

Murata Power Solutions' latest

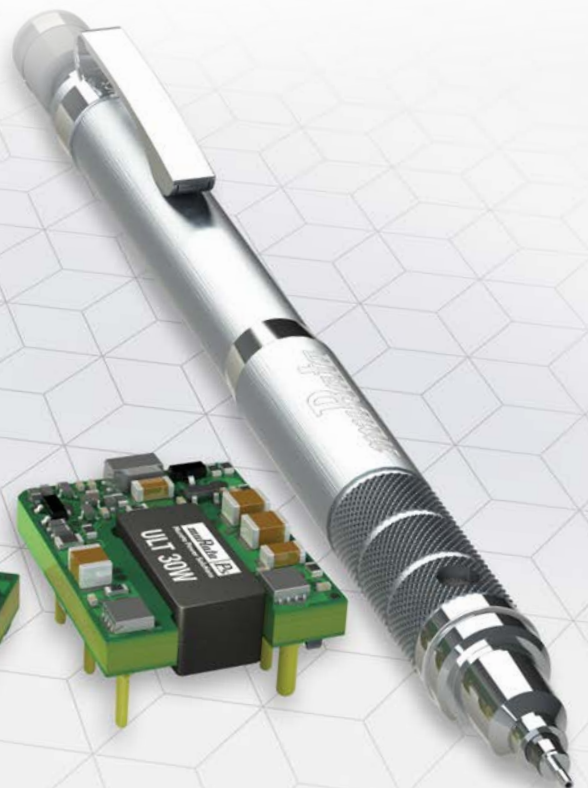
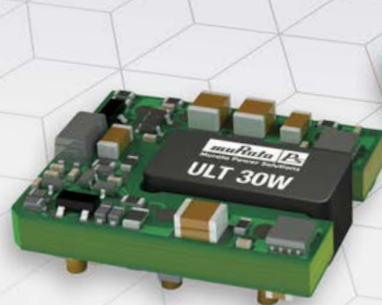
# DC-DC Converters

## Isolated

Single, dual & triple output: <1W to 450W

## Non-isolated

Point-of-Load: 1A to 16A



## DC-DC Products



### Powering innovation

Your preferred power partner, delivering innovative solutions you can rely on, again & again

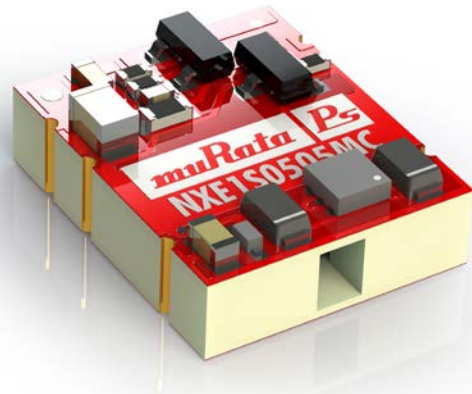


### About Murata Power Solutions

The number one supplier of board-mount power and among the top suppliers of overall power electronics.

From 0.25W isolated converters to 2100W front-end power supplies, along with filtering and isolation solutions, our current offering exceeds 3,500 standard models developed in our design and manufacturing centers located in the US, Canada, UK, Japan and China.

Murata's worldwide network of technical sales managers, FAEs, customer support and industry-leading distributors, reliably support the power requirements of local and global manufacturers of telecommunications equipment, data management systems, industrial controls, transportation electronics, energy systems, and more.



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*This catalogue contains typical specifications. Please consult the product data sheet for complete specifications.*

### Our DC-DC Converters

This catalogue provides specifications for our entire offering of:

#### Point-of-Load converters

- DOSA compatible designs
- A new breed of DC-DCs

#### Isolated DC to DC converter products

- Single, dual, and triple output
- Power from 0.25 to 450 Watts; currents from 0.02 to 50 Amps

#### Bricks

- DOSA compliant 1/32 to 1/2
- 1 x 1" and 2 x 2" encapsulated

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## Find

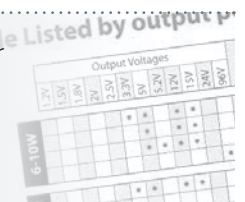
your output voltage from the product data tables



2

## Refer

to quick selection guides for Output power (isolated) Output current (PoLs)



3

## Choose

the ideal product series for your application



4

## Visit

[www.power-murata.com](http://www.power-murata.com) for data sheets and complete specifications



## Point-of-Load

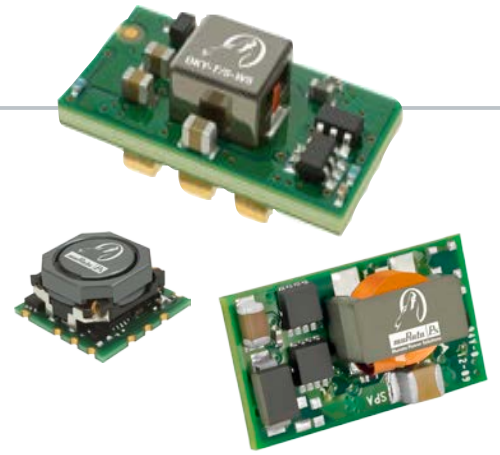
### Non-isolated DC-DC converter series

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 6V at current levels from 2 to 50A. Input voltages are centered around traditional 3, 5 and 12V levels, with some devices operating from 7.5 to 40V. Standard packages include SMT and SIP models.

The newest SMT and SIP models offer user programmable outputs (0.6-15.5V) while operating from wide-range inputs (2.4-5.5V, 2.9-14V, 4.5-14V, 6-14V, 8.3-14V, 9-32V, 16-40V, or 19-40V). For many applications, they can be genuine "one-size-fits-all" solutions.

PoLs may be powered from AC to 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.



#### User programmable output voltages

Part Number* Note: Root part numbers may be shown. Please refer to datasheets for available options.	Output Characteristics			Input Voltage			Efficiency	Package				Package Dimensions						Datasheet Available at <a href="http://www.murata-ps.com">www.murata-ps.com</a>	
	Rated Output Current	Rated Output Voltage	Total Output Power	Nom.	Min.	Max.		SM	TH	DIP	SIP	Inches			mm				
												L	W	H	L	W	H		
OKL-T/1-W12x-C*	1A	0.9-5.5V	5W	12V	2.9V	14V	90%	✓				0.49	0.18	0.49	12.4	4.57	12.4	OKL-T/1-W12	
OKR-T/1.5-W12-C	1.5A	0.591-6V	7.5W		4.5V		9V	32	93%			✓		0.41	0.24	0.40	10.4	6.1	10.16
OKI-T/3-W32x-C*	3A	0.7525-4.5V	13.5W	24V	9V	40V	89%	✓				0.82	0.34	0.47	11.9	8.5	11.9	OKI-T/3-W32	
OKI-T/3-W40x-C*		0.7525-5.5V	15W		16V		88%	✓				0.82	0.34	0.47	11.9	8.5	11.9	OKI-T/3-W40	
OKI-T/36W-W40x-C*		5.021-15.5V	36W	19V	95%	✓				0.82	0.34	0.47	11.9	8.6	11.9	OKI-T/36W-W40			
OKL-T/3-W5x-C*		0.6-3.63V	9.9W	5V	2.4V	5.5V	95%	✓					0.48	0.24	0.48	12.2	6.2	12.2	OKL-T/3-W5
OKL-T/3-W12x-C*	3A	0.591-5.5V	15W	12V	4.5V	14V	93%	✓				0.48	0.24	0.48	12.2	6.2	12.2	OKL-T/3-W12	
OKX-T/3-D12-C		0.75-5.5V			8.3V			✓			0.40	0.09	0.28	10.16	22.9	7.2	OKX-T/3-D12		
OKY-T/3-D12x-C*		0.75-5.5V	8.3V	✓			0.47	0.082	0.28	11.9	20.8	7.0	OKY-T/3, T/5-D12						
OKX-T/3-W5-C		0.7525-3.63V	9.9W	5V	2.4V	5.5V	94%	✓				0.40	0.09	0.28	10.16	22.9	7.2	OKX-T/3-W5	
OKY-T/3-W5x-C*	0.7525-3.63V	9.9W	5V	2.4V	5.5V	94%	✓				0.47	0.082	0.28	11.9	20.8	7.0	OKY-T/3, T/5-W5		
OKR-T/3-W12-C	0.591-6V	15W	12V	4.5V	14V	93%				✓		0.65	0.22	0.41	10.4	5.6	10.4	OKR-T/3-W12	
OKX-T/5-D12-C	0.75-5.5V	25W		8.3V			✓			0.40	0.09	0.28	10.16	22.9	7.2	OKX-T/5-D12			
OKY-T/5-D12x-C*	5A	0.75-5.5V	16.5W	5V	2.4V	5.5V	94%	✓				0.47	0.082	0.28	11.9	20.8	7.0	OKY-T/3, T/5-D12	
OKX-T/5-W5-C		0.7525-3.63V						94%	✓			0.40	0.09	0.28	10.16	22.9	7.2	OKX-T/5-W5	
OKY-T/5-W5x-C*		0.7525-3.63V	16.5W	94%	✓			0.47	0.082	0.28	11.9	20.8	7.0	OKY-T/3, T/5-W5					
OKL-T/6-W5x-C*		0.6-3.3V	19.8W	12	4.5V	14V	93%	✓					0.48	0.28	0.48	12.2	7.2	12.2	OKL-T/6-W5
OKL-T/6-W12x-C*	0.591-5.5V	30W	96%								0.48	0.28	0.48	12.2	7.2	12.2	OKL-T/6-W12		
OKR-T/6-W12-C	0.591-6V	30W	12	4.5V	14V	92%				✓		0.65	0.3	0.41	10.4	7.6	10.4	OKR-T/6-W12	
OKR-T/10-W12-C	0.7525-5.5V	50W					95%				0.65	0.3	0.41	10.4	7.6	10.4	OKR-T/10-W12		
OKX-T/10-D12x-C*	10A	0.7525-5.5V	33W	5V	2.4V	5.5V	96%				✓		2	0.5	0.37	9.4	12.7	9.4	OKX-T/10, T/16-D12
OKY-T/10-D12x-C*		0.7525-3.63V						33W	8.3V	95%				0.53	0.33	1.3	33	8.4	33
OKY-T/10-W5x-C*		0.7525-5.5V	50W	12V	8.3V	14V	95%	✓					1.3	0.33	0.53	13.5	8.3	13.5	OKY-T/10, T/16-W5
OKX-T/16-D12x-C*		0.7525-3.63V	33W	5V	2.4V	5.5V	95%	✓					1.3	0.33	0.53	13.5	8.3	13.5	OKY-T/10, T/16-W5
OKX-T/16-D12x-C*	16A	0.7525-5.5V	80W	12V	8.3V	14V	94%				✓		0.5	0.37	2	50.8	9.4	50.8	OKX-T/10, T/16-D12
OKX-T/16-W5x-C*		0.7525-3.63V	52.8W	5V	2.4V	5.5V	95%				✓		2	0.5	0.37	9.4	12.7	9.4	OKX-T/10, T/16-W5
OKY-T/16-D12x-C*		0.7525-5.5V	80W	12V	8.3V	14V	94%	✓					0.53	0.33	1.3	33	8.4	33	OKY-T/10, T/16-D12
OKY-T/16-W5x-C*		0.7525-3.63V	52.8W	5V	2.4V	5.5V	95%	✓					1.3	0.33	0.53	13.5	8.3	13.5	OKY-T/10, T/16-W5
OKDx-T/40-W12-C**	40A	0.6-3.3V	132W	12	4.5V	14V	95%	✓	✓		✓		1.215	0.787	0.323	30.85	20.0	8.2	OKDx-T/40-W12

