



Infrastructure Power Solution Expert



POWERGOOP

About POWERGOOD

Experts born for the power module

POWERGOOD provides AC/DC, DC/DC modules and related products with high reliability, high efficiency and high durability, which can be used in railway, industrial automation, medical, Aviation... In different fields, such as New York City Subway, ALSTOM, DB, SIEMENS... And other well-known companies in various fields around the world.

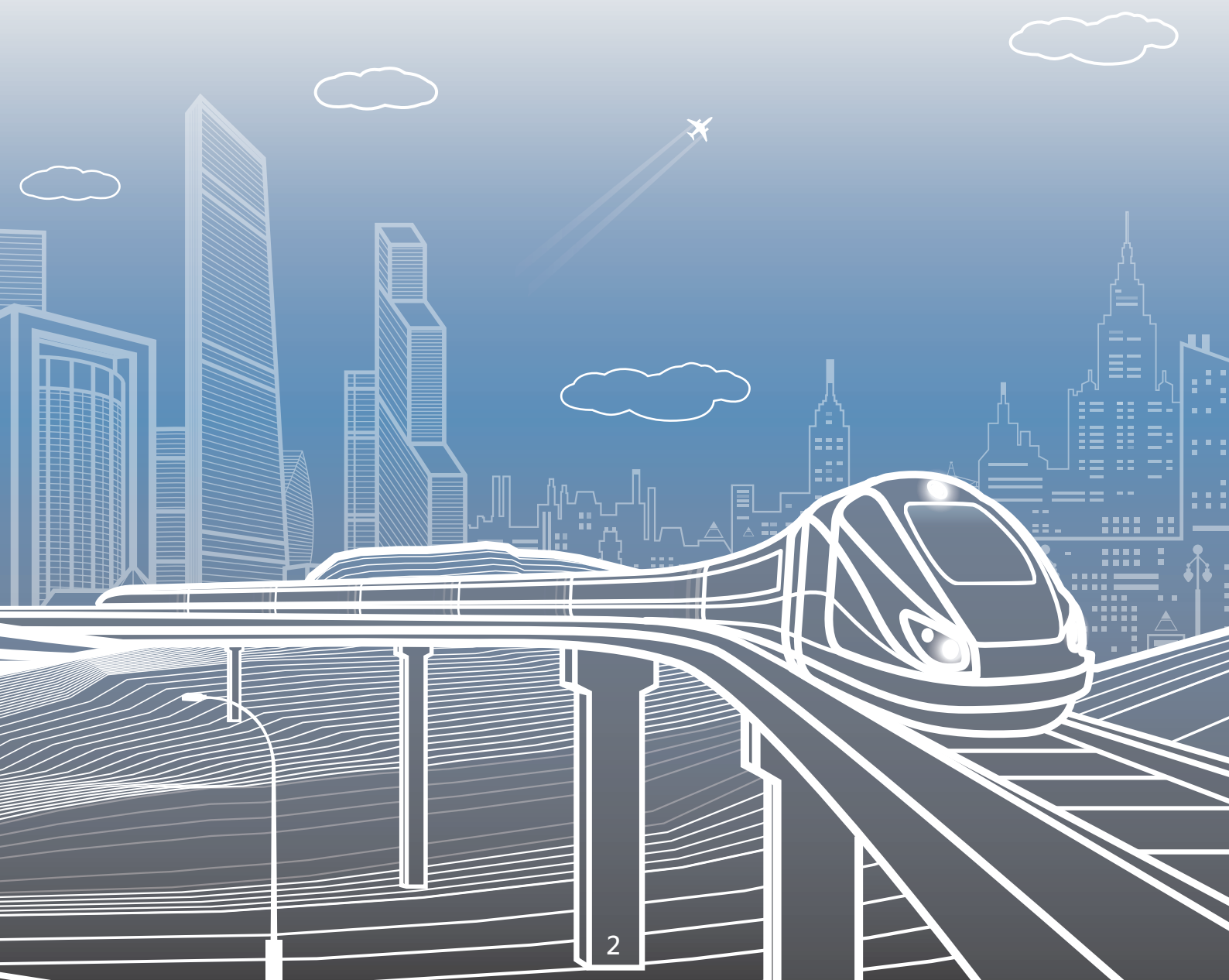
Quality first, Customer satisfaction

With the spirit of harmony, advancement, integrity and sharing, we insist on continuous improvement in quality and the concept of "There is no best, only better" to create value beyond customers' expectations with our professional ability and provide you with "good performance, ease of use, reliability and affordability" as a one-stop power supply solution.



