111A	1W	5V	4.5V	5.5V	3kV	75%											0.29	0.24	0.45	7.5	6	11.5	NKE0509SC	NKE						
						1kV	77%															0.27	0.39	0.45	6.8	9.8	11.5	NME0509DC	NME		
						5.2kV	72%																0.39	0.24	0.45	10	6	11.5		NME0509SC	
						3kV	75%																0.49	0.39	0.77	12.5	9.8	19.5	NMJ0509SAC	NMJ	
						1kV	75%																	0.27	0.39	0.77	6.8	9.8	19.5	NMV0509DAC	NMV
						3kV	75%																	0.39	0.24	0.77	10	6	19.5	NMV0509SAC	
		12V	10.8V	13.2V	3kV	78%															0.21	0.39	0.45	5.4	9.8	11.5	NKE1209DC	NKE			
					1kV	74%																0.29	0.24	0.45	7.5	6	11.5		NKE1209SC		
					5.2kV	73%																	0.27	0.39	0.45	6.8	9.8	11.5	NME1209DC	NME	
					3kV	74%																	0.39	0.24	0.45	10	6	11.5	NME1209SC		
					1kV	73%																	0.49	0.39	0.77	12.5	9.8	19.5	NMJ1209SAC	NMJ	
					3kV	74%																	0.27	0.39	0.77	6.8	9.8	19.5	NMV1209DAC	NMV	
	1kV	73%																	0.39	0.24	0.77	10	6	19.5	NMV1209SAC						
	24V	21.6V	26.4V	1kV	75%															0.26	0.30	0.5	6.6	7.7	12.7	NTE0509MC	NTE				
				3kV	80%																0.27	0.39	0.45	6.8	9.8	11.5	NME2409DC	NME2			
				1kV	75%																0.39	0.24	0.45	10	6	11.5	NME2409SC				
	48V	43.2V	52.8V	1kV	75%															0.30	0.39	0.45	7.7	9.8	11.5	NME4809DC	NME2				
				3kV	80%																0.39	0.3	0.45	10	7.5	11.5		NME4809SC			
				3kV	80%																	0.30	0.39	0.77	7.7	9.8	19.5	NMV4809DAC	NMV2		
	3kV	80%																	0.39	0.3	0.77	10	7.5	19.5	NMV4809SAC						
	0.22A	2W	5V	4.5V	5.5V	1kV	71%													0.44	0.36	0.86	11.1	9.2	21.8	NDL0509SC	NDL				
						12V	9V	18V	1kV	79%													0.44	0.36	0.86	11.1		9.2	21.8	NDL1209SC	
			5V	4.5V	5.5V	1kV	84%															0.4	0.30	0.77	10	7.5	19.5	NMG0509SC	NMG		
						3kV	83%																0.4	0.30	0.77	10	7.5	19.5		NMK0509SAC	
			12V	10.8V	13.2V	1kV	81%															0.39	0.30	0.55	10	7.5	14	NML0509SC	NML		
						3kV	83%																0.4	0.30	0.77	10	7.5	19.5		NMG1209SC	
		24V	18V	36V	1kV	81%															0.44	0.36	0.86	11.1	9.2	21.8	NDL2409SC	NDL			
					48V	36V	72V	1kV	80%													0.44	0.36	0.86	11.1	9.2	21.8		NDL4809SC		
0.25A		2.25W	5V	4.75V	5.25V	0.5kV	80%													0.38	1.29	0.53	9.5	32.6	13.3	LP02U05S09KC	LP02U				
							77%																0.38	1.29	0.53	9.5		32.6	13.3	LP02U12S09KC	
0.333A		3W	5V	4.5V	9V	1kV	72%													0.28	0.58	1.27	7	14.7	32.3	NDY0509C	NDY				
							75%																	0.4	1.27	0.80		10.2	32.3	20.5	PWR1240C
	12V		9V	18V	1kV	78%															0.28	0.58	1.27	7	14.7	32.3	NDY1209C	NDY			
						75%																	0.4	1.27	0.81	10.2	32.3		20.5	PWR1241C	PWR12XXC
	24V		18V	36V	1kV	78%															0.28	0.58	1.27	7	14.7	32.3	NDY2409C	NDY			
						80%																	0.28	0.58	1.27	7	14.7		32.3	NDY4809C	

9.6V	20A	240W	48V	36V	55V	2.25kV	95%											0.48	0.9	2.28	12.2	22.9	57.9	EUS25-096-NHBRC	EUS25-096	
	34A	326.4W	48V	38V	55V	2.25kV	96%												0.48	0.9	2.28	12.2	22.9	57.9	EUS34-096-NHBRC	EUS34-096
	40A	384W	48V	38V	55V	2.25kV	96.6												0.48	1.45	2.28	12.2	36.8	57.9	QUS40-096-NHBRC	QUS40-096

12V	0.021A	0.25W	5V	4.5V	5.5V	1kV	75%												0.27	0.39	0.45	6.8	9.8	11.5	LME0512DC	LME		
																									0.39		0.24	0.45
			12V	10.8V	13.2V	1kV	75%														0.27	0.39	0.45	6.8	9.8		11.5	LME1212DC
	0.062A	0.75W	5V	4.5V	5.5V	0.75kV	70%													0.39	0.24	0.45	10	6	11.5	LME1212SC	HPR1XXC	
																									0.4	0.77		0.24
			12V	10.8V	13.2V	0.75kV	77%														0.4	0.77	0.24	10.1	19.6	6.1		HPR107C
						1kV	77%															0.4	0.77	0.24	10.1	19.56		6.1
	0.083A	1W	3.3V	2.97V	3.63V	1kV	77%													0.4	0.77	0.24	10.1	19.56	6.1	HPR113C	HPR1XXC	
								5V	4.75V	5.25V	0.5kV	52%													0.26	0.30	0.5	6.6
																					0.38	1.29	0.53	9.5	32.6	13.3	HL01R05S12YC	HL01RYC

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information					
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks			SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com				
								1/8	1/4	1/2					H	W	D	H	W	D						
12V	0.25A	3W	5V	4.5V	9V	1kV	72%							0.45	1.25	0.8	11.4	31.8	20.3	UWR-12/250-D5-C	UWR 3W					
					5.5V	0.5kV	75%										0.4	1.27	0.81	10.2	32.3	20.5	PWR1201C	PWR12XXC		
			12V	9V	18V	1kV	75%									0.28	0.58	1.27	7	14.7	32.3	NDTS1212C	NDTS			
							78%												0.28	0.58	1.27	7	14.7	32.3	NDY1212C	NDY
							74%												0.45	1.25	0.8	11.4	31.8	20.3	UST-12/250-D12-C	UST-3W
							80%												0.28	0.58	1.27	7	14.7	32.3	NDTS2412C	NDTS
		24V	18V	36V	1kV	80%									0.28	0.58	1.27	7	14.7	32.3	NDY2412C	NDY				
						81%												0.28	0.58	1.27	7	14.7	32.3	NDTS4812C	NDTS	
		48V	36V	72V	1kV	80%									0.28	0.58	1.27	7	14.7	32.3	NDY4812C	NDY				
						81%												0.28	0.58	1.27	7	14.7	32.3	NDY4812C	NDY	
						77%												0.45	1.25	0.8	11.4	31.8	20.3	UST-12/250-D48-C	UST-3W	
		18V	72V	72V	1kV	77%									0.45	1.25	0.8	11.4	31.8	20.3	UST-12/250-D48-C	UST-3W				
	76%																0.45	1.25	0.8	11.4	31.8	20.3	UWR-12/250-D48-C	UWR 3W		
	0.33A	4W	12V	10.8V	13.2V	8kV	87%								0.4	2	1	10.2	50.8	25.4	HB04U12S12QC	HB04UC				
			15V	13.5V	16.5V	3kV	87%									0.4	2	3	10.2	50.8	25.4		HB04U15S12QC			
	0.42A	5W	5V	4.5V	5.5V	1kV	75%								0.39	0.93	0.99	10	23.5	25.0	NMXS0512UC	NMXU				
			12V	10.8V	13.2V	1kV	75%									0.39	0.93	0.99	10	23.5	25.0		NMXS1212UC			
			24V	18V	36V	1kV	82%									0.45	1	1	11.4	25.4	25.4	UWR-12/420-D24-C	UWR 5W			
			48V	36V	72V	1kV	82%									0.45	1	1	11.4	25.4	25.4	UWR-12/420-D48-C				
	0.47A	5.6W	5V	4.5V	5.5V	1kV	65%								0.39	0.93	1.59	10	23.5	40.5	NMXS0512SOC	NMXSO				
			12V	10.8V	13.2V	1kV	65%									0.39	0.93	1.59	10	23.5	40.5		NMXS1212SOC			
	0.75A	9W	5V	4.7V	7.25V	1.5kV	82%								0.45	2	1	11.4	50.8	25.4	UWR-12/665-D5A-C	UWR 6-10W A-SERIES				
			48V	18V	75V	1.5kV	82.5%									0.45	2	1	11.4	50.8	25.4		UWR-12/750-D48A-C			
	0.83A	10W	12V	9V	18V	1.5kV	84%								0.45	2	1	11.4	50.8	25.4	UWR-12/830-D12A-C	UWR 6-10W A-SERIES				
			24V	18V	36V	1.5kV	86%									0.39	0.98	1.26	10	25	32		NPH10S2412EIC	NPH10S		
							86%												0.39	0.98	1.26		10		25	32
			48V	36V	75V	1.5kV	86%										0.39	0.98	1.26	10	25		32	NPH10S4812EIC	NPH10S	
	86%																0.39	0.98	1.26	10	25	32	NPH10S4812IC			
	1.25A	15W	5V	4.7V	7.5V	1.5kV	82%								0.45	2	2	11.4	50.8	50.8	UWR-12/1250-D5A-C	UWR 14-20W A-SERIES				
			12V	10V	18V	1.5kV	85%									0.49	2	1	12.5	50.8	25.4	UWR-12/1250-D12A-C	UWR 15W A-SERIES			
			24V	18V	36V	1.5kV	86%									0.39	0.98	1.97	10	25	50	NPH15S2412EIC	NPH15S			
							86%									0.39	0.98	1.97	10	25	50	NPH15S2412IC				
			24V	18V	36V	1.5kV	87%										0.49	2	1	12.5	50.8	25.4	UWR-12/1250-D24A-C	UWR 15W A-SERIES		
48V			36V	75V	1.5kV	87%									0.49	2	1	12.5	50.8	25.4	UWR-12/1250-D48A-C					
1.40A	16.8W	12V	10V	18V	1.5kV	85%								0.49	2	1	12.5	50.8	25.4	UEP-12/1400-D12-C	UEP15-30W					
		24V	18V	36V	1.5kV	87%									0.49	2	1	12.5	50.8	25.4		UEP-12/1400-D24-C				
		48V	36V	75V	1.5kV	87%									0.49	2	1	12.5	50.8	25.4		UEP-12/1400-D48-C				
1.66A	20W	12V	9V	18V	1.5kV	86%								0.44	1.99	1.59	11.2	50.6	40.4	WPN20R12S12C	WPN20R					
		24V	9V	36V	1.5kV	82.5%									0.45	2	2	11.4	50.8	50.8	UWR-12/1650-D12A-C	UWR 14-20W A-SERIES				
						87%												0.44	1.99	1.59	11.2	50.6	40.4	WPN20R24S12C	WPN20RC	
		48V	18V	75V	1.5kV	85%									0.45	2	2	11.4	50.8	50.8	UWR-12/1650-D48A-C	UWR 14-20W A-SERIES				
2.10A	25W	24V	18V	36V	1.5kV	86%								0.39	1.38	1.97	10	35	50	NPH25S2412EIC	NPH25S					
						82%												0.39	1.38	1.97		10	35	50	NPH25S2412IC	
		48V	36V	75V	1.5kV	88%										0.55	3.04	2.04	14	77.2	51.8	UMP-12/2.1-Q12-C	UMP 25-40W			
						88%												0.39	1.38	1.97	10	35	50	NPH25S4812EIC	NPH25S	
						88%													0.39	1.38	1.97	10	35	50		NPH25S4812IC
2.5A	30W	12V	9V	18V	1.5kV	89%								0.4	2	1.6	10.2	50.8	40.6	UHE-12/2500-D12-C	UHE 12-30W					
		24V	9V	36V	1.5kV	87.5%									0.4	2	1.6	10.2	50.8	40.6		UHE-12/2500-Q12-C				
						90%												0.4	2	1.6		10.2	50.8	40.6	UHE-12/2500-D24-C	
		48V	18V	75V	1.5kV	90.5%									0.4	2	1.6	10.2	50.8	40.6		UHE-12/2500-Q48-C				
		36V	75V	75V	1.5kV	92%										0.4	2	1.6	10.2	50.8		40.6	UHE-12/2500-D48-C	UHE 12-30W		
						83%												0.55	3.04	2.04		14	77.2	51.8	UMP-12/2.5-Q48-C	UMP 25-40W
3A	36W	24V	18V	36V	1.5kV	84%								0.55	3.04	2.04	14	77.2	51.8	UMP-12/3-D24-C	UMP 25-40W					
3.3A	40W	48V	36V	75V	1.5kV	85%								0.55	3.04	2.04	14	77.2	51.8	UMP-12/3.3-D48-C						
4.2A	50.4W	24V	18V	36V	2kV	91%								0.41	2.3	0.9	10.4	58.4	22.9	ULE-12/4.2-D24P-C	ULE 20A					

