

# Flex Power Modules

## Selection Guide

2024

flex

flex<sup>®</sup>

Power Modules



# Table of Contents

<b>Powering your innovation</b>	4
About us	4
Our products	4
Power evolution	4
Application areas	5
<b>Isolated / regulated DC/DC converters</b>	6
<b>Digital converters</b>	6
Digital   <a href="#">Eighth Brick</a>	6
Digital   <a href="#">Quarter Brick</a>	7
<b>Analog converters</b>	8
Analog   <a href="#">Sixteenth Brick</a>	8
Analog   <a href="#">Eighth Brick</a>	9
Analog   <a href="#">Quarter Brick</a>	10
Analog   <a href="#">Half Brick</a>	10
<b>48V non-isolated / regulated DC/DC converters</b>	11
Digital   <a href="#">Regulated Quarter Brick</a>	11
<b>48V non-isolated / unregulated DC/DC converters</b>	12
Digital   <a href="#">Unregulated Fixed Ratio</a>	12
<b>48V to load direct conversion</b>	12
<b>Point of Load (PoL)</b>	13
Digital   <a href="#">PoL</a>	13
Analog   <a href="#">PoL</a>	14
<b>Multi-phase integrated power stages (VRM)</b>	15
<b>Vertical Power Delivery (VPD)</b>	16
<b>Power Interface Module (PIM)</b>	17
<b>Application specific products</b>	18
<b>Radio Frequency Power Amplifiers (RFPA)</b>	18
Analog   <a href="#">RFPA</a>	18
Digital   <a href="#">RFPA</a>	18
<b>Industrial and railway</b>	19
<b>Miniature industrial power supplies</b>	22
Fixed Ratio   <a href="#">SMD</a>	22
Fixed Ratio   <a href="#">SIP4</a>	23
Fixed Ratio   <a href="#">SIP7</a>	24
Fixed Ratio   <a href="#">SIP7 - Gate Drive Applications</a>	27
<b>Software</b>	28
<b>Flex Power Designer</b>	28
<b>SMBus / PMBus tool</b>	28
<b>Evaluation boards &amp; accessories</b>	29
<b>Evaluation boards</b>	29
<b>Accessories</b>	30

# Powering your innovation



## About us

Flex Power Modules (formerly Ericsson Power Modules) is a Flex business unit that designs and manufactures board-mounted DC/DC conversion products for the telecom, datacom, industrial and transportation markets.

Our main office is in Stockholm, Sweden, and we have design centers in Kalmar, Sweden, and Shanghai, China.

We manufacture our products in Shanghai, China and Penang, Malaysia, with emphasis on quality and highly automated production. We are one of the largest volume manufacturers in the power modules industry, having delivered more than 120 million modules globally.

To support our global customer base, our network of technical salespeople and field application engineers cover the Americas, Asia Pacific, Europe, Middle East and Africa. We also work with an extensive network of channel partners and representatives offering local support for all our customers.

## Our products

With more than 45 years of experience and over 145 registered patents in power solutions, we have achieved many industry innovations in the areas of

Distributed Power Architectures (DPA), Intermediate Bus Architectures (IBA), Direct Conversion products (Di-Con), Point of Load converters (PoL), Integrated Power Stages (IPS) and Vertical Power Delivery (VPD) solutions.

## Power evolution

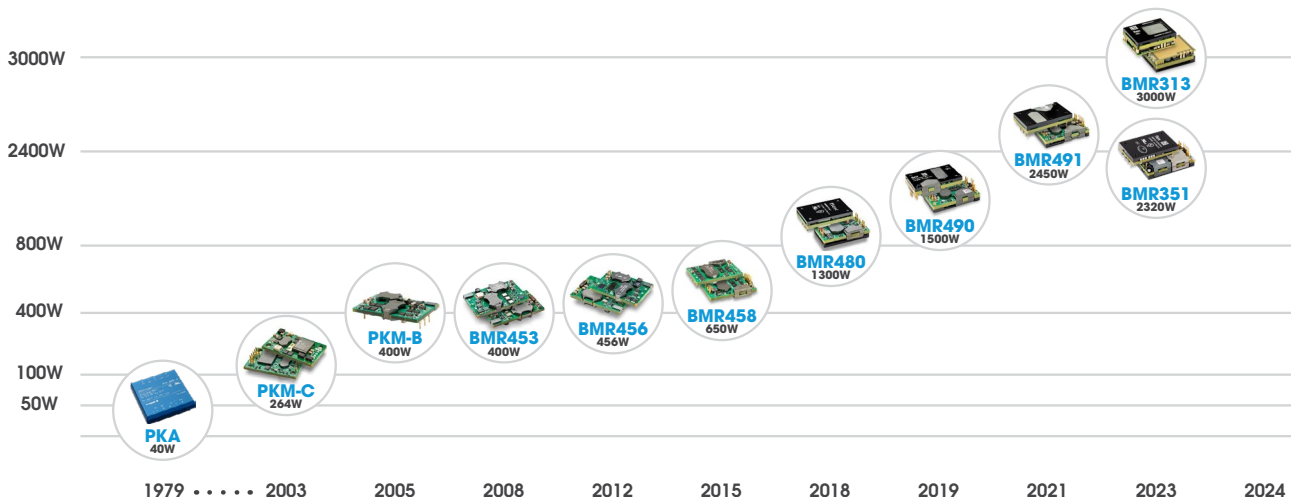
Since launching our first DC/DC converters in the late 70s with an output power of 25-40W, we now develop high density power modules with peak power capabilities up to 3000W and power densities of up to 15kW/in<sup>3</sup>.

Our product categories include:

- Isolated/regulated, non-isolated/regulated and non-isolated/ungregulated digital/analog DC/DC converters from 1W to 3000W (peak)
- Non-Isolated Point-of-Load converters from 2-120A (digital and analog)
- 48V to Load Direct conversion products
- Power Interface Modules (PIM), ATCA compliant
- Application Specific Products (Industrial, RFPA)
- Software: Flex Power Designer Software & SMBus Tool
- Evaluation boards and accessories

Each of our products is the result of extensive research and development in power technology with broad application and system knowledge. By also developing these products with manufacturability and sustainability in mind, our product designs have:

- High efficiency over a wide load range
- High power density
- Excellent thermal performance
- Low total cost of ownership over product lifetime
- Excellent dynamic load performance
- High MTBF and long lifetime





## Application areas

### Datacom / Data Centers

In the datacom market, we offer solutions for cloud, storage, hyperscale computing, AI and network security applications.

We innovate in this market with the use of LLC and SCC topologies and leading-edge components to deliver extremely high levels of power densities. We also apply Vertical Power Delivery (VPD) designs to enable direct underside connections to the power pins of associated processors and ASICs.

Learn more about datacom/data center solutions through our [DC/DC for data center applications brochure](#).

### Telecom

We offer a wide portfolio of solutions for RFPA and 5G applications, optical networking and microwave communications equipment in the telecom market.

Our products include the addition of digital connections to the DC/DC modules to enable monitoring, configuration and control of the DC/DC converter even in RF and Microwave Power Amplifier applications.

Learn more about telecoms solutions through our [DC/DC for telecom applications brochure](#).

### Industrial & Transportation

Our wide range of high performance and high reliability DC/DC converters for the industrial market include applications for robotics, automation, smart grid, test and measurement equipment, transportation, medical, etc.

Learn more about industrial & transportation solutions through our [DC/DC for industrial and transportation applications brochure](#).



# Isolated / regulated DC/DC converters

Our offering of isolated DC/DC converters are designed to support various markets including Telecom and Data Centers, Industrial, Transportation/Railway. We also offer a class-leading range of digital DC/DC converters that incorporate a PMBus compliant interface to complement the digital PoL (Point of Loads) on offer. All our digital products are supported by our Flex Power Designer tool.

## Digital converters

### Digital | Eighth Brick



**BMR492**



**BMR457**  
with baseplate



**BMR457**  
open frame



V <sub>OUT</sub> (V)	V <sub>IN</sub> (V)	V <sub>OUT ADJUST</sub> (V)	I <sub>OUT</sub> (A)	P <sub>OUT</sub> (W)	P <sub>OUT PEAK</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>9</b>	40-60	8-13.2	50	450		96.4	58.4 x 22.7 x 13.0 mm / 2.3 x 0.89 x 0.51 in.	BMR4920302/863
<b>10.4</b>	40-60	8-12	67/91	700	960	97.1	58.4 x 22.7 x 14.0 mm / 2.3 x 0.89 x 0.55 in.	BMR4920300/001
<b>12</b>	36-75	6.9-13.2	22	251		95.2	58.4 x 22.7 x 10.2 mm / 2.3 x 0.89 x 0.4 in.	BMR4570007/013
	36-75	6.9-13.2	22	264		95.2	58.4 x 22.7 x 10.2 mm / 2.3 x 0.89 x 0.4 in.	BMR4570004/001
	40-60	6.9-13.2	25	285		95.1	58.4 x 22.7 x 10.2 mm / 2.3 x 0.89 x 0.4 in.	BMR4570011/016
	40-60	6.9-13.2	25	300		95.1	58.4 x 22.7 x 10.2 mm / 2.3 x 0.89 x 0.4 in.	BMR4570000/002
	40-60	8-13.2	42	504		96.8	58.4 x 22.7 x 12.7 mm / 2.3 x 0.89 x 0.57 in.	BMR4920303/862
<b>NEW</b>	<b>36-75</b>	<b>8-13.2</b>	<b>42</b>	<b>504</b>		<b>96.1</b>	<b>58.4 x 22.7 x 12.7 mm / 2.3 x 0.89 x 0.57 in</b>	<b>BMR4920311/011</b>
<b>NEW</b>	<b>36-75</b>	<b>8-13.2</b>	<b>42</b>	<b>504</b>		<b>96.1</b>	<b>58.4 x 22.7 x 12.7 mm / 2.3 x 0.89 x 0.57 in.</b>	<b>BMR4920311/021**</b>
	40-60	8-13.2	50	600		96.7	58.4 x 22.7 x 13.2 mm / 2.3 x 0.89 x 0.57 in.	BMR4920302/861
	40-60	8-12	67/91	800	1100	97.5	58.4 x 22.7 x 14.0 mm / 2.3 x 0.89 x 0.55 in.	BMR4920300/864
<b>12.45</b>	36-75	6.9-13.2	22	261		95.2	58.4 x 22.7 x 10.2 mm / 2.3 x 0.89 x 0.4 in.	BMR4570007/014**
	40-60	6.9-13.2	25	296		95.1	58.4 x 22.7 x 10.2 mm / 2.3 x 0.89 x 0.4 in.	BMR4570011/017**