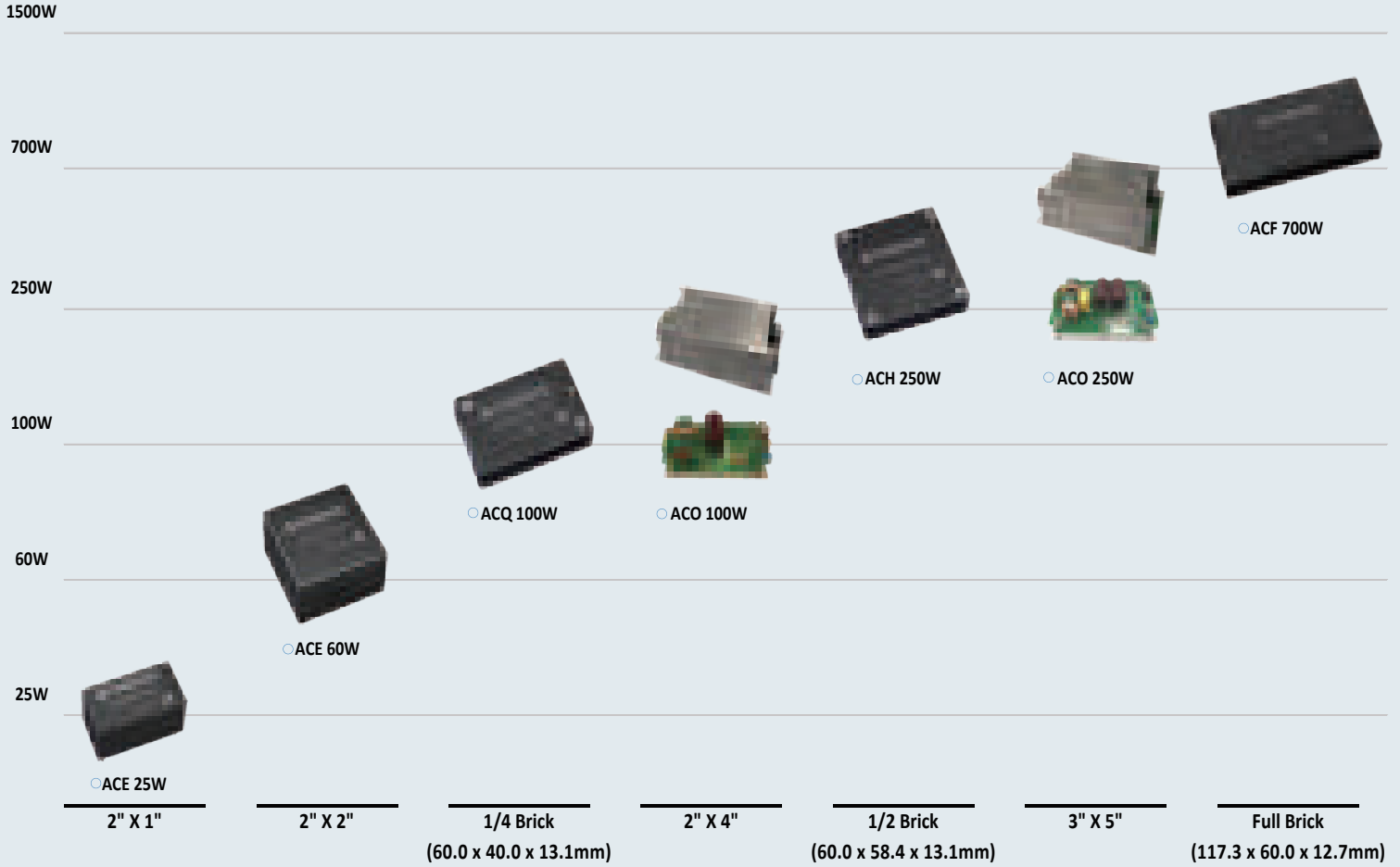
Infrastructure's Applications

- **Energy system**
Power station, water system, gas pipeline, and electricity grid.
- **Telecommunication**
Telephone, radio and television, internet, and local area / wide area networks.
- **Defense**
Military technology, national security, and internet firewall.
- **Transportation**
Airport, harbor, railway, and parking lot facilities.
- **Medical care and precaution**
Hospital, medical equipment, alarm system, and public warning system.



Infrastructure Application Product Line

AC/DC power modules for POWEROOD Infrastructure Application

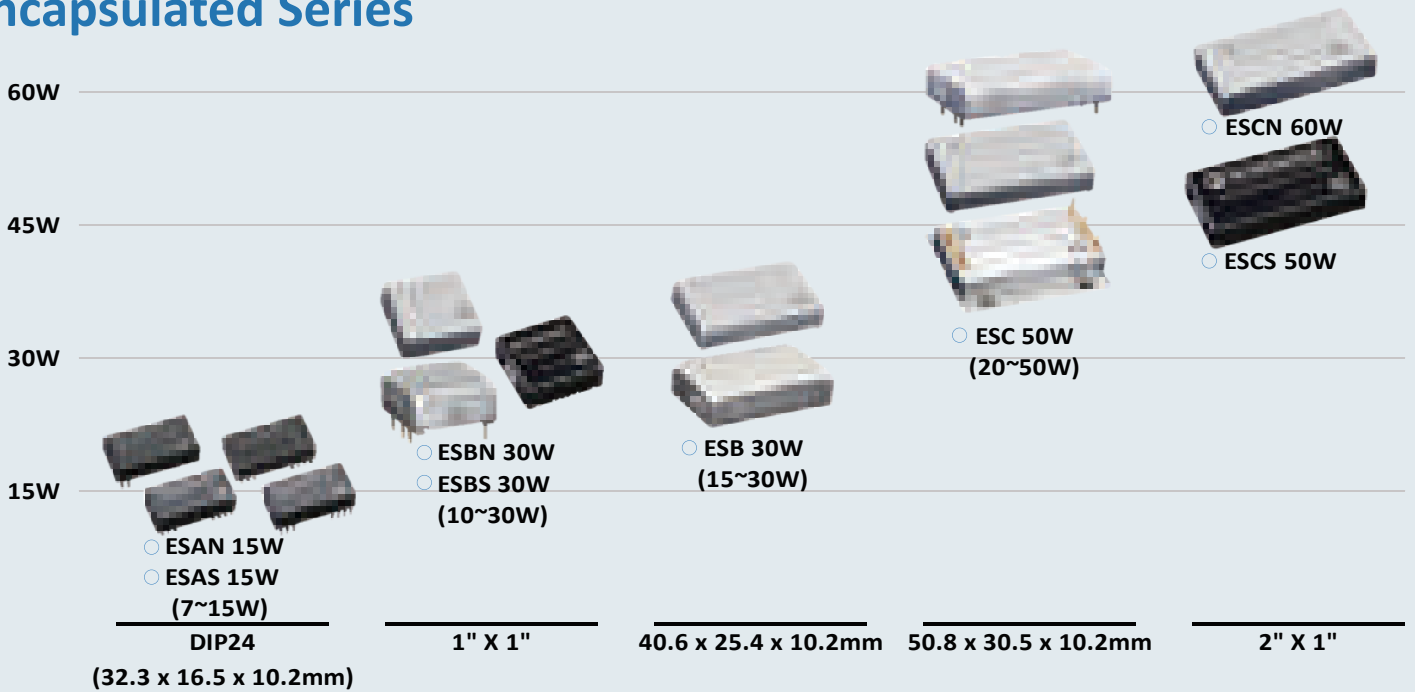


DC/DC Power Module for POWERGOOD Infrastructure Applications - Low Power Regulated Series

