



TDK-Lambda Board Mounted Power Solutions

TRUSTED • INNOVATIVE • RELIABLE

Company Overview

At TDK-Lambda, a “Power Supply” is more than just an electronic device. It is the “heart” of our customers’ systems and the core element of safety and reliability.

TDK-Lambda Corporation, a group company of TDK Corporation, is a leading global power supply company providing highly reliable power supplies worldwide. TDK-Lambda Corporation meets the various needs of customers with our entire range of activities, from research and development to manufacturing, sales, and service with bases in five key areas, covering Japan, EMEA, North America, China, and SE Asia.

Since 1948, as a leading global manufacturer, we have been developing and producing innovative and highly reliable power supplies for a wide spectrum of applications. TDK-Lambda is one of the oldest and most trusted manufacturers of high quality power supply solutions used in critical applications.

<https://www.us.lambda.tdk.com/>

Organization

- Founded in 1948; offering long term financial stability
- An independently recognized market leader
- Worldwide recognition for high reliability
- Outstanding customer support
- International organization with strong local presence
- Local design capability
- Experts in power supply solutions
- Local inventory / local buffer

Benefits of using TDK-Lambda

- World Class Design and Engineering Support
- Leaders in Development of Advanced Technologies
- Global Presence for Local Support
- Faster Time to Market
- Low Cost Manufacturing (Reduced System Cost)
- Increase Customer Productivity with High Level Assembly and Turnkey Solutions
- Lower Development Risk
- Extensive Catalog of Innovative Field Proven Designs
- Comprehensive In-House Qualification/Testing
- Highly Experienced Global Logistics Capability
- Vendor Reduction – Single Source for Custom and Standard Solutions
- Long Term Financial Stability

Key Market Segments Include:

- Medical and Life Science
- Industrial
- Factory/Building Automation
- Process Control
- Robotics
- Test and Measurement
- Transportation
- Renewable Energy
- LED Applications & Signage
- Avionics & Defense/COTS
- Semiconductor Fabrication Equipment
- Information & Communications Technology
- Broadcasting
- Food and Beverage

Table of Contents

AC-DC Board-Mounted Converters



Low Power

KAS4, KPSB6, KPSB25, KMS15A, KMS30A, KMS60A

High Density Power Modules

PFE300SA, PFE500SA, PFE700SA, PFE1000FA, PFH500A, PFH500F

Power Factor Correction (PFC) Module

PF-B

DC-DC Board-Mounted Converters Non-Isolated



Industrial Buck and Buck-Boost Modules

i3A, i6A, i6AN, i6A4W, i7A, i7C, RGA, RGC

Data Communications Point-of-Load (POL)

IAH, IBH, ICH

High Voltage DC Output

CHVM1R5, CHVM2, CHVM2R, CHVM3

DC-DC Board-Mounted Converters Isolated



Low Power Industrial Modules

CCG1R5, CCG3, CCG6, CCG10, CCG15, CCG30, PXD

Industry Standard Isolated Bricks

ISA, IEA, GQA, HQA, IQE, IQL, PAH, PAF

Intermediate Bus Converter Modules

IEH, IQG, IQK

High Voltage 200-425 Vdc Input Modules

PH-A280

Medical Certified Modules

PXC-M, PXD-M, PXG-M

Railway / Transportation Converter Solutions

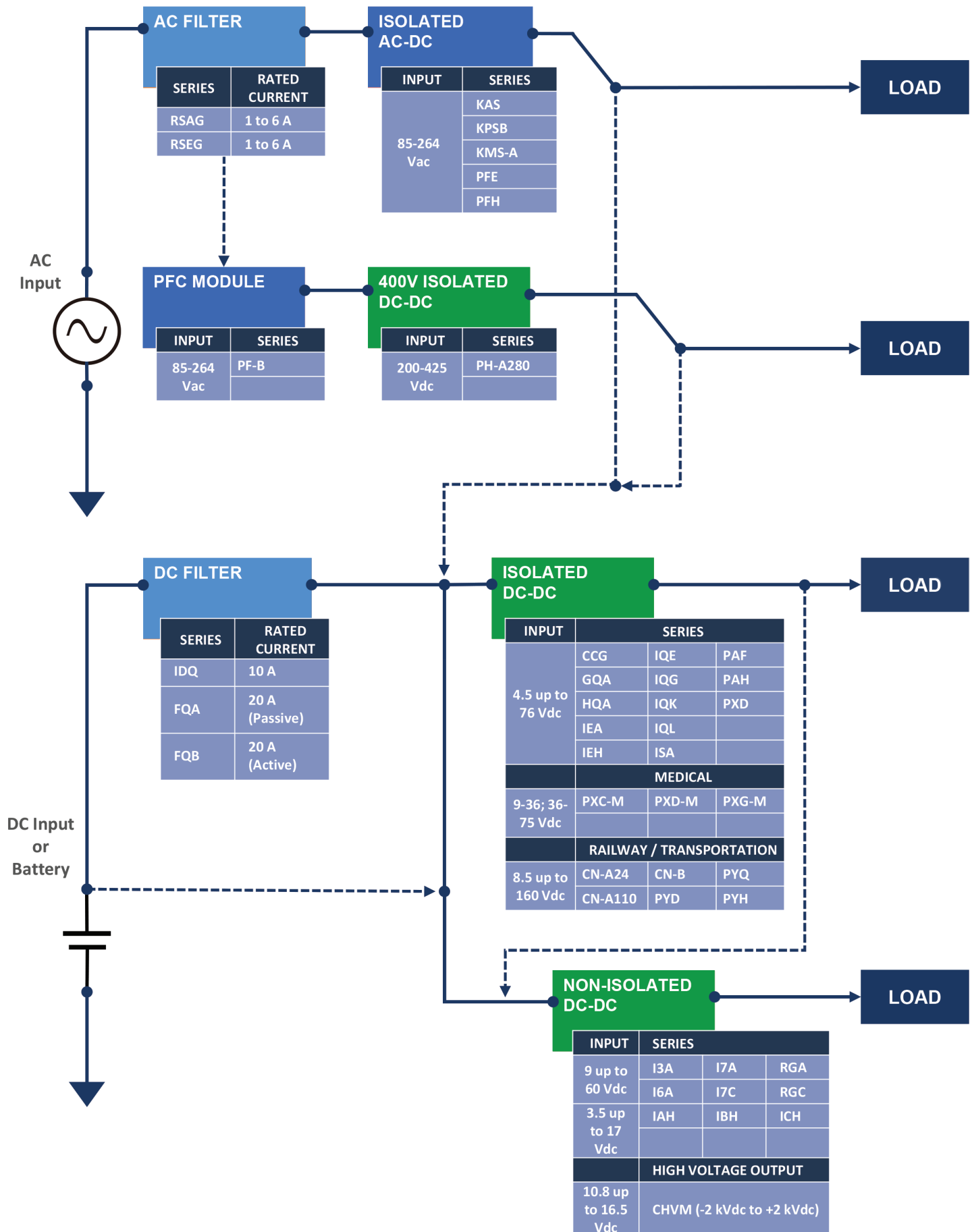
CN-A24, CN-A110, CN-B110, PYD, PYQ, PYH

Filter Modules



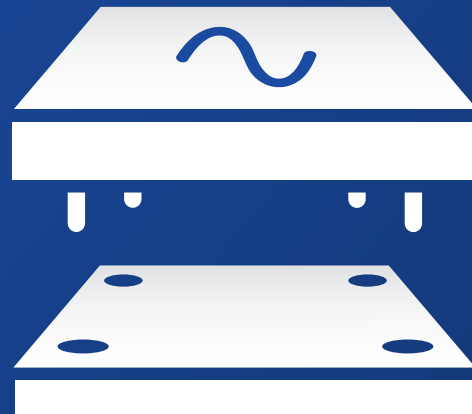
Series iDQ, FQA, FQB, RSAG, RSEG

Board-Mount Distributed Power Solutions





AC-DC Board-Mount Converters



Isolated

Applications

- ◆ Commercial Signage / Display
- ◆ RF / Broadcast
- ◆ Communications
- ◆ Harsh Industrial
- ◆ Industrial Lasers
- ◆ Test and Measurement
- ◆ Semiconductor Fabrication and Test
- ◆ Avionics and Defense/COTS
- ◆ Factory Automation / Robotics
- ◆ Distributed Power Architecture