\*Active current sharing \*\*Droop load sharing

Optional baseplated versions are available for all devices

**BMR491 | NEW**

**BMR480**

**BMR458**



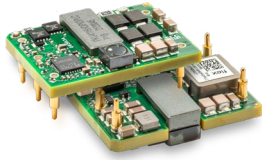
V <sub>OUT</sub> (V)	V <sub>IN</sub> (V)	V <sub>OUT ADJUST</sub> (V)	I <sub>OUT</sub> (A)	P <sub>OUT</sub> (W)	P <sub>OUT PEAK</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>9</b>	36-75	4-13.2	35	315		95.3	57.9 x 36.8 x 11.3 mm / 2.28 x 1.45 x 0.45 in.	BMR4560004/004
	36-60	4-13.2	39	351		95.9	57.9 x 36.8 x 11.3 mm / 2.28 x 1.45 x 0.45 in.	BMR4560000/003
<b>10.4</b>	40-60	N/A	96.2	1000		97.3	58.4 x 36.8 x 14.5 mm / 2.3 x 1.45 x 0.57 in.	BMR4800114/003
	45-56	N/A	96.2	1000		97.3	58.4 x 36.8 x 14.5 mm / 2.3 x 1.45 x 0.57 in.	BMR4800100/001
<b>12</b>	36-75	4-13.2	35	400		96.4	57.9 x 36.8 x 11.3 mm / 2.28 x 1.45 x 0.45 in.	BMR4560007/013**
	36-75	4-13.2	35	420		96.4	57.9 x 36.8 x 11.3 mm / 2.28 x 1.45 x 0.45 in.	BMR4560004/001
	36-75	4-13.2	35	420		96.4	57.9 x 36.8 x 11.3 mm / 2.28 x 1.45 x 0.45 in.	BMR4560004/018
	40-60	4-13.2	39	445		96.8	57.9 x 36.8 x 11.3 mm / 2.28 x 1.45 x 0.45 in.	BMR4560011/016**
	40-60	4-13.2	39	468		96.8	57.9 x 36.8 x 11.3 mm / 2.28 x 1.45 x 0.45 in.	BMR4560000/002
	36-75	8-13.2	50	600		96.4	57.9 x 36.8 x 11.2 mm / 2.28 x 1.45 x 0.44 in.	BMR4580002/003
	36-75	8-13.2	50	600		96.4	58.4 x 36.8 x 11.2 mm / 2.3 x 1.45 x 0.45 in.	BMR4580032/003
	40-60	8-13.2	54.2	650		96.6	57.9 x 36.8 x 11.2 mm / 2.28 x 1.45 x 0.44 in.	BMR4580011/002
	40-60	8-13.2	54.2	650		96.6	58.4 x 36.8 x 11.2 mm / 2.3 x 1.45 x 0.45 in.	BMR4580030/004
	36-60	N/A	69	800		96.4	58.4 x 36.8 x 14.5 mm / 2.3 x 1.45 x 0.57 in.	BMR4800113/034*
	40-60	N/A	75	900		97.3	58.4 x 36.8 x 14.5 mm / 2.3 x 1.45 x 0.57 in.	BMR4800102/002**
	45-60	N/A	108.3	1300		97.3	58.4 x 36.8 x 14.5 mm / 2.3 x 1.45 x 0.57 in.	BMR4800106/005**
	40-60	8-13.2	108.3	1300		97.0	58.4 x 36.8 x 14 mm / 2.3 x 1.45 x 0.55 in.	BMR4910202/853*
	40-60	8-13.2	108.3	1300		97.0	58.4 x 36.8 x 14 mm / 2.3 x 1.45 x 0.55 in.	BMR4910203/851**
	40-60	8-13.2	110	1300	1800	97.4	58.4 x 36.8 x 14.5 mm / 2.3 x 1.45 x 0.57 in.	BMR4912511/858**
	48-56	8-13	200	1400	2400	97.5	58.4 x 36.8 x 13.8 mm / 2.3 x 1.45 x 0.544 in.	BMR4912307/856
	48-56	8-13	200	1400	2400	97.5	58.4 x 36.8 x 13.8 mm / 2.3 x 1.45 x 0.544 in.	BMR4912314/880*
45-60	8-13	205	1540	2450	97.4	58.4 x 36.8 x 14.5 mm / 2.3 x 1.45 x 0.57 in.	BMR4913208/857	
<b>12.45</b>	36-75	4-13.2	35	415		96.4	57.9 x 36.8 x 11.3 mm / 2.28 x 1.45 x 0.45 in.	BMR4560007/014**
	40-60	4-13.2	39	462		96.8	57.9 x 36.8 x 11.3 mm / 2.28 x 1.45 x 0.45 in.	BMR4560011/017**
	36-75	8-13.2	50	600		96.4	57.9 x 36.8 x 11.2 mm / 2.28 x 1.45 x 0.45 in.	BMR4580002/014**
	36-75	8-13.2	50	600		96.4	58.4 x 36.8 x 11.2 mm / 2.3 x 1.45 x 0.45 in.	BMR4580032/014**
	36-75	8-13.2	50	615		96.4	57.9 x 36.8 x 11.2 mm / 2.28 x 1.45 x 0.45 in.	BMR4580002/031*
	40-60	8-13.2	54.2	650		96.6	57.9 x 36.8 x 11.2 mm / 2.28 x 1.45 x 0.45 in.	BMR4580011/017**
	40-60	8-13.2	54.2	665		96.6	57.9 x 36.8 x 11.2 mm / 2.28 x 1.45 x 0.45 in.	BMR4580011/032*
	40-60	8-13.2	54.2	650		96.6	57.9 x 36.8 x 11.2 mm / 2.28 x 1.45 x 0.45 in.	BMR4580020/018**
	40-60	8-13.2	54.2	650		96.6	58.4 x 36.8 x 11.2 mm / 2.3 x 1.45 x 0.45 in.	BMR4580030/020**
	<b>24 NEW</b>	<b>40-60</b>	<b>16-26.4</b>	<b>55</b>	<b>1300</b>		<b>96.8</b>	<b>58.4 x 36.8 x 14.5 mm / 2.3 x 1.45 x 0.57 in.</b>
<b>28</b>	36-60	18-32	17.9	500		95.5	58.4 x 36.8 x 12.7 mm / 2.3 x 1.45 x 0.5 in.	BMR6830300/200

