TDK In Everything, Better

Board Mounted

Power Solutions

Edition 2A

TDK·Lambda

Company Overview

TDK-Lambda's broad selection of fan-cooled, convection and conduction cooled power supplies are ideally suited for applications that do not rely on fans for cooling. Eliminating fans reduces audible noise, possible mechanical fan failure, required maintenance, and also increases system reliability.

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
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- Broadcasting
- Food and Beverage
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Power Factor Correction (PFC) Module
PF-B

DC–DC Board–Mounted Converters Non–Isolated

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DC–DC Board–Mounted Converters Isolated

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Filter Modules and Accessories

Filter Modules
iDQ, FQA, FQB, RSAG, RSEN, RGF
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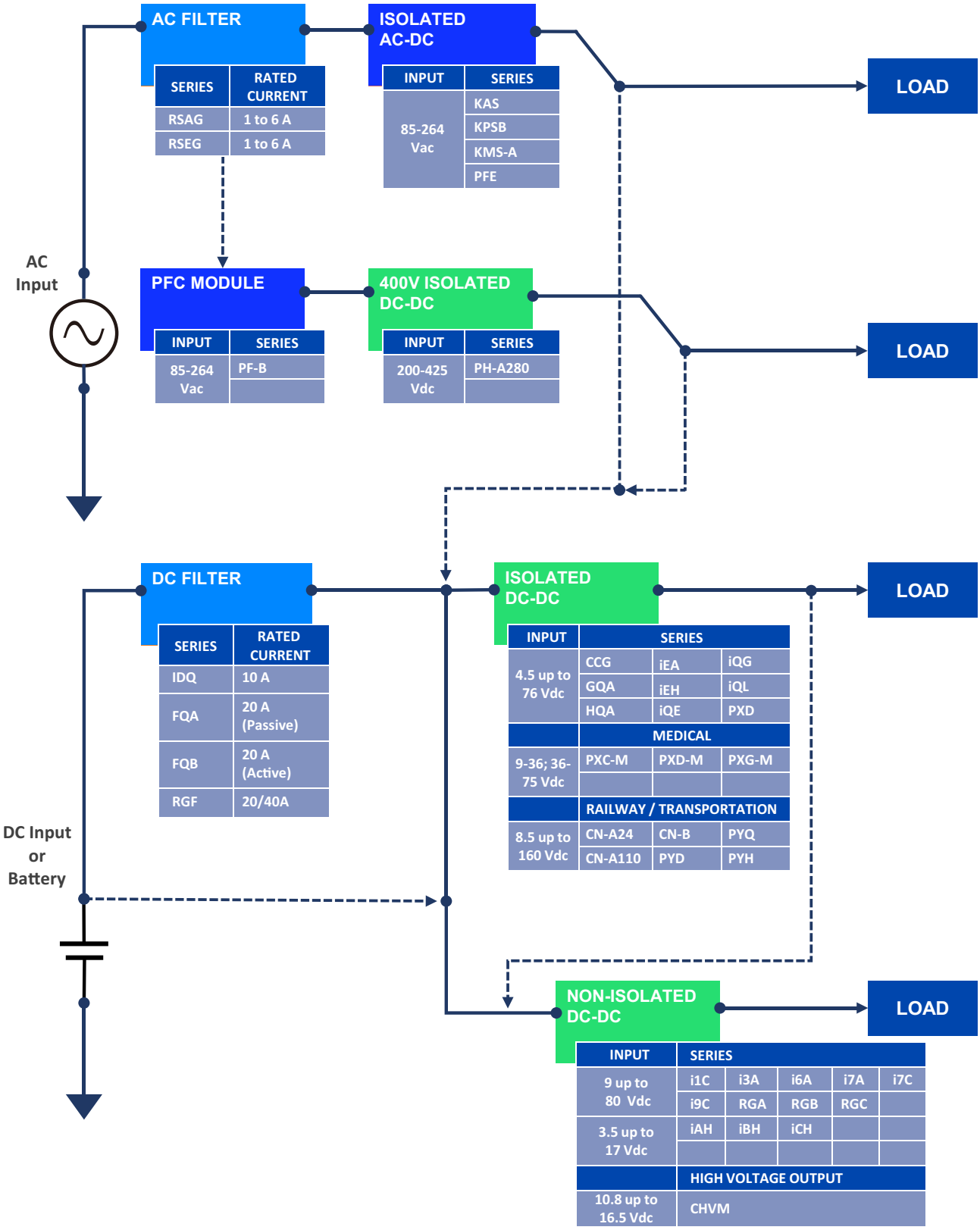
Board–Mount Distributed Power Solutions