Features

- ◆ Wide AC input range
- ◆ 400Hz line frequency options
- ◆ Rugged construction
- ◆ High efficiency and power density
- ◆ Low profile
- ◆ Galvanic isolation
- ◆ Scalable power solutions
- ◆ Industry Standard Form Factor
- ◆ PMBus communications and control
- ◆ Class II installation (no earth ground)
- ◆ 100 °C baseplate temperature
- ◆ Conduction cooling



AC-DC Board-Mount Converters

Product Series	Input Voltage (Vac)	Output Power (W)	# Outputs	Output Voltages (Vdc)	Dimension / LxWxH (inches)	
KAS4	90 - 305	4	1	3.3, 5, 8, 9, 12, 14, 15, 24	1.46 x 1.08 x 0.69	Enclosed, Class II
KPSB6	90 - 264	6	1	3.3, 5, 9, 12, 15, 24	1.56 x 0.76 x 0.72	Class II, Open Frame or Enclosed
KPSB25	90 - 264	25	1	5, 12, 15, 24, 36, 48	2.0 x 1.1 x 0.98	Class II, Open Frame or Enclosed
KMS15A	90 - 264	15	1	5, 9, 12, 15, 24	2.07 x 1.08 x 0.93	Enclosed, Class II, Medical
KMS30A	90 - 264	30	1	5, 12, 15, 24	2.52 x 1.8 x 0.93	Enclosed, Class II, Medical
KMS60A	90 - 264	60	1	5.1, 9, 12, 15, 24	3.5 x 2.5 x 1.06	Enclosed, Class II, Medical
PFE300SA	85 - 265	300	1	12, 28, 48	4.6 x 2.4 x 0.5	100 °C Baseplate, Conduction Cooled
PFE500SA	85 - 265	504	1	12, 28, 48	4.6 x 2.4 x 0.5	100 °C Baseplate, Conduction Cooled
PFE700SA	85 - 265	714	1	48	4.6 x 2.4 x 0.5	100 °C Baseplate, Conduction Cooled
PFE1000FA	85 - 265	1008	1	12, 28, 48	6.3 x 3.94 x 0.53	100 °C Baseplate, Conduction Cooled
PFH500A	85 - 135	504	1	12, 28, 48	4 x 2.4 x 0.52	375-420Hz Input Line Frequency
PFH500F	85 - 265	504	1	12, 28, 48	4 x 2.4 x 0.52	100 °C Baseplate, Conduction Cooled
PF-B	85 - 265	1500	1	360	4.6 x 2.4 x 0.5	PFC Module, 100 °C Baseplate



KAS4 Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/kas>

4W Wide Input Encapsulated Module

- ◆ 90-305 Vac Wide Range Input
- ◆ Class II Input (no earth ground)
- ◆ Low No Load Power Dissipation
- ◆ -40 to 70°C Operating Temperature Range



KPSB Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/kpsb>

5-25W Encapsulated or Open Frame Module

- ◆ Class II Input (no earth ground)
- ◆ Low No Load Power Dissipation
- ◆ Class B Conducted and Radiated EMI
- ◆ -40 to 80°C Operating Temperature Range



KMS-A Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/kms-a>

15-60W Medical Encapsulated Module

- ◆ Class II Input (no earth ground)
- ◆ Low No Load Power Dissipation
- ◆ Class B Conducted and Radiated EMI
- ◆ -40 to 80°C Operating Temperature Range



PFE Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/pfe>

300 to 1000W Power Module

- ◆ Compact and Low Profile Package Sizes
- ◆ -40 to 100°C Baseplate, Conduction Cooled
- ◆ Suitable for Rugged and Sealed Enclosure Environments
- ◆ High Efficiency



PFH500 Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/pfh>

500W Next Generation Power Module

- ◆ PMBus/i²C for Telemetry and Control
- ◆ Compact and Low Profile Package Size
- ◆ -40 to 100°C Baseplate, Conduction Cooled
- ◆ Suitable for Rugged and Sealed Enclosure Environments



PF-B Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/pf-b>

1500W Power Factor Correction Module

- ◆ Compact and Low Profile Package Size
- ◆ -40 to 100°C Baseplate, Conduction Cooled
- ◆ Suitable for Rugged and Sealed Enclosure Environments
- ◆ Building block for customized power distribution solutions using high voltage DC-DC modules (e.g. PH-A280 Series)



DC-DC Board-Mount Converters Non-Isolated



Non-Isolated

Applications

- ◆ Robotics, AGV, AMR, IMR, Drone
- ◆ Additive Manufacturing
- ◆ Distributed Power Architecture
- ◆ Battery-powered Equipment
- ◆ Commercial Signage / Display
- ◆ RF / Broadcast
- ◆ Communications
- ◆ Harsh Industrial
- ◆ Test and Measurement
- ◆ Avionics and Defense/COTS
- ◆ Transportation and Railway
- ◆ Factory Automation
- ◆ Photomultiplier Tubes (PMT)

Features

- ◆ Wide DC input ranges
- ◆ Wide adjustable output range
- ◆ High efficiency and power density
- ◆ Low profile compact design
- ◆ Industry standard form factor
- ◆ Scalable power solutions
- ◆ Open frame, Heatsink, Baseplate construction
- ◆ SMT and reflow compatible module options
- ◆ Excellent dynamic response
- ◆ Monotonic startup into pre-biased load
- ◆ Switching frequency synchronization
- ◆ Output sequencing
- ◆ Power Good, Imon signals
- ◆ Remote ON/OFF (positive or negative logic)
- ◆ Adjustable current limit (OCP)