\*Active current sharing \*\*Droop load sharing

# Analog converters

## Analog | Sixteenth Brick

### PKU-D



### PKU-D with baseplate



### PKU-E



V <sub>OUT</sub> (V)	V <sub>IN</sub> (V)	V <sub>OUT ADJUST</sub> (V)	I <sub>OUT</sub> (A)	P <sub>OUT</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>3.3</b>	18-75	3.0-3.7	15	50	92	33 x 22.9 x 9.4 mm / 1.3 x 0.9 x 0.37 in.	PKU5510E
	36-75	2.6-3.6	20	66	92	33 x 22.9 x 9.4 mm / 1.3 x 0.9 x 0.37 in.	PKU4610E
	36-75	2.6-3.7	30.3	110	93.7	33 x 22.9 x 11.3 mm / 1.3 x 0.9 x 0.44 in.	PKU4110D
<b>5</b>	18-75	4.5-5.5	10	50	92	33 x 22.9 x 9.4 mm / 1.3 x 0.9 x 0.37 in.	PKU5511E
	36-75	4.0-5.5	27	150	93.6	33 x 22.9 x 11.3 mm / 1.3 x 0.9 x 0.44 in.	PKU4111D
<b>5.5</b>	18-60	5.0-6.0	9	50	92	33 x 22.9 x 9.4 mm / 1.3 x 0.9 x 0.37 in.	PKU4517VE
<b>6</b>	28-60	5.5-6.5	8.5	50	90.7	33 x 22.9 x 9.4 mm / 1.3 x 0.9 x 0.37 in.	PKU5517VE
<b>6.5</b>	36-75	5.2-7.2	10	65	89.8	33 x 22.9 x 9.4 mm / 1.3 x 0.9 x 0.37 in.	PKU4717E
<b>10.4</b>	36-60	9.4-10.9	25	260	96.1	33 x 22.9 x 11.3 mm / 1.3 x 0.9 x 0.44 in.	PKU4217D
<b>12</b>	18-75	9.6-13.2	4.2	50	91.7	33 x 22.8 x 9.4mm / 1.3 s 0.9 x 0.37 in.	PKU5513E
	36-75	9.6-13.2	10	120	95.5	33 x 22.9 x 11.3 mm / 1.3 x 0.9 x 0.44 in.	PKU4113D
	36-75	9.6-13.2	17	204	95	33 x 22.9 x 11.3 mm / 1.3 x 0.9 x 0.44 in.	PKU4213D
	36-75	9.6-13.2	8.3	100	94.5	33 x 22.9 x 11.3 mm / 1.3 x 0.9 x 0.44 in.	PKU4913D
<b>NEW</b>	<b>30-60</b>	<b>9.6-13.2</b>	<b>8.3</b>	<b>100</b>	<b>93.8</b>	<b>33 x 22.9 x 11.3 mm / 1.3 x 0.9 x 0.44 in.</b>	<b>PKU3913D</b>
<b>NEW</b>	<b>48-60</b>	<b>10.8-12.24</b>	<b>25</b>	<b>300</b>	<b>96.1</b>	<b>33 x 22.9 x 11.3 mm / 1.3 x 0.9 x 0.44 in.</b>	<b>PKU4317D</b>
<b>15</b>	36-75	12.0-16.5	5.7	86	91.6	33 x 22.9 x 9.6 mm / 1.3 x 0.9 x 0.38 in.	PKU4815C
<b>24</b>	28-60	19.2-26.4	1.8	43	91.7	33 x 22.9 x 9.6 mm / 1.3 x 0.9 x 0.38 in.	PKU4416Z
<b>24/28/30</b>	36-75	10-33	3.3	79.2	92.9	33 x 22.9 x 9.6 mm / 1.3 x 0.9 x 0.38 in	PKU4116C*
<b>55</b>	36-60	N/A	2	110	92.4	33 x 22.9 x 9.8 mm / 1.3 x 0.9 x 0.38 in.	PKU4116HD

\* Default voltage = 30V

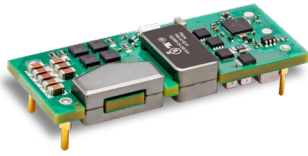


## Analog | Eighth Brick

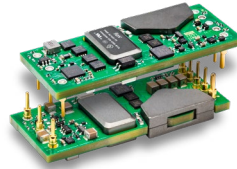
PKB-D  
with baseplate



PKB-D



PKB-C



$V_{OUT}$ (V)	$V_{IN}$ (V)	$V_{OUT ADJUST}$ (V)	$I_{OUT}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>3.3</b>	36-75	2.6-3.6	40	132	94.7	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB4110D
	36-75	2.6-3.6	62	205	95.4	58.4 x 22.7 x 13.2 mm / 2.3 x 0.9 x 0.52 in.	PKB4210DA
<b>5</b>	36-75	4.0-5.5	28	140	92	58.4 x 22.7 x 8.5 mm / 2.3 x 0.90 x 0.34 in.	PKB4111C
	36-75	4.0-5.5	30	150	94.5	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB4111D
	36-75	4.0-5.5	40	200	95.3	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB4211D
	36-75	4.0-5.5	52	260	95.5	58.4 x 22.7 x 13.2 mm / 2.3 x 0.9 x 0.52 in.	PKB4211DA
<b>10</b>	36-75	N/A	25	250	95.7	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB4217ND
<b>12</b>	36-75	9.6-13.2	12	144	92.5	58.4 x 22.7 x 8.5 mm / 2.3 x 0.89 x 0.34 in.	PKB4113C
	18-36	N/A	20	240	95.5	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB2213D
<b>NEW</b>	<b>18-60</b>	<b>N/A</b>	<b>20</b>	<b>240</b>	<b>94.6</b>	<b>58.4 x 22.7 x 13.2mm / 2.3 x 0.89 x 0.52 in.</b>	<b>PKB5213D</b>
	36-75	N/A	22	264	95.4	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB4213D
	36-75	N/A	25	300	96.2	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB4313D
	36-75	N/A	32.5	390	95.6	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB4313DA
	36-75	N/A	34	408	96.2	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB4413DA
	36-60	N/A	37.5	450	96.2	58.4 x 22.7 x 9.6 mm / 2.3 x 0.89 x 0.38 in.	PKB4413D
<b>24/28/30</b>	36-75	15.0-33.0	6.7	200	95	58.4 x 22.7 x 8.5 mm / 2.3 x 0.90 x 0.34 in.	PKB4216C*
<b>48/50</b>	36-60	40.0-55.0	5	250	94.5	58.4 x 22.7 x 13.2 mm / 2.3 x 0.89 x 0.52 in.	PKB4216HD

\* Default voltage = 30V

## Analog | Quarter Brick

### PKM-NH



### PKM-NH with baseplate



### PKM-AD



$V_{OUT}$ (V)	$V_{IN}$ (V)	$V_{OUT\ ADJUST}$ (V)	$I_{OUT}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>10.8</b>	40-60	N/A	70	750	97	57.9 x 36.8 x 11.4 mm / 2.28 x 1.45 x 0.45 in.	PKM4717BNH
	40-60	N/A	70	756	97	57.9 x 36.8 x 11.4 mm / 2.28 x 1.45 x 0.45 in.	PKM4717NH
	40-60	N/A	80	864	97	57.9 x 36.8 x 11.4 mm / 2.28 x 1.45 x 0.45 in.	PKM4817NH
<b>11</b>	45-60	N/A	80	800	97	57.9 x 36.8 x 11.4 mm / 2.28 x 1.45 x 0.45 in.	PKM4817LNH
<b>11.6</b>	36-75	N/A	50	580	96	57.9 x 36.8 x 11.4 mm / 2.28 x 1.45 x 0.45 in.	PKM4613ANH
<b>12</b>	36-75	N/A	50	600	96.2	57.9 x 36.8 x 11.4 mm / 2.28 x 1.45 x 0.45 in.	PKM4613NH
	40-60	N/A	58.3	700	96.5	57.9 x 36.8 x 11.4 mm / 2.28 x 1.45 x 0.45 in.	PKM4713NH
<b>28/30</b>	36-75	14-35	18	500	95.5	58.4 x 36.8 x 12.7 mm / 2.3 x 1.45 x 0.50 in.	PKM4516AD
<b>48/50</b>	36-75	25-55	10	500	95.1	58.4 x 36.8 x 12.7 mm / 2.3 x 1.45 x 0.50 in.	PKM4516HD

## Analog | Half Brick

### PKJ4000



$V_{OUT}$ (V)	$V_{IN}$ (V)	$V_{OUT\ ADJUST}$ (V)	$I_{OUT}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>28/30</b>	36-75	14-35	25	700	96.2	61.0 x 57.9 x 12.7 mm / 2.4 x 2.28 x 0.5 in.	PKJ4716A
<b>48/50</b>	36-75	25-55	14	700	95.8	61.0 x 57.9 x 12.7 mm / 2.4 x 2.28 x 0.5 in.	PKJ4716H

# 48V non-isolated / regulated DC/DC converters

These non-isolated, regulated converters deliver high efficiency ( up to 98% and more), high power as well as some of them come with peak power capabilities. They are particularly designed to meet datacenter, cloud and hyperscale computing applications.

## Digital | Regulated Quarter Brick



### BMR351 | NEW

### BMR350



V <sub>OUT</sub> (V)	V <sub>IN</sub> (V)	V <sub>OUT ADJUST</sub> (V)	I <sub>OUT</sub> (A)	P <sub>OUT</sub> (W)	P <sub>OUT PEAK</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>12</b>	40-60	8-13.2	50	600		98.1	58.4 x 36.8 x 12 mm / 2.3 x 1.45 x 0.47 in.	BMR3502320/802
	40-60	8-13.2	72	860		98.1	58.4 x 36.8 x 12 mm / 2.3 x 1.45 x 0.47 in.	BMR3502101/801*
	40-60	8-13.2	72	860		98.1	58.4 x 36.8 x 12 mm / 2.3 x 1.45 x 0.47 in.	BMR3504102/002**
	40-60	8-13.2	72/100	860	1200	98.1	58.4 x 36.8 x 12 mm / 2.3 x 1.45 x 0.47 in.	BMR3502100/031*
	40-60	8-13.2	108	1300		97.7	58.4 x 36.8 x 12 mm / 2.3 x 1.45 x 0.47 in.	BMR3502253/803**
	40-60	8-13.2	108 / 140	1300	1700	97.7	58.4 x 36.8 x 12 mm / 2.3 x 1.45 x 0.47 in.	BMR3502250/531*
<b>NEW</b>	<b>40-60</b>	<b>8-13.2</b>	<b>136 / 200</b>	<b>1600</b>	<b>2320</b>	<b>97.8</b>	<b>58.4 x 36.8 x 14.7 mm / 2.3 x 1.45 x 0.58 in.</b>	<b>BMR3512202/002**</b>

\* Active current sharing \*\* Droop load sharing

# 48V non-isolated / unregulated DC/DC converters

These DC/DC converters come with an extremely high power density and are suitable for demanding AI applications. Some of the modules have peak power and even transient power functionality

Digital | Unregulated Fixed Ratio



BMR313 | NEW

BMR314 | NEW

BMR320 | NEW

BMR321 | NEW



V <sub>OUT</sub> (V)	V <sub>IN</sub> (V)	RATIO	I <sub>OUT</sub> (A)	P <sub>OUT</sub> (W)	P <sub>OUT PEAK</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
5-7.5 NEW	40-60	8:1	60	400		97.6	27.0 x 18.0 x 6.4 mm / 1.06 x 0.71 x 0.25 in.	BMR3201000/001
5-7.5 NEW	40-60	8:1	111	750	1500	98	41.47 x 17.67 x 6.9 mm // 1.63 x 0.7 x 0.26 in	BMR3211000/001
9.5-15 NEW	38-60	4:1	80	1000	3000	97.3	23.4 x 17.8 x 7.65 mm / 0.92 x 0.70 x 0.30 in.	BMR3131011/001
9.5-15 NEW	38-60	4:1	62	800	1500	97.5	23.4 x 17.8 x 9.65 mm / 0.92 x 0.70 x 0.38 in.	BMR3141011/001

## 48V to load direct conversion

Solutions for converting directly from 48V to the core voltages required by the most demanding FPGAs, ASICs, DSPs, CPUs, GPUs and Memories.