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
PF-B	85 - 265	1500	1	360	4.6 x 2.4 x 0.5	PFC Module, 100 °C Baseplate
PFE1500FB	85 - 305	1500	1	28, 48	6.2 x 3.5 x 0.60	100 °C Baseplate, Conduction Cooled
PFE1800FB	85 - 305	1800	1	48, 60	6.2 x 3.5 x 0.60	100 °C Baseplate, Conduction Cooled

AC–DC Board–Mount Converters

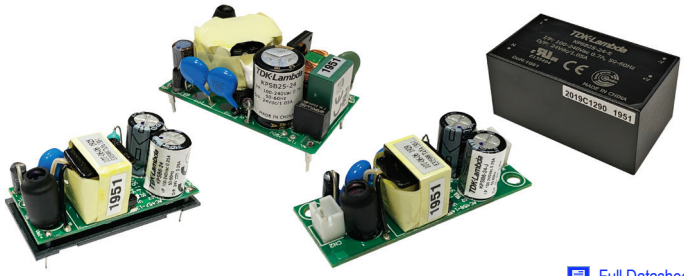


Full Datasheet

KAS4 Series

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



Full Datasheet

KPSB Series

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



Full Datasheet

KMS–A Series

https://product.tdk.com/en/power/kms-a

15-60W Medical Encapsulated Module
- Class II Input (no earth ground)
- 4000 Vac Input to Output Isolation (2X MOPP)
- Class B Conducted and Radiated EMI
- -40 to 80°C Operating Temperature Range



Full Datasheet

KWS–A Series

https://product.tdk.com/en/power/kws-a

5-25W Encapsulated Module
- Class II Input (no Earth ground)
- Low No Load Power Dissipation
- -40 to 85°C Operating Temperature Range



PFE-FB Full Datasheet

PFE-SA, PFE500F, PFE1000FA Datasheet

PFE Series

https://product.tdk.com/en/power/pfe

300 to 1800W Power Module
- Compact and Low Profile Package Sizes
- -40 to 100°C Baseplate, Conduction Cooled
- Suitable for Rugged and Sealed Enclosure Environments
- PFE-FB Series: PMBus, 85-305 Vac, 50/60/400 Hz



PF1500B-360 Full Datasheet

PF–B Series

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
- Enables custom power distribution with high voltage DC-DC modules

DC–DC Board–Mount Converters



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	
i1C	9 - 36	10	200	1	9.6 - 28	1.0 x 1.0 x 0.4 in	Buck-Boost Converter
	9 - 36	12	115	1	3.3 - 9.6	1.0 x 1.0 x 0.4 in	Buck-Boost Converter
	18 - 75	6	300	1	28 - 60	1.0 x 1.0 x 0.4 in	Buck-Boost Converter
	18 - 75	10	200	1	9.6 - 28	1.0 x 1.0 x 0.4 in	Buck-Boost Converter
i3A	9 - 53	4.5	100	1	5 - 30	1/32nd Brick	Buck Converter
	9 - 53	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
	9 - 53	20	250	1	3.3 - 15	1/16th Brick	Buck Converter
i6AN	9 - 40	8	75	1	-3.3 to -40	1/16th Brick	Buck Converter, Negative Output
i7A	9 - 18	60	400	1	0.8 - 8	1/16th Brick Pin-out	Buck Converter
	9 - 18	100	550	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 - 32	80	1000	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
	18 - 60	60	720	1	3.3 - 28	1/16th Brick Pin-out	Buck Converter
	28 - 60	20	500	1	3.3 - 32	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
i9C	9 - 40	50	1500	1	5 - 36	Wide Quarter Brick	Buck-Boost Converter, PHEPT*
	9 - 80	30	1500	1	9.6 - 60	Wide Quarter Brick	Buck-Boost Converter, PHEPT*
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
RGB	9 - 18	60	400	1	0.8 - 8	Rugged 1/16th Brick Pin-out	Buck Converter
	18 - 32	45	750	1	3.3 - 18	Rugged 1/16th Brick Pin-out	Buck Converter
	18 - 60	33	500	1	3.3 - 24	Rugged 1/16th Brick Pin-out	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, SMT
iBH	3.5 - 14	20	80	1	0.7 - 5.5	0.8 x 0.45 x 0.39 in	DOSA Compatible, SMT
iCH	4.5 - 14	12	85	1	0.7 - 8.5	0.48 x 0.48 x 0.34 in	DOSA Compatible, SMT
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	1k, 1.5k, 2k; -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	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	SIP
CHVM3	10.8 - 13.2	0.01	3	1	300, -300	3.15 x 0.47 x 0.78	SIP