DC-DC Board-Mount Converters Non-Isolated

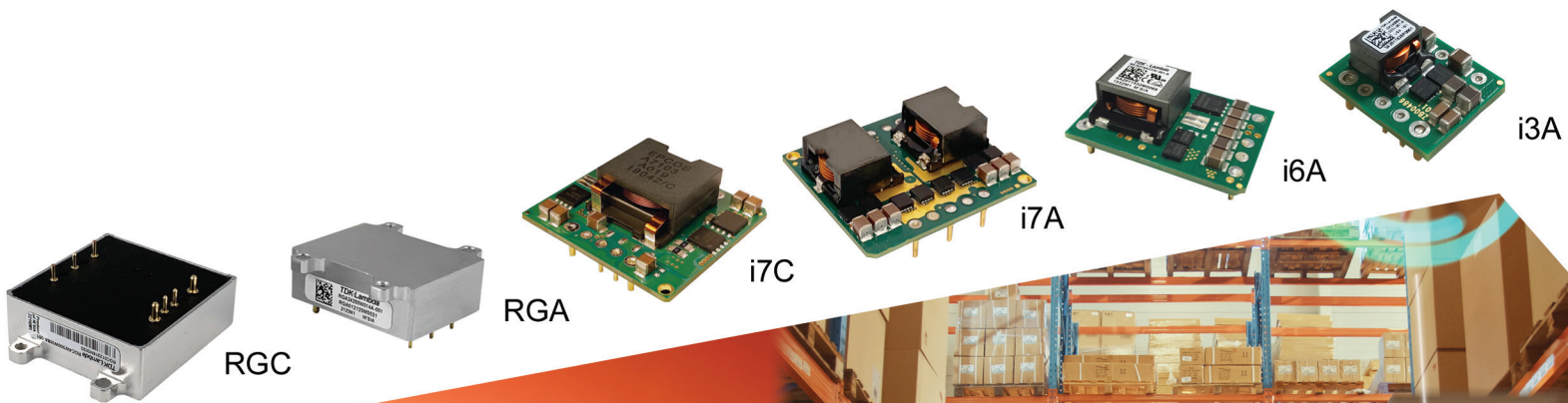
Product Series	Input Voltage (Vdc)	Max Output Current (A)	Max Output Power (W)	# Outputs	Output Voltage Range (Vdc)	Form Factor	
i3A	9 - 53	4.5	100	1	5 - 30	1/32nd Brick	Buck Converter
		8	100	1	3.3 - 16.5	1/32nd Brick	Buck Converter
i6A	9 - 40	14	250	1	3.3 - 24	1/16th Brick	Buck Converter
i6A4W	9 - 53	10	250	1	3.3 - 40	1/16th Brick	Buck Converter
		20	250	1	3.3 - 15	1/16th Brick	Buck Converter
i6AN	9 - 40	8	75	1	-3.3 to -30	1/16th Brick	Buck Converter
i7A	9 - 18	60	400	1	0.8 - 8	1/16th Brick Pin-out	Buck Converter
	18 - 32	45	750	1	3.3 - 18	1/16th Brick Pin-out	Buck Converter
	18 - 60	33	500	1	3.3 - 24	1/16th Brick Pin-out	Buck Converter
i7C	9 - 36	20	300	1	8 - 24	1/16th Brick Pin-out	Buck-Boost Converter
	9 - 53	8	300	1	9.6 - 48	1/16th Brick Pin-out	Buck-Boost Converter
	9 - 53	12.5	300	1	5 - 28	1/16th Brick Pin-out	Buck-Boost Converter
RGA	9 - 40	14	250	1	3.3 - 24	Rugged 1/16th Brick	Buck Converter
	9 - 53	10	250	1	3.3 - 40	Rugged 1/16th Brick	Buck Converter
	9 - 53	20	250	1	3.3 - 15	Rugged 1/16th Brick	Buck Converter
RGC	9 - 53	8	300	1	9.6 - 48	Rugged 1/16th Brick Pin-out	Buck-Boost Converter
	9 - 53	12.5	300	1	5 - 28	Rugged 1/16th Brick Pin-out	Buck-Boost Converter
iAH	3.5 - 17	40	150	1	0.7 - 5	1.3 x 0.53 x 0.4 in	DOSA Compatible
iBH	3.5 - 14	20	80	1	0.7 - 5.5	0.8 x 0.45 x 0.39 in	DOSA Compatible
iCH	4.5 - 14	12	85	1	0.7 - 8.5	0.48 x 0.48 x 0.34 in	DOSA Compatible
CHVM1R5	11 - 13	0.0015	1.5	1	1k, 1.5k, 2k, -1k, -1.5k, -2k	1.73 x 0.63 x 1.18 in	SIP
CHVM2	10.8 - 16.5	0.002	2	1	470, 1k, 1.5k, 2k; -470, -1k, -1.5k, -2k	4.33 x 0.47 x 0.78 in	SIP
CHVM2R5	10.8 - 13.2	0.007	2.5	1	350, -350	3.15 x 0.47 x 0.78 in	SIP
CHVM2R6	10.8 - 13.2	0.0056	2.63	1	470, -470	4.33 x 0.47 x 0.78 in	SIP
CHVM2R7	10.8 - 13.2	0.015	2.7	1	180, -180	3.15 x 0.47 x 0.78 in	SIP
CHVM3	10.8 - 13.2	0.01	3	1	300, -300	3.15 x 0.47 x 0.78 in	SIP

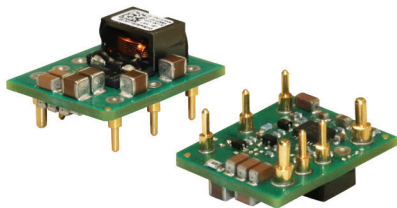
Extending run times of your battery-powered equipment.

Industrial Non-Isolated DC-DC Converters

For engineers specializing in Robotics and Automation, extending battery run times is crucial for optimizing the use and safe operation of battery-powered equipment. In particular for mobile robotics such as AGVs, AMRs, IMRs, and drones. But this task can become increasingly complex as more sensory, vision, navigation, communications, and powered manipulator attachments are integrated. These industrial non-isolated DC-DC converter solutions are key to simplifying your challenges.

- | | | |
|--|---|---|
| ◆ Wide Input and Output Ranges | ➡ | Supports various DC inputs and system load voltages |
| ◆ Minimal External Components | ➡ | Lower cost |
| ◆ High Efficiency and Power Density | ➡ | Easier thermal management and mounting |
| ◆ Scalable Power Solutions | ➡ | Common pinouts allow scaling the power up or down |
| ◆ Lightweight | ➡ | Suits payload sensitive applications |
| ◆ Baseplate, Heatsink & Ruggedized Options | ➡ | Adaptable to the system cooling and deployment |



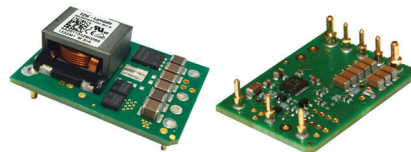


i3A Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/i3A>

100W Buck Converter

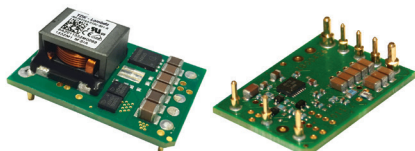
- ◆ Efficiency up to 98%
- ◆ 9-53 Vdc input; 3.3 up to 30 Vdc output
- ◆ Remote ON/OFF, Sense and Output Trim
- ◆ 1/32nd Footprint


[Full Datasheet](#)
<https://product.tdk.com/en/power/i6A>

i6A Series

250W Buck Converter

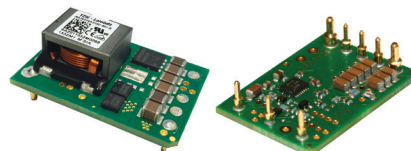
- ◆ Efficiency up to 98%
- ◆ 9-40 Vdc input; 3.3-24 Vdc output
- ◆ Remote ON/OFF, Sense and Output Trim; optional PGood, Sync, Seq
- ◆ 1/16th Brick Footprint


[Full Datasheet](#)
<https://product.tdk.com/en/power/i6A>

i6A4W Series

250W Buck Converter

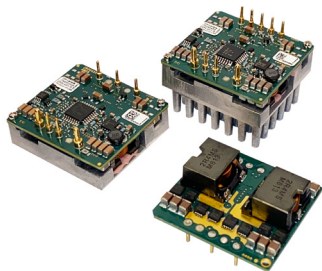
- ◆ Efficiency up to 97%
- ◆ 9-53 Vdc input; 3.3 up to 40 Vdc output
- ◆ Remote ON/OFF, Sense and Output Trim; optional PGood, Sync, Seq
- ◆ 1/16th Brick Footprint


[Full Datasheet](#)
<https://product.tdk.com/en/power/i6A>

i6AN Series

75W Buck Converter, (Negative Output Voltage)

- ◆ Efficiency up to 94%
- ◆ 9-40 Vdc input; -30 to -3.3 Vdc output
- ◆ Remote ON/OFF and Output Trim
- ◆ 1/16th Brick Footprint


[Full Datasheet](#)
<https://product.tdk.com/en/power/i7A>

i7A Series

400 to 750W Buck Converter

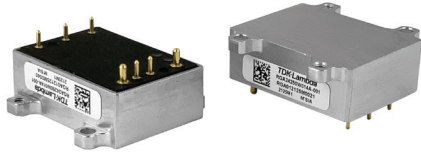
- ◆ Efficiency up to 98.5%
- ◆ 9-18, 18-32, 18-60 Vdc inputs; 0.8 up to 24 Vdc output
- ◆ Remote ON/OFF, Sense and Output Trim; optional OCP Adjust
- ◆ Baseplate and Heatsink options


[Full Datasheet](#)
<https://product.tdk.com/en/power/i7C>

i7C Series

300W Buck-Boost Converter

- ◆ Efficiency up to 97%
- ◆ 9-36, 9-53 Vdc inputs; 5 up to 48 Vdc output
- ◆ Remote ON/OFF, Sense and Output Trim; optional Imon, Sync, Seq and PGood or OCP Adjust
- ◆ Baseplate and Heatsink options