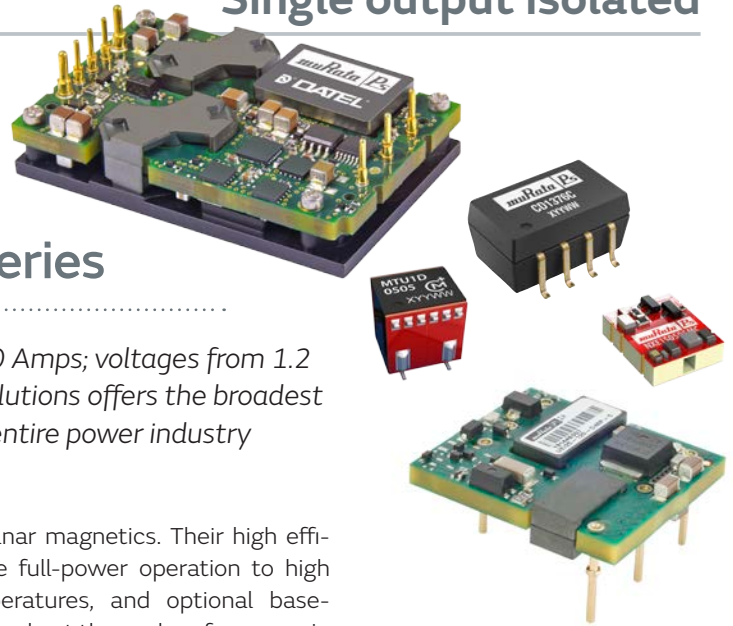
\*x = N (negative) or P (positive) logic \*\*x = Form factor

#### OKI-78SR Series fixed output voltages

OKI-78SR3.3/1.5-W36-C	1.5A	3.3V	4.95W	24V	7V	36V	86%			✓	0.65	0.3	0.41	16.5	7.62	10.4	OKI-78SR
OKI-78SR3.3/1.5-W36H-C										✓	0.65	0.3	0.41	16.5	7.62	10.4	
OKI-78SR5/1.5-W36-C		5V	7.5W				91%			✓	0.65	0.3	0.41	16.5	7.62	10.4	
OKI-78SR5/1.5-W36H-C										✓	0.65	0.3	0.41	16.5	7.62	10.4	

# Single output

## Isolated DC to DC converter series



Power from 0.25 to 300 Watts; currents from 0.02 to 80 Amps; voltages from 1.2 to 96 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 ...without a doubt.

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.

boards and planar magnetics. Their high efficiencies enable full-power operation to high ambient temperatures, and optional base-plates deliver the best thermal performance in the industry.

At the other extreme, our high-power 1/32, 1/16, 1/8, 1/4, and 1/2 bricks are open-frame assemblies using multi-layer, heavy-copper pc

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 Power	Output Voltages							Series		
	3.3V	5V	6V	9V	12V	15V	20V		24V	
<1W	✓	✓			✓			CME		
		✓						CMR		
			✓	✓	✓	✓		LME		
				✓	✓	✓	✓	NMF		
2-3W	✓	✓	✓	✓	✓	✓		MEE1		
	✓	✓	✓	✓	✓	✓		MEF1		
	✓	✓	✓	✓	✓	✓		MEJ1		
	✓	✓	✓	✓	✓	✓		MER1		
	✓	✓	✓	✓	✓	✓		MEU1		
	✓	✓	✓	✓	✓	✓		MEV1		
	✓	✓	✓	✓	✓	✓	✓	MMV1		
	✓	✓	✓	✓	✓	✓		MTE1		
	✓	✓	✓	✓	✓	✓		MTU1		
	✓	✓	✓	✓	✓	✓		NCS1		
	✓	✓	✓	✓	✓	✓		NKE		
	✓	✓	✓	✓	✓	✓	✓	NME		
3-4W	✓	✓	✓	✓	✓	✓		NMJ		
	✓	✓	✓	✓	✓	✓		NMR		
	✓	✓	✓	✓	✓	✓		NMV		
	✓	✓	✓	✓	✓	✓		NTE		
	✓	✓	✓	✓	✓	✓		NXE1		
	✓	✓	✓	✓	✓	✓		PWR13XXC		
	✓	✓	✓	✓	✓	✓		NDL		
	✓	✓	✓	✓	✓	✓		MEJ2		
	✓	✓	✓	✓	✓	✓	✓	MTU2		
	✓	✓	✓	✓	✓	✓		NMG		
	✓	✓	✓	✓	✓	✓		NMK		
	✓	✓	✓	✓	✓	✓		NML		
6-10W					✓	✓		NCM6		
					✓	✓		NCS6		
					✓	✓		NDS6		
							✓	UWR 9.6W		
	10-12W					✓	✓		NPH10	
						✓	✓		NCS12	
		15-18W					✓	✓		NPH15
							✓	✓	✓	RUW15
						✓	✓		SPM15	
						✓	✓		UEI15	
	18-25W					✓	✓		UEI25	
						✓	✓		UHE 12-30W	
25-35W					✓	✓		SPM25		
					✓	✓		UEI30		
					✓	✓		ULS-30W		
					✓	✓		ULT		
35-50W					✓	✓		UEI 50-60W		
					✓	✓		UEE		
					✓	✓		UWS		
50-75W					✓	✓		UEI 50-60W		
					✓	✓		ULE		
					✓	✓		ULS		
					✓	✓		UVQ		
					✓	✓		UWE		
					✓	✓		UWS		
75-100W					✓	✓		PAE		
					✓	✓		UEE		
					✓	✓		ULS 100W		
					✓	✓		UQQ		
					✓	✓		UVQ		
100-120W					✓	✓		UWE 100-120W		
					✓	✓		UVE 100-120W		
120-240W					✓	✓		EMH		
					✓	✓		HPQ 165W		
					✓	✓		HPQ 182.6W		
					✓	✓		PAQ		
					✓	✓		RBE		
300-450W					✓	✓		UEE 150W		
					✓	✓		UWQ		
					✓	✓		HPQ 300W		
					✓	✓		PAH 350W		
					✓	✓		PAH 450W		
				✓	✓		PAH 450W			
				✓	✓		RBQ			







# Single output isolated

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 <small>Note: Root part numbers may be shown. Please refer to data-sheets for available options.</small>	Datasheet Available at <a href="http://www.murata-ps.com">www.murata-ps.com</a>											
								1/32	1/16	1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H										
5V	0.2A	1W	5V	4.5V	5.5V	1kV	81%												0.327	0.240	0.313	8.3	6.1	7.95	MEU1S0505ZC	MEU1								
							84%																	0.24	0.24	0.39	6	19.5	10	MER1S0505SC	MER1			
							82%																		0.5	0.43	0.27	12.7	11	7.05	MTE1S0505MC	MTE1		
							83%																		0.323	0.331	0.335	8.2	8.4	8.5	MTU1S0505MC	MTU1		
							69%																		0.39	0.45	0.27	9.8	11.5	6.8	NME0505DC	NME		
							69%																		0.24	0.45	0.39	6	11.5	10	NME0505SC	NME		
						69%																		0.24	0.77	0.39	6	19.5	10	NMR100C	NMR			
						68%																		0.30	0.5	0.26	7.7	12.7	6.6	NTE0505MC	NTE			
						77%																		0.30	0.5	0.26	7.7	12.7	6.6	NTE0505MEC	NTE			
						84%																		0.39	0.77	0.27	9.8	19.5	6.8	MEV1S0505DC	MEV1			
						78%																		0.24	0.77	0.39	6	19.5	10	MEV1S0505SC	MEV1			
						69%																		0.39	0.45	0.21	9.8	11.5	5.4	NKE0505DC	NKE			
						78%																		0.24	0.45	0.29	6	11.5	7.5	NKE0505SC	NKE			
						68%																		0.39	0.45	0.21	9.8	11.5	5.4	NKE0505DEC	NKE			
						68%																		0.24	0.45	0.29	6	11.5	7.5	NKE0505SEC	NKE			
						68%																		0.39	0.77	0.27	9.8	19.5	6.8	NMV0505DAC	NMV			
						72%																		0.24	0.77	0.39	6	19.5	10	NMV0505SAC	NMV			
						68%																		0.39	0.77	0.49	9.8	19.5	12.5	MEJ1S0505SC	MEJ1			
			68%																		0.39	0.77	0.49	9.8	19.5	12.5	NMJ0505SAC	NMJ						
			73%																		0.774	0.242	0.40	19.65	6.15	10.15	MEF1S0505SPC	MEF1						
			73%																		0.774	0.242	0.40	19.65	6.15	10.15	MEF1S0505SP3C	MEF1						
			12V	10.8V	13.2V	1kV	79%															0.39	0.45	0.27	9.8	11.5	6.8	MEE1S1205DC	MEE1					
							84%																	0.24	0.45	0.39	6	11.5	10	MEE1S1205SC	MEE1			
							83%																	0.327	0.240	0.313	8.3	6.1	7.95	MEU1S1205ZC	MEU1			
							84%																	0.5	0.43	0.27	12.7	11	7.05	MTE1S1205MC	MTE1			
							84%																		0.323	0.331	0.335	8.2	8.4	8.5	MTU1S1205MC	MTU1		
							69%																		0.39	0.45	0.27	9.8	11.5	6.8	NME1205DC	NME		
							69%																		0.24	0.45	0.39	6	11.5	10	NME1205SC	NME		
							69%																		0.24	0.77	0.39	6	19.5	10	NMR106C	NMR		
							67%																		0.30	0.5	0.26	7.7	12.7	6.6	NTE1205MC	NTE		
							84%																		0.39	0.77	0.27	9.8	19.5	6.8	MEV1S1205DC	MEV1		
							84%																		0.24	0.77	0.39	6	19.5	10	MEV1S1205SC	MEV1		
							71%																		0.39	0.45	0.21	9.8	11.5	5.4	NKE1205DC	NKE		
						69%																		0.24	0.45	0.29	6	11.5	7.5	NKE1205SC	NKE			
						69%																		0.39	0.77	0.27	9.8	19.5	6.8	NMV1205DAC	NMV			
						69%																		0.24	0.77	0.39	6	19.5	10	NMV1205SAC	NMV			
						69%																		0.39	0.77	0.49	9.8	19.5	12.5	NMJ1205SAC	NMJ			
						74.5%																		0.77	0.390	0.50	19.5	9.95	12.65	MEJ1S1205SC	MEJ1			
						79%																		0.861	0.323	0.445	21.87	8.2	11.30	NCS1S1205SC	NCS1			
						1kV	73.5%																	0.774	0.242	0.40	19.65	6.15	10.15	MEF1S1205SPC	MEF1			
							73.5%																	0.774	0.242	0.40	19.65	6.15	10.15	MEF1S1205SP3C	MEF1			
						15V	13.5V	16.5V	1kV	77%															0.39	0.45	0.27	9.8	11.5	6.8	MEE1S1505DC	MEE1		
										83%																	0.5	0.43	0.27	12.7	11	7.05	MTE1S1505MC	MTE1
										83.5%																	0.24	0.77	0.39	6	19.5	10	MER1S1505SC	MER1
										69%																	0.24	0.77	0.39	6	19.5	10	NMR112C	NMR
			83.5%																						0.39	0.77	0.27	9.8	19.5	6.8	MEV1S1505DC	MEV1		
			67%																						0.24	0.77	0.39	6	19.5	10	NMV1505SAC	NMV		
			74%																					0.77	0.390	0.50	19.5	9.95	12.65	MEJ1S1505SC	MEJ1			
82%																					0.861	0.323	0.445	21.87	8.2	11.30	NCS1S2405SC	NCS1						
1kV	75%																				0.39	0.45	0.27	9.8	11.5	6.8	MEE1S2405DC	MEE1						
	84%																				0.24	0.45	0.39	6	11.5	10	MEE1S2405SC	MEE1						
	83%																				0.5	0.43	0.27	12.7	11	7.05	MTE1S2405MC	MTE1						