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information	
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			1/8	Bricks		SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com
									1/4	1/2					H	W	D	H	W	D		
12V	4.2A	50.4W	48V	36V	75V	2.25kV	92%	•			•		0.37	2.3	0.9	9.4	58.4	22.9	UCE-12/4.2-D48N-C	UCE-SERIES		
								•	•		•		0.4	2.3	1.45	10.2	58.4	36.8	UCQ-12/4.2-D48N-C	UCQ-SERIES		
								•			•	•	0.41	2.3	0.9	10.4	58.4	22.9	ULE-12/4.2-D48N-C	ULE 20A		
	8A	96W	12V	9V	36V	2kV	89%	•	•		•		0.43	2.22	1.45	10.9	56.4	36.8	UQQ-12/8-Q12P-C	UQQ7-15A		
								•	•		•		0.38	2.3	1.45	9.5	58.4	36.8	ULQ-12/8-D24P-C	ULQ-15A		
								•	•		•		0.42	2.3	1.45	10.7	58.4	36.8	UVQ-12/8-D24P-C	UVQ-SERIES		
	8.3A	99.6W	24V	18V	36V	2kV	90%	•			•		0.43	2.22	1.45	10.9	56.4	36.8	UQQ-12/8-Q48N-C	UQQ7-15A		
							88.5%	•			•		0.53	2.4	2.28	13.5	61	57.9	VKA100LS12C	VKA100		
							90%	•			•		0.37	2.3	0.9	9.4	58.4	22.9	UCE-12/8.3-D48N-C	UCE-SERIES		
			48V	36V	75V	2.25kV	91%	•			•		0.4	2.3	1.45	10.2	58.4	36.8	UCQ-12/8.3-D48N-C	UCQ-SERIES		
							89%		•		•		0.53	2.4	2.28	13.5	61	57.9	VKA100MS12C	VKA100		
							90%	•			•		0.38	2.3	1.45	9.5	58.4	36.8	ULQ-12/10-D48N-C	ULQ-15A		
	10A	120W	48V	36V	75V	2.25kV	93%	•			•		0.42	2.3	1.45	10.7	58.4	36.8	UVQ-12/10-D48N-C	UVQ-SERIES		
							90%	•			•		0.47	1.45	2.28	11.8	36.8	57.9	QHS12-120-NHCRC	QHS12-120		
	12A	144W	48V	36V	75V	1.5kV	93%	•			•		0.4	2.4	2.3	10.2	61	58.4	UCH-12/12.5-D48N-C	UCH-SERIES		
	12.5A	150W	48V	36V	75V	2.25kV	92.5%		•		•		0.48	0.9	2.28	12.2	22.9	57.9	EUS15-120-NHBRC	EUS15-120		
	15A	180W	48V	36V	55V	2.25kV	96%	•			•		0.48	0.9	2.28	12.2	22.9	57.9	EUS20-120-NHBRC	EUS20-120		
	20A	240W	48V	36V	55V	2.25kV	95.5%	•			•		0.49	2.4	2.3	12.5	60.0	58.4	UHP-12/21-D48N-C	UHP12-21		
21A	252W	48V	36V	75V	2.25kV	91%		•		•		0.42	2.3	1.45	10.7	58.4	36.8	QBC-12/22-L48-C	QBC-SERIES			
22A	264W	48V	40.5V	57V	2.25kV	96%	•			•		0.4	2.4	2.3	10.2	61	58.4	HPH-12/30-D48N-C	HPH-SERIES			
30A	360W	48V	36V	75V	2.25kV	93%		•		•												

15V	0.10	0.15	5V	4.5	5.5	0.5kV	75%				•		0.4	0.81	1.27	10.2	20.5	32.3	PWR1102C	PWR11XXC				
	0.016A	0.25W	5V	4.5V	5.5V	1kV	75%				•	•	0.27	0.39	0.45	6.8	9.8	11.5	LME0515DC	LME				
			12V	10.8V	13.2V	1kV	75%				•	•	0.27	0.39	0.45	6.8	9.8	11.5	LME1215DC					
			12V	10.8V	13.2V	1kV	75%				•	•	0.39	0.24	0.45	10	6	11.48	LME1215SC					
	0.05	0.75W	5V	4.5V	5.5V	0.75kV	71%				•	•	0.4	0.77	0.24	10.1	19.6	6.09	HPR102C	HPR1XXC				
						1kV	71%				•	•	0.4	0.77	0.24	10.1	19.6	6.09	HPR402C	HPR4XX				
						15V	13.5V	16.5V	1kV	69%				•	•	0.4	0.77	0.24	10.1	19.6	6.09	HPR414C	HPR1XXC	
	0.067A	1W	3.3V	2.97V	3.63V	1kV	77%				•		0.26	0.30	0.5	6.6	7.7	12.7	NTE0315MC	NTE				
							5V	4.5V	5.5V	3kV	78%				•	•	0.21	0.39	0.45	5.4	9.8	11.5	NKE0515DC	NKE
										1kV	80%				•	•	0.28	0.39	0.45	6.8	9.8	11.5	NME0515DC	NME
			5.2kV	71%							•	•	0.39	0.24	0.45	10	6	11.48	NME0515SC	NMJ				
			5V	4.5V	5.5V	1kV	79%				•	•	0.39	0.24	0.77	10	6	19.5	NMR102C	NMR				
						3kV	78%				•	•	0.26	0.39	0.77	6.8	9.8	19.5	NMV0515DAC	NMV				
						1kV	78%				•	•	0.39	0.24	0.77	10	6	19.5	NMV0515SAC	NTE				
			12V	10.8V	13.2V	1kV	75%				•	•	0.27	0.39	0.45	6.8	9.8	11.5	NME1215DC	NME				
							75%				•	•	0.39	0.24	0.45	10	6	11.5	NME1215SC	NMR				
							76%				•	•	0.39	0.24	0.77	10	6	19.5	NMR108C	NTE				
						3kV	75%				•		0.26	0.30	0.5	6.6	7.7	12.7	NTE1215MC	NKE				
							81%				•	•	0.21	0.39	0.45	5.4	9.8	11.5	NKE1215DC	NME				
							81%				•	•	0.29	0.24	0.45	7.46	6	11.48	NKE1215SC	NMV				
						5.2kV	77%				•	•	0.27	0.39	0.77	6.8	9.8	19.5	NMV1215DAC	NMJ				
							77%				•	•	0.39	0.24	0.77	10	6	19.5	NMV1215SAC	NME				
	74%								•	•	0.49	0.39	0.77	12.5	9.8	19.5	NMJ1215SAC	NMF						
	15V	13.5V	16.5V	1kV	62%				•	•	0.27	0.39	0.77	6.8	9.8	19.5	NMF1215DC	NME						
					75%				•	•	0.39	0.24	0.77	10	6	19.5	NMF1215SC	NME						
					76%				•	•	0.39	0.24	0.45	10	6	11.48	NME1515SC	NMR						
	0.067A	1W	15V	13.5V	16.5V	1kV	76%				•	•	0.39	0.24	0.77	10	6	19.5	NMR114C	NMV				
						3kV	77%				•	•	0.39	0.24	0.77	10	6	19.5	NMV1515SAC					

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style						Package Dimensions						Further Information	
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks		SM	TH	DIP	SIP	Inches			mm			Part Number <small>Note: Root part numbers may be shown. Please refer to datasheets for available options.</small>	Datasheet Available at www.murata-ps.com
								1/8	1/4					1/2	H	W	D	H	W		