* Programmable High-Efficiency Pass-Through

TDK
In Everything, Better

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


RGA


RGB


RGC


i9C


i7C


i7A


i6A


i3A



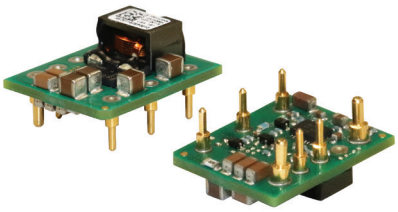
DC–DC Board–Mount Converters Non–Isolated



i1C Series

Full Datasheet
https://product.tdk.com/en/power/i1C

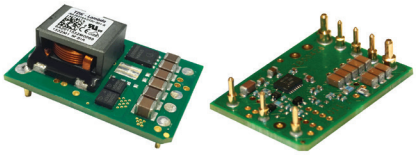
300W Buck-Boost Converter
- Efficiency up to 98%
- 9-36 or 18-75 Vdc input: 3.3-9.6, 9.6-28, 28-60 Vdc output
- Remote ON/OFF and Output Trim
- 1” x 1” Industrial Footprint



i3A Series

Full Datasheet
https://product.tdk.com/en/power/i3A

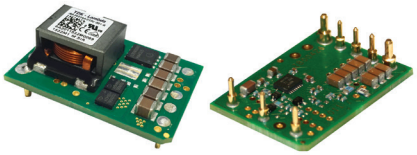
100W Buck Converter
- Efficiency up to 98%
- 9-53 Vdc input; 3.3 up to 30 Vdc output
- Remote ON/OFF, Sense and Output Trim
- 1/32nd Brick Footprint



i6A Series

Full Datasheet
https://product.tdk.com/en/power/i6A

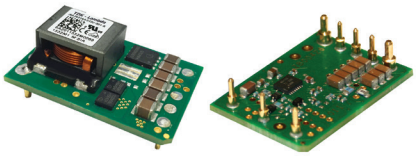
250W Buck Converter
- Efficiency up to 98%
- 9-40 Vdc input; 3.3-24 Vdc output
- Remote ON/OFF, Sense and Output Trim; optional PGood, Sync, Seq
- 1/16th Brick Footprint



i6A4W Series

Full Datasheet
https://product.tdk.com/en/power/i6A

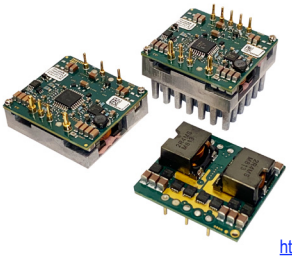
250W Buck Converter
- Efficiency up to 97%
- 9-53 Vdc input; 3.3 up to 40 Vdc output
- Remote ON/OFF, Sense and Output Trim; optional PGood, Sync, Seq
- 1/16th Brick Footprint



i6AN Series

Full Datasheet
https://product.tdk.com/en/power/i6A

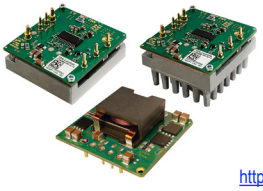
75W Buck Converter, (Negative Output Voltage)
- Efficiency up to 94%
- 9-40 Vdc input; -30 to -3.3 Vdc output
- Remote ON/OFF and Output Trim
- 1/16th Brick Footprint



i7A Series

Full Datasheet
https://product.tdk.com/en/power/i7A

400 to 1000W Buck Converter
- Efficiency up to 98.5%
- 9-18, 18-32, 18-60 Vdc inputs; 0.8 up to 32 Vdc output
- Remote ON/OFF, Sense and Output Trim; optional OCP Adjust
- Baseplate and Heatsink options



i7C Series

Full Datasheet
https://product.tdk.com/en/power/i7C

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

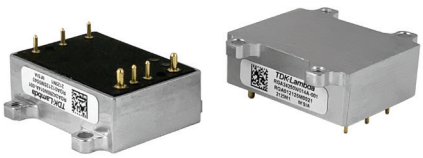


i9C Series

Full Datasheet
https://product.tdk.com/en/power/i9C

1500W Buck-Boost Converter
- Efficiency up to 99%
- 9-40, 9-80 Vdc input; 5-36, 9.6-60 Vdc output
- PHEPT (Programmable High-Efficiency Pass-Through)

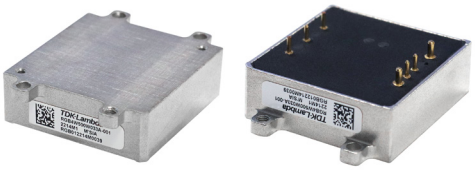
DC–DC Board–Mount Converters Non–Isolated