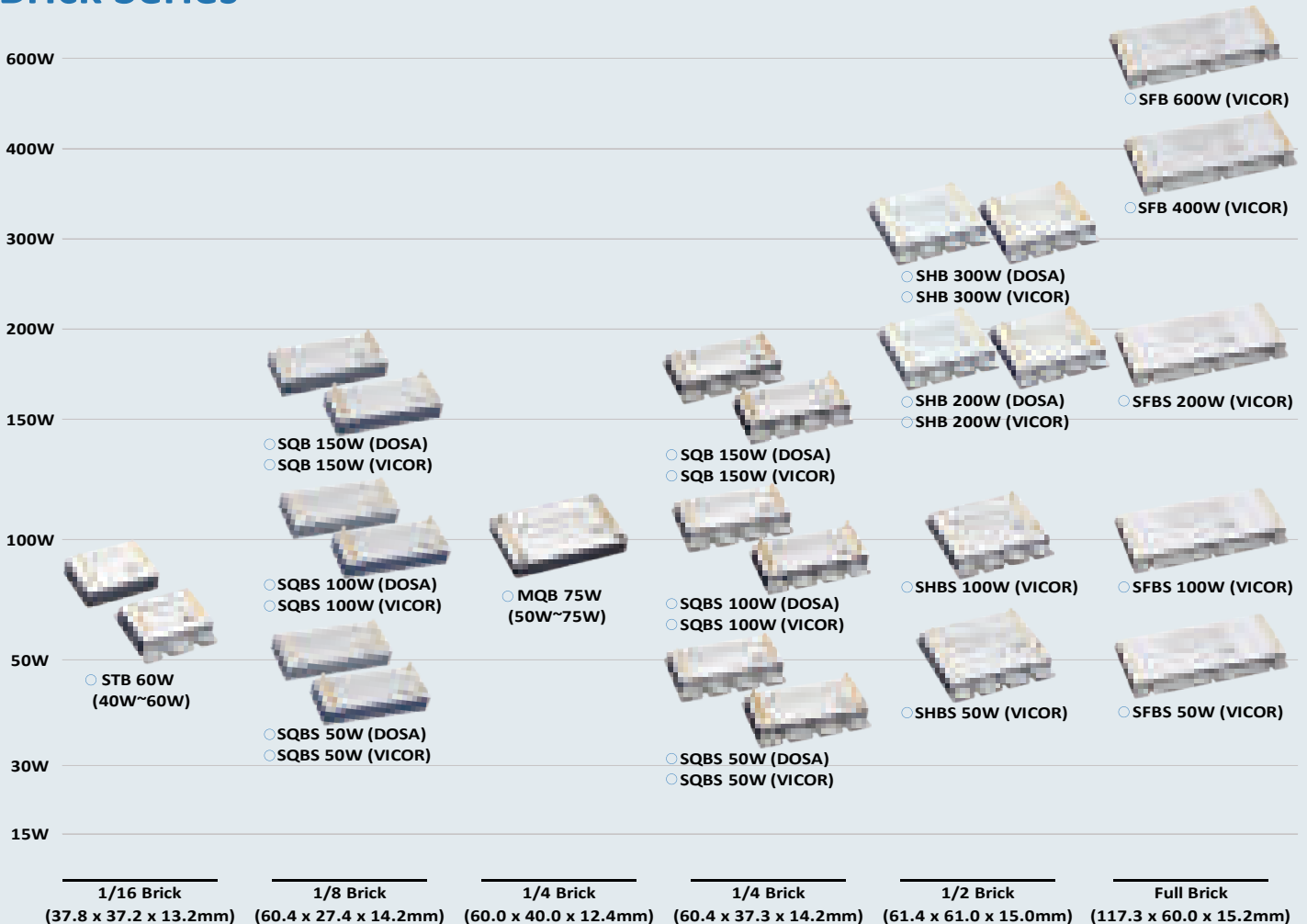


Infrastructure Application Product Line

DC/DC Power Module for POWERGOOD Infrastructure Applications – Encapsulated Series



DC/DC Power Module for POWERGOOD Infrastructure Applications – Brick Series



AC/DC Infrastructure Application Product Introduction

AC/DC Encapsulated Series Product Feature

- Built in EMI filter meets EN55032 Class B without external components
- Maximum power density ratio
- Provides 2 times peak load capacity
- Isolation voltage up to 4000 VAC
- Easy Hold-up time extension
- Leakage current 100µA
- Output voltage trim range of -10%, +10%
- Fully protected: OCP / OVP / OTP / SCP
- Packaged for PCB plug-in
- Design conforms to the standard EN55032 & CIRSS/ FCC class B
- Design conforms to the standard IEC62368 EN62386 UL62368-1-1-1
- Design conforms to the standard iec60601-1 EN60601 UL60601-1-1
- Design conforms to the standard IEC60335 EN60335 UL60335-1-1-1

ACE25 Series

25W / 2" x 1"

Input Voltage: 90-264 VAC

Output Voltage:
5, 12, 15, 24, 36, 48 VDC

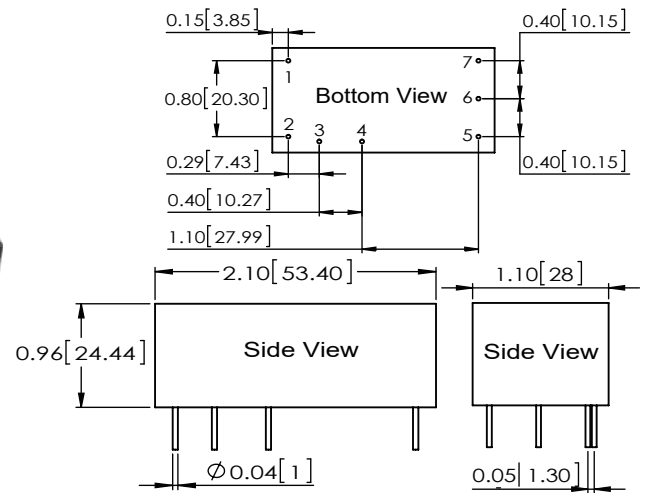
Output Power: 25W

Operating Case Temperature:
-40°C ~ 80°C

High Efficiency up to 88%

Package: Plastic Case

Size: 2.10" x 1.10" x 0.96"
53.4 x 28.0 x 24.4 mm



ACE60 Series

60W / 2" x 2"

Input Voltage: 90-264 VAC

Output Voltage:
5, 12, 15, 24, 36, 48 VDC

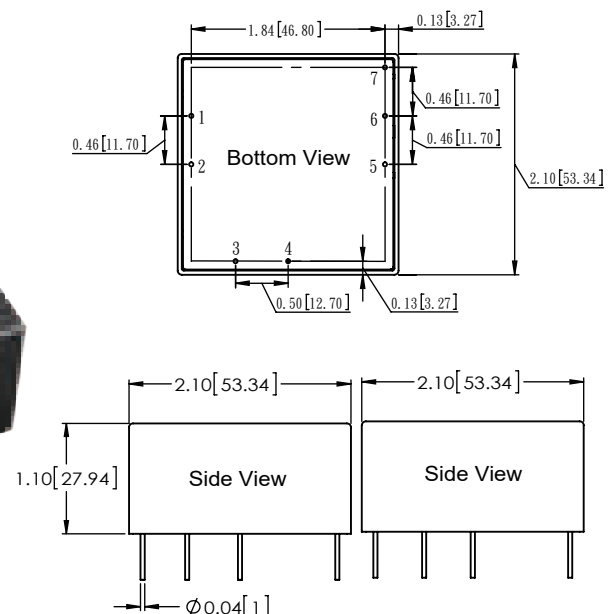
Output Power: 60W

Operating Case Temperature:
-40°C ~ 80°C

High Efficiency up to 90%

Package: Plastic Case

Size: 2.10" x 2.10" x 1.10"
53.3 x 53.3 x 27.9 mm



AC/DC Infrastructure Application Product Introduction

AC/DC Brick Series Product Feature

- Ultra-thin design (0.5 inch) for brick type, with the world's largest power density ratio.
- No life-span constrained Ceramic Capacitor inside
- Built-in active power factor correction (PFC)
- Output voltage trim range of -5%, +5%
- Fully protected: OCP / OVP / OTP / SCP
- No aluminum and tantalum electrolytic capacitor inside for high reliability
- Isolation voltage up to 3000 VAC
- Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)