15V	0.067A	1W	24V	21.6V	26.4V	1kV	80%													0.27	0.39	0.45	6.8	9.8	11.5	NME2415DC	NME2							
																							0.39	0.24	0.45	10		6	11.5	NME2415SC				
																								0.39	0.24	0.77		10	6	19.5	NMR120C			
			24V	21.6V	26.4V	3kV	80%																0.27	0.39	0.77	6.8		9.8	19.5	NMV2415DAC	NMV2			
																								0.39	0.24	0.77		10	6	19.5		NMV2415SAC		
				22.8V	25.2V	1kV	62%																	0.26	0.39	0.77		6.8	9.8	19.5		NMF2415DC	NMF	
																							0.39	0.24	0.77	10	6	19.5	NMF2415SC					
		48V	43.2V	52.8V	1kV	80%																	0.27	0.39	0.45	6.8	9.8	11.5	NME4815DC	NME2				
																									0.39	0.24	0.45	10	6		11.5	NME4815SC		
				3kV	80%																			0.30	0.39	0.77	7.7	9.8	19.5	NMV4815DAC	NMV2			
																									0.39	0.3	0.77	10	7.5	19.5		NMV4815SAC		
				45.6V	50.4V	1kV	62%																	0.30	0.39	0.77	7.7	9.8	19.5	NMF4815DC	NMF			
																									0.39	0.30	0.77	10	7.5	19.5		NMF4815SC		
	0.10A	1.5W	12V	10.8V	13.2V	8kV	75%														0.4	1.27	0.81	10.2	32.3	20.5	PWR1308AC	PWR13XXC						
	0.134A	2W	5V	4.5V	5.5V	9V	1kV	73%														0.44	0.36	0.86	11.1	9.2	21.8	NDL0515SC	NDL					
						1kV	85%																		0.4	0.30	0.77	10		7.5	19.5	NMG0515SC		
						3kV	85%																		0.4	0.30	0.77	10		7.5	19.5	NMK0515SAC		
				1kV	83%																		0.39	0.30	0.55	10	7.5	14		NML0515SC	NML			
				12V	9V	18V	1kV	81%																	0.44	0.36	0.86	11.1		9.2	21.8	NDL1215SC	NDL	
							1kV	85%																		0.4	0.30	0.77		10	7.5	19.5	NMG1215SC	NMG
		3kV	84%																					0.4	0.30	0.77	10	7.5	19.5	NMK1215SAC	NMK			
			24V	18V	36V	1kV	83%																0.44	0.36	0.86	11.1	9.2	21.8	NDL2415SC	NDL				
						48V	36V	72V	1kV	82%															0.44	0.36	0.86	11.1	9.2		21.8	NDL4815SC		
									1kV	85%																	0.39	0.295	0.55		10	7.5	14	NML1215SC
		0.2A	3W	5V	4.5V	9V	1kV	77%																0.28	0.58	1.27	7	14.7	32.3	NDTS0515C	NDTS			
								73%																			0.28	0.58	1.27	7		14.7	32.3	NDY0515C
	75%																									0.45	1.25	0.8	11.4	31.8		20.2	UST-15/200-D5-C	UST-3W
	76%																									0.28	0.58	1.27	7	14.7		32.3	NDTS1215C	NDTS
	79%																									0.28	0.58	1.27	7	14.7		32.3	NDY1215C	NDY
	75%																									0.45	1.25	0.8	11.4	31.8		20.3	UST-15/200-D12-C	UST-3W
			15V	13.5V	16.5V	0.5kV	75%																	0.4	1.27	0.81	10.2	32.3	20.5	PWR1214C	PWR12XXC			
	84%																								0.28	0.58	1.27	7	14.7	32.3	NDTS2415C	NDTS		
	82%																								0.28	0.58	1.27	7	14.7	32.3	NDY2415C	NDY		
	80%																								0.28	0.58	1.27	7	14.7	32.3	NDTS4815C	NDTS		
	81%																								0.28	0.58	1.27	7	14.7	32.3	NDY4815C	NDY		
																										0.45	1.25	0.8	11.4	31.8	20.3	UST-15/200-D48-C	UST-3W	
	0.2A	3W	48V	18V	72V	1kV	77%														0.45	1.25	0.8	11.4	31.8	20.3	UST-15/200-D48-C	UST-3W						
	0.267A	4W	5V	4.5V	5.5V	8kV	80%														0.4	2	1	10.2	50.8	25.4	HB04U05S15QC	HB04UC						
			12V	10.8V	13.2V	8kV	87%															0.4	2	1	10.2	50.8	25.4		HB04U12S15QC					
			15V	13.5V	16.5V	8kV	87%															0.4	2	1	10.2	50.8	25.4		HB04U15S15QC					
	0.33A	5W	5V	4.5V	5.5V	1kV	75%														0.39	0.93	0.99	10	23.5	25.0	NMXS0515UC	NMXU						
			12V	10.8V	13.2V	1kV	75%															0.39	0.93	0.99	10	23.5	25.0		NMXS1215UC					
			24V	18V	36V	1kV	83%															0.45	1	1	11.4	25.4	25.4		UWR-15/335-D24-C					
			48V	36V	72V	1kV	83%															0.45	1	1	11.4	25.4	25.4		UWR-15/335-D48-C					
0.4A	6W	5V	4.5V	5.5V	1kV	65%														0.39	0.93	1.59	10	23.5	40.5	NMXS0515SOC	NMXSO							
12V		10.8V	13.2V	1kV	65%															0.39	0.93	1.59	10	23.5	40.5	NMXS1215SOC								
0.53A	8W	5V	4.7V	7.25V	1.5kV	77%														0.45	2	1	11.4	50.8	25.4	UWR-15/530-D5A-C	UWR 6-10W A-SERIES							
0.6A	9W	48V	18V	75V	1.5kV	84%														0.45	2	1	11.4	50.8	25.4	UWR-15/600-D48A-C								
		12V	9V	18V	1.5kV	85%															0.45	2	1	11.4	50.8	25.4		UWR-15/665-D12A-C						
0.67A	10W	24V	18V	36V	1.5kV	86%														0.39	0.98	1.26	10	25	32	NPH10S2415EIC	NPH10S							
		48V	36V	75V	1.5kV	87%															0.39	0.98	1.26	10	25	32		NPH10S4815EIC						
		48V	36V	75V	1.5kV	87%															0.39	0.98	1.26	10	25	32		NPH10S4815IC						
		5V	4.7V	7.5V	1.5kV	82%															0.45	2	2	11.4	50.8	50.8		UWR-15/1000-D5A-C	UWR 14-20W A-SERIES					
1A	15W	12V	10V	18V	1.5kV	85%														0.49	2	1	12.5	50.8	25.4	UWR-15/1000-D12A-C	UWR 15W A-SERIES							
		24V	18V	36V	1.5kV	87%															0.39	0.98	1.97	10	25	50	NPH15S2415EIC	NPH15S						
																					0.39	0.98	1.97	10	25	50	NPH15S2415IC							

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information		
Rated Output Voltage	Rated Output Current	Total Output Power	Nom.	Min.	Max.			Bricks							Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com	
								1/8	1/4	1/2	SM	TH	DIP	SIP	H	W	D	H	W	D			
15V	1A	15W	24V	18V	36V	1.5kV	87%								0.49	2	1	12.5	50.8	25.4	UWR-15/1000-D24A-C	UWR 15W A-SERIES	
			48V	36V	75V	1.5kV	89%									0.39	0.98	1.97	10	25	50	NPH15S4815EIC	NPH15S
							87%									0.49	2	1	12.5	50.8	25.4	UWR-15/1000-D48A-C	
																	0.39	0.98	1.97	10	25	50	NPH15S4815IC
	1.2A	18W	12V	10V	18V	1.5kV	85%								0.49	2	1	12.5	50.8	25.4	UEP-15/1200-D12-C	UEP 15-30W	
			24V	18V	36V	1.5kV	87%									0.49	2	1	12.5	50.8	25.4		UEP-15/1200-D24-C
			48V	36V	75V	1.5kV	87%									0.49	2	1	12.5	50.8	25.4		UEP-15/1200-D48-C
	1.3A	20W	24V	9V	36V	1.5kV	85%								0.45	2	2	11.4	50.8	50.8	UWR-15/1300-D12A-C	UWR 14-20W A-SERIES	
			48V	18V	75V	1.5kV	86%									0.45	2	2	11.4	50.8	50.8		UWR-15/1300-D48A-C
	1.7A	25W	24V	18V	36V	1.5kV	87%								0.39	1.38	1.97	10	35	50	NPH25S2415EIC	NPH25S	
				10V	36V	1.5kV	82%									0.55	3.04	2.04	14	77.2	51.8		UMP-15/1.7-Q12-C
			48V	36V	75V	1.5kV	89%									0.39	1.38	1.97	10	35	50	NPH25S4815EIC	NPH25S
																0.39	1.38	1.97	10	35	50	NPH25S4815IC	
	2A	30W	12V	9V	18V	1.5kV	89%								0.4	2	1.6	10.2	50.8	40.6	UHE-15/2000-D12-C	UHE 12-30W	
				36V	1.5kV	92%										0.4	2	1.6	10.2	50.8	40.6		UHE-15/2000-Q12-C
			24V	18V	75V	1.5kV	90.5%									0.4	2	1.6	10.2	50.8	40.6		UHE-15/2000-D24-C
				36V	75V	1.5kV	92%									0.4	2	1.6	10.2	50.8	40.6		UHE-15/2000-Q48-C
			48V	18V	75V	1.5kV	92%									0.4	2	1.6	10.2	50.8	40.6		UHE-15/2000-D48-C
				18V	75V	1.5kV	83%									0.55	3.04	2.04	14	77.2	51.8		UMP-15/2-Q48-C
	2.50A	37.5W	24V	18V	36V	1.5kV	84%							0.55	3.04	2.04	14	77.2	51.8	UMP-15/2.5-D24-C	UMP 25-40W		
2.65A	40W	48V	36V	75V	1.5kV	85%							0.55	3.04	2.04	14	77.2	51.8	UMP-15/2.65-D48-C				
6.7A	100.5W	24V	18V	36V	1.5kV	89%								0.53	2.4	2.28	13.5	61	57.9	VKA100LS15C	VKA100		
		48V	36V	75V	2.25kV	92%								0.4	2.4	2.3	10.2	61	58.4	UCH-15/6.7-D48N-C	UCH-SERIES		
7A	105W	12V	9V	36V	2kV	90.5%								0.43	2.22	1.45	10.9	56.4	36.8	UQQ-15/7-Q12P-C	UQQ7-15A		
		24V	18V	36V	2kV	93%								0.42	2.3	1.45	10.7	58.4	36.8	UVQ-15/7-D24P-C	UVQ-SERIES		
		48V	36V	75V	2.25kV	94%								0.42	2.3	1.45	10.7	58.4	36.8	UVQ-15/7-D48N-C			
18V	5.6A	100.8W	24V	18V	36V	2kV	90%							0.42	2.3	1.45	10.7	58.4	36.8	UVQ-18/5.6-D24P-C	UVQ-SERIES		
	6A	108W	48V	36V	75V	2.25kV	93%							0.42	2.3	1.45	10.7	58.4	36.8	UVQ-18/6-D48N-C			
24V	0.042A	1W	5V	4.5V	5.5V	1kV	80%							0.27	0.39	0.45	6.8	9.8	11.5	NME0524DC	NME		
														0.39	0.24	0.45	10	6	11.5	NME0524SC			
	3A	72W	48V	36V	75V	2.25kV	94%							0.41	2.3	0.9	10.4	58.4	22.9	ULE-24/3-D48N-C	ULE20A		
	3.1A	74.4W	24V	18V	36V	1.5kV	90%							0.53	2.4	2.28	13.5	61	57.9	VKA75LS24-1C	VKA75		
	4A	96W	12V	9V	36V	2kV	89%							0.43	2.22	1.45	10.9	56.4	36.8	UQQ-24/4-Q12P-C	UQQ 7-15A		
	4.2A	100.8W	24V	18V	36V	1.5kV	90%							0.53	2.4	2.28	13.5	61	57.9	VKA100LS24C	VKA100		
4.5A	108W	24V	18V	36V	2kV	94%								0.42	2.3	1.45	10.7	58.4	36.8	UVQ-24/4.5-D24P-C	UVQ-SERIES		
		48V	36V	75V	2.25kV	94%								0.42	2.3	1.45	10.7	58.4	36.8	UVQ-24/4.5-D48N-C			
28.2V	12A	338.4W	48V	36V	75V	2.25kV	92%							0.49	2.4	2.3	12.5	61.0	58.4	UHP-28.2/12-D48N	UHP28-2-12A		
48V	1.25A	60W	48V	36V	75V	2.25kV	92.5%							0.41	2/3	0.9	10.4	58.4	22.9	ULE-48/1.25-D48N-C	ULE20A		
	2.50A	120W	48V	36V	75V	2.25kV	91.5%							0.42	2.3	1.45	10.7	58.4	36.8	UVQ-48/2.5-D48N-C	UVQ-SERIES		
96V	0.10	9.600	48V	36V	75V	1.5kV	88%							0.4	2	1	10.2	50.8	25.4	UWR-96/100-D48A-C	UWR-96-100		

Dual Output

(Bipolar) Isolated DC/DC Converters



For analog/linear and other applications requiring bipolar/symmetric rail voltages, Murata Power Solutions' isolated duals generate $\pm 3.3V$, $\pm 5V$, $\pm 12V$ or $\pm 15V$ outputs from a single input voltage. Our broad offering of standard, off-the-shelf products can help accelerate your time-to-market.