# Single output isolated

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 Note: Root part numbers may be shown. Please refer to data-sheets for available options.	Datasheet Available at www.murata-ps.com														
								1/32	1/16	1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H													
5V	0.2A	1W	24V	21.6V	26.4V	1kV	70%																		NME2405DC	NME2											
							84%																							NME2405SC							
						84%																								NMR118C	NMR						
			24V	22.8V	25.2V	3kV	84%																						MEV1S2405DC	MEV1							
							84%																								MEV1S2405SC						
						75%																									MEJ1S2405SC	MEJ1					
	48V	43.2V	52.8V	1kV	73%																							MEF1S2405SPC	MEF1								
					73%																									MEF1S2405SP3C							
				79.5%																										MER1S4805SC	MER1						
	0.3A	1.5W	5V	4.5V	5.5V	8kV	75%																					PWR1300AC	PWR13XXC								
							75%																										PWR1306AC				
	0.4A	2W	3.3V	2.97	3.63	1kV	79%																						MTU2S0305MC	MTU2							
							74%																									MEJ2S0305SC	MEJ2				
	0.4A	2W	5V	4.5V	5.5V	1kV	82%																						MTU2S0505MC	MTU2							
							81%																										NMG0505SC	NMG			
							78%																											NML0505SC	NML		
							80%																											NMK0505SAC	NMK		
							75%																											MEJ2S0505SC	MEJ2		
							66%																											NDL0505SC	NDL		
			12V	10.8V	13.2V	1kV	73%																									NDL1205SC	NDL				
							85%																											MTU2S1205MC	MTU2		
							81%																												NMG1205SC	NMG	
							81%																												NML1205SC	NML	
							80%																												NMK1205SAC	NMK	
							78%																												MEJ2S1205SC	MEJ2	
			15V	13.5V	16.5V	3kV	84%																										NMK1505SAC	NMK			
							76%																											MEJ2S1505SC	MEJ2		
							74%																												NDL2405SC	NDL	
							80%																												MTU2S2405MC	MTU2	
							84%																												NMK2405SAC	NMK	
74%																																		NDL4805SC	NDL		
0.6A	3W	5V	4.5V	5.5V	1kV	83%																								MEE3S0505SC	MEE3						
						83%																											MEV3S0505SC	MEV3			
						71%																												NDTS0505C	NDTS		
						66%																												NDY0505C	NDY		
		12V	9V	18V	1kV	73%																											NDTS1205C	NDTS			
						71%																												NDY1205C	NDY		
						85%																													MEE3S1205SC	MEE3	
						84%																												MEV3S1205SC	MEV3		
		24V	18V	36V	1kV	78%																											NDTS2405C	NDTS			
						70%																													NDY2405C	NDY	
						75%																													NDTS4805C	NDTS	
						73%																													NDY4805C	NDY	
1.2A	6W	12V	9V	36V	1.5kV	82%																									NCS6S1205C	NCS6					
						82%																													NDS6S2405C	NDS6	
						80%																													NCS6S4805C	NCS6	
		48V	18V	75V	5.2kV	80%																												NCM6S0505C	NCM6		
						82%																															NCM6S1205C
						78%																															NCM6S4805C
1.96A	10W	24V	18V	36V	1.5kV	83%																											NPH10S2405EIC	NPH10S			
						83%																															NPH10S2405IC
		83%																															NPH10S4805EIC				
		83%																															NPH10S4805IC				
2.4A	12W	12V	9V	36V	1.5kV	88%																													NCS12S1205C	NCS12	
						87.5%																															

# Single output isolated

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 data-sheets for available options.</small>	Datasheet Available at <a href="http://www.murata-ps.com">www.murata-ps.com</a>						
								1/32	1/16	1/8	1/4	1/2	L	W	H	L	W	H											
5V	3A	15W	24V	9V	36V	1.5kV	87%									1.1	0.96	0.36	27.9	24.4	9.1	UEI15-050-Q12P-C	UEI 15W						
						1.6kV	88%									1	1	0.41	25.4	25.4	10.4	SPM15-050-Q12	SPM15						
			24V	18V	36V	1.5kV	84%										0.98	1.97	0.39	25	50	10	NPH15S2405EIC	NPH15S					
														0.98	1.97	0.39	25	50	10	NPH15S2405IC	NPH15S								
			48V	18V	75V	2.25kV	86%										1.1	0.96	0.36	27.9	24.4	9.1	UEI15-050-Q48N-C	UEI15W					
						1.5kV	85%									0.98	1.97	0.39	25	50	10	NPH15S4805EIC	NPH15S						
	N/A	16V	160V	4kV	78%										2	2	0.79	50.8	50.8	20	RUW15SL05C	RUW15							
					77%									2	2	0.79	50.8	50.8	20	RUW15SL05HC									
	5A	25W	48V	24V	9V	36V	1.5kV	87.5%								2	1.6	0.4	50.8	40.6	10.2	UHE-5/5000-Q12-C	UHE12-30W						
							1.5kV	90%							2	1.6	0.4	50.8	40.6	10.2	UHE-5/5000-Q48-C								
							1.6kV	91%							1	1	0.41	25.4	25.4	10.4	SPM25-050-D48	SPM25							
				36V	75V	1.5kV	89%										0.92	0.75	0.35	23.4	19.1	8.9	ULT-5/5-D48	ULT					
						2.25kV	91%										1.1	0.32	0.96	27.9	8.13	24.4	UEI25-050-D48	UEI25					
						1.5kV	91.5%										2	1.6	0.4	50.8	40.6	10.2	UHE-5/6000-Q12-C	UHE12-30W					
	6A	30W	24V	9V	36V	1.5kV	91.5%									1.92	0.35	0.92	48.8	8.9	23.4	UEI30-050-Q12P-C	UEI30						
						2.25kV	89.5%									2	1.6	0.4	50.8	40.6	10.2	UHE-5/6000-Q48-C	UHE12-30W						
				36V	75V	1.5kV	91.5%										2	1.6	0.4	50.8	40.6	10.2		UHE-5/6000-Q48-C					
						2.25kV	91%										1.92	0.35	0.92	48.8	8.9	23.4	UEI30-050-Q48N-C	UEI30					
				48V	18V	75V	1.5kV	90%										1.95	1.55	0.375	49.5	39.4	9.5	UEI-5/10-Q12PR-C	UEI50/60				
							2.25kV	91%										0.91	1.31	0.36	23.1	33.27	9.14	UWS-5/10-Q48	UWS				
	12A	60W	48V	24V	18V	36V	2kV	90%								2.3	0.9	0.41	58.4	22.9	10.4	ULE-5/12-D24P-C	ULE20A						
							2.25kV	91%									1.95	1.55	0.375	49.5	39.4	9.5	UEI-5/12-Q48NR-C	UEI50/60					
				48V	36V	75V	2.25kV	90%										1.3	0.4	0.9	33.02	10.16	22.86	ULS-5/12-D48N-C	ULS				
							91%										2.3	0.38	0.9	58.4	9.7	22.9	UWE-5/15-Q12P-C	UWE					
	15A	75W	48V	18V	75V	2.25kV	90%									2.3	0.38	0.9	58.4	9.7	22.9	UWE-5/15-Q48N-C	UWE						
						90.5%										2.22	1.45	0.43	56.4	36.8	10.9	UQQ-5/17-Q12P-C	UQQ7-15A						
	20A	100W	48V	18V	75V	2.25kV	91%									2.22	1.45	0.43	56.4	36.8	10.9	UQQ-5/20-Q48N-C							
						89%										2.3	0.9	0.39	58.4	22.9	9.9	UWE-5/20-Q48-C	UWE-100-120W						
				36V	91%												1.3	0.9	0.4	33	22.9	10.2	ULS-5/20-D48	ULS-100W					
					89%												2.3	1.45	0.42	58.4	36.8	10.7	UVQ-5/20-D48N-C	UVQ					
30A	150W					92%									2.3	0.9	0.4	58.4	22.9	10.2	UEE-5/30-D48	UEE 150W							
6V	0.167A	1W	5V	4.5V	5.5V	1kV	84%									0.5	0.43	0.27	12.7	11	7.05	MTE1S0506MC	MTE1						
							72%											0.30	0.5	0.26	7.7	12.7	6.6	NTE0506MC	NTE				
8.3V	22A	182.6W	48V	36V	75V	2.25kV	92.5%								2.3	0.4	1.45	58.4	10.2	36.8	HPQ-8.3/22-D48	HPQ							
9V	0.028A	0.25W	5V	4.5V	5.5V	1kV	75%										0.39	0.45	0.27	9.8	11.5	6.8	LME0509DC	LME					
							75%													0.24	0.45	0.39	6		11.5	10	LME0509SC		
			12V	10.8V	13.2V	1kV	75%											0.39	0.45	0.27	9.8	11.5	6.8		LME1209DC				
							75%													0.24	0.45	0.39	6		11.5	10	LME1209SC		
	0.1A	0.9W	24V	22.8V	25.2V	1kV	62%											0.39	0.77	0.27	9.8	19.5	6.8	NMF2409DC	NMF				
							62%													0.24	0.77	0.39	6	19.5		10	NMF2409SC		
							79%														0.39	0.45	0.27	9.8		11.5	6.8	MEE1S0309DC	
							79%														0.24	0.45	0.39	6		11.5	10	MEE1S0309SC	
							85%														0.327	0.240	0.313	8.3		6.1	7.95	MEU1S0309ZC	MEU1
							77%														0.5	0.43	0.27	12.7		11	7.05	MTE1S0309MC	MTE1
							75%														0.30	0.5	0.26	7.7		12.7	6.6	NTE0309MC	NTE
							75%														0.39	0.45	0.21	9.8		11.5	5.4	NKE0309DC	NKE
	0.111A	1W	5V	4.5V	5.5V	1kV	80%											0.24	0.45	0.29	6	11.5	7.5	NKE0309SC					
							80%													0.39	0.45	0.27	9.8	11.5	6.8	MEE1S0509DC			
							87%													0.24	0.45	0.39	6	11.5	10	MEE1S0509SC			
							81%													0.24	0.77	0.39	6	19.5	10	MER1S0509SC	MER1		
85%																			0.327	0.240	0.313	8.3	6.1	7.95	MEU1S0509ZC	MEU1			
86%																			0.5	0.43	0.27	12.7	11	7.05	MTE1S0509MC	MTE1			
77%																				0.323	0.331	0.335	8.2	8.4	8.5	MTU1S0509MC	MTU1		
75%																				0.39	0.45	0.27	9.8	11.5	6.8	NME0509DC	NME		
75%														0.24	0.45	0.39	6	11.5	10	NME0509SC									
75%														0.30	0.5	0.26	7.7	12.7	6.6	NTE0509MC	NTE								

# Single output isolated

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 Note: Root part numbers may be shown. Please refer to data-sheets for available options.	Datasheet Available at www.murata-ps.com														
								1/32	1/16	1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H													
9V	0.111A	1W	5V	4.5V	5.5V	3kV	86.5%																		MEV150509DC	MEV1											
							75%																							MEV150509SC							
						3kV	75%																							NKE0509DC	NKE						
							75%																							NKE0509SC							
						5.2kV	74%																								NMV0509DAC	NMV					
							72%																								NMV0509SAC						
						12V	10.8V	13.2V	1kV	79%																						MEJ150509SC	MEJ1				
										86.5%																									NMJ0509SAC		
										84%																										MEE1S1209DC	MEE1
										86%																									MEE1S1209SC		
										87%																										MER1S1209SC	MER1
										74%																										MEU1S1209ZC	
			3kV	73%																												MTE1S1209MC	MTE1				
				86%																												MTU1S1209MC					
				87%																												NME1209DC		NME			
				74%																											NME1209SC						
				73%																												NTE1209MC		NTE			
				86%																												MEV1S1209DC					
			15V	13.5V	16.5V	1kV	77%																							MEV1S1209SC	MEV1						
							86.5%																									NKE1209DC					
							86%																										NKE1209SC	NKE			
							78%																									NMV1209DAC					
							74%																										NMV1209SAC				
							73%																										MEJ1S1209SC	MEJ1			
						77%																									NMJ1209SAC						
						3kV	86.5%																									MEE1S1509DC	MEE1				
							86%																									MER1S1509SC					
							86.5%																									MTE1S1509MC		MTE1			
							76%																									MEV1S1509DC					
							76%																									MEV1S1509SC					
			76%																										MEJ1S1509SC								
			24V	21.6V	26.4V	1kV	74%																							MEE1S2409DC	MEE1						
							86.5%																									MEE1S2409SC					
							86%																										MER1S2409SC	MER1			
							86%																										MTE1S2409MC				
							75%																											NME2409DC	NME2		
							75%																											NME2409SC			
						3kV	86.5%																										MEV1S2409DC	MEV1			
							86.5%																										MEV1S2409SC				
							77%																										MEJ1S2409SC				
							77%																										MEJ1S2409SC				
							77%																										MER1S4809SC		MER1		
77%																														MEV1S4809SC							
5V	4.5V	5.5V	1kV	71%																								NDL0509SC	NDL								
				84%																										NMG0509SC							
				81%																											NML0509SC	NML					
				83%																											NMK0509SAC						
				83%																												MEJ2S0509SC	MEJ2				
				78%																												NDL1209SC					
			12V	9V	18V	1kV	79%																									NDL1209SC	NDL				
							83%																											NMG1209SC			
							84%																											NML1209SC	NML		
						3kV	83%																											NMK1209SAC			
							79%																													MEJ2S1209SC	
							79%																												NMK1509SAC		
15V	13.5V	16.5V	3kV	86%																										MEJ2S1509SC	MEJ2						
				78%																													NMK1509SAC				
				81%																														NDL2409SC	NDL		
			1kV	81%																													NMK2409SAC				
				87%																														NMK2409SAC			
				80%																														NDL4809SC			