RGA Series

[Full Datasheet](https://product.tdk.com/en/power/rga)

<https://product.tdk.com/en/power/rga>

250W Ruggedized Buck Converter

- ◆ Encapsulated in a 5 sided metal case
- ◆ 9-40, 9-53 Vdc inputs; 3.3 up to 40 Vdc output
- ◆ -40 to 110 °C Case, Conduction Cooled
- ◆ Suitable for Rugged and Sealed Enclosure Environments



RGC Series

[Full Datasheet](https://product.tdk.com/en/power/rgc)

<https://product.tdk.com/en/power/rgc>

300W Ruggedized Buck-Boost Converter

- ◆ Encapsulated in a 5 sided metal case
- ◆ 9-53 Vdc input; 5 up to 48 Vdc output
- ◆ -40 to 110 °C Case, Conduction Cooled
- ◆ Suitable for Rugged and Sealed Enclosure Environments



CHVM Series

[Full Datasheet](https://product.tdk.com/en/power/chvm)

<https://product.tdk.com/en/power/chvm>

1.4 to 3W High Voltage DC-DC Converter

- ◆ High voltage DC single output offering: 180V up to 2000V
- ◆ Programmable output voltage (resistance or voltage)
- ◆ Very low output ripple and tight regulation
- ◆ 5 sided metal shielding in a space-saving Single Inline Package (SIP)



iAH Series

[Full Datasheet](https://product.tdk.com/en/power/iah)

<https://product.tdk.com/en/power/iah>

150W, 20A Point-Of-Load

- ◆ DOSA compatible footprint, SMT
- ◆ 3.5-17 Vdc input; 0.7-5 Vdc output
- ◆ No external loop tuning components needed
- ◆ Excellent transient response



iBH Series

[Full Datasheet](https://product.tdk.com/en/power/ibh)

<https://product.tdk.com/en/power/ibh>

80W, 20A Point-Of-Load

- ◆ DOSA compatible footprint, SMT
- ◆ 3.5-14 Vdc input; 0.7-5.5 Vdc output
- ◆ No external loop tuning components needed
- ◆ Excellent transient response



iCH Series

[Full Datasheet](https://product.tdk.com/en/power/ich)

<https://product.tdk.com/en/power/ich>

85W, 12A Point-Of-Load

- ◆ DOSA compatible footprint, SMT
- ◆ 4.5-14 Vdc input; 0.7-8.5 Vdc output
- ◆ No external loop tuning components needed
- ◆ Excellent transient response



DC-DC Board-Mount Converters Isolated



Isolated

Applications

- ◆ Robotics, AGV, AMR, IMR, Drone
- ◆ Additive Manufacturing
- ◆ Distributed Power Architecture
- ◆ Battery-powered Equipment
- ◆ Commercial Signage / Display
- ◆ RF / Broadcast
- ◆ Communications
- ◆ Harsh Industrial
- ◆ Test and Measurement
- ◆ Avionics and Defense/COTS
- ◆ Transportation and Railway
- ◆ Factory Automation
- ◆ Medical Imaging, Electrosurgery

Features

- ◆ Wide DC input ranges
- ◆ Wide adjustable output range
- ◆ Galvanic Isolation
- ◆ High efficiency and power density
- ◆ Low profile
- ◆ Industry standard form factor
- ◆ Scalable power solutions
- ◆ Open frame or Baseplate construction
- ◆ SMT and reflow compatible module options
- ◆ Single or Dual outputs
- ◆ Excellent dynamic response
- ◆ Switching frequency synchronization
- ◆ Remote ON/OFF



DC-DC Board-Mount Converters Isolated

Product Series	Input Voltage (Vdc)	Max Output Current (A)	Max Output Power (W)	# Outputs	Output Voltage Range (Vdc)	Form Factor	
CCG1R5	4.5 up to 76	up to 0.4	1.5	1, 2	3, 5, 12, 15, 24, 30, ± 12 , ± 15	0.62 x 0.41 x 0.45 in	Through Hole or SMT
CCG3	4.5 up to 76	up to 0.8	3.3	1, 2	3, 5, 12, 15, 24, 30, ± 12 , ± 15	0.62 x 0.41 x 0.45 in	Through Hole or SMT
CCG6	4.5 up to 76	up to 1.6	6	1, 2	3, 5, 12, 15, 24, 30, ± 12 , ± 15	0.75 x 0.49 x 0.45 in	Through Hole or SMT
CCG10	4.5 up to 76	up to 2.6	10	1, 2	3, 5, 12, 15, 24, 30, ± 12 , ± 15	0.75 x 0.49 x 0.45 in	Through Hole or SMT
CCG15	9 up to 76	up to 4	15	1, 2	3, 5, 12, 15, 24, 30, ± 12 , ± 15	1 x 1 x 0.39 in	Through Hole
CCG30	9 up to 76	up to 7	30	1, 2	3, 5, 12, 15, 24, 30, ± 12 , ± 15	1 x 1 x 0.39 in	Through Hole
CN-A24	14.4 - 36	up to 20	50, 100	1	5, 12, 24	Quarter Brick	Railway, -40 to 100 °C Baseplate
CN-A110	60 - 160	up to 20	30, 50, 100	1	5, 12, 15, 24	Quarter Brick	Railway, -40 to 100 °C Baseplate
	60 - 160	up to 40	200	1	5, 12, 15, 24	Half Brick	Railway, -40 to 100 °C Baseplate
CN-B	43 - 160	up to 25	200, 300	1	12, 13.8, 15, 24	Half Brick	Railway, -40 to 100 °C Baseplate
GQA	9 - 36	up to 24	120	1	5, 12, 15, 24, 28, 48	Quarter Brick	-40 to 105 °C Baseplate
HQA_85	9 - 40	up to 25	85	1	3.3, 5, 12, 15, 24, 28	Quarter Brick	COTS, MIL-STD-1275, MIL-STD-704, MIL-STD-461
HQA_120	9 - 40	up to 24	120	1	5, 12, 15, 24, 28, 48	Quarter Brick	COTS, MIL-STD-1275, MIL-STD-704, MIL-STD-461
iEA	36 - 75	up to 15	78	1	5, 12, 15, 18, 28	8th Brick	Open Frame
iEA4W	18 - 60	4	48	1	12	8th Brick	Open Frame
iEH	36 - 75	28	300	1	10.8, 12	8th Brick	Open Frame or Baseplate
iQE	36 - 75	up to 30	204	1	5, 12, 15	Quarter Brick	Open Frame
iQE4W	18 - 60	11	132	1	12	Quarter Brick	Open Frame
iQG	36 - 75	up to 47	504	1	9.6, 12	Quarter Brick	Open Frame or Baseplate
iQK	48 - 56	90	1008	1	11.2	Quarter Brick	Baseplate
iQL	18 - 36	up to 50	250	1	3.3, 5, 12	Quarter Brick	Baseplate
	36 - 75	up to 60	308	1	1.2, 2.5, 3.3, 5, 12, 28	Quarter Brick	Open Frame or Baseplate
iSA	36 - 75	up to 30	82.5	1	1.2, 1.5, 1.8, 2.5, 3.3, 5, 12	16th Brick	Open Frame
PAF500	18 - 36	up to 42	504	1	12, 28	Full Brick	-40 to 100 °C Baseplate
	36 - 76	up to 80	504	1	3.3, 5, 12, 28	Full Brick	-40 to 100 °C Baseplate
PAF600	19 - 36	up to 50	600	1	12, 28	Full Brick	-40 to 100 °C Baseplate
	36 - 76	up to 50	600	1	12, 28	Full Brick	-40 to 100 °C Baseplate
PAF700	36 - 76	up to 58.5	700	1	12, 28	Full Brick	-40 to 100 °C Baseplate
PAH300	18 - 36	up to 25	300	1	12, 28	Half Brick	-40 to 100 °C Baseplate
	36 - 75	up to 25	300	1	12, 28	Half Brick	-40 to 100 °C Baseplate
PAH350	18 - 36	up to 29.2	350	1	12, 28, 48	Half Brick	-40 to 100 °C Baseplate
	36 - 75	up to 29.2	350	1	12, 28, 48	Half Brick	-40 to 100 °C Baseplate
PAH450	18 - 36	up to 16	450	1	28, 48	Half Brick	-40 to 100 °C Baseplate
	36 - 75	up to 16	450	1	28, 48	Half Brick	-40 to 100 °C Baseplate
PH-A280	200 - 425	up to 20	150	1	3.3, 5, 12, 15, 24, 28, 48	Quarter Brick	-40 to 100 °C Baseplate
	200 - 425	up to 60	600	1	5, 12, 24, 28, 48	Half Brick	-40 to 100 °C Baseplate
PXC-M03	9 - 36	up to 1	3	1, 2	3.3, 5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.25 x 0.8 x 0.4 in	Medical, 2X MOPP Isolation
	18 - 75	up to 1	3	1, 2	3.3, 5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.25 x 0.8 x 0.4 in	Medical, 2X MOPP Isolation
PXC-M06	9 - 36	up to 1.8	6	1, 2	3.3, 5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.25 x 0.8 x 0.4 in	Medical, 2X MOPP Isolation
	18 - 75	up to 1.8	6	1, 2	3.3, 5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.25 x 0.8 x 0.4 in	Medical, 2X MOPP Isolation
PXC-M10	9 - 36	up to 1	10	1, 2	3.3, 5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.25 x 0.8 x 0.4 in	Medical, 2X MOPP Isolation
	18 - 75	up to 1	10	1, 2	3.3, 5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.25 x 0.8 x 0.4 in	Medical, 2X MOPP Isolation
PXD-M30	9 - 36	up to 60	30	1, 2	5, 12, 15, 24, ± 5 , ± 12 , ± 15	2 x 1 x 0.4 in	Medical, 2X MOPP Isolation
	18 - 75	up to 60	30	1, 2	5, 12, 15, 24, ± 5 , ± 12 , ± 15	2 x 1 x 0.4 in	Medical, 2X MOPP Isolation
PXD40	9 - 36	up to 12.2	40	1, 2	3.3, 5, 12, 15, 24, 48, ± 12 , ± 15 , ± 24	2 x 1 x 0.4 in	ON/OFF, Trim, optional heatsink
	18 - 75	up to 12.2	40	1, 2	3.3, 5, 12, 15, 24, 48, ± 12 , ± 15 , ± 24	2 x 1 x 0.4 in	ON/OFF, Trim, optional heatsink
PXD60	9 - 36	up to 12.2	60	1, 2	3.3, 5, 12, 15, 24, ± 12 , ± 15 , ± 24	2 x 1 x 0.4 in	ON/OFF, Trim, optional heatsink
	18 - 75	up to 12.2	60	1, 2	3.3, 5, 12, 15, 24, ± 12 , ± 15 , ± 24	2 x 1 x 0.4 in	ON/OFF, Trim, optional heatsink
PXG-M15	9 - 36	up to 3	15	1, 2	5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.6 x 1 x 0.4	Medical, 2X MOPP Isolation
	18 - 75	up to 3	15	1, 2	5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.6 x 1 x 0.4	Medical, 2X MOPP Isolation
PXG-M20	9 - 36	up to 4	20	1, 2	5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.6 x 1 x 0.4	Medical, 2X MOPP Isolation
	18 - 75	up to 4	20	1, 2	5, 12, 15, 24, ± 5 , ± 12 , ± 15	1.6 x 1 x 0.4	Medical, 2X MOPP Isolation
PYD	8.5 - 160	up to 4	20	1, 2	5, 12, 15, ± 12 , ± 15 , ± 24	2 x 1 x 0.4 in	Railway, -40 to 105 °C Case Temperature
PYQ	14 - 160	up to 6	50	1	5, 12, 24, 48	Quarter Brick	Railway, -40 to 100 °C Case Temperature
PYH	14 - 160	up to 16.7	200	1	12, 15, 24, 48	Half Brick	Railway, -40 to 100 °C Case Temperature