ACQ100 Series

100W / 1/4 Brick

Input Voltage: 90-264 VAC

Output Voltage: 5, 12, 24, 28, 36, 48 VDC

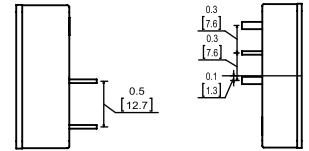
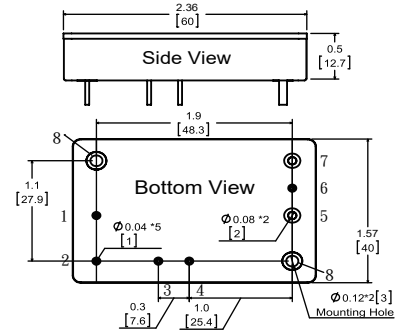
Output Power: 100W

Operating Case Temperature: -40°C ~ 100°C

High Efficiency up to 91%

Package: Aluminum base with plastic case

Size: 2.36" x 1.57" x 0.50"
60.0 x 40.0 x 12.7mm



ACH250 Series

250W / 1/2 Brick

Input Voltage: 90-264 VAC

Output Voltage: 12, 24, 28, 36, 48 VDC

Output Power: 250W

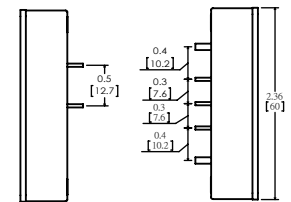
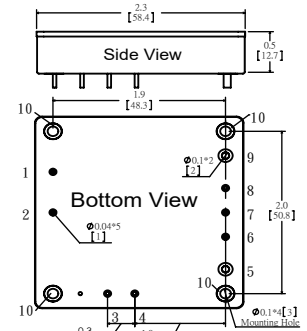
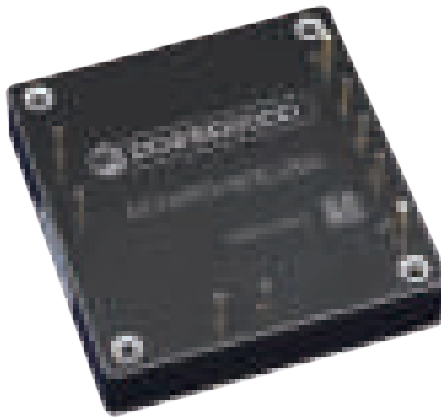
Operating Case Temperature: -40°C ~ 100°C

High Efficiency up to 91%

Provide remote on/off function (optional)

Package: Aluminum base with plastic case

Size: 2.36" x 2.30" x 0.50"
60.0 x 58.4 x 12.7mm



ACF700 Series

700W / Full Brick

Input Voltage: 90-264 VAC

Output Voltage: 12, 24, 28, 36, 48 VDC

Output Power: 700W

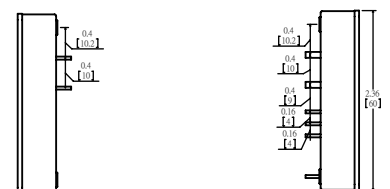
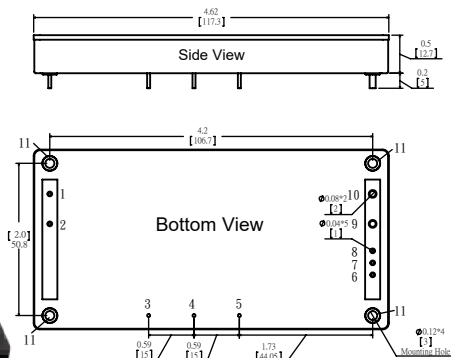
Operating Case Temperature: -40°C ~ 100°C

High Efficiency up to 90%

Package: Aluminum base with plastic case

Provide parallel function

Size: 4.62" x 2.36" x 0.50"
117.3 x 60.0 x 12.7mm



AC/DC Infrastructure Application Product Introduction

AC/DC PSU Series Product Feature

- Built-in EMI filter meets EN55032 Class B without external components
- Built-in active power factor correction (PFC)
- Isolation voltage up to 3000 VAC
- Output voltage trim range of -5%, +5%
- Fully protected: OCP / OVP / OTP / SCP
- Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)
- Open Frame & Aluminum case is optional
- Built-in heat sink
- Terminal blocks for easy wiring and reliable operation

ACO100 Series

100W / PSU

Input Voltage: 90-264 VAC

Output Voltage: 5, 12, 24, 28, 36, 48 VDC

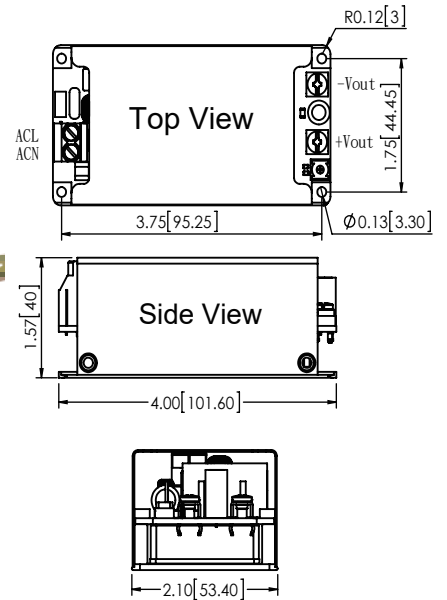
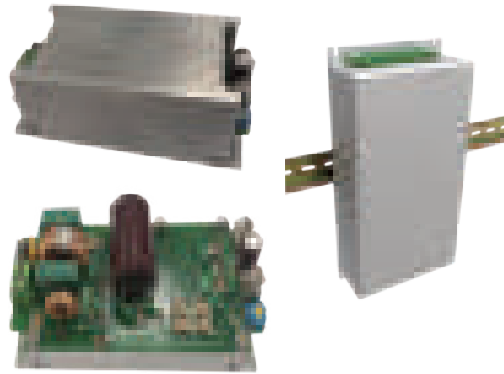
Output Power: 100W