# Single output isolated

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 Note: Root part numbers may be shown. Please refer to data-sheets for available options.	Datasheet Available at www.murata-ps.com							
								1/32	1/16	1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H						
9V	0.333A	3W	5V	4.5V	5.5V	1kV	87%													0.56	0.32	0.4	14.15	8.15	10.15	MEE3S0509SC	MEE3			
						3kV	87%																0.4	0.77	0.3	10.2	19.7	7.7	MEV3S0509SC	MEV3
						9V	1kV	72%															0.58	1.27	0.28	14.7	32.3	7	NDY0509C	NDY
			12V	10.8	13.2	9V	18V	1kV	78%												0.58	1.27	0.28	14.7	32.3	7	NDY1209C	NDY		
						1kV	88%															0.56	0.32	0.4	14.15	8.15	10.15	MEE3S1209SC	MEE3	
						3kV	87.5%															0.4	0.77	0.3	10.2	19.7	7.7	MEV3S1209SC	MEV3	
			24V	18V	36V	1kV	78%													0.58	1.27	0.28	14.7	32.3	7	NDY2409C	NDY			
			48V	36V	72V	1kV	80%													0.58	1.27	0.28	14.7	32.3	7	NDY4809C	NDY			
			12V	0.021A	0.25W	5V	4.5V	5.5V	1kV	75%												0.39	0.45	0.27	9.8	11.5	6.8	LME0512DC	LME	
0.24	0.45	0.39							6	11.5	10	LME0512SC																		
12V	10.8V	13.2V				1kV	75%													0.39	0.45	0.27	9.8	11.5	6.8	LME1212DC				
0.24	0.45	0.39				6	11.5	10	LME1212SC																					
0.063A	0.75W	5				4.5	5.5	1kV	77%												0.45	0.236	0.393	11.48	6	10	CME0512SC	CME		
								3kV	75%															0.45	0.236	0.293	11.48			6
0.083A	1W	3.3V		2.97V	3.63V	1kV	81%												0.39	0.45	0.27	9.8	11.5	6.8	MEE1S0312DC	MEE1				
							0.24	0.45	0.39	6	11.5	10	MEE1S0312SC																	
							81%																0.327	0.240	0.313		8.3	6.1	7.95	MEU1S0312ZC
							86%																0.5	0.43	0.27		12.7	11	7.05	MTE1S0312MC
							77%																0.30	0.5	0.26		7.7	12.7	6.6	NTE0312MC
							81%																0.39	0.45	0.27		9.8	11.5	6.8	MEE1S0512DC
						0.24	0.45	0.39	6	11.5	10	MEE1S0512SC																		
						87%																0.24	0.77	0.39	6	19.5	10	MER1S0512SC		
						83%																0.327	0.240	0.313	8.3	6.1	7.95	MEU1S0512ZC		
						87%																0.5	0.43	0.27	12.7	11	7.05	MTE1S0512MC		
						87%																0.323	0.331	0.335	8.2	8.4	8.5	MTU1S0512MC		
						5V	4.5V	5.5V	1kV	78%														0.39	0.45	0.27	9.8	11.5	6.8	NME0512DC
		0.24		0.45	0.39					6	11.5	10	NME0512SC																	
		77%																				0.24	0.77	0.39	6	19.5	10	NMR101C		
		0.30		0.5	0.26					7.7	12.7	6.6	NTE0512MC																	
		87%																				0.39	0.77	0.27	9.8	19.5	6.8	MEV1S0512DC	MEV1	
		0.24		0.77	0.39					6	19.5	10	MEV1S0512SC																	
		3kV		87%																		0.39	0.45	0.21	9.8	11.5	5.4	NKE0512DC	NKE	
				0.39	0.45				0.29	6	11.5	7.5	NKE0512SC																	
				77%																		0.24	0.45	0.29	6	11.5	7.5	NKE0512SC		
				0.39	0.77				0.27	9.8	19.5	6.8	NMV0512DAC																	
				0.24	0.77				0.39	6	19.5	10	NMV0512SAC																	
				74%																		0.77	0.390	0.50	19.5	9.95	12.65	MEJ1S0512SC		MEJ1
		71%																0.39	0.77	0.49	9.8	19.5	12.5	NMJ0512SAC	NMJ					
		12V		4.75V	5.25V	1kV	62%													0.39	0.77	0.27	9.8	19.5	6.8	NMF0512DC	NMF			
							0.24	0.77	0.39	6	19.5	10	NMF0512SC																	
							78%														0.861	0.323	0.445	21.87	8.2	11.30		NCS1S1212SC		
							82%														0.39	0.45	0.27	9.8	11.5	6.8		MEE1S1212DC	MEE1	
							0.24	0.45	0.39	6	11.5	10	MEE1S1212SC																	
							88.5%														0.24	0.77	0.39	6	19.5	10		MER1S1212SC		
						86%														0.327	0.240	0.313	8.3	6.1	7.95	MEU1S1212ZC				
						88%														0.5	0.43	0.27	12.7	11	7.05	MTE1S1212MC				
						88%														0.323	0.331	0.335	8.2	8.4	8.5	MTU1S1212MC				
						12V	10.8V	13.2V	1kV	76%												0.39	0.45	0.27	9.8	11.5	6.8	NME1212DC	NME	
										0.24	0.45	0.39	6	11.5	10	NME1212SC														
										88%														0.39	0.77	0.27	9.8	19.5		6.8
0.24	0.77	0.39	6	19.5	10					MEV1S1212SC																				
76%																		0.24	0.77	0.39	6	19.5	10	NMR107C						
74%																		0.30	0.5	0.26	7.7	12.7	6.6	NTE1212MC						
3kV	79%	77%	79%												0.39	0.45	0.21	9.8	11.5	5.4	NKE1212DC	NKE								
			0.39	0.45	0.29	6	11.5	7.5	NKE1212SC																					
			77%													0.39	0.77	0.27	9.8	19.5	6.8		NMV1212DAC							
			0.24	0.77	0.39	6	19.5	10	NMV1212SAC																					
			77%													0.24	0.77	0.39	6	19.5	10		NMV1212SAC							
			0.24	0.77	0.39	6	19.5	10	NMV1212SAC																					

# Single output isolated

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 <small>Note: Root part numbers may be shown. Please refer to data-sheets for available options.</small>	Datasheet Available at <a href="http://www.murata-ps.com">www.murata-ps.com</a>						
								1/32	1/16	1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H					
12V	0.083A	1W	12V	10.8V	13.2V	5.2kV	76.5%												0.77	0.390	0.50	19.5	9.95	12.65	MEJ1S1212SC	MEJ1			
							73%														0.39	0.77	0.49	9.8	19.5	12.5	NMJ1212SAC	NMJ	
				11.4V	12.6V	1kV	62%														0.39	0.77	0.27	9.8	19.5	6.8	NMF1212DC	NMF	
																					0.24	0.77	0.39	6	19.5	10	NMF1212SC		
																						0.39	0.45	0.27	9.8	11.5	6.8	MEE1S1512DC	MEE1
																						0.24	0.45	0.39	6	11.5	10	MEE1S1512SC	
																						0.24	0.77	0.39	6	19.5	10	MER1S1512SC	MER1
																						0.5	0.43	0.27	12.7	11	7.05	MTE1S1512MC	MTE1
																						0.24	0.77	0.39	6	19.5	10	NMR113C	NMR
																					0.39	0.77	0.27	9.8	19.5	6.8	MEV1S1512DC	MEV1	
																					0.24	0.77	0.39	6	19.5	10	MEV1S1512SC		
																					0.24	0.77	0.39	6	19.5	10	NMV1512SAC	NMV	
																					0.77	0.390	0.50	19.5	9.95	12.65	MEJ1S1512SC	MEJ1	
																					0.861	0.323	0.445	21.87	8.2	11.30	NCS1S2412SC	NCS1	
																					0.39	0.45	0.27	9.8	11.5	6.8	MEE1S2412DC	MEE1	
																					0.24	0.45	0.39	6	11.5	10	MEE1S2412SC		
																					0.24	0.77	0.39	6	19.5	10	MER1S2412SC	MER1	
																					0.5	0.43	0.27	12.7	11	7.05	MTE1S2412MC	MTE1	
																				0.39	0.45	0.27	9.8	11.5	6.8	NME2412DC	NME2		
																				0.24	0.45	0.39	6	11.5	10	NME2412SC			
																				0.24	0.77	0.39	6	19.5	10	NMR119C	NMR		
																				0.39	0.77	0.27	9.8	19.5	6.8	MEV1S2412DC	MEV1		
																				0.24	0.77	0.39	6	19.5	10	MEV1S2412SC			
																				0.77	0.390	0.50	19.5	9.95	12.65	MEJ1S2412SC	MEJ1		
																				0.39	0.77	0.27	9.8	19.5	6.8	NMF2412DC	NMF		
																				0.24	0.77	0.39	6	19.5	10	NMF2412SC			
																				0.24	0.77	0.39	6	19.5	10	MER1S4812SC	MER1		
																				0.24	0.77	0.39	6	19.5	10	MEV1S4812SC	MEV1		
																				1.27	0.81	0.4	32.3	20.5	10.2	PWR1301AC	PWR13XXC		
																				1.27	0.81	0.4	32.3	20.5	10.2	PWR1307AC			
																				0.36	0.86	0.44	9.2	21.8	11.1	NDL0512SC	NDL		
																				0.30	0.77	0.4	7.5	19.5	10	NMG0512SC	NMG		
																				0.30	0.55	0.39	7.5	14	10	NML0512SC	NML		
																				0.30	0.77	0.4	7.5	19.5	10	NMK0512SAC	NMK		
																				0.77	0.39	0.5	19.65	9.95	12.65	MEJ2S0512SC	MEJ2		
																				0.36	0.86	0.44	9.2	21.8	11.1	NDL1212SC	NDL		
																				0.30	0.77	0.4	7.5	19.5	10	NMG1212SC	NMG		
																				0.30	0.55	0.39	7.5	14	10	NML1212SC	NML		
																				0.30	0.77	0.4	7.5	19.5	10	NMK1212SAC	NMK		
																				0.77	0.39	0.5	19.65	9.95	12.65	MEJ2S1212SC	MEJ2		
																				0.30	0.77	0.4	7.5	19.5	10	NMK1512SAC	NMK		
																				0.77	0.39	0.5	19.65	9.95	12.65	MEJ2S1512SC	MEJ2		
																			0.36	0.86	0.44	9.2	21.8	11.1	NDL2412SC	NDL			
																			0.30	0.77	0.4	7.5	19.5	10	NMK2412SAC	NMK			
																			0.36	0.86	0.44	9.2	21.8	11.1	NDL4812SC	NDL			
																			0.56	0.32	0.4	14.15	8.15	10.15	MEE3S0512SC	MEE3			
																			0.4	0.77	0.3	10.2	19.7	7.7	MEV3S0512SC	MEV3			
																			0.58	1.27	0.28	14.7	32.3	7	NDTS0512C	NDTS			
																			0.58	1.27	0.28	14.7	32.3	7	NDY0512C	NDY			
																			0.56	0.32	0.4	14.15	8.15	10.15	MEE3S1212SC	MEE3			
																			0.4	0.77	0.3	10.2	19.7	7.7	MEV3S1212SC	MEV3			
																			0.58	1.27	0.28	14.7	32.3	7	NDTS1212C	NDTS			
																			0.58	1.27	0.28	14.7	32.3	7	NDY1212C	NDY			
																			0.58	1.27	0.28	14.7	32.3	7	NDTS2412C	NDTS			
																			0.58	1.27	0.28	14.7	32.3	7	NDY2412C	NDY			
																			0.58	1.27	0.28	14.7	32.3	7	NDTS4812C	NDTS			
																			0.58	1.27	0.28	14.7	32.3	7	NDY4812C	NDY			