Low Power Industrial Modules



CCG (1.3-10W) Series

[Full Datasheet](https://product.tdk.com/en/power/ccg)

<https://product.tdk.com/en/power/ccg>

1.3 to 10W Space-Saving Through Hole or SMT Package

- ◆ 4.5-18, 9-36, 18-76 Vdc input ranges
- ◆ Single or dual outputs
- ◆ ≤0.75W no load power dissipation
- ◆ 1500Vdc isolation voltage



CCG (15-30W) Series

[Full Datasheet](https://product.tdk.com/en/power/ccg)

<https://product.tdk.com/en/power/ccg>

15-30W Isolated 1 x 1

- ◆ 9-36, 18-76 Vdc input ranges
- ◆ Single or dual outputs
- ◆ 6-sided shielding reduces radiated and conducted EMI
- ◆ -40 to 110 °C Case Temperature



[PXD40 Full Datasheet](#)

[PXD60 Full Datasheet](#)

<https://product.tdk.com/en/power/pxd>

PXD Series

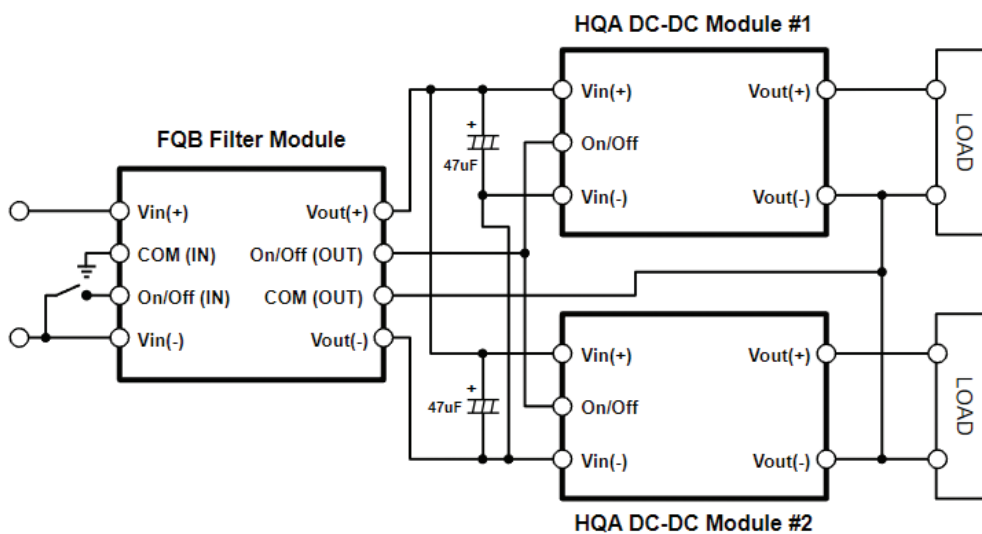
40-60W 2 x 1" Package

- ◆ 9-36Vdc and 18-75Vdc input
- ◆ Available from 3.3Vdc to 48Vdc and ±12Vdc to ±24Vdc outputs
- ◆ Six-sided metal shielding
- ◆ 1600Vdc input to output isolation

Delivering reliable power solutions for your mission critical Avionics and Defense/COTS applications.