We offer bipolar duals with output power ranges from 0.75 to 20 Watts, input voltage ranges from 3 to 75 Volts, and package styles from sub-miniature SIPs, DIPs and SMDs to traditional 2" x 2" (51 x 51mm) through-hole devices. Isolation voltages run as high as 8,000VDC. When relevant, all products offer

UL/EN safety certifications, CE marks, and EMI/EMC testing.

If your available voltage is anywhere between 3.3 and 75 Volts and your need is $\pm 3.3V$, $\pm 5V$, $\pm 12V$ or $\pm 15V$ at moderate power levels... in a small area... at an affordable cost, we've got your solution.

Quick Selection Guide Listed by output power

Power	Vout					Series
	$\pm 3.3V$	$\pm 5V$	$\pm 9V$	$\pm 12V$	$\pm 15V$	
0.75W	•					HPR1XXC
		•				HPR1XXVC
			•			HPR4XXC
1W				•		HL01RYC
					•	HL01RZC
				•	•	HPR10XXC
	•	•	•	•	•	NKA
	•	•	•	•	•	NMA
	•	•	•	•	•	NMJ
	•	•	•	•	•	NMV
	•	•	•	•	•	NTA
	•	•	•	•	•	NTV
1.5W	•					PWR13XXC
					•	PWR1726A

Power	Vout					Series
	$\pm 3.3V$	$\pm 5V$	$\pm 9V$	$\pm 12V$	$\pm 15V$	
2W				•	•	HL02R
		•		•	•	NMH
		•	•	•	•	NMS
		•	•	•	•	NTH
3W				•	•	BST 3W
				•	•	BWR 3W
	•			•	•	NDH
	•			•	•	NDTD
	•			•	•	PWR12XXC
	•			•	•	PWR70
	•			•	•	WPC03R
4W	•	•	•			HB04UC
5W	•			•	•	BWR 5W
	•			•	•	NMXSO
	•			•	•	NMXU
	•			•	•	PWR1546A

Power	Vout					Series
	$\pm 3.3V$	$\pm 5V$	$\pm 9V$	$\pm 12V$	$\pm 15V$	
7W	•					BWR 7-10W
7.5W	•			•	•	NDX
8W	•			•	•	BWR 7-10W
10W					•	WPC10R
15W	•					BWR 15-17W
	•			•	•	BWR 15-20W
17W				•	•	BWR 15-17W
				•	•	BWR 15-20W
20W				•	•	WPN20RC
39W	•			•	•	BMP 25-40W

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style						Package Dimensions						Further Information	
Rated Output Voltages	Rated Output Currents	Total Output Power	Nom.	Min.	Max.			Bricks		SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com			
								1/8	1/4		1/2	H	W	D	H	W			D		
$\pm 3.3V$	$\pm 0.152A$	1W	3.3V	2.97V	3.63V	3kV	74%					•	•	0.21	0.39	0.77	5.4	9.8	19.5	NKA0303DC	NKA
						1kV	75%					•		0.26	0.3	0.6	6.6	7.7	15.2	NTA0303MC	
			5V	4.5V	5.5V	3kV	77%					•	•	0.21	0.39	0.77	5.4	9.8	19.5	NKA0503DC	NKA
						1kV	77%					•		0.26	0.3	0.6	6.6	7.7	15.2	NTA0503MC	NTA
	$\pm 0.454A$	3W	5V	4.5V	9V	1kV	67%					•	•	0.27	0.58	1.27	7.0	14.7	32.3	NDTD0503C	NDTD
						12V	9V	18V	1kV	73%				•	•	0.27	0.58	1.27	7.0	14.7	
			24V	18V	36V	1kV	73%				•	•	0.27	0.58	1.27	7.0	14.7	32.3	NDTD2403C		
			48V	36V	75V	1kV	72%				•	•	0.27	0.58	1.27	7.0	14.7	32.3	NDTD4803C		
$\pm 5V$	$\pm 0.075A$	0.75W	5V	4.5V	5.5V	0.75kV	68%					•	•	0.4	0.77	0.24	10.1	19.6	6.1	HPR103C	HPR1XXC
						1kV	68%					•	•	0.4	0.77	0.24	10.1	19.6	6.1	HPR403C	HPR4XX
			12V	10.8V	13.2V	0.75kV	71%				•	•	0.4	0.77	0.24	10.2	19.6	6.1	HPR109C	HPR1XXC	
	$\pm 0.1A$	1W	3.3V	2.97V	3.63V	3kV	79%					•	•	0.21	0.39	0.77	5.4	9.8	19.5	NKA0305DC	NKA
												•	•	0.30	0.23	0.65	7.6	6.0	16.6	NKA0305SC	
			1kV	78%					•		0.26	0.30	0.60	6.6	7.7	15.2	NTA0305MC	NTA			

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information			
Rated Output Voltages	Rated Output Currents	Total Output Power	Nom.	Min.	Max.			Bricks			SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com		
								1/8	1/4	1/2					H	W	D	H	W	D				
±5V	±0.1A	1W	5V	4.5V	5.5V	3kV	70%				•	•	0.21	0.39	0.77	5.4	9.8	19.5	NKA0505DC	NKA				
							80%				•	•	0.21	0.39	0.77	5.4	9.8	19.5	NKA0505DEC					
							70%				•	•	0.30	0.23	0.65	7.6	6.0	16.6	NKA0505SC					
							80%				•	•	0.30	0.23	0.65	7.6	6.0	16.6	NKA0505SEC					
						1kV	69%				•	•	0.27	0.39	0.77	6.8	9.8	19.5	NMA0505DC					
						5.2kV	60%				•	•	0.49	0.39	0.77	12.5	9.8	19.5	NMJ0505SC					
			12V	10.8V	13.2V	3kV	74%					•	•	0.21	0.39	0.77	5.4	9.8	19.5		NKA1205DC	NKA		
							69%				•	•	0.27	0.39	0.77	6.8	9.8	19.5	NMA1205DC					
							60%				•	•	0.39	0.24	0.77	10.0	6.0	19.5	NMA1205SC					
							71%				•	•	0.27	0.39	0.77	6.8	9.8	19.5	NMV1205DC					
						1kV	69%				•	•	0.39	0.24	0.77	10.0	6.0	19.5	NMV1205SC					
						5.2kV	60%				•	•	0.49	0.39	0.77	12.5	9.8	19.5	NMJ1205SC					
		15V	13.5V	16.5V	3kV	71%					•	•	0.27	0.39	0.77	6.8	9.8	19.5	NMA1505DC	NMA				
						69%				•	•	0.39	0.24	0.77	10.0	6.0	19.5	NMA1505SC						
						69%				•	•	0.39	0.24	0.77	10.0	6.0	19.5	NMA1505SC						
						71%				•	•	0.39	0.24	0.77	10.0	6.0	19.5	NMA1505SC						
					1kV	71%				•	•	0.27	0.39	0.77	6.8	9.8	19.5	NMA1505DC						
					3kV	69%				•	•	0.39	0.24	0.77	10.0	6.0	19.5	NMA1505SC						
		24V	21.6V	26.4V	1kV	70%					•	•	0.27	0.39	0.77	6.8	9.8	19.5	NMA2405DC	NMA2				
						70%				•	•	0.39	0.24	0.77	10.0	6.0	19.5	NMA2405SC						
						70%				•	•	0.27	0.39	0.77	6.8	9.8	19.5	NMV2405DC						
			22.8V	25.2V	0.5kV	45%					•	•	0.38	1.29	0.53	9.5	32.6	13.3	HL01R24D05Z		HL01RC			
						45%				•	•	0.38	1.29	0.53	9.5	32.6	13.3	HL01R24D05ZC	HL01RZC					
						45%				•	•	0.30	0.39	0.77	7.7	9.8	19.5	NMA4805DC	NMA2					
	48V	43.2V	52.8V	1kV	70%					•	•	0.39	0.30	0.77	10.0	7.5	19.5	NMA4805SC						
					70%				•	•	0.30	0.39	0.77	7.7	9.8	19.5	NMV4805DC							
					70%				•	•	0.39	0.30	0.77	10.0	7.5	19.5	NMV4805SC							
	±0.15A	1.5W	5V	4.5V	5.5V	8kV	75%					•	•	0.4	1.27	0.81	10.2	32.3	20.5	PWR1303AC	PWR13XXC			
							75%				•	•	0.4	1.27	0.81	10.2	32.3	20.5	PWR1309AC					
							75%				•	•	0.4	1.27	0.81	10.2	32.3	20.5	PWR1109C					
			12V	10V	13.2V	8kV	75%					•	•	0.4	1.27	0.81	10.2	32.3	20.5	PWR1303AC				
							75%				•	•	0.4	1.27	0.81	10.2	32.3	20.5	PWR1309AC					
							75%				•	•	0.4	1.27	0.81	10.2	32.3	20.5	PWR1109C					
	±0.2A	2W	5V	4.5V	5.5V	1kV	80%					•	•	0.30	0.39	0.77	7.7	9.8	19.5	NMH0505DC	NMH			
							74%				•	•	0.40	0.30	0.77	10.0	7.5	19.5	NMH0505SC					
							80%				•	•	0.37	0.58	1.28	9.4	14.7	32.6	NMS0505C					
							80%				•	•	0.21	0.50	0.70	6.0	12.7	17.8	NTH0505MC					
						12V	10.8V	13.2V	1kV	80%					•	•	0.30	0.39	0.77	7.7		9.8	19.5	NMH1205DC
										80%				•	•	0.40	0.30	0.77	10.0	7.5		19.5	NMH1205SC	
			24V	21.6V	26.4V	1kV	81%					•	•	0.30	0.39	0.77	7.7	9.8	19.5	NMH2405DC	NMH			
							82%				•	•	0.40	0.30	0.77	10.0	7.5	19.5	NMH2405SC					
							82%				•	•	0.30	0.39	0.77	7.7	9.8	19.5	NMH4805DC					
							82%				•	•	0.4	0.3	0.77	10.0	7.5	19.5	NMH4805SC					
						48V	43.2V	52.8V	1kV	82%					•	•	0.4	0.3	0.77	10.0		7.5	19.5	NMH4805DC
										82%				•	•	0.45	1.25	0.8	11.4	31.8		20.3	BST-5/250-D12-C	
	±0.25A	2.5W	12V	9V	18V	1kV	78%					•	•	0.45	1.25	0.8	11.4	31.8	20.3	BST-5/250-D12-C	BST-3W			
							77%				•	•	0.45	1.25	0.8	11.4	31.8	20.3	BWR-5/250-D12-C	BWR 3W				
							76%				•	•	0.45	1.25	0.8	11.4	31.8	20.3	BST-5/250-D48-C	BST-3W				
48V			18V	72V	1kV	77%					•	•	0.45	1.25	0.8	11.4	31.8	20.3	BWR-5/250-D48-C	BWR 3W				
						75%				•	•	0.27	0.58	1.27	7	14.7	32.3	NDTD1205C	NDTD					
						78%				•	•	0.27	0.58	1.27	7	14.7	32.3	NDTD2405C						
±0.3A	3W	12V	9V	18V	1kV	75%					•	•	0.27	0.58	1.27	7	14.7	32.3		NDTD4805C				
						76%				•	•	0.27	0.58	1.27	7	14.7	32.3	NDTD4805C						
						76%				•	•	0.27	0.58	1.27	7	14.7	32.3	NDTD4805C						
±0.4A	4W	12V	10.8V	13.2V	8kV	88%					•	•	0.40	2	1	10.2	50.8	25.4	HB04U12D05QC	HB04UC				
						65%				•	•	0.39	0.93	1.59	10	23.5	40.5	NMXD0505SOC	NMXSO					
±0.5A	5W	5V	4.5V	5.5V	1kV	75%					•	•	0.39	0.93	0.99	10	23.5	25	NMXD0505UC	NMXU				