# Single output isolated

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 <small>Note: Root part numbers may be shown. Please refer to data-sheets for available options.</small>	Datasheet Available at <a href="http://www.murata-ps.com">www.murata-ps.com</a>							
								1/32	1/16	1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H						
15V	0.067A	1W	3.3V	2.97V	3.63V	1kV	86%											0.5	0.43	0.27	12.7	11	7.05	MTE1S0315MC	MTE1					
							77%															0.30	0.5	0.26	7.7	12.7	6.6	NTE0315MC	NTE	
							83%																0.39	0.45	0.27	9.8	11.5	6.8	MEE1S0515DC	MEE1
							87.5%																0.24	0.45	0.39	6	11.5	10	MEE1S0515SC	MEE1
							83%																0.24	0.77	0.39	6	19.5	10	MER1S0515SC	MER1
							88%																0.327	0.240	0.313	8.3	6.1	7.95	MEU1S0515ZC	MEU1
							87%																0.5	0.43	0.27	12.7	11	7.05	MTE1S0515MC	MTE1
							80%																0.323	0.331	0.335	8.2	8.4	8.5	MTU1S0515MC	MTU1
							79%																0.39	0.45	0.28	9.8	11.5	6.8	NME0515DC	NME
							78%																0.24	0.77	0.39	6	11.48	10	NME0515SC	NME
							78%																0.24	0.77	0.39	6	19.5	10	NMR102C	NMR
							87.5%																0.39	0.5	0.26	7.7	12.7	6.6	NTE0515MC	NTE
			78%																0.39	0.77	0.27	9.8	19.5	6.8	MEV1S0515DC	MEV1				
			78%																0.24	0.77	0.39	6	19.5	10	MEV1S0515SC	MEV1				
			78%																0.39	0.45	0.21	9.8	11.5	5.4	NKE0515DC	NKE				
			78%																0.236	0.45	0.29	6	11.48	7.5	NKE0515SC	NKE				
			78%																0.39	0.77	0.26	9.8	19.5	6.8	NMV0515DAC	NMV				
			75%																0.24	0.77	0.39	6	19.5	10	NMV0515SAC	NMV				
			71%																0.77	0.390	0.50	19.5	9.95	12.65	MEJ1S0515SC	MEJ1				
			71%																0.39	0.77	0.49	9.8	19.5	12.5	NMJ0515SAC	NMJ				
			62%																0.39	0.77	0.27	9.8	19.5	6.8	NMF0515DC	NMF				
			62%																0.24	0.77	0.39	6	19.5	10	NMF0515SC	NMF				
			81%																0.39	0.45	0.27	9.8	11.5	6.8	MEE1S1215DC	MEE1				
			88%																0.24	0.45	0.39	6	11.5	10	MEE1S1215SC	MEE1				
			87%																0.327	0.240	0.313	8.3	6.1	7.95	MEU1S1215ZC	MEU1				
			88%																0.5	0.43	0.27	12.7	11	7.05	MTE1S1215MC	MTE1				
			88%																0.323	0.331	0.335	8.2	8.4	8.5	MTU1S1215MC	MTU1				
			75%																0.39	0.45	0.27	9.8	11.5	6.8	NME1215DC	NME				
			75%																0.24	0.45	0.39	6	11.5	10	NME1215SC	NME				
			76%																0.24	0.77	0.39	6	19.5	10	NMR108C	NMR				
			75%																0.30	0.5	0.26	7.7	12.7	6.6	NTE1215MC	NTE				
			88%																0.39	0.77	0.27	9.8	19.5	6.8	MEV1S1215DC	MEV1				
			81%																0.24	0.77	0.39	6	19.5	10	MEV1S1215SC	MEV1				
			81%																0.39	0.45	0.21	9.8	11.5	5.4	NKE1215DC	NKE				
			77%																0.24	0.45	0.29	6	11.48	7.46	NKE1215SC	NKE				
			77%																0.39	0.77	0.27	9.8	19.5	6.8	NMV1215DAC	NMV				
			77%																0.24	0.77	0.39	6	19.5	10	NMV1215SAC	NMV				
			77%																0.77	0.390	0.50	19.5	9.95	12.65	MEJ1S1215SC	MEJ1				
			74%																0.39	0.77	0.49	9.8	19.5	12.5	NMJ1215SAC	NMJ				
			62%																0.39	0.77	0.27	9.8	19.5	6.8	NMF1215DC	NMF				
			62%																0.24	0.77	0.39	6	19.5	10	NMF1215SC	NMF				
			83%																0.39	0.45	0.27	9.8	11.5	6.8	MEE1S1515DC	MEE1				
			89%																0.24	0.45	0.39	6	11.5	10	MEE1S1515SC	MEE1				
			88%																0.24	0.77	0.39	6	19.5	10	MER1S1515SC	MER1				
			75%																0.5	0.43	0.27	12.7	11	7.05	MTE1S1515MC	MTE1				
			76%																0.24	0.45	0.39	6	11.48	10	NME1515SC	NME				
			76%																0.24	0.77	0.39	6	19.5	10	NMR114C	NMR				
			89%																0.39	0.77	0.27	9.8	19.5	6.8	MEV1S1515DC	MEV1				
77%																0.24	0.77	0.39	6	19.5	10	MEV1S1515SC	MEV1							
77%																0.24	0.77	0.39	6	19.5	10	NMV1515SAC	NMV							
76.5%																0.77	0.390	0.50	19.5	9.95	12.65	MEJ1S1515SC	MEJ1							
78%																0.39	0.45	0.27	9.8	11.5	6.8	MEE1S2415DC	MEE1							
87.5%																0.24	0.45	0.39	6	11.5	10	MEE1S2415SC	MEE1							
88%																0.24	0.77	0.39	6	19.5	10	MER1S2415SC	MER1							
80%																0.5	0.43	0.27	12.7	11	7.05	MTE1S2415MC	MTE1							
80%																0.39	0.45	0.27	9.8	11.5	6.8	NME2415DC	NME2							
80%																0.24	0.45	0.39	6	11.5	10	NME2415SC	NME2							



# Single output isolated

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 Note: Root part numbers may be shown. Please refer to data-sheets for available options.	Datasheet Available at www.murata-ps.com		
								1/32	1/16	1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H	
<b>15V</b>	3.3A	49.5W	24V	9V	36V	2.25kV	90%											1.95	1.55	0.375	49.5	39.4	9.5	UEI-15/3.3-Q12P-C	UEI-50/60
	4A	60W	48V	18V	75	2.25kV	89.3%											1.95	1.55	0.375	49.5	39.4	9.5	UEI-15/4-Q48N-C	
	5A	75W	12V	9V	36	2.25kV	91.5%											2.3	0.38	0.9	58.4	9.7	22.9	UWE-15/5-Q12P-C	UWE
	7A	105W	12V	9V	36V	2kV	90.5%											2.22	1.45	0.43	56.4	36.8	10.9	UQQ-15/7-Q12P-C	UQQ7-15A
			24V	18V	36V	2kV	93%											2.3	1.45	0.42	58.4	36.8	10.7	UVQ-15/7-D24P-C	UVQ
			48V	36V	75V	2.25kV	94%											2.3	1.45	0.42	58.4	36.8	10.7	UVQ-15/7-D48N-C	
<b>18V</b>	5.6A	100.8W	24V	18V	36V	2kV	90%										2.3	1.45	0.42	58.4	36.8	10.7	UVQ-18/5.6-D24P-C	UVQ	
	6A	108W	48V	36V	75V	2.25kV	93%										2.3	1.45	0.42	58.4	36.8	10.7	UVQ-18/6-D48N-C		
<b>24V</b>	0.042A	1W	5V	4.5V	5.5V	1kV	80%										0.39	0.45	0.27	9.8	11.5	6.8	NME0524DC	NME	
							89.3%													0.24	0.45	0.39	6		11.5
	0.083A	2W	N/A	16V	160V	4kV	80%										0.77	0.236	0.394	19.5	6	10	MMV1S05245C	MMV1	
							78%												0.323	0.331	0.335	8.2	8.4	8.50	MTU2S0524MC
	0.625A	15W	N/A	16V	160V	4kV	77%										2	2	0.79	50.8	50.8	20	RUW15SL24C	RUW15	
							89.5%												2	2	0.79	50.8	50.8		20
	3A	72W	12V	9V	36V	2.25kV	89.5%										2.3	0.38	0.9	58.4	9.7	22.9	UWE-24/3-Q12P-C	UWE	
			48V	36V	75V		94%										2.3	0.9	0.41	58.4	22.9	10.4	ULE-24/3-D48N-C	ULE20A	
	4A	96W	12V	9V	36V	2kV	89%										2.22	1.45	0.43	56.4	36.8	10.9	UQQ-24/4-Q12P-C	UQQ 7-15A	
			24V	18V	36V	2kV	88%										2.3	1.45	0.42	58.4	36.8	10.7	UVQ-24/4.5-D24P-C	UVQ	
4.5A	108W	48V	36V	75V	2.25kV	89%										2.3	1.45	0.42	58.42	36.8	10.7	UVQ-24/4.5-D48N-C			
		12.5A	350W	48V	36V	75V	2.25kV	93%									2.3	2.4	0.5	58.4	60.9	12.7	PAH-28/12.5-D48	PAH-28V, 350W	
16A	450W	93.5%														2.3	2.4	0.5	58.4	60.9	12.7	PAH-28/16-D48	PAH-28V, 450W		
<b>29V</b>	5	150W	48V	36V	75V	2.25kV	92.5%									2.3	1.45	0.46	58.42	36.8	11.7	PAQ-29/5-D48-C	PAQ		
<b>29.8V</b>	3.3A	98.34W	48V	36V	75V	1.5kV	92.5%									2.3	0.9	0.44	58.4	22.9	11.1	PAE-29/3-D48	PAE		
<b>48V</b>	1.25A	60W	48V	36V	75V	2.25kV	92.5%									2.3	0.9	0.41	58.4	22.9	10.4	ULE-48/1.25-D48N-C	ULE20A		
	2.5A	120W					91.5%										2.3	1.45	0.42	58.4	36.8	10.7	UVQ-48/2.5-D48N-C	UVQ	
	8.5A	408W					94%										2.3	2.4	0.5	58.4	60.9	12.7	PAH-48/8.5-D48	PAH-53V, 450W	
<b>53V</b>	8.5A	450W	48V	36V	75V	2.25kV	94%								2.3	2.4	0.5	58.4	60.9	12.7	PAH-53/8.5-D48	PAH-53V, 450W			
<b>54V</b>	3A	162W	48V	18V	72V	2.25kV	91.5%								2.4	2.3	0.43	61.0	58.4	10.92	EMH-54/3-Q48N-C	EMH			
<b>96V</b>	0.10	9.600	48V	36V	75V	1.5kV	88%								2	1	0.4	50.8	25.4	10.2	UWR-96/100-D48A-C	UWR-96-100			

# Dual output bipolar

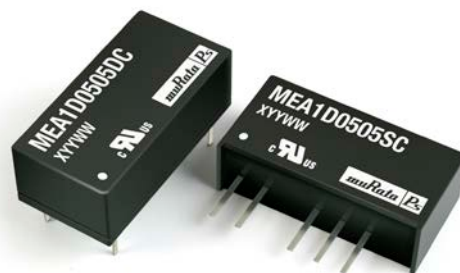
## Dual output

### 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. Not surprisingly, our offering is the industry's broadest.

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 – we've got your solution.