HQA Series

- ◆ 85W and 120W DC-DC Converter
- ◆ 9 – 40 Vdc Input
- ◆ 3.3, 5, 12, 24, 28, 48 Vdc Outputs
- ◆ 2250 Vdc Isolation
- ◆ -55 to 115 °C Baseplate



FQA/FQB DC Filter

- ◆ 40 Vdc, 20A Passive or Active Filter
- ◆ Input and Output ON/OFF
- ◆ Reverse Polarity Protection
- ◆ Input and Output UV and OV
- ◆ Current Limit and Short Circuit Protection
- ◆ MIL-STD-461 EMC
- ◆ MIL-STD-1275; MIL-STD-704(A-F);
- ◆ RTCA/DO-160 Input Spike and Surge suppression

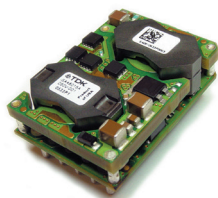


Available -M Option for Enhanced Screening

- ◆ Cold, Room and Hot test
- ◆ Extended 96-Hr Burn-In
- ◆ 10 Cycles of Temperature Cycling
- ◆ Visual Inspection



Industry Standard Isolated “Bricks”



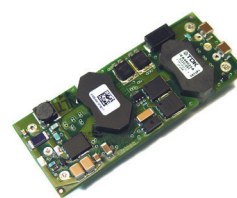
iSA Series

[Full Datasheet](#)

<https://product.tdk.com/en/power/isa>

82.5W Sixteenth Brick

- ◆ 36-5Vdc Input
- ◆ Available from 1.2Vdc to 12Vdc outputs
- ◆ Efficiency up to 90%
- ◆ 1500Vdc input to output isolation



iEA Series

[Full Datasheet](#)

<https://product.tdk.com/en/power/iea>

48 and 78W Eighth Brick

- ◆ Open frame with single board construction
- ◆ 1500Vdc input to output isolation
- ◆ Efficiency up to 91%
- ◆ -40 to 125 ° C Operating Temperature



GQA Series

[Full Datasheet](#)

<https://product.tdk.com/en/power/gqa>

120W Industrial Quarter Brick Converter

- ◆ Designed for 24Vdc input systems
- ◆ Up to 3000Vdc input to output; up to 2250Vdc in/out to baseplate isolation
- ◆ -40 to 105 °C Baseplate, Conduction Cooled
- ◆ Available in open frame or enclosed packages



HQA Series

[HQA85 Full Datasheet](#)

[HQA120 Full Datasheet](#)

<https://product.tdk.com/en/power/hqa>

85 and 120W MIL-COTS Quarter Brick

- ◆ Designed for 28Vdc input systems
- ◆ 2250Vdc input to output, input/output to baseplate isolation
- ◆ -55 to 115 ° C Baseplate, Conduction Cooled
- ◆ 70000 feet altitude, MIL-STD-810G, -883F, -202G



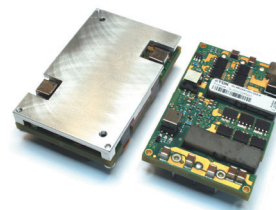
iQE Series

[Full Datasheet](#)

<https://product.tdk.com/en/power/iqe>

132-204W Quarter Brick

- ◆ Wide range 18-60Vdc or 36-75Vdc Input
- ◆ 5V, 12V and 15V outputs
- ◆ Efficiency up to 93%
- ◆ 1500Vdc input to output isolation



iQL Series

[Full Datasheet](#)

<https://product.tdk.com/en/power/iql>

72-308W Quarter Brick

- ◆ 18-36Vdc or 36-75Vdc Input
- ◆ Available from 1.2Vdc to 28Vdc outputs
- ◆ Efficiency up to 94%
- ◆ 1500Vdc input to output isolation

Industry Standard Isolated “Bricks”



PAH Series

[Full Datasheet](#)

<https://product.tdk.com/en/power/pah>

300-450W Half Brick

- ◆ 24Vdc and 48Vdc Input
- ◆ 12, 28 and 48 Vdc outputs
- ◆ Efficiency up to 92%
- ◆ 1500Vdc input to output isolation



PAF Series

[PAF500 Full Datasheet](#)

[PAF600 Full Datasheet](#)

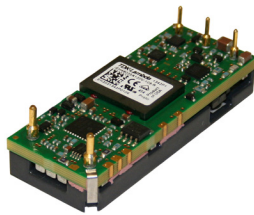
[PAF700 Full Datasheet](#)

<https://product.tdk.com/en/power/paf>

500W, 600W, 700W Full Brick

- ◆ 24Vdc and 48Vdc Input
- ◆ 3.3, 5, 12 and 28Vdc outputs
- ◆ Efficiency up to 91%
- ◆ 1500Vdc input to output isolation

Intermediate Bus Voltage



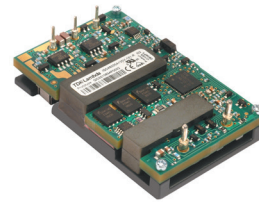
iEH Series

[Full Datasheet](#)

<https://product.tdk.com/en/power/ieh>

300W Eighth Brick

- ◆ 10.8V or 12V Intermediate Bus Voltage
- ◆ Monotonic startup into pre-biased output
- ◆ 2250Vdc input to output isolation
- ◆ Efficiency up to 95%



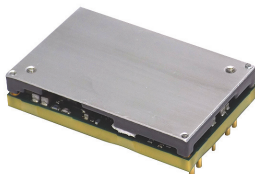
iQG Series

[Full Datasheet](#)

<https://product.tdk.com/en/power/iqg>

300-504W Quarter Brick Bus Converter

- ◆ 36-75Vdc Input
- ◆ 9.6V or 12V outputs
- ◆ Efficiency up to 95%
- ◆ Droop mode option for parallel operation



iQK Series

[Full Datasheet](#)

<https://product.tdk.com/en/power/iqk>

1008W Quarter Brick Bus Converter

- ◆ 48-56Vdc Input
- ◆ 11.2Vdc Intermediate Output Bus Voltage
- ◆ Efficiency up to 96%
- ◆ Droop mode option for parallel operation

High Voltage 200-425Vdc Input Modules



PH50A-PH150A280 Series

[Full Datasheet](https://product.tdk.com/en/power/ph-a)

50-150W Quarter Brick

- ◆ Available from 3.3 to 48Vdc outputs
- ◆ Efficiency up to 90%
- ◆ -40 to 100 °C Baseplate Temperature
- ◆ 3000Vac input to output isolation



PH300A-PH600A280 Series

[Full Datasheet](https://product.tdk.com/en/power/ph-a)

300-600W Half Brick

- ◆ Available from 5Vdc to 48Vdc outputs up to 93% Efficiency
- ◆ 3000Vac input to output isolation
- ◆ -40 to 100 °C Baseplate Temperature
- ◆ IEC/EN62477-1 (OVC III)



PH1200A280 Series

[Full Datasheet](https://product.tdk.com/en/power/ph-a)

1200W Full Brick

- ◆ Available from 12Vdc to 48Vdc outputs
- ◆ Efficiency up to 94%
- ◆ Parallel function with Internal Oring FET
- ◆ -40 to 100 °C Baseplate Temperature

See *PF-B Power Factor Correction Module Series* (page 6) that can provide AC input to 400Vdc output conversion to drive these PH-A280 modules.

Ensuring safe and reliable journeys with dependable power solutions for Railway / Transportation Applications.

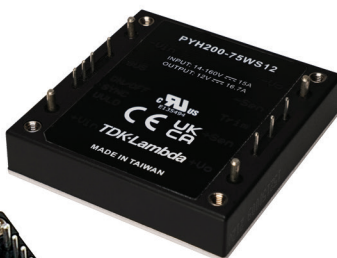
- ◆ Extended Wide Input Ranges → Supports various rail DC Input Voltages
- ◆ Half brick, Quarter brick, 2" x 1" → Industry Standard Packages
- ◆ 20 to 300 Watts Offering → Scalable Power Solutions
- ◆ -40 to 100 °C Baseplate → Harsh Environment Deployment
- ◆ Single or Dual Outputs → Flexible and space saving
- ◆ UL/IEC/EN62368-1, EN 50155, 45545-2, 61373, 50121-3-2 → Facilitates end system compliance



CN-B



CN-A



PYH



PYD



PYQ



Railway/Transportation Converter Solutions



CN-A24 Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/cn-a>

50-100W Quarter Brick

- ◆ 14.4-36Vdc input, ON/OFF, Sense, Trim
- ◆ Available from 5Vdc to 24Vdc outputs
- ◆ 2000Vac input to baseplate; 3000Vac input to output isolation
- ◆ -40 to 100°C Baseplate, Conduction Cooled