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information					
Rated Output Voltages	Rated Output Currents	Total Output Power	Nom.	Min.	Max.			Bricks			SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com				
								1/8	1/4	1/2					H	W	D	H	W	D						
+9V	$\pm 0.111A$	2W	12V	10.8V	13.2V	1kV	83%										0.30	0.39	0.77	7.7	9.8	19.5	NMH1209DC	NMH		
						1kV	83%													0.4	0.3	0.77	10	7.5	19.5	NMH1209SC
			12V	10.8V	13.2V	6kV	81%												0.37	0.58	1.28	9.4	14.7	32.6	NMS1209C	NMS
						1kV	83%													0.21	0.5	0.7	6.0	12.7	17.8	NTH1209MC
			24V	21.6V	26.4V	1kV	85%												0.3	0.39	0.77	7.7	9.8	19.5	NMH2409DC	NMH
																						0.4	0.3	0.77	10	
			48V	43.2V	52.8V	1kV	82%												0.3	0.39	0.77	7.7	9.8	19.5	NMH4809DC	
																						0.4	0.3	0.77	10	

+12V	$\pm 0.03A$	0.75W	5V	4.5V	5.5V	0.75kV	68%										0.4	0.77	0.24	10.1	19.6	6.1	HPR104C	HPR1XXC							
						1kV	66%														0.4	0.77	0.24	10.1	19.6	6.1	HPR404C	HPR4XXC			
			12V	10.8V	13.2V	0.75kV	74%												0.4	0.77	0.24	10.1	19.6	6.1	HPR110C	HPR1XXC					
						1kV	74%													0.4	0.77	0.24	10.1	19.6	6.1	HPR410C	HPR4XXC				
			15V	13.5V	16.5V	0.75kV	76%												0.4	0.77	0.24	10.1	19.6	6.1	HPR116C	HPR1XXC					
						1kV	67%													0.4	0.77	0.24	10.1	19.6	6.1		HPR122C				
			24V	21.6V	26.4V	0.75kV	67%												0.4	0.77	0.24	10.1	19.6	6.1	HPR422C	HPR4XXC					
						1kV	67%													0.4	0.77	0.24	10.1	19.6	6.1	HPR422C	HPR4XXC				
			+12V	$\pm 0.042A$	1W	3.3V	2.97V	3.63V	3kV	78%										0.21	0.39	0.77	5.4	9.8	19.5	NKA0312DC	NKA				
									1kV	77%													0.3	0.23	0.65	7.6		6	16.6	NKA0312SC	
5V	4.5V	5.5V				1kV	78%	70%											0.4	0.77	0.24	10.1	19.6	6.1	HPR1004C	HPR10XXC					
																						0.21	0.39	0.77	5.4	9.8	19.5	NKA0512DC	NKA		
																							0.3	0.23	0.65	7.6	6	16.6		NKA0512SC	
																								0.27	0.39	0.77	6.8	9.8	19.5	NMA0512DC	NMA
																								0.39	0.24	0.77	10	6	19.5	NMA0512SC	
																								0.49	0.39	0.77	12.5	9.8	19.5	NMJ0512SC	NMJ
5V	4.5V	5.5V				3kV	78%	77%											0.27	0.39	0.77	6.8	9.8	19.5	NMA0512DC	NMV					
																						0.39	0.24	0.77	10		6	19.5	NMA0512SC		
																				0.49	0.39	0.77	12.5	9.8	19.5	NMV0512SC	NMV				
																				0.27	0.39	0.77	6.8	9.8	19.5	NMV0512DC					
																					0.39	0.24	0.77	10	6	19.5	NMA0512DC	NTA			
																				0.26	0.3	0.6	6.6	7.7	15.2	NTA0512MC					
+12V	$\pm 0.042A$	1W	12V	10.8V	13.2V	3kV	79%									0.26	0.3	0.6	6.6	7.7	15.2	NTV0512MC	NTV								
						1kV	75%												0.21	0.39	0.77	5.4	9.8	19.5	NKA1212DC	NKA					
			12V	10.8V	13.2V	3kV	81%	70%										0.30	0.23	0.65	7.6	6	16.6	NKA1212SC							
																						0.27	0.39	0.77	6.8	9.8	19.5	NMA1212DC	NMA		
																		0.39	0.24	0.77	10	6	19.5	NMA1212SC							
																		0.49	0.39	0.77	12.5	9.8	19.5	NMJ1212SC	NMJ						
																	0.27	0.39	0.77	6.8	9.8	19.5	NMV1212DC								
																		0.39	0.24	0.77	10	6	19.5	NMV1212SC	NMV						
																	0.26	0.3	0.6	6.6	7.7	15.2	NTA1212MC	NTA							
																		0.26	0.3	0.6	6.6	7.7	15.2	NTV1212MC	NTV						
+12V	$\pm 0.042A$	1W	15V	13.5V	16.5V	1kV	78%									0.27	0.39	0.77	6.8	9.8	19.5	NMA1512DC	NMA								
						3kV	75%												0.39	0.24	0.77	10		6	19.5	NMA1512DC					
			24V	22.8V	25.2V	0.5kV	53%	72%											0.40	0.77	0.24	10.1	19.6	6.1	HPR1022C	HPR10XXC					
																							0.27	0.39	0.77	6.8	9.8	19.5	NMA2412DC	NMA2	
																		0.39	0.24	0.77	10	6	19.5	NMA2412SC							
																		0.27	0.39	0.77	6.8	9.8	19.5	NMV2412DC	NMV2						
																		0.39	0.24	0.77	10	6	19.5	NMV2412SC							
			48V	43.2V	52.8V	1kV	80%	80%										0.3	0.39	0.77	7.7	9.8	19.5	NMA4812DC	NMA2						
																						0.39	0.3	0.77		10	7.5	19.5	NMA4812SC		
																		0.3	0.39	0.77	7.7	9.8	19.5	NMV4812DC	NMV2						
															0.39	0.3	0.77	10	7.5	19.5	NMV4812SC										
+12V	$\pm 0.063A$	1.5W	5V	4.5V	5.5V	8kV	75%									0.4	1.27	0.81	10.2	32.3	20.5	PWR1304AC	PWR13XXC								
			12V	10.8V	13.2V	8kV	75%										0.4	1.27	0.81	10.2	32.3	20.5		PWR1310AC							
+12V	$\pm 0.083A$	2W	5V	4.5V	5.5V	4.75V	5.25V	0.5kV	62%								0.38	1.29	0.53	9.5	32.6	13.3	HL02R05D12YC	HL02R							
						1kV	82%												0.3	0.39	0.77	7.7	9.8	19.5	NMH0512DC	NMH					
																		0.4	0.3	0.77	10	7.5	19.5	NMH0512SC							
																		0.37	0.58	1.28	9.4	14.7	32.6	NMS0512C	NMS						
																		0.21	0.5	0.7	6.0	12.7	17.8	NTH0512MC	NTH						
			12V	11.4V	12.6V	0.5kV	62%											0.38	1.29	0.53	9.5	32.6	13.3	HL02R12D12YC	HL02R						