Operating Case Temperature: -40°C ~ 100°C

High Efficiency up to 91%

Package: Open Frame & Aluminum Case & Din Rail

Size: 4.00" x 2.06" x 1.57"
101.6 x 52.4 x 40.0 mm



ACO250 Series

250W / PSU

Input Voltage: 90-264 VAC

Output Voltage: 12, 24, 28, 36, 48 VDC

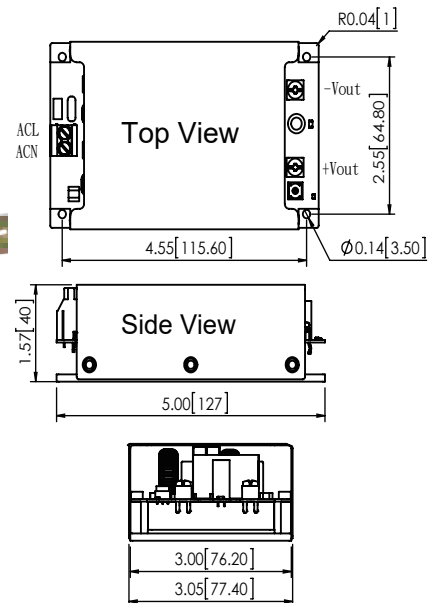
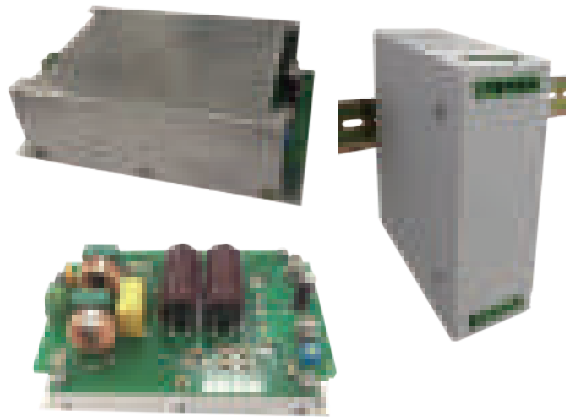
Output Power: 250W

Operating Case Temperature: -40°C ~ 100°C

High Efficiency up to 91%

Package: Open Frame & Aluminum Case & Din Rail

Size: 5.00" x 3.03" x 1.57"
127.0 x 77.0 x 40.0 mm



ACO700 Series

700W / PSU

Input Voltage: 90-264 VAC

Output Voltage: 12, 24, 28, 36, 48 VDC

Output Power: 700W

Operating Case Temperature: -40°C ~ 100°C

High Efficiency up to 90%

Package: Open Frame & Aluminum Case & Din Rail



(Coming Soon)

DC/DC Infrastructure Application Product Introduction

DC/DC U Series Product Feature

- Isolated regulated DC DC converter or unregulated available
- -40°C to +105°C operation without power derating (depending on model)
- Continuous short circuit protection
- Input to output isolation 3K ~ 4K VDC (depending on the model, 6K VDC is optional)
- Capacitive loads up to 2,200µF

U1 Series

1W / SMD · SIP7

Input Voltage: 4.5-5.5, 10.8-13.2, 21.6-26.4 VDC

Output Voltage: 5 VDC

Output Power: 1W

Operating Case Temperature: -40°C ~ 105°C

High Efficiency up to 81%

Package: Plastic Case

Size: 0.71" x 0.35" x 0.30"
18.0 x 9.0 x 6.6 mm



U3 Series

3W / SIP7

2:1 / 4:1 Wide Input Voltage: 4.5-5.5, 9-36, 18-75 VDC

Output Voltage: 5, 12, 24 VDC

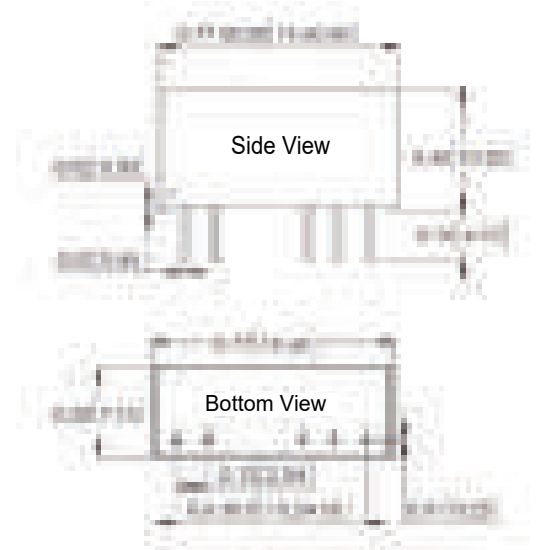
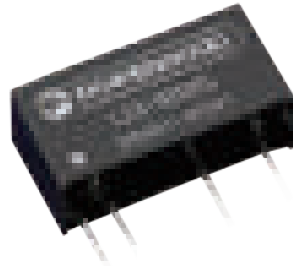
Output Power: 3W

Operating Case Temperature: -40°C ~ 85°C

High Efficiency up to 82%

Package: Plastic Case

Size: 0.77" x 0.28" x 0.40"
19.5 x 7.1 x 10.2 mm



U6 Series

6W / SIP8

4:1 Wide Input Voltage: 9-36, 18-75 VDC

Output Voltage: 5, 12, 24 VDC

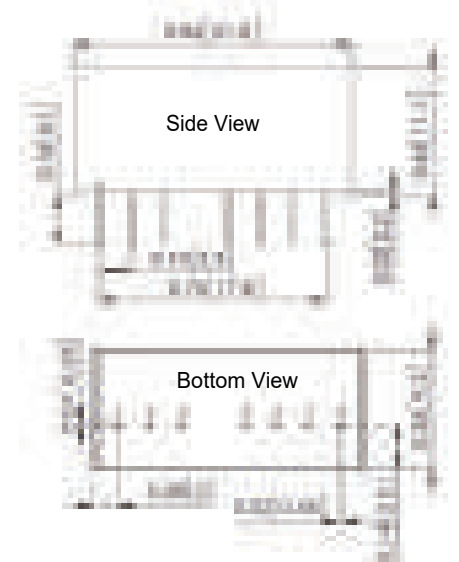
Output Power: 6W

Operating Case Temperature: -40°C ~ 100°C

High Efficiency up to 85%

Package: Plastic Case

Size: 0.86" x 0.36" x 0.44"
21.8 x 9.2 x 11.1 mm



DC/DC Infrastructure Application Product Introduction

DC/DC Encapsulated Series - E Product Feature

- Single / Dual Outputs
- Built-in EMI filter meets EN55032 Class B without external components
- Saving up to 20% of the circuit board space
- Wide Operating Temperature -45°C ~ +115°C (Optional: -55°C ~ +125°C)