BMR482  
Main Unit

BMR482  
Satellite Unit



V <sub>OUT</sub> (V)	V <sub>IN</sub> (V)	V <sub>OUT MIN</sub> (V)	V <sub>OUT MAX</sub> (V)	I <sub>OUT MAX</sub> (W)	P <sub>OUT</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
0.8	40-60	0.5	1.35	110	88	91.3	30.0 x 12.7 x 16.8 mm / 1.18 x 0.5 x 0.66 in.	BMR4820001/004*
	40-60	0.5	1.35	110	88	91.3	30.0 x 12.7 x 15.4 mm / 1.18 x 0.5 x 0.61 in.	BMR4820002**

\* Main unit \*\* Satellite unit

Note: One Main unit controls up to 5 Satellite units or up to 6 multi-phase

# Point of Load (PoL)

Our Point of Load (PoL) devices are non-isolated DC/DC converters which include an industry leading array of digital solutions. They offer a PMBus interface for easy monitoring, configuration and control, including support from the “Flex Power Designer” engineering design tool.

## Digital | PoL

**BMR473 | NEW**  
Horizontal Mount



**BMR473 | NEW**  
Vertical Mount SIP



**BMR474**



**BMR4696001**



I <sub>OUT</sub> (A)	V <sub>IN</sub> (V)	V <sub>OUT ADJUST</sub> (V)	P <sub>OUT</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>6</b>	4.5-14	0.6-5	30	95.8	12.2 x 12.2 x 8.0 mm / 0.48 x 0.48 x 0.32 in.	BMR4612x01
<b>12</b>	4.5-14	0.6-5	60	96	12.2 x 12.2 x 8.0 mm / 0.48 x 0.48 x 0.32 in.	BMR4613x01
<b>15</b>	4.5-14	0.6-3.3	50	94.6	12.2 x 12.2 x 8.0 mm / 0.48 x 0.48 x 0.32 in.	BMR4615x01
<b>18</b>	4.5-14	0.6-1.8	36	91.6	12.2 x 12.2 x 8.0 mm / 0.48 x 0.48 x 0.32 in.	BMR4614x01
<b>25</b>	4.5-14	0.6-3.3	83	97.1	PTH/SMD: 26.65 x 13.8 x 8.2 mm / 1.01 x 0.54 x 0.32 in. SIP: 26.3 x 7.6 x 15.6 mm / 1.04 x 0.30 x 0.61 in.	BMR463x008
	7.5-14	0.6-5 (dual)	100	94.3	25.4 x 14.5 x 5.8 mm / 1.00 x 0.57 x 0.23 in.	BMR4696001*
<b>40 NEW</b>	<b>6-15</b>	<b>0.6-5</b>	<b>100</b>	<b>96.2</b>	<b>SIP: 26.3 x 8.8 x 15.6 mm / 1.04 x 0.35 x 0.61 in.</b>	<b>BMR4731001/001</b>
<b>NEW</b>	<b>6-15</b>	<b>0.6-5</b>	<b>100</b>	<b>96.2</b>	<b>SMD: 19.0 x 13.0 x 7.5 mm / 0.748 x 0.512 x 0.296 in.</b>	<b>BMR4732001/001</b>
	7.5-14	0.6-5 (dual)	200	92.6	25.4 x 12.7 x 11.6 mm / 1.00 x 0.50 x 0.46 in.	BMR4690000**
<b>50</b>	7.5-14	0.6-5	100	94.3	25.4 x 14.5 x 5.8 mm / 1.00 x 0.57 x 0.23 in.	BMR4696001***
	4.5-14	0.6-3.3	165	97.2	PTH/SMD: 30.85 x 20.0 x 8.2 mm / 1.22 x 0.79 x 0.32 in. SIP: 33.0 x 7.6 x 18.1 mm / 1.30 x 0.30 x 0.71 in.	BMR464x008
<b>60</b>	4.5-14	0.6-1.8	108	93.6	25 x 14 x 7.0 mm / 0.98 x 0.55 x 0.28 in.	BMR4668x04
<b>80</b>	6-15	0.6-3.3	198	95.1	33 x 8.6 x 19 mm / 1.3 x 0.34 x 0.75 in.	BMR474x001
	7.5-14	0.6-5	200	92.6	25.4 x 12.7 x 11.6 mm / 1.00 x 0.50 x 0.46 in.	BMR4690000****

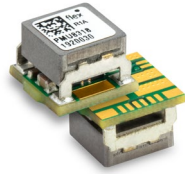
\* Configured as dual output 2 x 25A \*\* Configured as dual output 2 x 40A \*\*\* Configured as single output 50A \*\*\*\* Configured as single output 80A



PNA



PMU



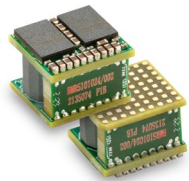
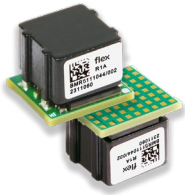
$I_{OUT}$ (A)	$V_{IN}$ (V)	$V_{OUT ADJUST}$ (V)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
4	4.5-17	0.6-5.5	22	93.1	7.5 x 7.5 x 5.4 mm / 0.29 x 0.29 x 0.21 in.	PMU8218
6	4.5-17	0.6-5.5	33	92.7	7.5 x 7.5 x 5.4 mm / 0.29 x 0.29 x 0.21 in.	PMU8318
	9-36	0.9-5.5	33	95.5	13 x 12.35 x 6.2 mm / 0.51 x 0.49 x 0.24 in.	PNA2405S3S
8	4.5-17	0.6-5.5	44	91.9	7.5 x 7.5 x 5.4 mm / 0.29 x 0.29 x 0.21 in.	PMU8418

# Multi-phase integrated power stages (VRM)

These 2-phase intelligent power block digital converters have the power stages integrated on the module - either on top or bottom depending on the model. These converters are suitable for lateral and vertical power delivery. They require an external controller.

**BMR511 | NEW**

**BMR510**



$V_{OUT}$ (V)	$V_{IN}$ (V)	$I_{OUT}$ (A)	$I_{OUT PEAK}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
0.5-1.3	4.5-15	80	140	-	92	10.0 x 9.0 x 7.6 mm / 0.39 x 0.35 x 0.29 in.	BMR510x034/002
<b>0.5-1.8 NEW</b>	<b>5-15</b>	<b>80</b>	<b>140</b>	-	<b>94.5</b>	10.0 x 9.0 x 8 mm / 0.39 x 0.35 x 0.31 in	<b>BMR5111044/002</b>

# Vertical Power Delivery (VPD)

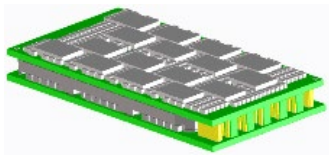
Increasing demands for ever higher current delivery driven by power hungry applications such as AI/Machine Learning require new approaches to the IC power distribution networks.

The challenges posed to supply high current, low voltage and extremely fast load transient response is solved by moving the voltage regulators to be placed directly under the processor on the bottom of the PCB, and is commonly referred to as Vertical Power Delivery (VPD).

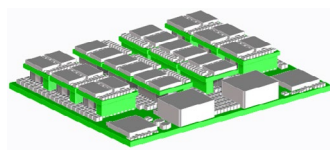
By further optimizing the pinout of the VPD modules to match that of the processor it is feeding, connection resistance and inductance can be minimized to allow much lower voltage variation and power dissipation.

Complex custom VPD modules have been developed to feed various types of CPUs, GPUs, FPGAs, ASICs etc. Our VPDs offer solutions from 1-7 rails across 8-32 phases, and can include up to 2400 solder ball connections. Some examples:

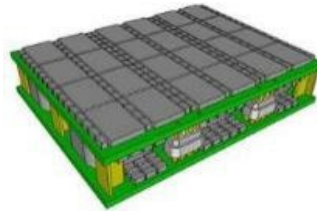
**16 phases**  
1 rail



**48 phases**  
5 rails



**24 phases**  
5 rails



# Power Interface Module (PIM)

Our range of Power Interface Modules (PIM) simplifies the design in blade servers based on Advanced TCA standards and other applications. The PIM converter can be used for any industrial or ICT application employing a Distributed Power Architecture..