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style								Package Dimensions						Further Information	
Rated Output Voltages	Rated Output Currents	Total Output Power	Nom.	Min.	Max.			Bricks		SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com		
								T/8	T/4					T/2	H	W	D	H	W			D	
±0.025A	0.75W	15V	13.5V	16.5V	1kV	79%							0.4	0.77	0.24	10.2	19.6	6.1	HPR417C	HPR4XXC			
		24V	21.6V	26.4V	0.75kV	69%								0.4	0.77	0.24	10.2	19.6	6.1	HPR123C	HPR1XXC		
					1kV	69%							0.4	0.77	0.24	10.2	19.6	6.1	HPR423C	HPR4XXC			
		3.3V	2.97V	3.63V	3kV	79%							0.21	0.39	0.77	5.4	9.8	19.5	NKA0315DC	NKA			
					1kV	77%						0.30	0.23	0.65	7.6	6	16.6	NKA0315SC					
												0.26	0.3	0.6	6.6	7.7	15.2	NTA0315MC	NTA				
		4.75V	5.25V	0.5kV	53%								0.38	1.29	0.53	9.5	32.6	13.3	HL01R05D15ZC	HL01RZC			
					1kV	70%						0.4	0.77	0.24	10.2	19.6	6.1	HPR1005C	HPR10XXC				
		5V	4.5V	5.5V	3kV	79%							0.21	0.39	0.77	5.4	9.8	19.5	NKA0515DC	NKA			
1kV	78%												0.30	0.23	0.65	7.6	6.0	16.6	NKA0515SC				
												0.27	0.39	0.77	6.8	9.8	19.5	NMA0515DC	NMA				
		5.2kV	65%									0.39	0.24	0.77	10.0	6.0	19.5	NMA0515SC					
					3kV	79%						0.27	0.39	0.77	6.8	9.8	19.5	NMV0515DC	NMV				
		1kV	78%									0.39	0.24	0.77	10.0	6.0	19.5	NMV0515SC					
					3kV	79%						0.27	0.39	0.77	6.8	9.8	19.5	NMV0515DC	NMV				
		1kV	78%									0.39	0.24	0.77	10.0	6.0	19.5	NMV0515SC					
					3kV	80%						0.26	0.30	0.60	6.6	7.7	15.2	NTV0515MC	NTV				
		12V	10.8V	13.2V	3kV	82%							0.21	0.39	0.77	5.4	9.8	19.5	NKA1215DC	NKA			
1kV	76%												0.30	0.23	0.65	7.6	6.0	16.6	NKA1215SC				
												0.27	0.39	0.77	6.8	9.8	19.5	NMA1215DC	NMA				
		5.2kV	65%									0.39	0.24	0.77	10.0	6.0	19.5	NMA1215SC					
					3kV	76%						0.27	0.39	0.77	6.8	9.8	19.5	NMV1215DC	NMV				
		1kV	76%									0.39	0.24	0.77	10.0	6.0	19.5	NMV1215SC					
					3kV	82%						0.26	0.30	0.60	6.6	7.7	15.2	NTV1215MC	NTV				
		15V	13.5V	16.5V	1kV	80%							0.27	0.39	0.77	6.8	9.8	19.5	NMA1515DC	NMA			
3kV	77%												0.39	0.24	0.77	10.0	6.0	19.5	NMA1515SC				
					0.5kV	53%						0.38	1.29	0.53	9.5	32.6	13.3	HL01R24D15YC	HL01RYC				
		24V	21.6V	26.4V	1kV	80%							0.40	0.77	0.24	10.1	19.6	6.1	HPR1023C	HPR10XXC			
													0.27	0.39	0.77	6.8	9.8	19.5	NMA2415DC	NMA2			
					3kV	80%						0.39	0.24	0.77	10.0	6.0	19.5	NMA2415SC					
							1kV	80%					0.39	0.24	0.77	10.0	6.0	19.5	NMV2415DC	NMV2			
												0.39	0.24	0.77	10.0	6.0	19.5	NMV2415SC					
					1kV	80%						0.30	0.39	0.77	7.7	9.8	19.5	NMA4815DC	NMA2				
		48V	43.2V	52.8V	3kV	80%						0.39	0.30	0.77	10.0	7.5	19.5	NMA4815SC					
												0.39	0.30	0.77	7.7	9.8	19.5	NMV4815DC	NMV2				
												0.39	0.30	0.77	10.0	7.5	19.5	NMV4815SC					
		5V	4.5V	5.5V	8kV	75%						0.40	1.27	0.81	10.2	32.3	20.5	PWR1305AC	PWR13XXC				
		12V	10.8V	13.2V	8kV	75%							0.40	1.27	0.81	10.2	32.3	20.5		PWR1311AC			
			7V	16V	5kV	69%						0.41	1.65	1.13	10.3	41.9	28.6	PWR1726AC	PWR1726A				
		15V	13.5V	16.5V	8kV	75%							0.40	1.27	0.81	10.2	32.3	20.5	PWR1317AC	PWR13XXC			
					0.5kV	62%						0.38	1.29	0.53	9.5	32.6	13.3	HL02R05D15YC	HL02R				
		5V	4.5V	5.5V	1kV	84%							0.30	0.39	0.77	7.7	9.8	19.5	NMH0515DC	NMH			
6kV	78%												0.40	0.30	0.77	10.0	7.5	19.5	NMH0515SC				
					1kV	84%						0.37	0.58	1.28	9.4	14.7	32.6	NMS0515C	NMS				
		12V	10.8V	13.2V	0.5kV	62%							0.21	0.50	0.70	6.0	12.7	17.8	NTH0515MC	NTH			
													0.38	1.29	0.53	9.5	32.6	13.3	HL02R12D15YC	HL02R			
					1kV	84%						0.30	0.39	0.77	7.7	9.8	19.5	NMH1215DC	NMH				
												0.40	0.30	0.77	10.0	7.5	19.5	NMH1215SC					
					6kV	82%						0.37	0.58	1.28	9.4	14.7	32.6	NMS1215C	NMS				
					1kV	84%							0.21	0.50	0.70	6.0	12.7	17.8	NTH1215MC	NTH			
					1kV	84%						0.40	0.30	0.77	10.0	7.5	19.5	NMH1515SC	NMH				
		24V	22.8V	25.2V	0.5kV	62%							0.38	1.29	0.53	9.5	32.6	13.3	HL02R24D15YC	HL02R			
													0.38	1.29	0.53	9.5	32.6	13.3	HL02R24D15ZC				
					1kV	86%						0.30	0.39	0.77	7.7	9.8	19.5	NMH2415DC	NMH				
												0.40	0.30	0.77	10.0	7.5	19.5	NMH2415SC					
		48V	43.2V	52.8V	1kV	85%						0.30	0.39	0.77	7.7	9.8	19.5	NMH4815DC					

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information												
Rated Output Voltages	Rated Output Currents	Total Output Power	Nom.	Min.	Max.			Bricks							Inches			mm			Part Number <small>Note: Root part numbers may be shown. Please refer to datasheets for available options.</small>	Datasheet <small>Available at www.murata-ps.com</small>											
								1/8	1/4	1/2	SM	TH	DIP	SIP	H	W	D	H	W	D													
±15V	±0.067A	2W	48V	43.2V	52.8V	1kV	85%											0.40	0.30	0.77	10.0	7.5	19.5	NMH4815SC	NMH								
							5V	4.5V	9V	1kV	74%												0.45	1.25	0.80	11.4	31.8	20.3	BST-15/85-D5-C	BST-3W			
											72%															0.45	1.25	0.80	11.4	31.8	20.3	BWR-15/85-D5-C	BWR-3W
											75%																0.27	0.58	1.27	7.0	14.7	32.3	NDTD0515C
							12V	9V	18V	1kV	75%													0.40	1.27	0.81	10.2	32.3	20.5	PWR1205C	PWR12XXC		
											76%															0.45	1.25	0.80	11.4	31.8	20.3	BST-15/100-D12-C	BST-3W
		75%																			0.45	1.25	0.80	11.4	31.8	20.3	BWR-15/100-D12-C	BWR-3W					
		±0.1A	3W	10V	18V	5kV	1kV	66%											0.41	1.13	1.13	10.7	28.6	28.6	PWR70C	PWR70							
								78%														0.27	0.58	1.27	7.0	14.7	32.3	NDTD1215C	NDTD				
								82%															0.49	0.36	1.02	12.5	9.3	26.0	NDH2415SC	NDH			
				15V	18V	36V	1kV	82%												0.27	0.58	1.27	7.0	14.7	32.3	NDTD2415C	NDTD						
								75%														0.40	1.27	0.81	10.2	32.3	20.5	PWR1223C	PWR12XXC				
	73%																				0.40	1.27	0.81	10.2	32.3	20.5	WPC03R24D15LC	WPC03R					
	48V			18V	72V	1kV	77%												0.45	1.25	0.80	11.4	31.8	20.3	BST-15/100-D48-C	BST-3W							
							80%														0.45	1.25	0.80	11.4	31.8	20.3	BWR-15/100-D48-C	BWR-3W					
							78%														0.49	0.36	1.02	12.5	9.3	26.0	NDH4815SC	NDH					
			36V	72V	1kV	78%													0.49	0.36	1.02	12.5	9.3	26.0	NDH4815SC	NDH							
						81%														0.27	0.58	1.27	7.0	14.7	32.3	NDTD4815C	NDTD						
						88%														0.40	2.00	1.00	10.2	50.8	25.4	HB04U12D15QC	HB04UC						
	88%															0.40	2.00	1.00	10.2	50.8	25.4	HB04U15D15QC											
	±0.133A		4W	12V	10.8V	13.2V	8kV	88%											0.39	0.93	0.99	10.0	23.5	25.0	NMXD0515UC	NMXU							
								60%														0.40	2.00	2.00	10.2	50.8	50.8	PWR1546AC	PWR1546A				
								75%														0.39	0.93	0.99	10.0	23.5	25.0	NMXD1215UC	NMXU				
	±0.167A		5W	12V	10.8V	13.2V	1kV	75%											0.39	0.93	0.99	10.0	23.5	25.0	NMXD1215UC	NMXU							
								83%														0.45	1.00	1.00	11.4	25.4	25.4	BWR-15/165-D24-C	BWR-5W				
		82%																			0.45	1.00	1.00	11.4	25.4	25.4	BWR-15/165-D48-C	BWR-5W					
	±0.20A	6W	5V	4.5V	5.5V	1kV	65%											0.39	0.93	1.59	10.0	23.5	40.5	NMXD0515SOC	NMXSO								
							65%														0.39	0.93	1.59	10.0		23.5	40.5	NMXD1215SOC					
	±0.25A	7.5W	12V	9V	18V	1kV	79%											0.39	0.98	1.26	10.0	25.0	32.0	NDXD1215C	NDX								
							82%														0.39	0.98	1.26	10.0		25.0	32.0	NDXD1215EC					
82%																				0.39	0.98	1.26	10.0	25.0		32.0	NDXD2415C						
82%																0.39	0.98	1.26	10.0	25.0	32.0	NDXD2415EC											
82%																0.39	0.98	1.26	10.0	25.0	32.0	NDXD4815C											
±0.28A	8W	5V	4.7V	7.25V	1.5kV	79%											0.38	2.00	1.00	9.5	50.8	25.4	BWR-15/275-D5A-C	BWR 7-10W A-Series									
						84%														0.38	2.00	1.00	9.5		50.8	25.4	BWR-15/330-D12A-C						
±0.33A	10W	12V	9V	18V	1.5kV	79%											0.42	2.00	1.00	10.5	50.8	25.4	WPC10R24D15NC	WPC10R									
						84%														0.38	2.00	1.00	9.5	50.8	25.4	BWR-15/330-D48A-C	BWR 7-10W A-Series						
						82%														0.45	2.00	2.00	11.4	50.8	50.8	BWR-15/500-D5A-C	BWR 15-20W A-Series						
±0.50A	15W	12V	10V	18V	1.5kV	84%											0.47	2.00	1.00	11.8	50.8	25.4	BWR-15/575-D12A-C	BWR 15-17W A-Series									
						86%													0.47	2.00	1.00	11.8	50.8		25.4	BWR-15/575-D24A-C							
						87%														0.47	2.00	1.00	11.8		50.8	25.4	BWR-15/575-D48A-C						
±0.58A	17W	12V	9V	36V	1.5kV	83%											0.45	2.00	2.00	11.4	50.8	50.8	BWR-15/670-D12A-C	BWR 15-20W A-Series									
						87%													0.44	1.99	1.59	11.2	50.6	40.4	WPN20R24D15C	WPN20RC							
						84%														0.45	2.00	2.00	11.4	50.8	50.8	BWR-15/670-D48A-C	BWR 15-20W A-Series						
±0.67A	20W	12V	10V	36V	1.5kV	85%											0.55	3.04	2.04	14.0	77.2	51.8	BMP-15/1.3-Q12-C	BMP 25-40W A-Series									
						88%													0.55	3.04	2.04	14.0	77.2		51.8	BMP-15/1.3-D24-C							
						87%														0.55	3.04	2.04	14.0		77.2	51.8	BMP-15/1.3-D48-C						
						85%														0.55	3.04	2.04	14.0		77.2	51.8	BMP-15/1.3-Q48-C						

Dual Output

(Asymmetric) Isolated DC/DC Converters



When your application requires multiple positive voltages and you can't easily derive one from the other using a non-isolated PoL, consider an asymmetric dual.

Asymmetric duals are isolated, 2-output DC/DC converters that typically provide two low voltages such as 3.3V and 1.8V. As such, they are ideal for driving the core and

I/O logic of complex PLDs or ASICs. On DSL line cards, they can power both the DSP and the line drivers. In evolving process-control systems, they can power older 5V logic and newer 3.3V micros.