Full Datasheet
https://product.tdk.com/en/power/rga

RGA Series

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



Full Datasheet
https://product.tdk.com/en/power/rgb

RGB Series

400 to 750W Ruggedized Buck Converter
- Encapsulated in a 5 sided metal case
- 9-18, 18-32, 18-60 Vdc inputs
- 3.3 up to 60 Vdc output
- -40 to 115°C Case, Conduction Cooled
- Suitable for rugged and sealed enclosure environments



Full Datasheet
https://product.tdk.com/en/power/rgc

RGC Series

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



Full Datasheet
https://product.tdk.com/en/power/chvm

CHVM Series

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)



Full Datasheet
https://product.tdk.com/en/power/iah

iAH Series

150W, 40A 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



Full Datasheet
https://product.tdk.com/en/power/ibh

iBH Series

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



Full Datasheet
https://product.tdk.com/en/power/ich

iCH Series

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

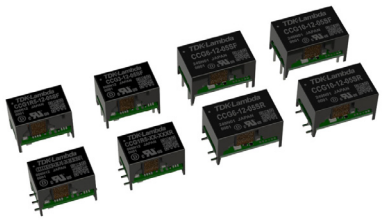
Features

- 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
CCG60	9 up to 76	up to 12	60	1	3, 5, 12, 15, 24	1 x 1 x 0.51 in	Through Hole
CN-B	43 - 160	up to 30	50, 100, 150	1	5, 12, 15, 24, 48	Half Brick	Railway, -40 to 100 °C Baseplate
	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	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
	9 - 40	up to 24	120	1	5, 12, 15, 24, 28, 48	Quarter Brick	
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
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
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

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 (15–60W) Series

Full Datasheet
https://product.tdk.com/en/power/ccg

15-60W 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



PXD Series

PXD40 Full Datasheet
PXD60 Full Datasheet
https://product.tdk.com/en/power/pxd

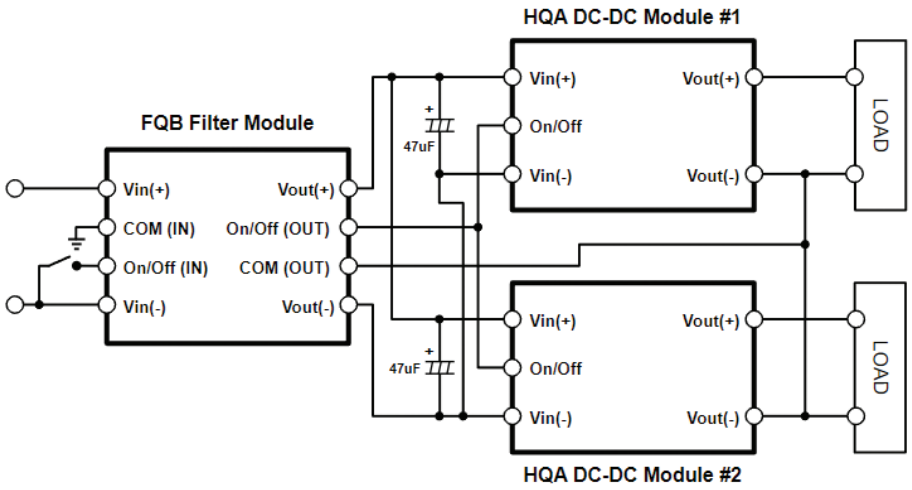
40-60W 2 x 1" Package
- 9-36Vdc and 18-75Vdc input
- Available from 3.3Vdc to 48Vdc and ±12Vdc to ±24Vdc outputs
- Six-sided metal shielding
- 1600Vdc input to output isolation