#### Quick selection guide Listed by output power

Power	Vout					Series
	$\pm 3.3V$	$\pm 5V$	$\pm 9V$	$\pm 12V$	$\pm 15V$	
<1W						CMR
1W						MEA1
						MEJ1
						MEV1
						MTU1
						NKA
						NMA
						NMJ
						NMV
						NTA
						NTV
1.5W						PWR13XXC
						PWR1726AC

Power	Vout					Series
	$\pm 3.3V$	$\pm 5V$	$\pm 9V$	$\pm 12V$	$\pm 15V$	
2W						MEJ2
						MTU2
						NMH
						NMK
						NMS
						NTH
3W						NDH
						NDTD
						PWR70C

Power	Vout					Series
	$\pm 3.3V$	$\pm 5V$	$\pm 9V$	$\pm 12V$	$\pm 15V$	
5W						PWR1546AC
6W						NCM6
						NCS6
						NDS6
12W						NCS12
15W						BEI

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 <a href="http://www.murata-ps.com">www.murata-ps.com</a>
								1/8	1/4					L	W	H	L	W	H		
<b><math>\pm 3.3V</math></b>	$\pm 0.152A$	1W	3.3V	2.97V	3.63V	1kV	75%						0.3	0.6	0.26	7.7	15.2	6.6	NTA0303MC	NTA	
						3kV	74%						0.23	0.65	0.3	6.0	16.6	7.6	NKA0303DC	NKA	
			5V	4.5V	5.5V	1kV	77%							0.3	0.6	0.26	7.7	15.2	6.6	NTA0503MC	NTA
						3kV	77%						0.23	0.65	0.3	6	16.6	7.6	NKA0503DC	NKA	
			12	10.8V	13.2V	5.2kV	70%							0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D0503SC	MEJ1
						5.2kV	73%						0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D1203SC	MEJ1	
	$\pm 0.303A$	2W	5V	4.5V	5.5V	5.2kV	71%						0.5	0.77	0.39	12.7	19.7	10.0	MEJ2D0503SC	MEJ2	
						5.2kV	75%						0.5	0.77	0.39	12.7	19.7	10.0	MEJ2D1203SC	MEJ2	
			12	10.8V	13.2V	1kV	67%							0.58	1.27	0.27	14.7	32.3	7.0	NDTD0503C	NDTD
						1kV	73%						0.58	1.27	0.27	14.7	32.3	7.0	NDTD1203C		
			24V	18V	36V	1kV	73%							0.58	1.27	0.27	14.7	32.3	7.0	NDTD2403C	
			48V	36V	75V	1kV	72%							0.58	1.27	0.27	14.7	32.3	7.0	NDTD4803C	
<b><math>\pm 5V</math></b>	$\pm 0.1A$	1W	3.3V	2.97V	3.63V	1kV	83%						0.323	0.331	0.335	8.2	8.4	8.5	MTU1D0305MC	MTU1	
						1kV	78%						0.30	0.60	0.26	7.7	15.2	6.6	NTA0305MC	NTA	
						3kV	79%						0.39	0.77	0.21	9.8	19.5	5.4	NKA0305DC	NKA	
						3kV	79%						0.23	0.65	0.30	6.0	16.6	7.6	NKA0305SC		





# Dual output bipolar

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 Note: Root part numbers may be shown. Please refer to datasheets for available options.	Datasheet Available at www.murata-ps.com		
								1/8	1/4					1/2	L	W	H	L	W			H	
<b>+5V</b>	±0.2A	2W	12V	10.8V	13.2V	3kV	84%						0.30	0.77	0.4	7.5	19.5	10	NMK1205SC	NMK			
						5.2kV	79%						0.5	0.77	0.39	12.7	19.7	10.0	MEJ2D1205SC	MEJ2			
						6kV	78%						0.58	1.28	0.37	14.7	32.6	9.4	NMS1205C	NMS			
			15V	13.5V	16.5V	3kV	84%								0.30	0.77	0.4	7.5	19.5	10	NMK1505SC	NMK	
						5.2kV	78%						0.5	0.77	0.39	12.7	19.7	10.0	MEJ2D1505SC	MEJ2			
						1kV	81%						0.39	0.77	0.30	9.8	19.5	7.7	NMH2405DC	NMH			
		24V	21.6V	26.4V	3kV	84%								0.30	0.77	0.4	7.5	19.5	10	NMK2405SC	NMK		
					1kV	82%						0.39	0.77	0.303	9.8	19.5	7.7	NMH4805DC	NMH				
					1kV	82%						0.3	0.77	0.4	7.5	19.5	10.0	NMH4805SC	NMH				
		48V	43V	52.8V	1kV	82%								0.39	0.77	0.303	9.8	19.5	7.7	NMH4805DC	NMH		
					43.2V	52.8V	1kV	82%								0.3	0.77	0.4	7.5	19.5	10.0	NMH4805SC	NMH
					9V	18V	1kV	75%								0.58	1.27	0.27	14.7	32.3	7	NDTD1205C	NDTD
	±0.3A	3W	24V	18V	36V	1kV	78%							0.58	1.27	0.27	14.7	32.3	7	NDTD2405C	NDTD		
							76%							0.58	1.27	0.27	14.7	32.3	7	NDTD4805C	NDTD		
							80%							1.26	0.787	0.423	32	20	10.75	NCM6D0505C	NCM6		
	±0.6A	6W	12V	9V	36V	5.2kV	83%							1.26	0.787	0.423	32	20	10.75	NCM6D1205C	NCM6		
							82%							1.26	0.79	0.39	32	20	10	NCS6D1205C	NCS6		
							83%							1.26	0.79	0.39	32	20	10	NDS6D2405C	NDS6		
			24V	18V	36V	5.2kV	80%								1.26	0.787	0.423	32	20	10.75	NCM6D4805C	NCM6	
							5kV	80%						1.26	0.79	0.39	32	20	10	NCS6D4805C	NCS6		
							12V	9V	36V	1.5kV	81.5%							1.26	0.787	0.394	32	20	10
	±1.2A	12W	48V	18V	75V	1.5kV	80%							1.26	0.787	0.394	32	20	10	NCS12D4805C	NCS12		
							84%							1.1	0.35	0.96	27.9	8.9	24.4	BEI15-050-Q12	BEI15-Series		
							83.5%							1.1	0.35	0.96	27.9	8.9	24.4	BEI15-050-Q48			
<b>+9V</b>	±0.055A	1W	3.3V	2.97V	3.63V	3kV	75%						0.39	0.77	0.21	9.8	19.5	5.4	NKA0309DC	NKA			
														0.23	0.65	0.3	6	16.6	7.6	NKA0309SC	NKA		
														0.3	0.6	0.26	7.7	15.2	6.6	NTA0309MC	NTA		
			5V	4.5V	5.5V	1kV	86.7									0.39	0.77	0.27	9.8	19.5	6.8	MEA1D0509DC	MEA1
							86.5							0.24	0.77	0.39	6.0	19.5	10.0	MEA1D0509SC	MEA1		
							75%							0.39	0.77	0.27	9.8	19.5	6.8	NMA0509DC	NMA		
						3kV	75%							0.24	0.77	0.39	6	19.5	10	NMA0509SC	NMA		
							75%							0.3	0.6	0.26	7.7	15.2	6.6	NTA0509MC	NTA		
							76%							0.39	0.77	0.21	9.8	19.5	5.4	NKA0509DC	NKA		
						5.2kV	76%							0.23	0.65	0.3	6	16.6	7.6	NKA0509SC	NKA		
							76%							0.39	0.77	0.27	9.8	19.5	6.8	NMV0509DC	NMV		
							76%							0.24	0.77	0.39	6	19.5	10	NMV0509SC	NMV		
		12V	10.8V	13.2V	1kV	77%									0.3	0.6	0.26	7.7	15.2	6.6	NTV0509MC	NTV	
						74%							0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D0509SC	MEJ1			
						65%							0.39	0.77	0.49	9.8	19.5	12.5	NMJ0509SC	NMJ			
					3kV	86.5							0.39	0.77	0.27	9.8	19.5	6.8	MEA1D1209DC	MEA1			
						74%							0.24	0.77	0.39	6.0	19.5	10.0	MEA1D1209SC	MEA1			
						74%							0.39	0.77	0.27	9.8	19.5	6.8	NMA1209DC	NMA			
					5.2kV	74%							0.24	0.77	0.39	6	19.5	10.0	NMA1209SC	NMA			
						79%							0.39	0.77	0.21	9.8	19.5	5.4	NKA1209DC	NKA			
						77%							0.23	0.65	0.30	6	16.6	7.6	NKA1209SC	NKA			
		24V	21.6V	26.4V	1kV	77%									0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D1209SC	MEJ1	
						65%							0.39	0.77	0.49	9.8	19.5	12.5	NMJ1209SC	NMJ			
						74%							0.3	0.6	0.26	7.7	15.2	6.6	NTA1209MC	NTA			
	3kV				74%							0.39	0.77	0.27	9.8	19.5	6.8	NMV1209DC	NMV				
					74%							0.24	0.77	0.39	6	19.5	10	NMV1209SC	NMV				
					79%							0.3	0.6	0.26	7.7	15.2	6.6	NTV1209MC	NTV				
	5.2kV				87%							0.39	0.77	0.27	9.8	19.5	6.8	MEA1D1509DC	MEA1				
					76.5%							0.24	0.77	0.39	6.0	19.5	10.0	MEA1D1509SC	MEA1				
					77%							0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D1509SC	MEJ1				
	48V	43.2V	52.8V	1kV	87%								0.39	0.77	0.27	9.8	19.5	6.8	MEA1D2409DC	MEA1			
					87.5%							0.24	0.77	0.39	6.0	19.5	10.0	MEA1D2409SC	MEA1				
					78%							0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D2409SC	MEJ1				
	±0.056A	5	4.5	5.5	1kV	86%							0.323	0.331	0.335	8.2	8.4	8.5	MTU1D0509MC	MTU1			
						87%							0.39	0.77	0.27	9.8	19.5	6.8	MEV1D0509DC	MEV1			
						87%							0.24	0.77	0.39	6	19.5	10	MEV1D0509SC	MEV1			