Asymmetric duals provide the real estate and cost savings of a single package with one set of input circuitry (stand-up caps, filters,

etc.). On the output side, many duals feature 2-loop designs that effectively deliver two independently regulated converters in a single package . . . with a standard pinout and internationally recognized safety approvals. Why evaluate and qualify two devices when you can do one . . . for less money?

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information	
Rated Output Voltages	Rated Output Currents	Total Output Power	Nom.	Min.	Max.			1/8	1/4	1/2	SM	TH	DIP	SIP	Inches			mm			Part Number <small>Note: Root part numbers may be shown. Please refer to datasheets for available options.</small>	Datasheet <small>Available at www.murata-ps.com</small>
															H	W	D	H	W	D		
3.3/2.5V	15/15A	50W	24V	18V	36V	1.5kV	82%							0.50	2.40	2.30	12.7	61.0	58.4	BCP-3.3/15-2.5/15-D24-C	BCP-50W	
			48V	36V	75V	1.5kV	82%								0.50	2.40	2.30	12.7	61.0	58.4		BCP-3.3/15-2.5/15-D48-C
5/3.3V	0.1/0.152A	1W	5V	4.5V	5.5V	1.0kV	70%							0.27	0.39	0.77	6.8	9.8	19.5	NMD050503DC	NMD	
															0.39	0.24	0.77	10.0	6.0	19.5		NMD050503SC
	2.65/3A	15W	12V	10V	18V	1.5kV	86%							0.52	2.00	1.00	13.2	50.8	25.4	DSM-5/2.65-3.3/3-D12-C	DSM-15W	
															0.45	2.00	1.00	11.4	50.8	25.4		DWR-5/2.65-3.3/3-D12-C
			24V	18V	36V	1.5kV	86%								0.52	2.00	1.00	13.2	50.8	25.4		DSM-5/2.65-3.3/3-D24-C
															0.45	2.00	1.00	11.4	50.8	25.4		DWR-5/2.65-3.3/3-D24-C
	3/4.25A	30W	12V	10V	18V	1.5kV	85%							0.48	2.00	2.00	12.2	50.8	50.8	BWR-5/3-3.3/4.25-D12A-C	BWR-5/3.3 30W	
			24V	18V	36V	1.5kV	88%								0.48	2.00	2.00	12.2	50.8	50.8		BWR-5/3-3.3/4.25-D24A-C
			48V	36V	75V	1.5kV	88%								0.48	2.00	2.00	12.2	50.8	50.8		BWR-5/3-3.3/4.25-D48A-C
	6/7A	33W	12V	10V	18V	1.5kV	86%							0.45	2.00	2.00	11.4	50.8	50.8	BWR-5/6-3.3/7-D12-C	BWR-5/3.3 33W	
			24V	18V	36V	1.5kV	88%								0.45	2.00	2.00	11.4	50.8	50.8		BWR-5/6-3.3/7-D24-C
			48V	36V	75V	1.5kV	88%								0.45	2.00	2.00	11.4	50.8	50.8		BWR-5/6-3.3/7-D48-C
	4.7/3.5A	35W	24V	18V	36V	1.5kV	81%							0.55	3.04	2.04	14.0	77.2	51.8	BMP-5/5-3.3/4-D24-C	BMP5-5	
			48V	36V	75V	1.5kV	82%								0.55	3.04	2.04	14.0	77.2	51.8		BMP-5/5-3.3/4-D48-C
	12/15A	60W	24V	18V	36V	1.5kV	90%							0.50	1.50	2.30	12.7	38.1	58.4	VSX60LD35C	VSX60	
			48V	36	75V	1.5kV	90%								0.50	1.50	2.30	12.7	38.1	58.4		VSX60MD35-1C
			48V	36V	75V	1.5kV	90%								0.50	1.50	2.30	12.7	38.1	58.4		VSX60MD35C
	15/15A	75W	24V	18V	36V	1.5kV	87%							0.53	2.40	2.30	13.3	61.0	58.4	BCP-5/15-3.3/15-D24-C	BCP-75W	
24V			18V	36V	1.5kV	87%								0.53	2.40	2.30	13.3	61.0	58.4	BCP-5/15-3.3/15-D48-C		
5/5V	0.1/0.1A	1W	5V	4.5V	5.5V	1.0kV	70%							0.27	0.39	0.77	6.8	9.8	19.5	NMD050505DC	NMD	
															0.39	0.24	0.77	10.0	6.0	19.5		NMD050505SC
			12V	10.8V	13.2V	1.0kV	70%								0.27	0.39	0.77	6.8	9.8	19.5		NMD120505DC
													0.39	0.24	0.77	10.0	6.0	19.5	NMD120505SC			
5/9V	0.1/0.056A	1W	5V	4.5V	5.5V	1.0kV	80%							0.27	0.39	0.77	6.8	9.8	19.5	NMD050509DC	NMD	
															0.39	0.24	0.77	10.0	6.0	19.5		NMD050509SC
			12V	10.8V	13.2V	1.0kV	80%								0.27	0.39	0.77	6.8	9.8	19.5		NMD120509DC
													0.39	0.24	0.77	10.0	6.0	19.5	NMD120509SC			
5/12V	0.1/0.042A	1W	5V	4.5V	5.5V	1.0kV	80%							0.27	0.39	0.77	6.8	9.8	19.5	NMD050512DC	NMD	
															0.39	0.24	0.77	10.0	6.0	19.5		NMD050512SC
			12V	10.8V	13.2V	1.0kV	80%								0.27	0.39	0.77	6.8	9.8	19.5		NMD120512DC
													0.39	0.24	0.77	10.0	6.0	19.5	NMD120512SC			
5/15V	0.1/0.034A	1W	5V	4.5V	5.5V	1.0kV	80%							0.27	0.39	0.77	6.8	9.8	19.5	NMD050515DC	NMD	
															0.39	0.24	0.77	10.0	6.0	19.5		NMD050515SC
			12V	10.8V	13.2V	1.0kV	80%								0.27	0.39	0.77	6.8	9.8	19.5		NMD120515DC
													0.39	0.24	0.77	10.0	6.0	19.5	NMD120515SC			

Triple Output Isolated DC/DC Converters



If your challenge is to power an entire mixed-signal, analog/digital, system partition from a single dc source voltage, Murata Power Solutions' high-quality, triple-output DC/DC converters can provide your total solution.

Operating from inputs as low as 4.7V or as high as 75V, each of these full-featured power

converters offers a 3.3V or 5V primary output (with current as high as 30 Amps) and either $\pm 12V$ or $\pm 15V$ auxiliary outputs (with currents as high as ± 4.2 Amps).

Our versatile offering includes: the industry's smallest triples (1 x 2 inches, 25 x 50mm) at 8-22W power levels; slightly larger, wide-input (9-36V and 18-75V) devices at

20-30 Watt levels; and traditional 1/2-bricks at 100 Watts. One unique product offers 24, 48 and 72V outputs.

Before you buy two or three DC/DC converters to accomplish your task, see if a single 3-output device from Murata Power Solutions does the job.

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions			Further Information			
Rated Output Voltages	Rated Output Currents	Total Output Power	Norm.	Min.	Max.			1/8	1/4	1/2	SM	TH	DIP	SIP	Inches			mm			Part Number
													H	W	D	H	W	D	<i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	<i>Available at www.murata-ps.com</i>	
3.3/±12V	4/±0.3A	20W	12V	10V	18V	1.5kV	85%						0.49	2	1	12.5	50.8	25.4	TWR-3.3/4-12/300-D12-C	TWR-22W	
	4.25/±0.63A	30W	24V	18V	36V	1.5kV	86%						0.50	2	2	12.7	50.8	50.8	TWR-3.3/4250-12/625-D24-C	TWR-30W	
			48V	36V	75V	1.5kV	87%							0.50	2	2	12.7	50.8	50.8		TWR-3.3/4250-12/625-D48-C
3.3/±15V	4/±0.25A	21W	24V	18V	36V	1.5kV	86%						0.49	2	1	12.5	50.8	25.4	TWR-3.3/4-15/250-D24-C	TWR-22W	
	4.25/±0.5A	30W	48V	36V	75V	1.5kV	87%						0.49	2	1	12.5	50.8	25.4	TWR-3.3/4-15/250-D48-C		
			24V	18V	36V	1.5kV	86%							0.50	2	2	12.7	50.8	50.8	TWR-3.3/4250-15/500-D24-C	TWR-30W
			48V	36V	75V	1.5kV	87%						0.50	2	2	12.7	50.8	50.8	TWR-3.3/4250-15/500-D48-C		
3.3/12/12V	18/2.5/2.5A	60W	24V	18V	40V	1.5kV	86%						0.50	2.4	2.3	12.7	61	58.42	VKP60LT312C	VKP60XT	
3.3/15/15V	18/2.5/2.5A	60W	24V	18V	40V	1.5kV	86%						0.50	2.4	2.3	12.7	61	58.42	VKP60LT315C	VKP60XT	
5/±12V	1/±0.13A	8W	5V	4.7V	7V	1.5kV	76%						0.38	2	1	9.5	50.8	25.4	TWR-5/1000-12/125-D5A-C	TWR8-11W	
			12V	9V	18V	1.5kV	82%							0.38	2	1	9.5	50.8	25.4		TWR-5/1000-12/210-D12A-C
			24V	18V	36V	1.5kV	84%							0.38	2	1	9.5	50.8	25.4		TWR-5/1000-12/210-D24A-C
	48V	36V	72V	1.5kV	85%							0.38	2	1	9.5	50.8	25.4	TWR-5/1000-12/210-D48A-C			
	48V	18V	72V	1.5kV	81%							0.45	2	2	11.4	50.8	50.8	TWR-5/1200-12/250-D48A-C	TWR12-15W		
	48V	18V	72V	1.5kV	79%							0.45	2	2	11.4	50.8	50.8	TWR-5/1500-12/250-D48A-C			
	3/±0.5A	20W	24V	9V	36V	1.5kV	82%						0.45	2	2	11.4	50.8	50.8	TWR-5/3000-12/500-D12A-C	TWR 20W A-SERIES	
			48V	18V	75V	1.5kV	83%						0.45	2	2	11.4	50.8	50.8	TWR-5/3000-12/500-D48A-C		
	3/±0.3A	22W	12V	10V	18V	1.5kV	85%						0.49	2	1	12.5	50.8	25.4	TWR-5/3-12/300-D12-C	TWR-22W	
			24V	18V	36V	1.5kV	86%						0.49	2	1	12.4	50.8	25.4	TWR-5/3-12/300-D24-C		
			48V	36V	75V	1.5kV	87%						0.49	2	1	12.5	50.8	25.4	TWR-5/3-12/300-D48-C		
	5/±1A	25W	24V	10V	36V	1.5kV	84%						0.55	3	2	14	77.2	51.8	TMP-5/5-12/1-Q12-C	TMP25-40W	
48V			18V	75V	1.5kV	86%						0.55	3	2	14	77.2	51.8	TMP-5/5-12/1-Q48-C			
24V			18V	36V	1.5kV	85%						0.55	3	2	14	77.2	51.8	TMP-5/5-12/1-D24-C			
48V			36V	75V	1.5kV	86%						0.55	3	2	14	77.2	51.8	TMP-5/5-12/1-D48-C			
5/±15V	0.8/±0.15A	9W	5V	4.7V	7V	1.5kV	74%						0.38	2	1	9.5	50.8	25.4	TWR-5/800-15/150-D5A-C	TWR8-11W	
			12V	9V	18V	1.5kV	82%							0.38	2	1	9.5	50.8	25.4		TWR-5/1000-15/200-D12A-C
			48V	36V	72V	1.5kV	84%							0.38	2	1	9.5	50.8	25.4		TWR-5/1000-15/200-D48A-C
	24V	18V	36V	1.5kV	84%							0.38	2	1	9.5	50.8	25.4	TWR-5/1000-15/200-D24A-C			
	48V	18V	72V	1.5kV	80%							0.45	2	2	11.4	50.8	50.8	TWR-5/1000-15/250-D48A-C	TWR12-15W		
	48V	18V	72V	1.5kV	81%							0.45	2	2	11.4	50.8	50.8	TWR-5/1500-15/250-D48A-C			
	3/±0.5A	20W	24V	9V	36V	1.5kV	82%						0.45	2	2	11.4	50.8	50.8	TWR-5/3000-15/500-D12A-C	TWR 20W A-SERIES	
			48V	18V	75V	1.5kV	82%						0.45	2	2	11.4	50.8	50.8	TWR-5/3000-15/500-D48A-C		
3/±0.25A	20W	24V	18V	36V	1.5kV	86%						0.49	2	1	12.5	50.8	25.4	TWR-5/3-15/250-D24-C	TWR-22W		
		48V	36V	75V	1.5kV	87%						0.49	2	1	12.5	50.8	25.4	TWR-5/3-15/250-D48-C			
		12V	10V	18V	1.5kV	85%						0.49	2	1	12.5	50.8	25.4	TWR-5/3-15/250-D12-C			
5/±15V	5/±1A	40W	24V	10V	36V	1.5kV	85%						0.55	3	2	14	77.2	51.8	TMP-5/5-15/1-Q12-C	TMP25-40W	
			48V	18V	75V	1.5kV	85%						0.55	3.04	2.04	14	77.2	51.8	TMP-5/5-15/1-Q48-C		
			24V	18V	36V	1.5kV	86%						0.55	3.04	2.04	14	77.2	51.8	TMP-5/5-15/1-D24-C		
			48V	36V	75V	1.5kV	85%						0.55	3.04	2.04	14	77.2	51.8	TMP-5/5-15/1-D48-C		