PYD Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/py>

20W 2x1-inch Package

- ◆ 8.5-160Vdc ultra-wide input range, ON/OFF, Trim
- ◆ Single and dual output voltages
- ◆ 3000Vac input to output isolation
- ◆ Potted plastic case



CN-A110 Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/cn-a>

50-200W, Quarter Brick and Half Brick

- ◆ 60-160Vdc wide input range, ON/OFF, Sense, Trim
- ◆ Available from 5Vdc to 24Vdc outputs
- ◆ 2000Vac input to baseplate; 3000Vac input to output isolation
- ◆ -40 to 100°C Baseplate, Conduction Cooled



PYQ Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/py>

30-50W Quarter Brick

- ◆ 14-160Vdc ultra-wide input range, ON/OFF, Sense, Trim
- ◆ Available from 5Vdc to 48Vdc outputs
- ◆ 3000Vdc input to output isolation
- ◆ -40 to 100°C Baseplate, Conduction Cooled

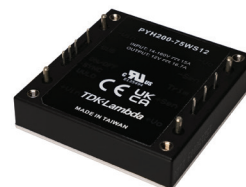


CN-B110 Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/cn-b>

200-300W Half-Brick - Industrial and Railway Converter

- ◆ 43-160Vdc Wide input range with Remote ON/OFF, Sense, Trim
- ◆ Available from 12Vdc to 24Vdc outputs
- ◆ 2500Vac input to baseplate; 3000Vac input to output isolation
- ◆ -40 to 100°C Baseplate, Conduction Cooled



PYH Series

[Full Datasheet](#)
<https://product.tdk.com/en/power/py>

200W Half Brick

- ◆ 14-160Vdc ultra-wide input range, ON/OFF, Sense, Trim, Sync
- ◆ Available from 12Vdc to 48Vdc outputs
- ◆ 3000Vac input to output isolation
- ◆ -40 to 100°C Baseplate, Conduction Cooled

Medical Certified Products



PXC-M Series

[Full Datasheet](https://product.tdk.com/en/power/pxc-m)

<https://product.tdk.com/en/power/pxc-m>

3-10W 1.25 x 0.8" Package

- ◆ 9-36Vdc and 18-75Vdc input
- ◆ Available from 3.3Vdc to 24Vdc and ± 5 Vdc to ± 15 Vdc outputs
- ◆ 2X MOPP Isolation
- ◆ Low no load power consumption
- ◆ IEC 60601-1



PXG-M Series

[Full Datasheet](https://product.tdk.com/en/power/pxg-m)

<https://product.tdk.com/en/power/pxg-m>

15-20W 1.6 x 1" Package

- ◆ 9-36Vdc and 18-75Vdc input
- ◆ Available from 5Vdc to 24Vdc and ± 5 Vdc to ± 15 Vdc outputs
- ◆ 2X MOPP Isolation
- ◆ Low no load power consumption
- ◆ IEC 60601-1 and IEC 62368-1



PXD-M Series

[Full Datasheet](https://product.tdk.com/en/power/pxd-m)

<https://product.tdk.com/en/power/pxd-m>

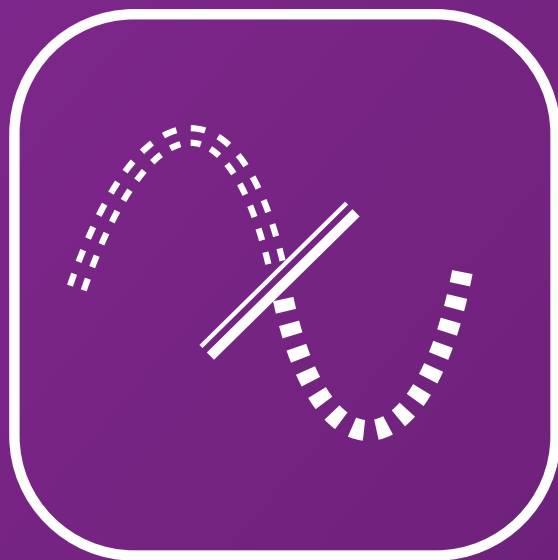
30W 2 x 1" Package

- ◆ 9-36Vdc and 18-75Vdc input
- ◆ Available from 5Vdc to 24Vdc and ± 5 Vdc to ± 15 Vdc outputs
- ◆ 2X MOPP Isolation
- ◆ Low no load power consumption
- ◆ IEC 60601-1 and IEC 62368-1





Filter Modules



EMC Filters

Applications

- ◆ Harsh Industrial
- ◆ Communications
- ◆ Test and Measurement
- ◆ Avionics and Defense/COTS
- ◆ Transportation and Railway

Features

- ◆ Common mode and differential mode filters
- ◆ High saturation amorphous core
- ◆ Low profile
- ◆ Compact size and form factor
- ◆ Open frame, enclosed or Baseplate construction
- ◆ Remote ON/OFF
- ◆ Input spike and transient suppression (MIL-STD-1275, MIL-STD-704, RTCA/DO-160)
- ◆ MIL-STD-461



Filter Modules

Product Series	Rated Input	Rated Current (A)	Form Factor	Attributes
iDQ	75 Vdc	10	1.97 x 0.59 x 0.39 in	Differential and Common Mode Noise Filter
FQA	40 Vdc	20	Quarter Brick / COTS Passive EMC Filter	MIL-STD-461, MIL-STD-1275 Input Spike Supression
FQB	40 Vdc	20	Quarter Brick / COTS Active EMC Filter	MIL-STD-461, MIL-STD-1275 and MIL-STD-704 Input Spike and Surge Supression
RSAG	250V	0.5, 1, 2, 3, 4, 6	32 x 20 x 21 mm	Single Phase, High-Voltage Pulse Noise Filter, -25 to 85 °C Operating Temperature
RSEG	250V	0.5, 1, 2, 3, 4, 6	32 x 20 x 21 mm	Single Phase Filter, -25 to 85 °C Operating Temperature



iDQ Series

[Full Datasheet](https://product.tdk.com/en/power/idq)
<https://product.tdk.com/en/power/idq>

75Vdc @ 10A Filter Module

- ◆ Differential and common mode noise filter module
- ◆ Low power loss (DCR ~11.5 mΩ Positive leg; ~6.5 mΩ Negative leg)
- ◆ High onboard capacitance reduces need for external components
- ◆ CE Mark


[Full Datasheet](https://product.tdk.com/en/power/fqa)
<https://product.tdk.com/en/power/fqa>

FQA Series

40Vdc @ 20A Passive EMC MIL-COTS Filter Module

- ◆ Encapsulated and rugged design
- ◆ -55 to 115 °C baseplate temperature (M-Grade)
- ◆ MIL-STD-461 EMC and MIL-STD-1275D Input Spike Supression
- ◆ Low DC resistance and power loss


[Full Datasheet](https://product.tdk.com/en/power/fqb)
<https://product.tdk.com/en/power/fqb>

FQB Series

40Vdc @ 20A Active EMC MIL-COTS Filter Module

- ◆ Encapsulated and rugged design
- ◆ -55 to 115 °C baseplate temperature (M-Grade)
- ◆ MIL-STD-461 EMC and MIL-STD-1275D/E, -704(A-F) Input Spike and Surge Supression
- ◆ Remote ON/OFF, Input and Output OV/UV, Reverse Polarity and Current Limit Protection

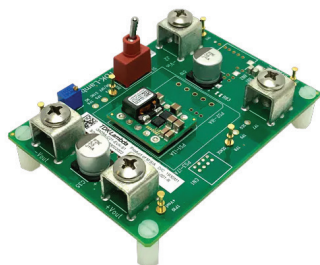

[Full Datasheet RSAG](https://product.tdk.com/en/power/rsag)
<https://product.tdk.com/en/power/rsag>
[Full Datasheet RSEG](https://product.tdk.com/en/power/rseg)
<https://product.tdk.com/en/power/rseg>