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





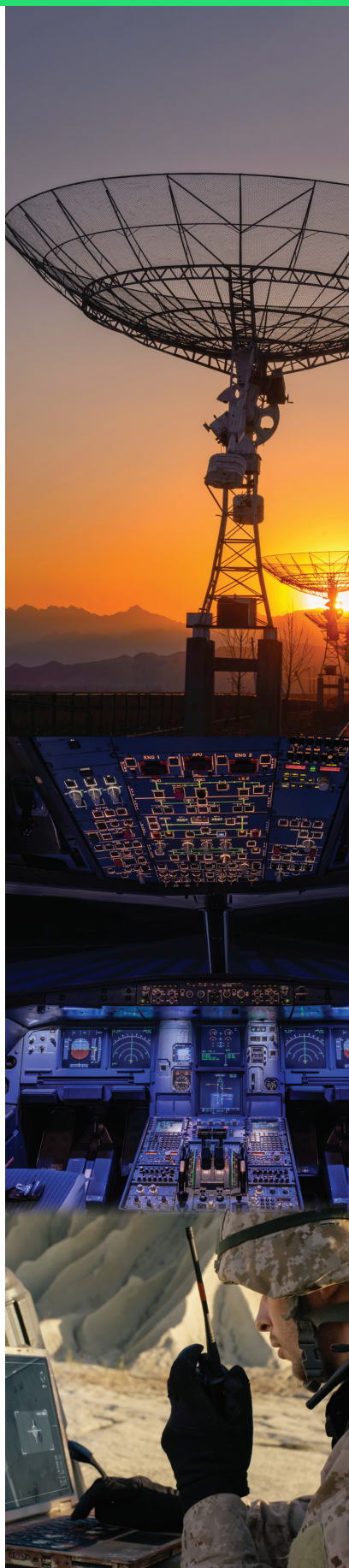
FQA/FQB DC Filter

- 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

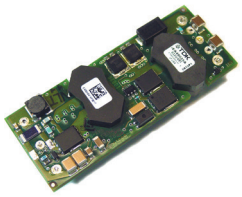


Available –M Option for Enhanced Screening

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



Industry Standard Isolated "Bricks"



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

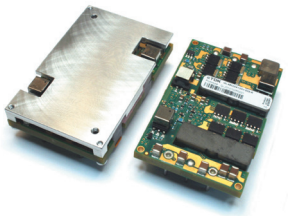
85 and 120W MIL-COTS Quarter Brick
- Designed for 28Vdc input systems
- 2250Vdc input to output, input/output to baseplate isolation
- -55 to 115 ° C Baseplate, Conduction Cooled
- 70000 feet altitude, MIL-STD-810G, -883F, -202G



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

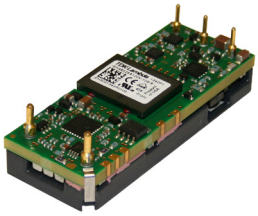


iQL Series

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

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

High Voltage 200–425Vdc Input Modules



Full Datasheet

PH50A–PH150A280 Series

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



Full Datasheet

PH300A–PH600A280 Series

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)



Full Datasheet

PH1200A280 Series

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 7) that can provide AC input to 400Vdc output conversion to drive these PH-A280 modules.

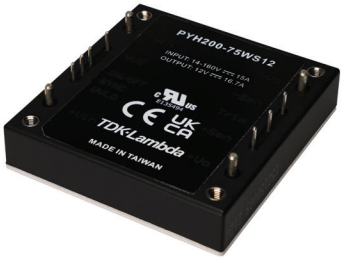
TDK
In Everything, Better

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



PYH



PYD



PYQ



Railway / Transportation Converter Solutions



Full Datasheet

PYD Series

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



Full Datasheet

PYQ Series

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

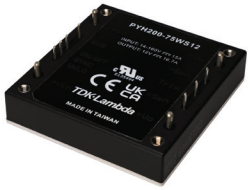


Full Datasheet

CN-B110 Series

https://product.tdk.com/en/power/cn-b

50-300W Half-Brick - Industrial and Railway Converter
- 43-160Vdc Wide input range with Remote ON/OFF, Sense, Trim
- Available from 5Vdc to 48Vdc outputs
- 2500Vac input to baseplate; 3000Vac input to output isolation
- -40 to 100°C Baseplate, Conduction Cooled



Full Datasheet

PYH Series

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

TDK
In Everything, Better

Medical Certified Products



Full Datasheet
https://product.tdk.com/en/power/pxc-m

PXC–M Series

3-10W 1.25 x 0.8" Package
- 9-36Vdc and 18-75Vdc input
- Available from 3.3Vdc to 24Vdc and ±5Vdc to ±15Vdc outputs
- 2X MOPP Isolation
- Low no load power consumption
- IEC 60601-1



Full Datasheet
https://product.tdk.com/en/power/pxg-m

PXG–M Series

15-20W 1.6 x 1" Package
- 9-36Vdc and 18-75Vdc input
- Available from 5Vdc to 24Vdc and ±5Vdc to ±15Vdc outputs
- 2X MOPP Isolation
- Low no load power consumption
- IEC 60601-1 and IEC 62368-1



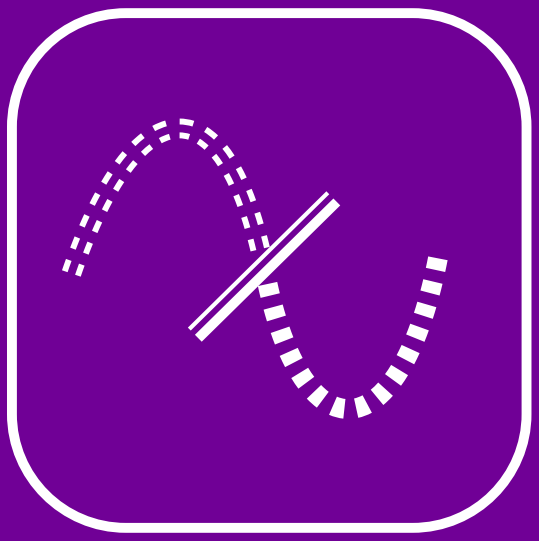
Full Datasheet
https://product.tdk.com/en/power/pxd-m