# Dual output bipolar

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 <a href="http://www.murata-ps.com">www.murata-ps.com</a>						
						1/8	1/4	1/2	L	W	H	L	W	H													
<b>+12V</b>	$\pm 0.042\text{A}$	1W	12V	10.8V	13.2V	5.2kV	76.5%						0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D1212SC	MEJ1							
							65%								0.39	0.77	0.49	9.8	19.5	12.5	NMJ1212SC	NMJ					
			15V	13.5V	16.5V	1kV	87.5%								0.39	0.77	0.27	9.8	19.5	6.8	MEA1D1512DC	MEA1					
							78%								0.24	0.77	0.39	6.0	19.5	10.0	MEA1D1512SC						
							3kV	88%										0.39	0.77	0.27	9.8	19.5	6.8	NMA1512DC	NMA		
								75%										0.24	0.77	0.39	6	19.5	10	NMA1512DC			
			24V	21.6V	26.4V	1kV	88%								0.39	0.77	0.27	9.8	19.5	6.8	MEV1D1512DC	MEV1					
							87%										0.24	0.77	0.39	6.0	19.5		10.0	MEA1D2412SC			
							3kV	88%										0.39	0.77	0.27	9.8	19.5	6.8	MEV1D2412DC	MEV1		
								78%										0.24	0.77	0.39	6	19.5	10	MEV1D2412SC			
							48V	43.2V	52.8V	1kV	83%								0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D2412SC	MEJ1	
											84%										0.39	0.77	0.27	9.8	19.5		6.8
	12V	10.8V	13.2V	8kV	75%								1.27	0.81	0.4	32.3	20.5	10.2	PWR1304AC	PWR13XXC							
					75%										1.27	0.81	0.4	32.3	20.5		10.2	PWR1310AC					
	$\pm 0.083\text{A}$	2W	5V	4.5V	5.5V	1kV	85%							0.323	0.331	0.335	8.2	8.4	8.50	MTU2D0512MC	MTU2						
							82%										0.39	0.77	0.3	9.8		19.5	7.7	NMH0512DC			
							82%											0.3	0.77	0.4	7.5	19.5	10	NMH0512SC	NMH		
							82%											0.5	0.7	0.21	12.7	17.8	6.0	NTH0512MC			
						3kV	87%											0.30	0.77	0.4	7.5	19.5	10	NMK0512SC	NMK		
							77%											0.58	1.28	0.37	14.7	32.6	9.4	NMS0512C			
						12V	10.8V	13.2V	1kV	83%								0.323	0.331	0.335	8.2	8.4	8.50	MTU2D1212MC	MTU2		
										84%											0.39	0.77	0.30	9.8		19.5	7.7
						3kV	87%											0.3	0.77	0.4	7.5	19.5	10	NMH1212SC	NMH		
							84%											0.5	0.7	0.21	12.7	17.8	6.0	NTH1212MC			
						24V	21.6V	26.4V	1kV	86%								0.39	0.77	0.3	9.8	19.5	7.7	NMH2412DC	NMH		
										87%											0.30	0.77	0.4	7.5		19.5	10
			24V	21.6V	26.4V	3kV	89%								0.30	0.77	0.4	7.5	19.5	10	NMK2412SC	NMK					
							82%											0.58	1.28	0.37	14.7		32.6	9.4	NMS1212C		
			48V	43.2V	52.8V	1kV	85%								0.39	0.77	0.3	9.8	19.5	7.7	NMH4812DC	NMH					
							82%											0.3	0.77	0.4	7.5		19.5	10	NMK1512SC		
			$\pm 0.13\text{A}$	3W	5V	4.5V	9V	1kV	76%							0.58	1.27	0.27	14.7	32.3	7	NDTD0512C	NDTD				
									78%											0.58	1.27	0.27		14.7	32.3	7	NDTD1212C
									24V	18V	36V	81%								0.36	1.02	0.49	9.3	26	12.5	NDH2412SC	NDH
												82%											0.58	1.27	0.27	14.7	
					48V	36V	75V	1kV	80%								0.58	1.27	0.27	14.7	32.3	7	NDTD4812C	NDTD			
									80%											0.58	1.27	0.27	14.7		32.3	7	NDTD4812C
$\pm 0.25\text{A}$					6W	5V	4.5V	9V	5.2kV	83%							1.26	0.787	0.423	32	20	10.75	NCM6D0512C	NCM6			
										88%											1.26	0.787	0.423		32	20	10.75
	24V	18V	36V	1.5kV		86%								1.26	0.79	0.39	32	20	10	NCS6D1212C	NCS6						
						87%											1.26	0.79	0.39	32		20	10	NDS6D2412C			
48V	18V	75V	5.2kV	82%								1.26	0.787	0.423	32	20	10.75	NCM6D4812C	NCM6								
				84%											1.26	0.79	0.39	32		20	10	NCS6D4812C					
$\pm 0.5$	12W	12V	9V	36V	1.5kV	85%							1.26	0.787	0.394	32	20	10	NCS12D1212C	NCS12							
						85%											1.26	0.787	0.394		32	20	10	NCS12D4812C			
$\pm 0.625\text{A}$	15W	24V	9V	36V	2.25kV	86%							1.1	0.35	0.96	27.9	8.9	24.4	BEI15-120-Q12	BEI15-Series							
						85.5%											1.1	0.35	0.96		27.9	8.9	24.4	BEI15-120-Q48			
						80%											0.5	0.77	0.39		12.7	19.7	10.0	MEJ2D0512SC			
$\pm 0.84\text{A}$	2W	12V	10.8V	13.2V	5.2kV	81%							0.5	0.77	0.39	12.7	19.7	10.0	MEJ2D1212SC	MEJ2							
						80%											0.5	0.77	0.39		12.7	19.7	10.0	MEJ2D1512SC			
						80%											0.5	0.77	0.39		12.7	19.7	10.0	MEJ2D1512SC			
<b>+15V</b>	$\pm 0.025\text{A}$	0.75W	5V	1.5V	5.5V	3kV	79%						0.77	0.236	0.394	19.5	6	10	CMR0515S3C	CMR							
																			0.77		0.236	0.394	19.5	6	10	CMR1215S3C	
	$\pm 0.033\text{A}$	1W	3.3V	2.97V	3.63V	1kV	77%						0.39	0.77	0.21	9.8	19.5	5.4	NKA0315DC	NKA							
																			0.23		0.65	0.30	6	16.6	7.6	NKA0315SC	
												0.3	0.6	0.26	7.7	15.2	6.6	NTA0315MC	NTA								

# Dual output bipolar

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 Note: Root part numbers may be shown. Please refer to datasheets for available options.	Datasheet Available at www.murata-ps.com	
								1/8	1/4	1/2	L					W	H	L	W	H				
<b>±15V</b>	±0.033A	1W	5V	4.5V	5.5V	1kV	87.5%								0.39	0.77	0.27	9.8	19.5	6.8	MEA1D0515DC	MEA1		
							87%								0.24	0.77	0.39	6.0	19.5	10.0	MEA1D0515SC	MEA1		
							88%								0.323	0.331	0.335	8.2	8.4	8.5	MTU1D0515MC	MTU1		
							78%								0.39	0.77	0.27	9.8	19.5	6.8	NMA0515DC	NMA		
							78%								0.24	0.77	0.39	6.0	19.5	10.0	NMA0515SC	NMA		
							78%								0.30	0.60	0.26	7.7	15.2	6.6	NTA0515MC	NTA		
			3kV	88%								0.39	0.77	0.27	9.8	19.5	6.8	MEV1D0515DC	MEV1					
												0.24	0.77	0.39	6	19.5	10	MEV1D0515SC	MEV1					
				79%								0.39	0.77	0.21	9.8	19.5	5.4	NKA0515DC	NKA					
												0.23	0.65	0.30	6.0	16.6	7.6	NKA0515SC	NKA					
				79%								0.39	0.77	0.27	9.8	19.5	6.8	NMV0515DC	NMV					
												0.24	0.77	0.39	6.0	19.5	10.0	NMV0515SC	NMV					
		5.2kV	80%								0.30	0.60	0.26	7.7	15.2	6.6	NTV0515MC	NTV						
			75.5%								0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D0515SC	MEJ1						
		12V	10.8V	13.2V	1kV	10.8V	13.2V	1kV	88%								0.39	0.77	0.27	9.8	19.5	6.8	MEA1D1215DC	MEA1
																	0.24	0.77	0.39	6.0	19.5	10.0	MEA1D1215SC	MEA1
									88%								0.323	0.331	0.335	8.2	8.4	8.5	MTU1D1215MC	MTU1
									76%								0.39	0.77	0.27	9.8	19.5	6.8	NMA1215DC	NMA
									76%								0.24	0.77	0.39	6.0	19.5	10.0	NMA1215SC	NMA
									76%								0.30	0.60	0.26	7.7	15.2	6.6	NTA1215MC	NTA
			3kV	88.5%								0.39	0.77	0.27	9.8	19.5	6.8	MEV1D1215DC	MEV1					
												0.24	0.77	0.39	6	19.5	10	MEV1D1215SC	MEV1					
				82%								0.39	0.77	0.21	9.8	19.5	5.4	NKA1215DC	NKA					
												0.23	0.65	0.30	6.0	16.6	7.6	NKA1215SC	NKA					
	76%										0.39	0.77	0.27	9.8	19.5	6.8	NMV1215DC	NMV						
											0.24	0.77	0.39	6.0	19.5	10.0	NMV1215SC	NMV						
	5.2kV	82%								0.30	0.60	0.26	7.7	15.2	6.6	NTV1215MC	NTV							
		77%								0.77	0.390	0.50	19.5	9.95	12.65	MEJ1D1215SC	MEJ1							
	15V	13.5V	16.5V	1kV	13.5V	16.5V	1kV	89.5%								0.39	0.77	0.27	9.8	19.5	6.8	MEA1D1515DC	MEA1	
																0.24	0.77	0.39	6.0	19.5	10.0	MEA1D1515SC	MEA1	
								80%								0.39	0.77	0.27	9.8	19.5	6.8	NMA1515DC	NMA	
																0.24	0.77	0.39	6.0	19.5	10.0	NMA1515SC	NMA	
								90.5%								0.39	0.77	0.27	9.8	19.5	6.8	MEV1D1515DC	MEV1	
																0.24	0.77	0.39	6	19.5	10	MEV1D1515SC	MEV1	
		24V	21.6V	26.4V	1kV	21.6V	26.4V	1kV	88%								0.39	0.77	0.27	9.8	19.5	6.8	MEA1D2415DC	MEA1
																	0.24	0.77	0.39	6.0	19.5	10.0	MEA1D2415SC	MEA1
									88.5%								0.39	0.77	0.27	9.8	19.5	6.8	MEV1D2415DC	MEV1
																	0.24	0.77	0.39	6	19.5	10	MEV1D2415SC	MEV1
									88%								0.39	0.77	0.27	9.8	19.5	6.8	MEV1D2415DC	MEV1
																	0.24	0.77	0.39	6	19.5	10	MEV1D2415SC	MEV1
	48V	43.2V	52.8V	1kV	43.2V	52.8V	1kV	83.5								0.24	0.77	0.39	6.0	19.5	10.0	MEA1D4815DC	MEA1	
																0.24	0.77	0.39	6	19.5	10	MEV1D4815SC	MEV1	
								85%								0.24	0.77	0.39	6	19.5	10	MEV1D4815SC	MEV1	
								85%								0.24	0.77	0.39	6	19.5	10	MEV1D4815SC	MEV1	
								75%								1.27	0.81	0.40	32.3	20.5	10.2	PWR1305AC	PWR13XXC	
								75%								1.27	0.81	0.40	32.3	20.5	10.2	PWR1311AC	PWR13XXC	
	±0.05A	1.5W	12V	10.8V	13.2V	12V	8kV	75%								1.65	1.13	0.41	41.9	28.6	10.3	PWR1726AC	PWR1726AC	
								69%								1.65	1.13	0.41	41.9	28.6	10.3	PWR1726AC	PWR1726AC	
75%															1.27	0.81	0.40	32.3	20.5	10.2	PWR1317AC	PWR13XXC		
±0.067A	2W	5V	4.5V	5.5V	5V	1kV	84%								0.39	0.77	0.30	9.8	19.5	7.7	NMH0515DC	NMH		
															0.30	0.77	0.40	7.5	19.5	10.0	NMH0515SC	NMH		
							84%								0.50	0.70	0.21	12.7	17.8	6.0	NTH0515MC	NTH		
							87%								0.30	0.77	0.4	7.5	19.5	10	NMK0515SC	NMK		
							79%								0.5	0.77	0.39	12.7	19.7	10.0	MEJ2D0515SC	MEJ2		
							78%								0.58	1.28	0.37	14.7	32.6	9.4	NMS0515SC	NMS		
	12V	10.8V	13.2V	12V	10.8V	13.2V	1kV	84%								0.39	0.77	0.30	9.8	19.5	7.7	NMH1215DC	NMH	
																0.30	0.77	0.40	7.5	19.5	10.0	NMH1215SC	NMH	
								84%								0.50	0.70	0.21	12.7	17.8	6.0	NTH1215MC	NTH	
								84%								0.30	0.77	0.4	7.5	19.5	10	NMK1215SC	NMK	
								87%								0.30	0.77	0.4	7.5	19.5	10	NMK1215SC	NMK	
								82%								0.5	0.77	0.39	12.7	19.7	10.0	MEJ2D1215SC	MEJ2	