## PIM4328



$I_{OUT}$ (A)	$V_{IN}$ (V)	$V_{OUT1}$ (V)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$V_{OUT3}$ (V)	$I_{OUT3}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>10-12</b>	36-75	$V_{in}$	3.3	3.6	0.15	5	390-540	99	57.9 x 36.8 x 13.7 mm / 2.28 x 1.45 x 0.59 in.	PIM4328PD/PDA*

\*ATCA compliant

# Application specific products

We have a long history of serving the ICT industry with our traditional telecom products but we also offer specific devices that ideally suit the Data Center and RFPA sections of that industry. We are extending our product portfolio to cover other alternate markets, including devices specifically focused on Industrial and Railway/Transportation applications. All our railway products comply with the EN50155 standard.

## Radio Frequency Power Amplifiers (RFPA)

### Analog | RFPA

We have a wide offering of DC/DC converters aimed at Radio Frequency Power Amplifier (RFPA and microwave) applications in the telecom market segment. They are particularly designed for the 5G rollout.

#### PKU-D

#### PKM-D

#### PKJ

#### PKB-D



V <sub>OUT</sub> (V)	V <sub>IN</sub> (V)	V <sub>OUT ADJUST</sub> (V)	I <sub>OUT</sub> (A)	P <sub>OUT</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>24</b>	28-60	19.2-26.4	1.8	43	91.7	33.0 x 22.9 x 9.6 mm / 1.3 x 0.9 x 0.38 in.	PKU4416Z
<b>24/28/30</b>	36-75	10-33	3.3	100	92.9	33.0 x 22.9 x 9.6 mm / 1.3 x 0.9 x 0.38 in.	PKU4116C*
	36-75	15-33	6.7	200	95	58.4 x 22.7 x 8.5 mm / 2.3 x 0.9 x 0.34 in.	PKB4216C*
	36-75	14-35	18	504	95.5	58.4 x 36.8 x 12.7 mm / 2.3 x 1.45 x 0.5 in.	PKM4516AD
	36-75	14-35	25	700	96.2	61.0 x 57.9 x 12.7 mm / 2.4 x 2.28 x 0.5 in.	PKJ4716A
<b>48/50</b>	36-60	40-55	5	250	94.5	58.4 x 22.7 x 13.2 mm / 2.3 x 0.89 x 0.52 in.	PKB4216HD
	36-75	25-55	10	500	95.1	58.4 x 36.8 x 12.7 mm / 2.3 x 1.45 x 0.5 in.	PKM4516HD
	36-75	25-55	14	700	95.8	61.0 x 57.9 x 12.7 mm / 2.4 x 2.28 x 0.5 in.	PKJ4716HD
<b>55</b>	36-60	N/A	2.0	110	92.4	33 x 22.9 x 9.8 mm / 1.3 x 0.9 x 0.38 in.	PKU4116HD

\*Default output voltage = 30V

### Digital | RFPA

#### BMR684 | NEW

#### BMR685



V <sub>OUT</sub> (V)	V <sub>IN</sub> (V)	V <sub>OUT ADJUST</sub> (V)	I <sub>OUT</sub> (A)	P <sub>OUT</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>50 NEW</b>	<b>36-75</b>	<b>25-55</b>	<b>14</b>	<b>700</b>	<b>96</b>	<b>58.4 x 36.8 x 12.7 mm / 2.3 x 1.45 x 0.5 in</b>	<b>BMR6841100/001</b>
	36-75	25-55	26.0	1300	97.2	61.0 x 57.9 x 12.7 mm / 2.4 x 2.28 x 0.5 in.	BMR6853300/001



# Industrial and railway

PKJ-W

PKM-W

PKE

PKE-A



$V_{OUT1}$ (V)	$V_{IN}$ (V)	$I_{OUT1}$ (A)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>3.3</b>	9-36	4.5	-	-	15	88.2	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3210
	18-75	4.5	-	-	15	87.8	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5210
	9-36	7	-	-	23	88	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3310
	18-75	7	-	-	23	89	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5310
	9-75	10	-	-	33	91	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE8410A
	9-36	15	-	-	50	88	35.3 x 25 x 10.4 mm / 1.39 x 0.984 x 0.41 in.	PKU3510S
	18-75	15	-	-	50	92	33.0 x 22.9 x 9.4 mm / 1.3 x 0.9 x 0.37 in.	PKU5510E
	18-75	15	-	-	50	88	35.3 x 25 x 10.4 mm / 1.39 x 0.984 x 0.41 in.	PKU5510S
	12-160	15	-	-	50	86	57.91 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7510W
<b>5</b>	9-36	0.5	-	-	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.80 x 0.42 in.	PKV3211
	18-72	0.5	-	-	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.80 x 0.42 in.	PKV5211
	18-36	2	-	-	10	85	47.8 x 28.1 x 8.0 mm / 1.88 x 1.11 x 0.32 in.	PKR2111A
	9-36	3	-	-	15	88	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3211
	18-75	3	-	-	15	84.3	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5211
	9-36	6	-	-	30	90	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3311
	18-75	6	-	-	30	91	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5311
	43-160	6	-	-	30	91	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE7311A
	9-75	8	-	-	40	89	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE8411A
	9-36	10	-	-	50	90	35.3 x 25 x 10.4 mm / 1.39 x 0.984 x 0.41 in.	PKU3511S
	18-75	10	-	-	50	92	33.0 x 22.9 x 9.4 mm / 1.3 x 0.9 x 0.37 in.	PKU5511E
	18-75	10	-	-	50	89	35.3 x 25 x 10.4 mm / 1.39 x 0.984 x 0.41 in.	PKU5511S
	60-160	20	-	-	100	85	57.91 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7111A
	12-160	10	-	-	50	89	57.91 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7511W
	<b>NEW</b>	<b>9-36</b>	<b>12</b>			<b>60</b>	<b>90</b>	<b>50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.</b>
	14-160	20	-	-	100	87	57.91 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7111W
	9-36	0.3	-5	0.3	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.80 x 0.42 in.	PKV3222*
	18-72	0.3	-5	0.3	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.80 x 0.42 in.	PKV5222*
<b>12</b>	9-36	0.3	-	-	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.80 x 0.42 in.	PKV3313
	18-36	1	-	-	12	87.5	47.8 x 28.1 x 8.0 mm / 1.88 x 1.11 x 0.32 in.	PKR2113A
	9-36	1.3	-	-	15	89	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3213
	18-75	1.3	-	-	15	90	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5213
	9-36	2.5	-	-	30	92	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3313
	18-75	2.5	-	-	30	91	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5313
	43-160	2.5	-	-	30	90	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE7313A
	9-75	3.3	-	-	40	91	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE8413A
	9-36	4.2	-	-	50	88	35.3 x 25 x 10.4 mm / 1.39 x 0.98 x 0.41 in.	PKU3513S

\* Dual output

Continued next page >>

$V_{OUT1}$ (V)	$V_{IN}$ (V)	$I_{OUT1}$ (A)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE	
<b>12</b>	18-75	4.2	-	-	50	91.7	33.0 x 22.9 x 9.4 mm / 1.3 x 0.9 x 0.37 in.	PKU5513E	
	18-75	4.2	-	-	50	88	35.3 x 25 x 10.4 mm / 1.39 x 0.98 x 0.41 in.	PKU5513S	
	12-160	4.2	-	-	50	90.5	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7513W	
<b>NEW</b>	<b>9-36</b>	<b>5</b>	-	-	<b>60</b>	<b>91</b>	<b>50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.</b>	<b>PKE3613A</b>	
	14-160	8.4	-	-	100	89	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7113W	
<b>NEW</b>	60-160	8.3	-	-	100	87	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7113A	
	<b>9-75</b>	<b>8.4</b>	-	-	<b>100</b>	<b>90</b>	<b>57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.</b>	<b>PKM8113A</b>	
<b>NEW</b>	60-160	12.5	-	-	150	89	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7213A	
	<b>16-160</b>	<b>12.5</b>	-	-	<b>150</b>	<b>88.5</b>	<b>62 x 40 x 13 mm / 2.44 x 1.57 x 0.51 in.</b>	<b>PKM7213W</b>	
<b>NEW</b>	<b>9-75</b>	<b>16.7</b>	-	-	<b>200</b>	<b>92</b>	<b>61 x 57.9 x 12.7 mm / 2.4 x 2.28 x 0.5 in.</b>	<b>PKJ8213</b>	
	14-160	16.7	-	-	200	90	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7213W	
	60-160	16.8	-	-	200	90.4	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7213	
	18-36	20	-	-	240	95	58.4 x 22.7 x 9.6 mm / 2.3 x 0.9 x 0.38 in.	PKB2213D	
	60-160	25	-	-	300	92.5	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7313	
	9-36	0.1	-12	0.1	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.80 x 0.42 in.	PKV3321*	
	18-72	0.1	-12	0.1	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.80 x 0.42 in.	PKV5321*	
	18-36	0.6	-12	0.6	15	86.6	47.8 x 28.1 x 8.0 mm / 1.88 x 1.11 x 0.32 in.	PKR2221A*	
	9-36	0.6	-12	0.6	15	90	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3221*	
	9-36	1.25	-12	1.25	30	89	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3321*	
	18-75	0.6	-12	0.6	15	89	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5221*	
	18-75	1.25	-12	1.25	30	89	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5321*	
	<b>13.8</b>	12-160	3.6	-	-	50	90.5	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7517KW
		14-160	7.3	-	-	100	90	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7117KW
		14-160	14.5	-	-	200	90	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7217KW
		60-160	14.5	-	-	200	93.1	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7217K
		60-160	21.7	-	-	300	92.7	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7317K
<b>15</b>	9-36	0.2	-	-	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.80 x 0.4 in.	PKV3315	
	18-72	0.2	-	-	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.80 x 0.42 in.	PKV5315	
	9-36	1.0	-	-	15	88.8	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3215	
	18-75	1.0	-	-	15	90	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5215	
	9-36	2.0	-	-	30	92	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.4 in.	PKE3315	
	18-75	2.0	-	-	30	91	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5315	
	43-160	2.0	-	-	30	91	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE7315A	
	9-75	2.7	-	-	40	91	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE8415A	
	9-36	3.4	-	-	50	89	35.3 x 25 x 10.4 mm / 1.39 x 0.984 x 0.41 in.	PKU3515S	
	18-75	3.4	-	-	50	89	35.3 x 25 x 10.4 mm / 1.39 x 0.984 x 0.41 in.	PKU5515S	
	12-160	3.4	-	-	50	90	57.91 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7515W	
	14-160	6.7	-	-	100	92	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7116ZW	
	60-160	6.6	-	-	100	87	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7115W	
	60-160	10.0	-	-	150	89	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7215A	
	14-160	13.3	-	-	200	90	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7215W	
	60-160	13.5	-	-	200	90.1	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7215	
	60-160	20.0	-	-	300	92.4	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7315	
	9-36	0.1	-15	0.1	3	80	31.8 x 20.3 x 10.7 mm / 1.25 x 0.8 x 0.42 in.	PKV3325*	
18-75	0.1	-15	0.1	3	82	31.8 x 20.3 x 10.7 mm / 1.25 x 0.8 x 0.42 in.	PKV5325*		
* Dual output	9-36	0.5	-15	0.5	15	89	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3225*	