PXD–M Series

30W 2 x 1" Package
- 9-36Vdc and 18-75Vdc input
- Available from 5Vdc to 24Vdc and ±5Vdc to ±15Vdc outputs u 2X MOPP Isolation
- Low no load power consumption
- IEC 60601-1 and IEC 62368-1



Filter Modules



EMC Filters

Applications

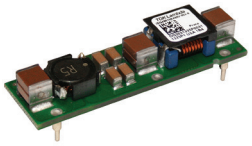
- Harsh Industrial
- Communications
- Test and Measurement
- Avionics and Defense/COTS
- Transportation and Railway

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 and ORing Modules

Product Series	Rated Input	Rated Current (A)	Form Factor	Attributes
i1R	5-60 Vdc 3.3-30 Vdc	60 80	1.03 x 1.03 x 0.40	ORing MOSFET Module
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 Suppression
FQB	40 Vdc	20	Quarter Brick / COTS Active EMC Filter	MIL-STD-461, MIL-STD-1275 and MIL-STD-704 Input Spike and Surge Suppression
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
RGF	80 Vdc	20, 40	2.08 x 1.39 x 0.50 in	Ruggedized Differential Mode Noise filter



Full Datasheet
https://product.tdk.com/en/power/idq

iDQ Series

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

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 Suppression
- Low DC resistance and power loss



Full Datasheet
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 Suppression
- Remote ON/OFF, Input and Output OV/UV, Reverse Polarity and Current Limit Protection



Full Datasheet
https://product.tdk.com/en/power/rgf

RGF Series

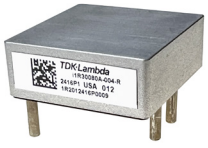
80V, 20A or 40A Filter Module
- Exceptional differential mode filtering
- Encapsulated in 5-sided metal case
- Low Power Loss
- Compact 2 x 1 inch package



Full Datasheet RSAG
https://product.tdk.com/en/power/rsag
Full Datasheet 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

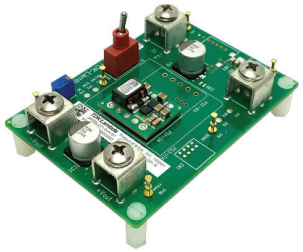


Full Datasheet
https://product.tdk.com/en/power/i1r

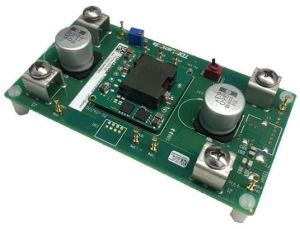
i1R ORing MOSFET

ORing MOSFET Module
- 5-60V, 60A or 3.3-30V, 80A
- Low On resistance
- Compact 1 x 1 inch shielded metal case
- Fast turn-off response, 500 ns typical
- -40 to 120 °C operating case temperature