- Isolation voltage up to 2000 VDC
- No life-span constrained Ceramic Capacitor inside
- Industrial standard pins, metal shell design, easy to heat dissipation and EMI
- Output voltage trim range of -10%, +10%
- Fully protected: OCP / OVP / OTP / SCP

ESB Series

15W~30W / 1.6" x 1"

2:1 / 4:1 Wide Input Voltage: 9-18, 9-36, 18-36, 18-75, 36-75 VDC

Output Voltage: 3.3, 5, 12, 15, 24, ±5, ±12, ±15, ±24 VDC

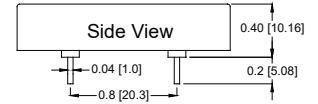
Output Power: 15W ~ 30W

Operating Case Temperature: -45°C ~ 115°C

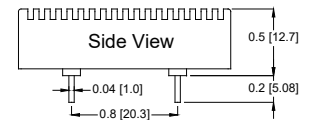
High Efficiency up to 91%

Package: Flat & Heat sink embedded

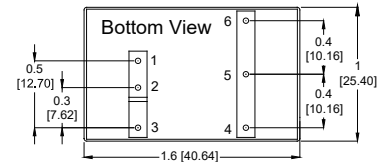
Size: 1.60" x 1.00" x 0.40" (0.50")
40.6 x 25.4 x 10.2 (12.7)mm



ESB Series Flat



ESB Series Heat Sink Embedded



ESB Series Pinout

ESC Series

20W~50W / 2" x 1.2"

2:1 / 4:1 Wide Input Voltage: 9-18, 9-36, 18-36, 18-75, 36-75, 40-160 VDC

Output Voltage: 3.3, 5, 12, 15, 24, ±12, ±15, ±24 VDC

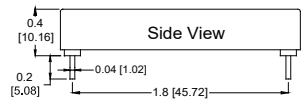
Output Power: 20W ~ 50W

Operating Case Temperature: -45°C ~ 115°C

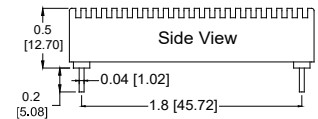
High Efficiency up to 90%

Package: Flat & Heat sink embedded

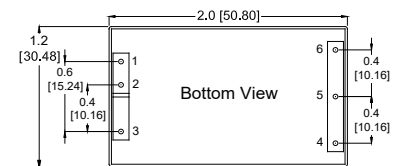
Size: 2.00" x 1.20" x 0.40" (0.50")
50.8 x 30.5 x 10.2 (12.7) mm



ESC Series Flat



ESC Series Heat Sink Embedded



ESC Series Pinout

ESC Series

20W~50W / 2" x 1.6"

4:1 Wide Input Voltage: 9-18, 9-36, 18-36, 18-75, 36-75, 40-160 VDC

Output Voltage: 3.3, 5, 12, 15, 24, ±12, ±15, ±24 VDC

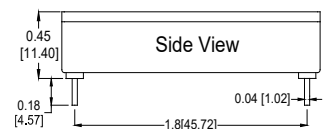
Output Power: 20W ~ 50W

Operating Case Temperature: -45°C ~ 115°C

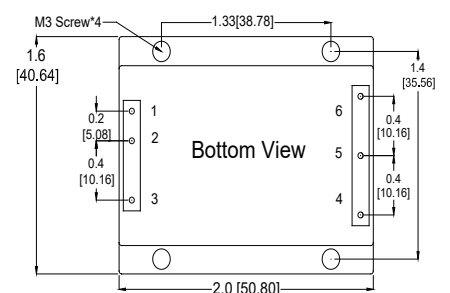
High Efficiency up to 90%

Package: 6 sides aluminum case with flange

Size: 2.00" x 1.60" x 0.45"
50.8 x 40.6 x 11.4 mm



ESC Series Baseplate (with Flange)



ESC Series Pinout

DC/DC Infrastructure Application Product Introduction

DC/DC Encapsulated Series - N Product Feature

- Single / Dual Outputs
- Built-in EMI filter meets EN55032 Class A without external components (Depends on different model)
- Isolation voltage up to 2000 VDC
- No life-span constrained Ceramic Capacitor inside
- Industrial standard pins, metal shell design, easy to heat dissipation and EMI
- Maximum power density: up to 60 watts
- Output voltage trim range of -10%, +10%
- Fully protected: OCP / OVP / OTP / UVLO

ESAN Series

7W~15W / DIP24、SMD24

2:1 / 4:1 Wide Input Voltage: 9-36, 18-36, 18-75, 36-75, 40-160 VDC

Output Voltage:

3.3, 5, 12, 15, ±5, ±12, ±15 VDC

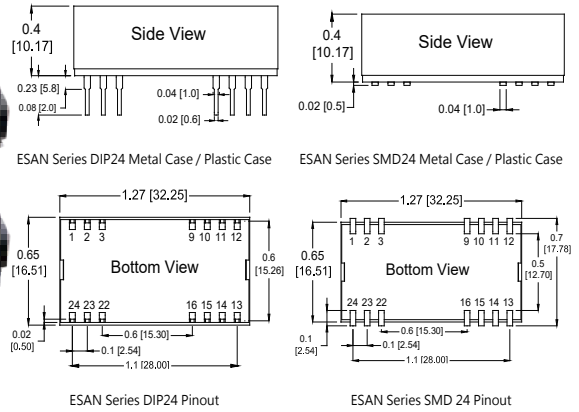
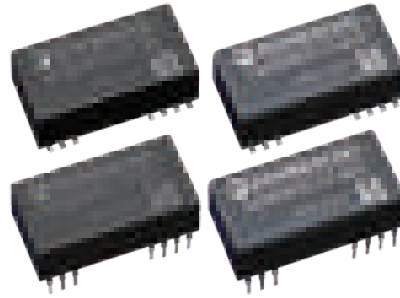
Output Power: 7W ~ 15W

Operating Case Temperature:
-45°C ~ 85°C

High Efficiency up to 89%

Package: Metal Case & Plastic Case

Size: 1.27" x 0.65" x 0.40"
32.3 x 16.5 x 10.2mm



ESBN Series

10W~20W / 1" x 1"

2:1 / 4:1 Wide Input Voltage: 9-36, 18-36, 18-75, 36-75, 40-160 VDC

Output Voltage:

3.3, 5, 12, 15, ±5, ±12, ±15 VDC

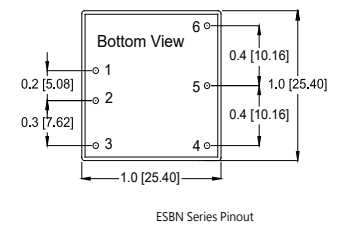
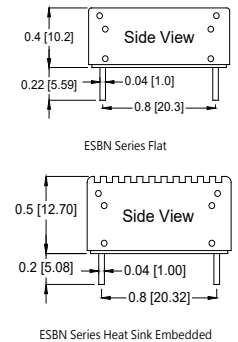
Output Power: 10W ~ 20W