RSAG/RSEG Series

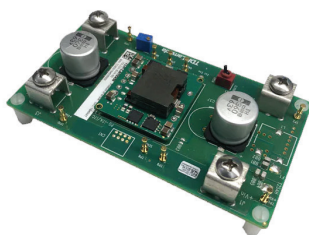
Single-Phase EMI Filter

- ◆ 250V, 0.5 to 6A scalable offering
- ◆ RSAG filter for High-Voltage Pulse Attenuation
- ◆ -25 to 85 °C operating temperature range
- ◆ Through-Hole pins
- ◆ Compact design

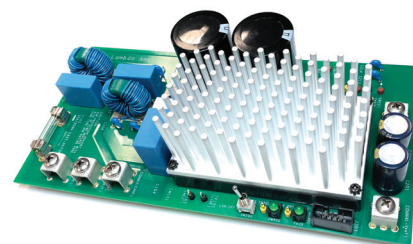
Design Tools and Product Collaterals



i3A08-C01-EVK-S1



i7C12-C03-EVK-S1



PFH05Wxx-1xx-EVK-S1

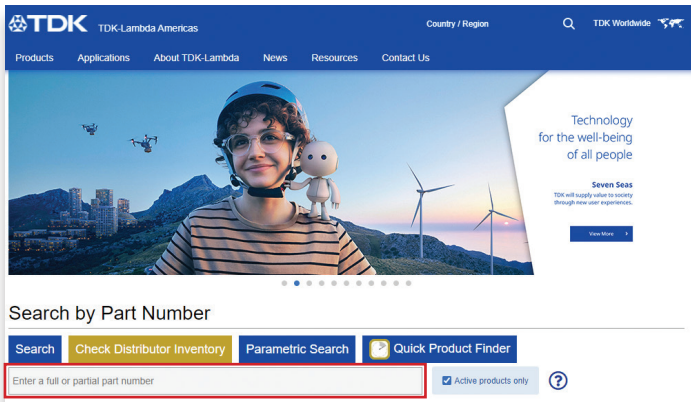
Evaluation Kits

Part Number	Applicable Product Series / Description	Installed Module
CCG-EVK-D0	For CCG15 and CCG30 Series	NA
FQX-HQA-EVK-D0	For GQA, HQA DC-DC modules and FQA, FQB and iDQ filter modules. Fits standard 8th and quarter brick footprints.	NA
i367X-C01-EVK-S0	EV kit (no module) for RGA, i3A and i6A Series	NA
i3A05A-C01-EVK-S1	Compact evaluation kit for i3A 4.5A series	i3A4W005A150V-001-R
i3A08A-C01-EVK-S1	Compact evaluation kit for i3A 8A series	i3A4W008A033V-001-R
i6A10A-C01-EVK-S1	Compact evaluation kit for i6A 10A series	i6A4W010A033V-001-R
i6A14A-C01-EVK-S1	Compact evaluation kit for i6A 14A series	i6A24014A033V-001-R
i6A20A-C01-EVK-S1	Compact evaluation kit for i6A 20A series	i6A4W020A033V-001-R
i7A33A-C01-EVK-S1	Compact evaluation kit for i7A 33A series	i7A4W033A330V-001-R
i7A45A-C01-EVK-S1	Compact evaluation kit for i7A 45A series	i7A24045A033V-001-R
i7A60A-C01-EVK-S1	Compact evaluation kit for i7A 60A series	i7A12060A008V-001-R
i7C08A-C03-EVK-S1	Compact evaluation kit for i7C 8A series	i7C4W008A120V-003-R
i7C08A-CC3-EVK-P2	i7C 8A EV kit for parallel and constant current operation	i7C4W008A120V-P03-R (2X Modules)
i7C12A-C03-EVK-S1	Compact evaluation kit for i7C 12.5A series	i7C4W012A050V-003-R
i7C12A-CC3-EVK-P2	i7C 12.5A EV kit for parallel and constant current operation	i7C4W012A050V-P03-R (2X Modules)
i7C20A-C03-EVK-S1	Compact evaluation kit for i7C 20A series	i7C2W020A120V-003-R
i7C20A-CC3-EVK-P2	i7C 20A EV kit for parallel and constant current operation	i7C2W020A120V-P03-R (2X Modules)
i7X-C01-EVK-S0	EV kit (no module) for RGB and RGC Series	NA
PFH05W12-100-EVK-S1	12V module with non-droop mode parallel feature	PFH500F-12-100-R
PFH05W12-1D0-EVK-S1	12V module with droop mode parallel feature	PFH500F-12-1D0-R
PFH05W28-100-EVK-S1	28V module with non-droop mode parallel feature	PFH500F-28-100-R
PFH05W28-1D0-EVK-S1	28V module with droop mode parallel feature	PFH500F-28-1D0-R
PFH05W48-100-EVK-S1	48V module with non-droop mode parallel feature	PFH500F-48-100-R
PFH05W48-1D0-EVK-S1	48V module with droop mode parallel feature	PFH500F-48-1D0-R

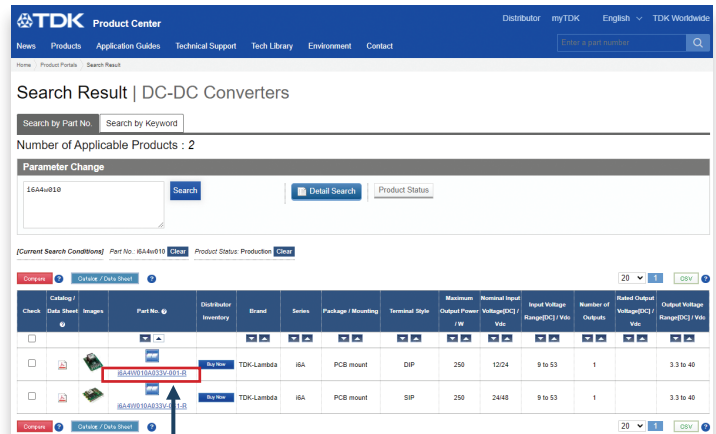
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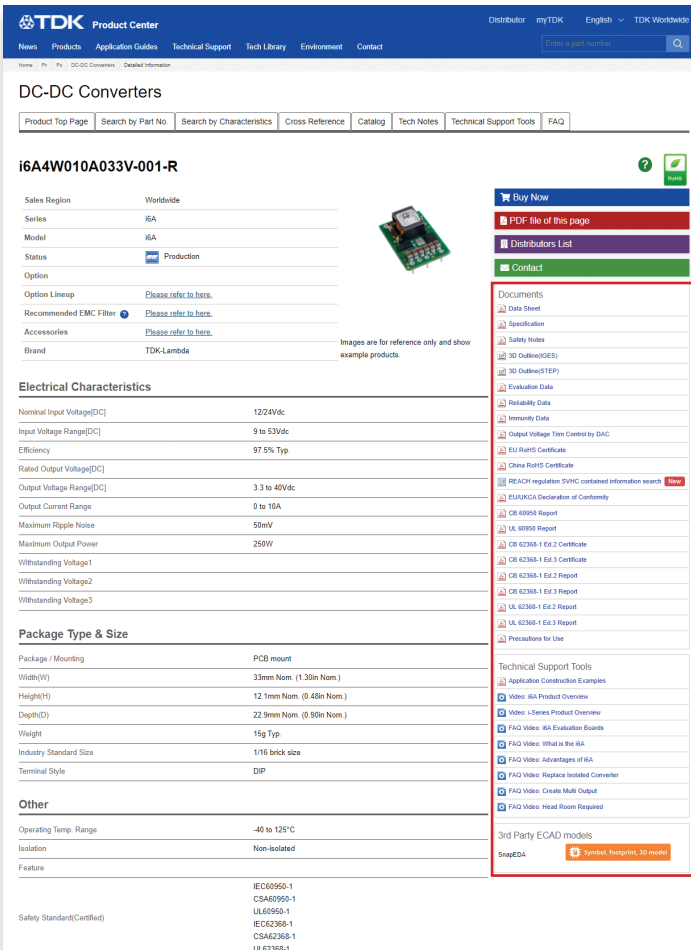
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