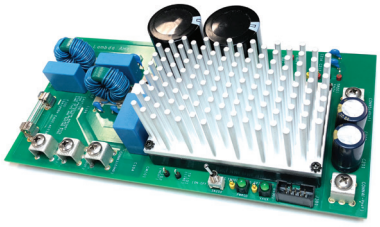
Design Tools and Product Collaterals



i3A08A-C01-EVK-S1



i7C12A-C03-EVK-S1



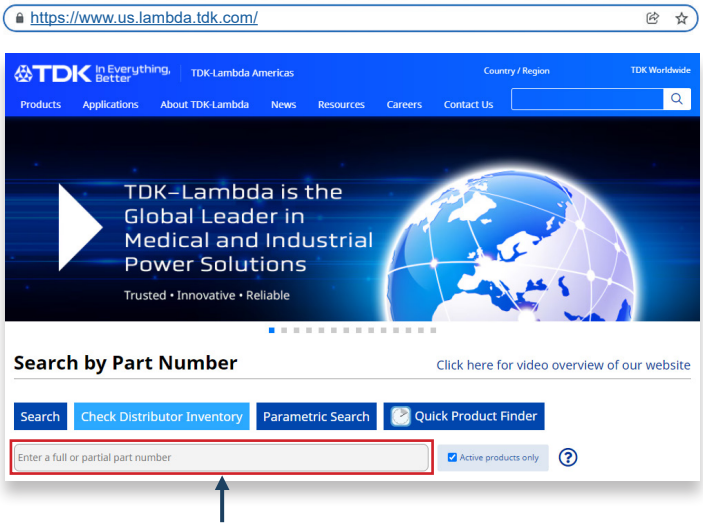
PFH05Wxx-1xx-EVK-S1

Evaluation Kits

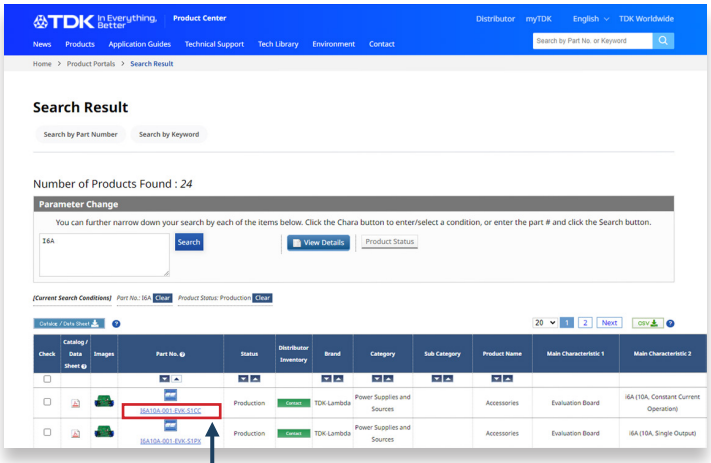
Part Number	Applicable Product Series / Description	Installed Module
CCG-EVK-D0	For CCG15 and CCG30 Series	NA
FQX-HQA-EVK-D0	For GQA, HQA DC-DC modules and FQA, FQB and iDQ filter modules. Fits standard 8th and quarter brick footprints.	NA
i1C2W10A-C01-EVK-S1	Compact evaluation kit for i1C2W 10A series	i1C2W010A120V-001-R (or -005-R)
i1C4W06A-C01-EVK-S1	Compact evaluation kit for i1C4W 6A series	i1C4W006A280V-001-R (or -005-R)
i1C4W10A-C01-EVK-S1	Compact evaluation kit for i1C4W 10A series	i1C4W010A120V-011-R (or -005-R)
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
i9C30A-C03-EVK-S1	Compact evaluation kit for i9C4W 30A series	i9C4W030A480V-0C3-R (or -NC3-R)
i9C50A-C03-EVK-S1	Compact evaluation kit for i9C2W 50A series	i9C2W050A240V-0C3-R (or -NC3-R)

Design Tools and Product Collaterals

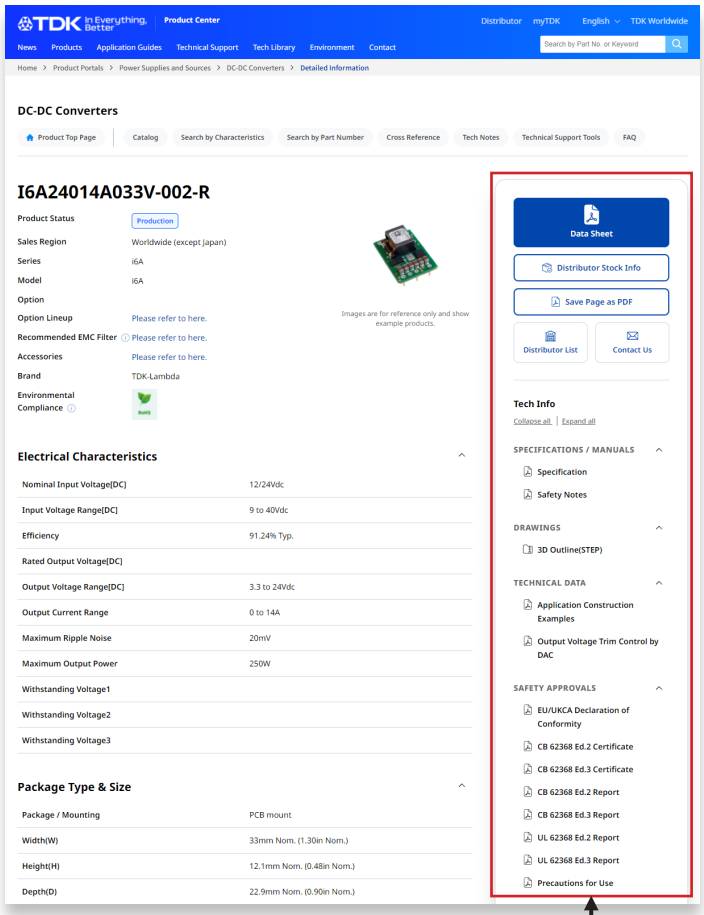
Obtaining full product documentation, evaluation data, 3D mechanical drawings, safety certifications and so much more has never been this easy...