Operating Case Temperature:
-45°C ~ 115°C

High Efficiency up to 90%

Package: Flat & Heat sink embedded

Size: 1.00" x 1.00" x 0.40" (0.50")
25.4 x 25.4 x 10.2 (12.7)mm



ESCN Series

30W~60W / 2" x 1"

2:1 / 4:1 Wide Input Voltage: 9-36, 18-36, 18-75, 36-75, 40-160 VDC

Output Voltage: 3.3, 5, 12, 15, 24, ±12, ±15, ±24 VDC

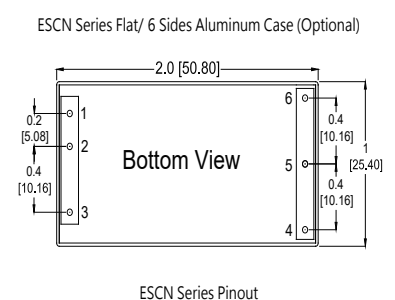
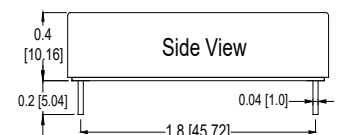
Output Power: 30W ~ 60W

Operating Case Temperature:
-45°C ~ 115°C

High Efficiency up to 90%

Package: Flat & 6-sided metal case is optional

Size: 2.00" x 1.00" x 0.40"
50.8 x 25.4 x 10.2mm



DC/DC Infrastructure Application Product Introduction

DC/DC Encapsulated Series - S Product Feature

- Single / Dual Outputs
- Built in EMI filter meets EN55032 Class A without external components (Depends on different model)
- Isolation voltage up to 2000 VDC
- No life-span constrained Ceramic Capacitor inside
- Industrial standard pins, metal shell design, easy to heat dissipation and EMI
- Fully SMT manufacturing, standard product, with good lead time, cost-effective
- Provide remote control of output voltage
- Output voltage trim range of -10%, +10%
- Fully protected: OCP / OVP / OTP / UVLO

ESAS Series

15W / DIP24、SMD24

4:1 Wide Input Voltage:
9-36, 18-75, 40-160 VDC

Output Voltage:
5, 12, 15, ±12, ±15 VDC

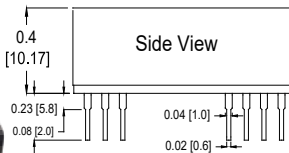
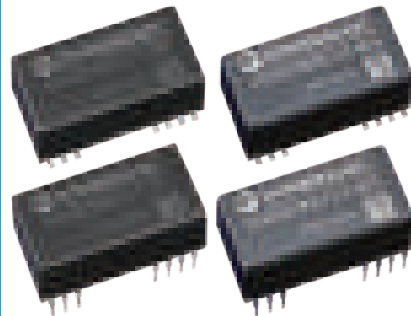
Output Power: 15W

Operating Case Temperature:
-40°C ~ 100°C

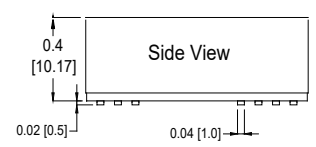
High Efficiency up to 88%

Package: Metal Case &
Plastic Case

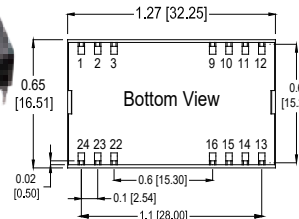
Size: 1.27" x 0.65" x 0.40"
32.3 x 16.5 x 10.2mm



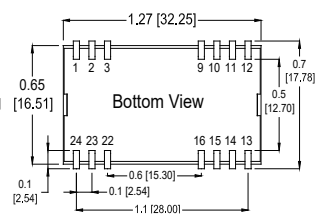
ESAS Series DIP24 Metal Case / Plastic Case



ESAS Series SMD24 Metal Case / Plastic Case



ESAS Series DIP24 Pinout



ESAS Series SMD 24 Pinout

ESBS Series

30W / 1" x 1"

4:1 Wide Input Voltage:
9-36, 18-75, 40-160 VDC

Output Voltage:
5, 12, 15, ±12, ±15 VDC

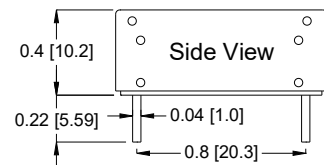
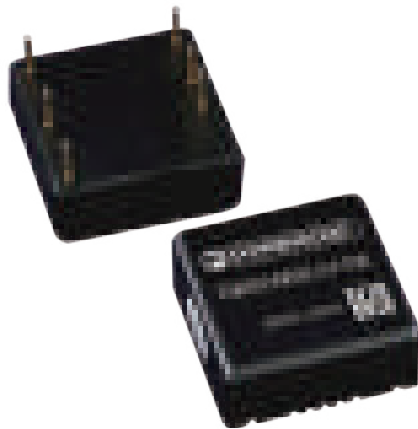
Output Power: 30W

Operating Case Temperature:
-40°C ~ 100°C

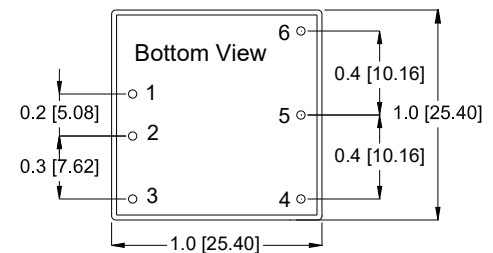
High Efficiency up to 88%

Package: Flat

Size: 1.00" x 1.00" x 0.40"
25.4 x 25.4 x 10.2mm



ESBS Series Flat



ESBS Series Pinout

ESCS Series

50W / 2" x 1"

4:1 Wide Input Voltage:
9-36, 18-75, 40-180 VDC

Output Voltage:
5, 12, 15, ±12, ±15 VDC

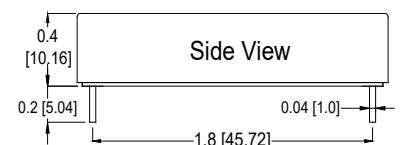
Output Power: 50W

Operating Case Temperature:
-40°C ~ 100°C

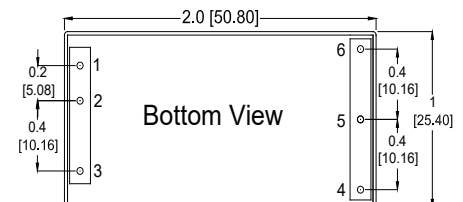
High Efficiency up to 89%

Package: Flat

Size: 2.00" x 1.00" x 0.40"
50.8 x 25.4 x 10.2mm



ESCS Series Flat



ESCS Series Pinout

DC/DC Infrastructure Application Product Introduction

DC/DC Brick Series – B Product Feature

- 2:1 / 4:1 / 8:1 / 12:1 Ultra-wide input voltage
- Single / Dual / Multi Outputs
- Built-in EMI filter
- Wide operating temperature -45°C ~ +105°C (Optional: -55°C ~ +125°C)
- Isolation voltage up to 2250 VDC
- No life-span constrained Ceramic Capacitor inside
- Provide remote control of output voltage
- Fully protected: OCP / OVP / OTP / UVLO
- The DOSA and VICOR pins are optional and can replace directly without any other additional components.
- Output voltage trim range of -10%, +10%
- Input voltage range up to 110 (40-180) Vin (continuous), with stronger anti input surge ability and higher reliability.