$V_{OUT1}$ (V)	$V_{IN}$ (V)	$I_{OUT1}$ (A)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>15</b>	9-36	1	-15	1	30	90	25.4 x 25.4 x 10.8 mm / 1 x 1 x 0.43 in.	PKE3325*
	18-75	0.5	-15	0.5	15	89	25.4 x 25.4 x 10.8 mm / 1 x 1 x 0.43 in.	PKE5225*
	18-75	1	-15	1	30	90	25.4 x 25.4 x 10.8 mm / 1 x 1 x 0.43 in.	PKE5325*
<b>24</b>	9-36	1.3	-	-	30	90	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3316Z
	18-75	1.3	-	-	30	92	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5316Z
	43-160	1.3	-	-	30	90	50.8 x 25.4 x 11.4 mm / 2.0 x 1.0 x 0.45 in.	PKE7316ZA
	9-75	1.7	-	-	40	90	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE8416ZA
	9-36	2.1	-	-	50	90	35.3 x 25 x 10.4 mm / 1.39 x 0.984 x 0.41 in.	PKU3516ZS
	18-75	2.1	-	-	50	90	35.3 x 25 x 10.4 mm / 1.39 x 0.984 x 0.41 in.	PKU5516ZS
	12-160	2.1	-	-	50	90	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7516ZW
<b>NEW</b>	<b>9-36</b>	<b>2.5</b>	-	-	<b>60</b>	<b>91</b>	<b>50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in</b>	<b>PKE3616ZA</b>
	14-160	4.2	-	-	100	90	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7116ZW
	60-160	4.2	-	-	100	87	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7116ZA
	60-160	6.3	-	-	150	87	57.91 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7216ZA
<b>NEW</b>	<b>16-160</b>	<b>6.25</b>	-	-	<b>150</b>	<b>89</b>	<b>62 x 40 x 13 mm / 2.44 x 1.57 x 0.51 in.</b>	<b>PKM7216ZW</b>
<b>NEW</b>	<b>9-75</b>	<b>8.4</b>	-	-	<b>200</b>	<b>91.8</b>	<b>61 x 57.9 x 12.7 mm / 2.40 x 2.30 x 0.50 in</b>	<b>PKJ8216Z</b>
	14-160	8.3	-	-	200	90	57.91 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7216ZW
	60-160	8.4	-	-	200	91.3	57.91 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7216Z
	60-160	12.5	-	-	300	90.6	57.91 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7316Z
<b>48</b>	9-36	0.6	-	-	30	92	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3316J
	18-75	0.6	-	-	30	91	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5316J
	43-160	0.6	-	-	30	91	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKJ7316JA
	9-75	0.8	-	-	40	91	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE8416JA
	12-160	1.1	-	-	50	90	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7516JW
<b>NEW</b>	<b>9-36</b>	<b>1.25</b>	-	-	<b>60</b>	<b>91</b>	<b>50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in</b>	<b>PKE3616JA</b>
	14-160	2.1	-	-	100	91	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7116JW
	66-160	2.0	-	-	100	87	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKJ7116JA
	60-160	3.1	-	-	150	89	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7216JA
<b>NEW</b>	<b>9-75</b>	<b>4.2</b>	-	-	<b>200</b>	<b>91</b>	<b>61 x 57.9 x 12.7 mm / 2.40 x 2.30 x 0.50 in</b>	<b>PKJ8216J</b>
	14-160	4.2	-	-	200	90	61 x 57.9 x 12.7 mm / 2.4 x 3.3 x 0.5 in.	PKJ7216JW
	60-160	4.2	-	-	200	91	61.0 x 57.9 x 12.7 mm / 2.40 x 2.30 x 0.50 in.	PKJ7216J
	60-160	6.3	-	-	300	90	61.0 x 57.9 x 12.7 mm / 2.40 x 2.30 x 0.50 in.	PKJ7316J
<b>54</b>	9-36	0.5	-	-	25	91	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE3316H
	18-75	0.5	-	-	25	90	25.4 x 25.4 x 10.8 mm / 1.0 x 1.0 x 0.43 in.	PKE5316H
	43-160	0.56	-	-	30	88	50.8 x 25.4 x 11.4 mm / 2.0 x 1.0 x 0.45 in.	PKE7316HA
	9-75	0.7	-	-	40	91	50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.	PKE8416HA
	12-160	1	-	-	50	90	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7516HW
<b>NEW</b>	<b>9-36</b>	<b>1.11</b>	-	-	<b>60</b>	<b>91</b>	<b>50.8 x 25.4 x 11.9 mm / 2.0 x 1.0 x 0.47 in.</b>	<b>PKE3616HA</b>
	14-160	1.9	-	-	100	91	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7116HW
	60-160	1.9	-	-	100	90	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7116HA
	60-160	2.8	-	-	150	89	57.9 x 36.8 x 12.7 mm / 2.28 x 1.45 x 0.5 in.	PKM7216HA
<b>NEW</b>	<b>16-160</b>	<b>2.78</b>	-	-	<b>150</b>	<b>89</b>	<b>62 x 40 x 13 mm / 2.44 x 1.57 x 0.51 in</b>	<b>PKM7216HW</b>
<b>NEW</b>	<b>9-75</b>	<b>3.7</b>	-	-	<b>200</b>	<b>91.7</b>	<b>61 x 57.9 x 12.7 mm / 2.40 x 2.30 x 0.50 in</b>	<b>PKJ8216H</b>
	14-160	3.7	-	-	200	90	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7216HW
	60-160	4.2	-	-	200	92.5	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7216H
	60-160	6.3	-	-	300	92.6	57.9 x 61.0 x 12.7 mm / 2.28 x 2.4 x 0.5 in.	PKJ7316H

## Miniature industrial power supplies

We offer miniature power modules in SIP4, SIP7 and SMD industry standard form factors. These are encapsulated devices, offering high isolation levels up to 6kV, high MTBF (mean time between failures) figures up to 17Mhrs and features such as short circuit protection as standard.

### Fixed Ratio | SMD

#### PUB2405S2M

#### PUB2405S1M



### 1W power and 3kV isolation

$V_{IN}$ (V)	$V_{OUT1}$ (V)	$I_{OUT1}$ (A)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
5	5	0.2	-	-	1.0	76	12.7 x 11.2 x 6.6 mm / 0.5 x 0.44 x 0.26 in.	PUB0505S1M
12	5	0.2	-	-	1.0	81	12.7 x 11.2 x 6.6 mm / 0.5 x 0.44 x 0.26 in.	PUB1205S1M
24	5	0.2	-	-	1.0	75	12.7 x 11.2 x 6.6 mm / 0.5 x 0.44 x 0.26 in.	PUB2405S1M

### 2W power and 3kV isolation

$V_{IN}$ (V)	$V_{OUT1}$ (V)	$I_{OUT1}$ (A)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
5	5	0.4	-	-	2	78.8	12.7 x 11.2 x 8.0 mm / 0.5 x 0.44 x 0.32 in.	PUB0505S2M
12	5	0.4	-	-	2	80	12.7 x 11.2 x 8.0 mm / 0.5 x 0.44 x 0.32 in.	PUB1205S2M
24	5	0.4	-	-	2	82.6	12.7 x 11.2 x 8.0 mm / 0.5 x 0.44 x 0.32 in.	PUB2405S2M
	5	0.2	-5	0.2	2	83	15.2 x 11.2 x 8.0 mm / 0.6 x 0.44 x 0.32 in.	PUB2405D2M*
	12	0.4	-	-	2	86.5	12.7 x 11.2 x 8.0 mm / 0.5 x 0.44 x 0.32 in.	PUB2412S2M