# Dual output bipolar

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 Note: Root part numbers may be shown. Please refer to datasheets for available options.	Datasheet Available at www.murata-ps.com		
								1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H	
<b>±15V</b>	±0.067A	2W	12V	10.8V	13.2V	6kV	82%								0.58	1.28	0.37	14.7	32.6	9.4	NMS1215C	NMS	
							1kV	84%								0.30	0.77	0.40	7.5	19.5	10.0	NMH1515SC	NMH
			15V	13.5V	16.5V	3kV	88%									0.30	0.77	0.4	7.5	19.5	10	NMK1515SC	NMK
						5.2kV	79%										0.5	0.77	0.39	12.7	19.7	10.0	MEJ2D1515SC
			24V	21.6V	26.4V	1kV	86%									0.39	0.77	0.30	9.8	19.5	7.7	NMH2415DC	NMH
						3kV	89%										0.30	0.77	0.40	7.5	19.5	10.0	NMH2415SC
	48V	43.2V	52.8V	1kV	85%									0.39	0.77	0.30	9.8	19.5	7.7	NMH4815DC	NMH		
	48V	43.2V	52.8V	1kV	85%									0.30	0.77	0.40	7.5	19.5	10.0	NMH4815SC	NMH		
	±0.1A	3W	5V	4.5V	9V	1kV	75%								0.58	1.27	0.27	14.7	32.3	7.0	NDTD0515C	NDTD	
																0.58	1.27	0.27	14.7	32.3	7.0		NDTD1215C
			12V	9V	18V	1kV	78%									0.58	1.27	0.27	14.7	32.3	7.0	NDTD1215C	NDTD
						5kV	66%										1.13	1.13	0.41	28.6	28.6	10.7	
			15V	18V	36V	1kV	82%									0.36	1.02	0.49	9.3	26.0	12.5	NDH2415SC	NDTD
						5kV	81%										0.58	1.27	0.27	14.7	32.3	7.0	
	48V	36V	75V	1kV	81%									0.58	1.27	0.27	14.7	32.3	7.0	NDTD4815C	NDTD		
	±0.167A	5W	5V	4.5V	5.5V	0.75kV	60%								2.00	2.00	0.40	50.8	50.8	10.2	PWR1546AC	PWR1546A	
																				1.26	0.787	0.423	32
	±0.20A	6W	5V	4.5V	9V	5.2kV	83%								1.26	0.787	0.423	32	20	10.75	NCM6D1215C	NCM6	
							87%											1.26	0.787	0.423	32		20
			12V	9V	36V	1.5kV	87.5%									1.26	0.79	0.39	32	20	10	NDS6D2415C	NCS6
						5.2kV	83%										1.26	0.787	0.423	32	20	10.75	
			24V	18V	36V	1.5kV	84%									1.26	0.79	0.39	32	20	10	NCS6D4815C	NCS6
						5.2kV	84%										1.26	0.79	0.39	32	20	10	
	48V	18V	75V	1.5kV	86%									1.26	0.787	0.394	32	20	10	NCS12D1215C	NCS12		
1.5kV				85%										1.26	0.787	0.394	32	20	10	NCS12D4815C			
±0.4	12W	12V	9V	36V	1.5kV	84%								1.1	0.35	0.96	27.9	8.9	24.4	BEI15-150-Q12	BEI15-Series		
						86%											1.1	0.35	0.96	27.9		8.9	24.4

## Dual output Asymmetric isolated DC-DC converter series

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.

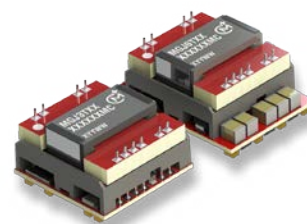
Asymmetric duals provide the real estate and cost savings of a single package with one set of input circuitry. On the output side, many duals feature 2-loop designs that effectively deliver two independently regulated converters in a single package with a standard pinout and internationally recognized safety approvals.

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 Note: Root part numbers may be shown. Please refer to datasheets for available options.	Datasheet Available at www.murata-ps.com	
								1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H
<b>5/3.3V</b>	6/7A	33W	12V	10V	18V	1.5kV	86%								2.00	2.00	0.45	50.8	50.8	11.4	BWR-5/6-3.3/7-D12-C	BWR-5/3.3 33W
				24V	18V		36V	88%									2.00	2.00	0.45	50.8	50.8	
			48V	36V	75V	88%										2.00	2.00	0.45	50.8	50.8	11.4	
<b>5/5V</b>	0.1/0.1A	1W	5V	4.5V	5.5V	1.0kV	70%								0.39	0.77	0.27	9.8	19.5	6.8	NMD050505DC	NMD
																0.24	0.77	0.39	6.0	19.5	10.0	
<b>5/9V</b>	0.1/0.056A	1W	5V	4.5V	5.5V	1.0kV	80%								0.39	0.77	0.27	9.8	19.5	6.8	NMD050509DC	NMD
																0.24	0.77	0.39	6.0	19.5	10.0	
			12V	10.8V	13.2V	1.0kV	80%									0.39	0.77	0.27	9.8	19.5	6.8	
														0.24	0.77	0.39	6.0	19.5	10.0	NMD120509SC		
<b>5/12V</b>	0.1/0.042A	1W	5V	4.5V	5.5V	1.0kV	80%								0.24	0.77	0.39	6.0	19.5	10.0	NMD050512SC	NMD
							80%												0.24	0.77	0.39	
<b>5/15V</b>	0.1/0.034A	1W	5V	4.5V	5.5V	1.0kV	80%								0.24	0.77	0.39	6.0	19.5	10.0	NMD050515SC	NMD
							80%												0.39	0.77	0.27	
														0.24	0.77	0.39	6.0	19.5	10.0	NMD120515SC		

# Dual output asymmetric / Triple output isolated

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 Note: Root part numbers may be shown. Please refer to datasheets for available options.	Datasheet Available at www.murata-ps.com
								1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W		
15/-5V	0.8/0.4A	2W	5V	4.5V	5.5V	5.2kV	76%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D051505SC	MGJ2
			12V	10.8V	13.2V		80%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D121505SC	
			15V	13.5V	16.5V		80%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D151505SC	
			24V	21.6V	26.4V		80.5%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D241505SC	
15/-8.7V	0.8/0.4A	2W	5V	4.5V	5.5V	5.2kV	77.5%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D051509SC	MGJ2
			12V	10.8V	13.2V		80%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D121509SC	
			15V	13.5V	16.5V		80%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D151509SC	
			24V	21.6V	26.4V		82%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D241509SC	
15/15V	0.67/0.67A	2W	5V	4.5V	5.5V	5.2kV	79%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D051515SC	MGJ2
			12V	10.8V	13.2V		82%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D121515SC	
			15V	13.5V	16.5V		79%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D151515SC	
20/-5V	0.8/0.4A	2W	5V	4.5V	5.5V	5.2kV	78.5%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D052005SC	MGJ2
			12V	10.8V	13.2V		82%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D122005SC	
			15V	13.5V	16.5V		81%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D152005SC	
			24V	21.6V	26.4V		82%							0.77	0.39	0.5	19.65	9.95	12.65	MGJ2D242005SC	

## Triple output Isolated DC-DC converters



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 Note: Root part numbers may be shown. Please refer to datasheets for available options.	Datasheet Available at www.murata-ps.com			
								1/8	1/4	1/2	SM	TH	DIP	SIP	L	W	H	L	W			H		
24/48/72V	42/21/14mA	3W	5V	4.5V	5.5V	10kV	85%								0.30	0.86	0.44	7.5	21.8	11.1	NMT0572SC	NMT		
			12V	10.8V	13.2V	10kV	85%								0.30	0.86	0.44	7.5	21.8	11.1	NMT1272SC			
15/5/5	120	3W	5V	4.5	9	5.2kV	80%								0.91	0.89	0.58	23.11	22.61	14.65	MGJ3T05150505MC	MGJ3		
			12V	9	18	5.2kV	82%								0.91	0.89	0.58	23.11	22.61	14.65	MGJ3T12150505MC			
			24V	18	36	5.2kV	81%								0.91	0.89	0.58	23.11	22.61	14.65	MGJ3T24150505MC			
			240	6W	5V	4.5	9	5.2kV	80%								1.23	0.89	0.58	31.24	22.61	14.65	MGJ6T05150505MC	MGJ6
					12V	9	18	5.2kV	82%								1.23	0.89	0.58	31.24	22.61	14.65	MGJ6T12150505MC	
240	6W	24V	18	36	5.2kV	83%								1.23	0.89	0.58	31.24	22.61	14.65	MGJ6T24150505MC				

### MGJ 3/6 configurations

Function	IGBT	SIC	MOSFET
15V Output	+15V	+20V	+15V
15V (0V reference) 5VA output	0V		0V
15VA (0V reference) 5VB output		0V	-5V
5VB (0V reference)	-10V	-5V	

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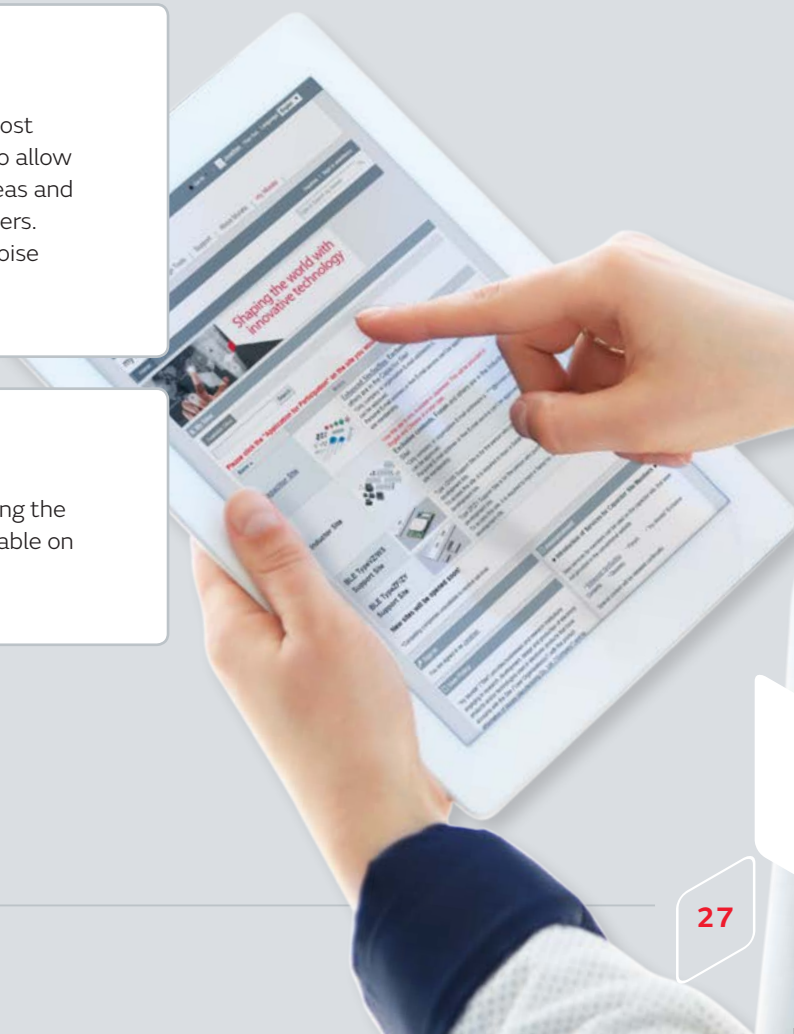
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