STEP 1: Type Part Number here (full or partial) and click “Search”



STEP 2: Click “Part Number”



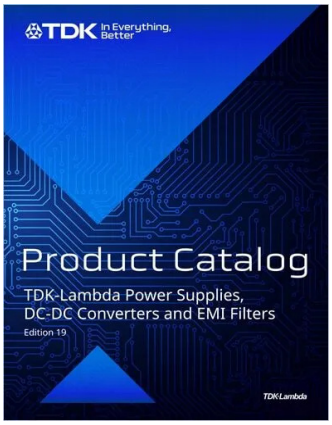
STEP 3: Download the Product collateral of interest.

Downloadable Content

- Datasheet
- Full Specifications
- 3D Drawings
- Safety and Environmental Certificates and Declarations
- Evaluation data
- Product Videos
- EDA Tools (schematic symbols, PCB footprint)

Design Tools and Product Collaterals

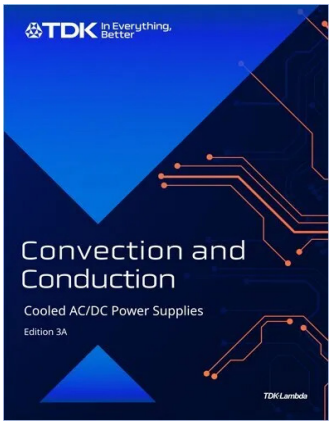
Written by Engineers, for Engineers. Find the part you need and get to market faster!
Download our Brochures at https://www.us.lambda.tdk.com/resources/catalogs/



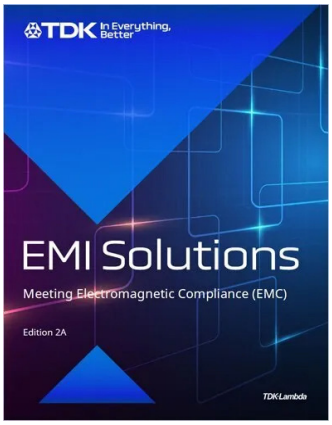
Product Catalog



Healthcare Products



Convection/Conduction Cooled Products



EMI Solutions



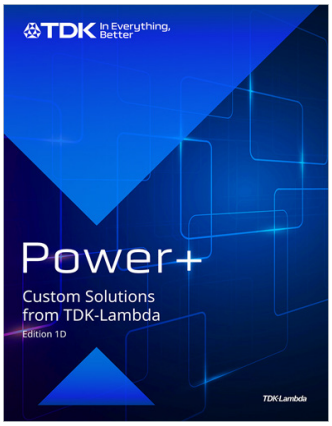
DIN Rail



Configurable



CUS-M Series



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tlf.it-powersolutions@tdk.com
www.emea.lambda.tdk.com/it



Netherlands
tlf.nl-powersolutions@tdk.com
www.emea.lambda.tdk.com/nl



TDK-Lambda Europe GmbH
Tel: +49 7841 666 0
tlg.powersolutions@tdk.com
www.emea.lambda.tdk.com/de



Austria Sales Office
Tel: +43 2256 655 84
tlg.powersolutions@tdk.com
www.emea.lambda.tdk.com/at



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Tel: +49 7841 666 0
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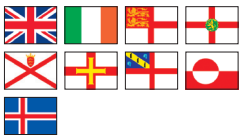

TDK-Lambda UK Ltd.
Tel: +44 12 71 85 66 66
tlu.powersolutions@tdk.com
www.emea.lambda.tdk.com/uk



TDK-Lambda Israel Ltd.
Tel: +972 3 902 4333
tli.powersolutions@tdk.com
www.emea.lambda.tdk.com/il-en



TDK-Lambda Americas
Tel: +1 800 LAMBDA 4 or +1 800 526 2324
tla.powersolutions@tdk.com
www.us.lambda.tdk.com



TDK Electronics do Brasil Ltda
Tel: +55 11 3289 9599
sales.br@tdk-electronics.tdk.com
www.tdk-electronics.tdk.com/en



TDK-Lambda Corporation
Tel: +81 3 6778 1113
www.jp.lambda.tdk.com



TDK-Lambda (China) Electronics Co. Ltd.
Tel: +86 21 6485 0777
tlc.powersolutions@tdk.com
www.lambda.tdk.com.cn



TDK-Lambda Singapore Pte Ltd.
Tel: +65 6251 7211
tls.marketing@tdk.com
www.sg.lambda.tdk.com



TDK India Private Limited,
Power Supply Division
Tel: +91 80 4039 0660
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