\* Dual output

PUA1205S1A



1V power and 2kV isolation

$V_{IN}$ (V)	$V_{OUT1}$ (V)	$I_{OUT1}$ (A)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$P_{OUT}$ (W)	$\eta$ (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>3.3</b>	3.3	0.3	-	-	1	75	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA0303S1A
	5	0.2	-	-	1	76	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA0305S1A
	12	0.08	-	-	1	77	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA0312S1A
<b>5</b>	3.3	0.3	-	-	1	74	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA0503S1A
	5	0.2	-	-	1	78	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA0505S1A
	12	0.08	-	-	1	78	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA0512S1A
<b>12</b>	3.3	0.3	-	-	1	79	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA1203S1A
	5	0.2	-	-	1	82	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA1205S1A
	12	0.08	-	-	1	80	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA1212S1A
<b>24</b>	3.3	0.3	-	-	1	78	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA2403S1A
	5	0.2	-	-	1	79	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA2405S1A
	12	0.08	-	-	1	80	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA2412S1A
	15	0.07	-	-	1	84	11.6 x 6.0 x 10.2 mm / 0.46 x 0.24 x 0.40 in.	PUA2415S1A



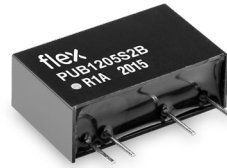
PUC1205S2B



PUB1205S1B



PUB1205S2B



PUC1203S1B



1W power and 4kV isolation

V <sub>IN</sub> (V)	V <sub>OUT1</sub> (V)	I <sub>OUT1</sub> (A)	V <sub>OUT2</sub> (V)	I <sub>OUT2</sub> (A)	P <sub>OUT</sub> (W)	η (%)	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>3.3</b>	3.3	0.3	-	-	1	75	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0303S1B
	5	0.2	-	-	1	78	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0305S1B
	12	0.08	-	-	1	77	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0312S1B
	12	0.04	-12	0.04	1	80	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0312D1B*
<b>5</b>	3.3	0.3	-	-	1	74	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0503S1B
	5	0.2	-	-	1	79	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0505S1B
	12	0.08	-	-	1	78	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0512S1B
	12	0.04	-12	0.04	1	80	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0512D1B*
<b>12</b>	3.3	0.3	-	-	1	79	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB1203S1B
	5	0.2	-	-	1	82	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB1205S1B
	12	0.08	-	-	1	80	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB1212S1B
	12	0.04	-12	0.04	1	80	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB1212D1B*
	15	0.03	-9	0.06	1	81	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB121509D1B*
<b>15</b>	5	0.2	-	-	1	80	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB1505S1B
<b>24</b>	3.3	0.3	-	-	1	78	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2403S1B
	5	0.2	-	-	1	79	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2405S1B
	12	0.08	-	-	1	79	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2412S1B
	12	0.08	-12	0.04	1	83	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2412D1B*
	15	0.03	-3	0.17	1	76	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB241503D1B*
	15	0.03	-15	0.03	1	81	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2415D1B*
	15	0.03	-9	0.06	1	79	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB241509D1B*

\* Dual output

## 2W power and 4kV isolation

$V_{IN}$ (V)	$V_{OUT1}$ (V)	$I_{OUT1}$ (A)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$P_{OUT}$ (W)	$\eta\%$	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>3.3</b>	3.3	0.6	-	-	2	77	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0303S2B
	5	0.4	-	-	2	78	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0305S2B
	12	0.17	-	-	2	84	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0312S2B
	12	0.08	-12	0.08	2	84	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0312D2B*
<b>5</b>	5	0.4	-	-	2	79	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0505S2B
	12	0.17	-	-	2	83	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0512S2B
	12	0.08	-12	0.08	2	84	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB0512D2B*
	15	0.07	-9	0.11	2	82	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB051509D2B*
<b>12</b>	3.3	0.6	-	-	2	78	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB1203S2B
	5	0.4	-	-	2	79	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB1205S2B
	12	0.17	-	-	2	85	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB1212S2B
	12	0.08	-12	0.08	2	80	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB1212D2B*
	15	0.07	-9	0.11	2	78	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB121509D2B*
<b>24</b>	3.3	0.6	-	-	2	79	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2403S2B
	5	0.4	-	-	2	84	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2405S2B
	12	0.17	-	-	2	86	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2412S2B
	12	0.08	-12	0.08	2	83	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2412D2B*
	15	0.07	-15	0.07	2	84	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB2415D2B*
	15	0.07	-9	0.11	2	81	19.7 x 7.1 x 10.2 mm / 0.77 x 0.28 x 0.4 in.	PUB241509D2B*

\* Dual output

## 1W power and 6kV isolation

$V_{IN}$ (V)	$V_{OUT1}$ (V)	$I_{OUT1}$ (A)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$P_{OUT}$ (W)	$\eta\%$	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>5</b>	3.3	0.3	-	-	1	77	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC0503S1B
	5	0.2	-	-	1	77	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC0505S1B
	12	0.08	-	-	1	78	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC0512S1B
	5	0.1	-5	0.1	1	77	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC0505D1B*
	12	0.04	-12	0.04	1	78	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC0512D1B*
<b>12</b>	3.3	0.3	-	-	1	77	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1203S1B
	5	0.2	-	-	1	80	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1205S1B
	12	0.08	-	-	1	80	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1212S1B
	12	0.04	-12	0.04	1	80	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1212D1B*
<b>15</b>	5	0.2	-	-	1	80	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1505S1B

\* Dual output

Continued next page >>

1W and 6kV isolation continued >>

V <sub>IN</sub> (V)	V <sub>OUT1</sub> (V)	I <sub>OUT1</sub> (A)	V <sub>OUT2</sub> (V)	I <sub>OUT2</sub> (A)	P <sub>OUT</sub> (W)	η%	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>24</b>	3.3	0.3	-	-	1	75	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2403S1B
	5	0.2	-	-	1	78	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2405S1B
	12	0.08	-	-	1	80	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2412S1B
	5	0.1	-5	0.1	1	77	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2405D1B*
	12	0.08	-12	0.04	1	80	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2412D1B*
	15	0.07	-	-	1	80	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2415S1B
	15	0.03	-15	0.03	1	80	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2415D1B*

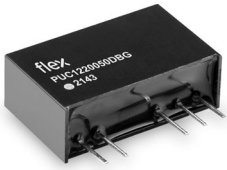
\* Dual output

## 2W power and 6kV isolation

V <sub>IN</sub> (V)	V <sub>OUT1</sub> (V)	I <sub>OUT1</sub> (A)	V <sub>OUT2</sub> (V)	I <sub>OUT2</sub> (A)	P <sub>OUT</sub> (W)	η%	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
<b>5</b>	3.3	0.6	-	-	2	77	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC0503S2B
	5	0.4	-	-	2	79	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC0505S2B
	12	0.17	-	-	2	83	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC0512S2B
	12	0.08	-12	0.08	2	82	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC0512D2B*
<b>12</b>	3.3	0.6	-	-	2	77	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1203S2B
	5	0.4	-	-	2	80	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1205S2B
	12	0.17	-	-	2	84	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1212S2B
	5	0.2	-5	0.2	2	82	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1205D2B*
	12	0.08	-12	0.08	2	83	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC1212D2B*
<b>24</b>	3.3	0.6	-	-	2	79	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2403S2B
	5	0.4	-	-	2	81	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2405S2B
	12	0.17	-	-	2	85	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2412S2B
	5	0.2	-5	0.2	2	82	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2405D2B*
	12	0.08	-12	0.08	2	85	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2412D2B*
	15	0.07	-15	0.07	2	84	19.7 x 7.1 x 11.5 mm / 0.77 x 0.28 x 0.45 in.	PUC2415D2B*