Output Characteristics			Input Voltage			Isolation	Efficiency	Package Style							Package Dimensions						Further Information	
Rated Output Voltages	Rated Output Currents	Total Output Power	Nom.	Min.	Max.			Bricks		SM	TH	DIP	SIP	Inches			mm			Part Number <i>Note: Root part numbers may be shown. Please refer to datasheets for available options.</i>	Datasheet Available at www.murata-ps.com	
								1/8	1/4					1/2	H	W	D	H	W			D
5/12/12V	12/2.5/2.5A	60W	24V	18V	40V	1.5kV	87%			•	•	•	0.50	2.4	2.3	12.7	61.0	58.4	VKP60LT512C	VKP60XT		
										•	•	•	0.50	2.4	2.3	12.7	61.0	58.4	IHB60T240512C	IHB60TC		
5/15/15V	12/2/2A	60W	24V	18V	40V	1.5kV	87%			•	•	•	0.50	2.4	2.3	12.7	61.0	58.4	VKP60LT515C	VKP60XT		
24/48/72V	42/21/14mA	3W	5V	4.5V	5.5V	1.0kV	85%			•	•	•	0.44	0.30	0.86	11.1	7.5	21.8	NMT0572SC	NMT		
			12V	10.8V	13.2V	1.0kV	85%			•	•	•	0.44	0.30	0.86	11.1	7.5	21.8	NMT1272SC			

Processor Support

Powering next generation 32-Bit and 64-Bit processors is becoming more demanding, requiring lower output voltages, higher currents, and higher di/dts.

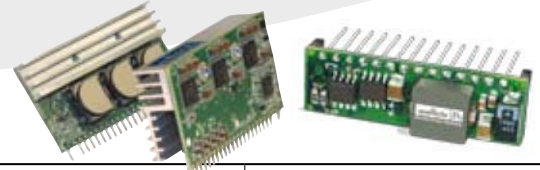
Our VRM products are designed to meet and exceed the performance demanded

by the next generation processors and are available in a variety of packages for an optimal fit in systems <1U to 2U with innovative open-frame designs that allow for better thermal management in today's system environments.



Output Characteristics				Input Voltage			Efficiency	Package Style					Package Dimensions						Further Information		
VRM Spec	Thermal Design Current	Max. Output Current	Output Voltage Range (VDC)	Nom.	Min.	Max.		Card Edge	Thru Hole	Height				Inches			mm			Part Number	Datasheet Available at www.murata-ps.com
								<1U	1U	1.5U	2U	H	W	D	H	W	D				
Intel® 11.1	80A	70A	0.5-1.6	12	11.04	12.6	87%	•	•				0.78	3.66	0.75	19.81	92.96	19.05	VR111B080CA-C	VR111 Series (Fall 2008)	
	150A	130A	0.5-1.6	12	11.04	12.6	87%	•		•			1.18	3.80	0.87	29.97	96.52	22.10	VR111B150CU-C		
								•			•		1.86	3.80	1.00	47.24	96.52	25.40	VR111B150CL-C		
								•			•		2.50	3.80	0.87	63.50	96.52	22.10	VR111B150CS-C		
Intel® 11.0	80A	70A	0.8375-1.6	12	11.04	12.6	88%	•	•				0.78	3.66	0.75	19.81	92.96	19.05	VR110B080CA-1C	VR110 Series	
							84%	•		•		1.18	3.80	0.475	29.97	96.52	12.07	VR110B080CU-1C			
	150A	130A	0.8375-1.6	12	11.04	12.6	84%			•			1.18	3.80	0.87	29.97	96.52	22.10	VR110B150CU-1C		
											•		1.86	3.80	1.00	47.24	96.52	25.40	VR110B150CL-1C		
Intel® 10.1/10.2	150A	130A	0.8375-1.6	12	11.04	12.6	85%	•			•		1.18	3.80	0.87	29.97	96.52	22.10	VR102B150CU-3C	VR102 Series	
								•			•		2.50	3.80	0.87	63.50	96.52	22.10	VR102B150CS-2C		
AMD® K8	80A	70A	0.80-1.55	12	11.2	13.2	85%	•			•		1.16	3.80	1.00	29.46	96.52	25.40	VRK81B080CU-1C	VRK81 Series	
							85%	•		•		2.12	3.80	0.80	53.85	96.52	20.32	VRK81B0100CS-1C			
	86%	•	•			0.42	2.73	2.22	10.54	69.34	56.39	VRK81B100TH-4C									

Memory Support



Output Characteristics			Input Voltage			Efficiency	Package Style					Package Dimensions						Further Information		
DDR Spec	Max. Output Current	Output Voltage Range (VDC)	Nom.	Min.	Max.		Card Edge	SIP	Height				Inches			mm			Part Number	Datasheet Available at www.murata-ps.com
							<1U	1U	1.5U	2U	H	W	D	H	W	D				
DDR Termination	9A	0.7-1.45	3.3	3	5.5	83%	•	•					0.50	1.60	0.35	12.70	40.64	8.89	DDR-9-W3-C	DDR Series
							•	•				0.35	1.60	0.50	8.89	40.64	12.70	DDR-9-W3H-C		
DDR1, DDR2, DDR3	60A	0.6-3.5	12	10.2	13.2	88%	•	•					1.25	2.40	0.38	31.75	60.96	9.53	VCN60BADJTU-1C	VCN60/70 Series
	70A	0.6-3.5	12	10.2	13.2	87%	•	•					1.25	2.40	0.66	31.75	60.96	16.76	VCN70BADJTU-1C	

Other products from Murata Power Solutions...

Digital Panel Meters

From standard, off-the-shelf products to application specific designs, our DATEL digital panel meters are a versatile and cost-effective solution for a number of applications.



- **General Purpose Voltmeters**
12-pin, dual-in-line package offering component-like "plug-in" convenience for pc-board mounting and a built-in bezel for easy panel mounting.
- **2-Wire Meters**
Power your measuring instrument with the signal you're measuring! Measure the voltage at a standard USA-style wall outlet simply by "plugging in" an AC line monitor.
- **Process Monitors**
4/20mA and 0-10V process control monitors
- **AC Ammeters**
Directly measure AC currents from 0-2A to 0-100A
- **DC Ammeters**
Include built-in shunts, reverse-polarity protection, and connections for all supply and load wiring

Magnetics

Two essential elements of the vast majority of power electronics applications are filtering and isolation. Whether you need to reduce noise or protect vital components, Murata Power Solutions can offer a wide range of products to suit your requirements.



- **Inductors & Transformers**
Over 800 highly advanced and optimized inductor and transformer solutions with the emphasis on miniaturization, reliability, and ease of handling. These power oriented designs comprise the following through-hole & surface-mount products:
 - Inductors
 - Common-mode chokes
 - Pulse transformers (general purpose/digital audio/silicon support)
 - Current sense transformers
 - Agency approved transformers
 - Databus isolators
 - Custom designs
- **DC/DC Converter Filters**
To reduce differential and common mode noise

AC/DC Power Supplies

Murata Power Solutions can develop AC/DC power supplies to meet almost every possible application requirement in terms of power, performance, efficiency, protection, size, approvals compliance, and cooling requirements.



- **Front End Modules for DPAs**
AC to 12VDC or 48VDC ultra compact front end supplies for distributed power architectures with active power factor correction
- **Open Frame**
High-efficiency 200-400W single, dual, and triple output solutions in 1U chassis
- **CompactPCI**
High-efficiency 3U and 6U solutions from 150W to 500W including space-saving 4HP models
- **CATV / Telco**
Ultra-reliable, ruggedized power supplies for harsh CATV and Telecommunications
- **High-Rel**
Our Celab division has over 30 years' experience designing and producing custom power supplies.
- **Custom Solutions**
Custom product solutions from 7W to 5kW

Hybrid Technologies

Our leadership status in high-performance data acquisition components is unchallenged in the areas of electrical performance, small packaging, and low-power consumption.



- **Electronic Imaging**
Resolution from 8 to 18-bits and sampling rates 20MSPS, low-cost commercial and High-Rel versions
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- **Sampling A/D Converters**
Ideal for high-end applications such as medical or life-science imaging, analytical instrumentation, and military pulse and spread-spectrum applications
- **Digital-to-Analog Converters**
Settling times to 20 nanoseconds, update rates to 100MHz
- **Sample/Hold Amplifiers**
Accuracies from 0.01% to 0.0008% (12 to 16 bit equivalent resolution)
- **Single-Package Data Acquisition**
Multi-channel with differential or single-ended options
- **Multiplexers**

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- 1 Safety Critical Component means any component whose failure to perform could cause the failure of, or affect the operation of a Life Support Device.
- 2 Life Support Device means any device, system or ancillary equipment intended for implant into the body or used in relation to supporting or sustaining life.

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