\* Dual output

PUC-D2BG

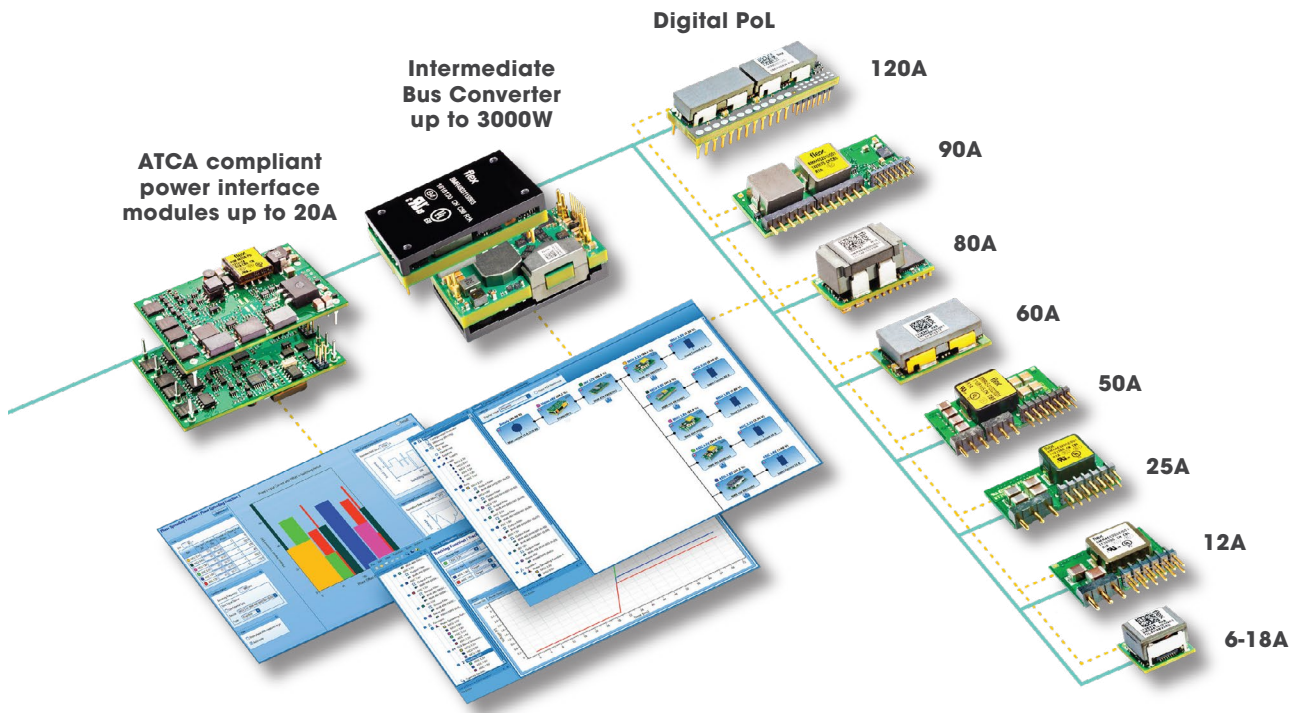


2W power, 6.2kV isolation, ultra-low capacitance (< 6 pF) and dual output

$V_{IN}$ (V)	$V_{OUT1}$ (V)	$I_{OUT1}$ (A)	$V_{OUT2}$ (V)	$I_{OUT2}$ (A)	$P_{OUT}$ (W)	$\eta\%$	DIMENSIONS (L X W X H)	PRODUCT REFERENCE
12	+15	0.11	-3	0.1	2	79	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1215030D2BG
	+15	0.1	-5	0.1	2	78	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1215050D2BG
	+18	0.08	-2.5	0.08	2	77	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1218025D2BG
	+18	0.09	-5	0.09	2	78	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1218050D2BG
	+20	0.09	-3.5	0.08	2	79	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1220035D2BG
	+20	0.08	-5	0.08	2	80	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1220050D2BG
	+15	0.1	-9	0.06	2	81	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1215090D2BG
	+17	0.09	-9	0.05	2	78	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1217090D2BG
	+18	0.09	-9	0.05	2	79	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1218090D2BG
15	+15	0.07	-15	0.07	2	80	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1215150D2BG
	+15	0.11	-3	0.1	2	77	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1515030D2BG
	+15	0.1	-5	0.1	2	79	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1515050D2BG
	+18	0.08	-2.5	0.08	2	77	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1518025D2BG
	+18	0.09	-5	0.09	2	81	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1518050D2BG
	+20	0.09	-3.5	0.08	2	78	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1520035D2BG
	+20	0.08	-5	0.08	2	80	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1520050D2BG
	+15	0.1	-9	0.06	2	79	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1515090D2BG
	+17	0.09	-9	0.05	2	81	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1517090D2BG
24	+18	0.09	-9	0.05	2	78	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1518090D2BG
	+15	0.07	-15	0.07	2	77	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC1515150D2BG
	+15	0.11	-3	0.1	2	80	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2415030D2BG
	+15	0.1	-5	0.1	2	78	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2415050D2BG
	+18	0.08	-2.5	0.08	2	77	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2418025D2BG
	+18	0.09	-5	0.09	2	79	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2418050D2BG
	+20	0.09	-3.5	0.08	2	78	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2420035D2BG
	+20	0.08	-5	0.08	2	80	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2420050D2BG
	+15	0.1	-9	0.06	2	79	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2415090D2BG
	+17	0.09	-9	0.05	2	80	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2417090D2BG
	+18	0.09	-9	0.05	2	78	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2418090D2BG
	+15	0.07	-15	0.07	2	78	19.7 x 9.8 x 12.5 mm / 0.77 x 0.385 x 0.49 in.	PUC2415150D2BG

# Software

Flex Power Modules offers internally developed software tools, which help our customers optimize, sketch and simulate their power systems.



## Flex Power Designer

Flex Power Designer Software is used to sketch and simulate future power systems as well as to configure and monitor your existing digital power system. We recently introduced the capability to import Xilinx Power Estimator files for some of the latest FPGAs available from Xilinx.

The software is available as a free download from our homepage [flexpowerdesigner.com](http://flexpowerdesigner.com)

## SMBus / PMBus tool

The SMBus tool is free of charge and available on our website. You can easily download it after creating an account on our website.



# Evaluation boards & accessories

Evaluation boards and accessories include test boards and other useful tools for customer evaluation of our power modules.

## Evaluation boards

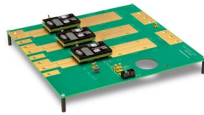
PoL evaluation board



PoL BMR473 evaluation board



IBC BMR480/490/491 paralleling design board



PoL PNA evaluation board



PoL BMR466 paralleling evaluation board



IBC evaluation board



PIM evaluation board



PoL BMR469 evaluation board



PoL BMR474 evaluation board



PoL BMR473 SIP evaluation board



Digital/analog half-brick evaluation board



BMR320 evaluation board



PoL BMR510 evaluation board



PoL BMR511 evaluation board



NAME	PRODUCT REFERENCE	PRODUCT	GENERAL INFO
<b>PoL evaluation board</b>	ROA1283836	PoL design board	2xBMR464 2xBMR463
<b>PoL SIP evaluation board</b>	ROA1285068	PoL design board for SIP version	3xBMR464 3xBMR463
<b>PoL BMR461 evaluation board</b>	ROA17026 ROA17026/2 ROA17026/3	PoL BMR461 3001 simple evaluation Board (small sized board) PoL BMR461 2001 simple evaluation board (small sized board) PoL BMR461 4001 simple evaluation board (small sized board)	BMR4613001 BMR4612001 BMR4614001
<b>PoL BMR466 paralleling evaluation board</b>	ROA17044/2B	PoL design board for paralleling configuration, BMR466	2 x BMR4668004 in parallel
<b>IBC evaluation board</b>	ROA1283835	IBC design board	2xBMR456, 2xBMR457 or 2xBMR458
<b>PIM evaluation board</b>	ROA1285151	PIM design board	PIM 4820B, PIM 4328PD or PIM 4328PDA

Continued next page >>

Evaluation Boards continued >>

NAME	PRODUCT REFERENCE	PRODUCT	GENERAL INFO
<b>PoL BMR469 evaluation board</b>	ROA170111	PoL BMR4690000 design board	1xBMR4690000 module with dual-output configuration (2x40 A) and 1x BMR4690000 module with single-output configuration (80 A)
	ROA170111/1	PoL BMR4696001 design board	1xBMR4696001 module with dual-output configuration (2x25 A) and 1x BMR4696001 module with single-output configuration (50 A)
<b>IBC BMR480/490/491/492 evaluation board</b>	ROA170019	BMR 350/351/480/490/491/492 design board	1 x BMR350/ BMR351/ BMR480/ BMR490/ BMR491/ BMR492
	ROA170032	BMR 350/351/480/490/491/492 design board	3x BMR480 or 3 x BMR490 or 3x BMR492 in parallel or 3 x BMR491
<b>PoL PMU8000 evaluation board</b>	ROA170163	PMU8318 design board	1x PMU8318
	ROA170163/2	PMU8218 design board	1x PMU8218
	ROA170163/4	PMU8418 design board	1x PMU8418
<b>PoL PNA evaluation board</b>	ROA170288	PNA design board	1 x PNA2405S3S
<b>PoL BMR474 evaluation board</b>	ROA1286016	BMR474 design board	1 x BMR4742001
<b>Direct conversion BMR482 evaluation board</b>	ROA170050/3	BMR 482 design board	1 x BMR482 main module + 5 x BMR482 satellite modules
<b>PoL BMR473 evaluation board</b>	ROA 1286022/1	BMR473 design board	1 x BMR473 4 x BMR473 in parallel
<b>Digital/analog evaluation board</b>	ROA 1286012	Half brick design board	1 x BMR685 1 x PKJ4716A 1 x PKJ4716HD etc.
<b>Multi-phase integrated power stages BMR510 evaluation board</b>	ROA 170314/1	BMR510 design board	1 x BMR5101034/002
	ROA 170314/4		4 x BMR5101034/002 in parallel
<b>Multi-phase integrated power stage BMR511 evaluation board</b>	ROA 170347/1	BMR511 design board	1 x BMR5111044/002
	ROA 170347/4		4 x BMR5111044/002 in parallel
<b>Digital BMR320 evaluation board</b>	ROA 32001	BMR320 design board	1 x BMR320
	ROA 32003		3 x BMR320
<b>Digital BMR313 Evaluation board</b>	ROA170259/1	BMR313 design board	1x BMR313
	ROA170259/3		3 x BMR313
<b>Digital BMR314 Evaluation board</b>	ROA170259/11	BMR314 design board	1x BMR314
	ROA170259/13		3 x BMR314
<b>Digital BMR321 Evaluation board</b>	ROA3210	BMR321 design board	1x BMR321

## Accessories

USB-PMBus adapter and cable



ACCESSORY	PRODUCT REFERENCE	PRODUCT
<b>USB-PMBus Adapter and Cable</b>	FAB8020785	USB-PMBus Adapter and cable

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