MQB Series

50W, 75W / 1/4 Brick-DOSA pinout
Ultra-Wide Input · Multi Output

8:1 / 12:1 Ultra-Wide Input Voltage:
9-75, 14-154 VDC

Output Voltage:
5, 12, 15, 24, ±12, ±15, ±24 VDC

Output Power: 50W · 75W

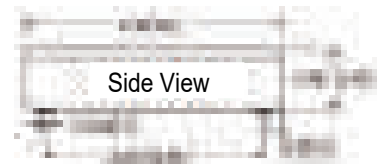
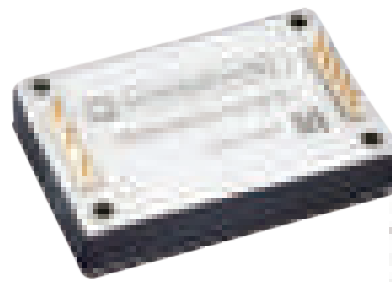
Operating Case Temperature:
-45°C ~ 105°C

High Efficiency up to 90%

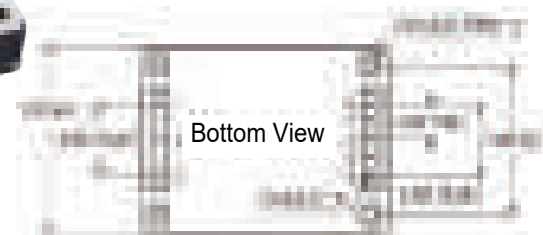
Package: Flat

Size: 2.36" x 1.57" x 0.49"

60.0 x 40.0 x 12.4mm



MQB Series Flat



MQB Series DOSA Pinout

STB Series

50W / 1/16 Brick with-DOSA pinout

2:1 / 4:1 Wide Input Voltage:
9-36, 18-36, 18-75, 36-75 VDC

Output Voltage: 3.3, 5, 12, 15, 24 VDC

Output Power: 50W

Operating Case Temperature:
-45°C ~ 105°C

High Efficiency up to 91%

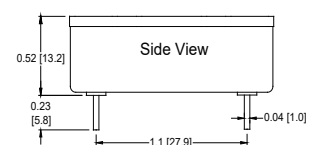
Package: 6 sides aluminum case
with flange & Flat

Size: 1.49" x 1.46" x 0.52"

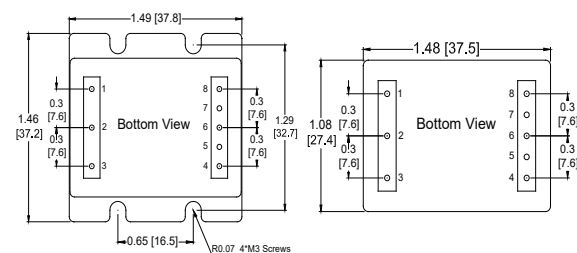
37.8 x 37.2 x 13.2mm (With Flange)

Size: 1.48" x 1.08" x 0.52"

37.5 x 27.4 x 13.2mm (Flat)



STB Series 6 sides aluminum case with flange / Flat



STB Series 6 sides aluminum case with flange
DOSA Pinout

STB Series Flat DOSA Pinout

DC/DC Infrastructure Application Product Introduction

DC/DC Brick Series – B Product Feature

SQB Series

100W~150W / 1/8、1/4 Brick with DOSA、VICOR pinout

2:1 / 4:1 Wide Input Voltage:
9-36, 18-36, 18-75, 40-180,
180-425 VDC

Output Voltage: 5, 12, 24, 28, 48 VDC

Output Power: 100W ~ 150W

Operating Case Temperature:
-45°C ~ 105°C

High Efficiency up to 92%

Package: 6 sides aluminum case
(1/8 Brick Flat &
1/4 Brick with flange)

Size:

1/8 Brick - 2.38" x 1.08" x 0.56"
60.4 x 27.4 x 14.2 mm

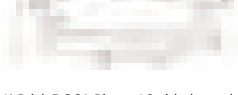
1/4 Brick - 2.38" x 1.47" x 0.56"
60.4 x 37.3 x 14.2 mm



1/8 Brick & 1/4 Brick DOSA & Vicor Pinout



1/8 Brick DOSA Pinout/ 6-sided metal case 1/8 Brick VICOR Pinout/ 6-sided metal case



1/4 Brick DOSA Pinout/ 6-sided metal case 1/4 Brick VICOR Pinout/ 6-sided metal case

SHB Series

200W~300W / 1/2 Brick with DOSA、VICOR pinout

2:1 / 4:1 Wide Input Voltage:
9-36, 18-36, 18-75, 40-180,
180-425 VDC

Output Voltage: 5, 12, 24, 28, 48 VDC

Output Power: 200W ~ 300W

Operating Case Temperature:
-45°C ~ 105°C

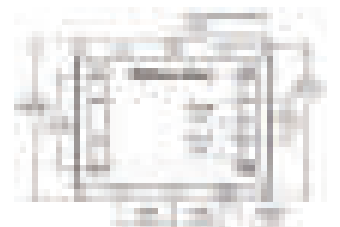
High Efficiency up to 92%

Package: 6 sides aluminum case
with flange

Size: 2.42" x 2.40" x 0.59"
61.4 x 61.0 x 15.0 mm



1/2 Brick DOSA & Vicor Pinout



1/2 Brick DOSA Pinout/ 6-sided metal case 1/2 Brick VICOR Pinout/ 6-sided metal case

SFB Series

400W~600W / Full Brick with VICOR pinout

2:1 / 4:1 Wide Input Voltage:
9-36, 18-36, 18-75, 40-180,
180-425 VDC

Output Voltage: 12, 24, 28, 48 VDC

Output Power: 400W ~ 600W

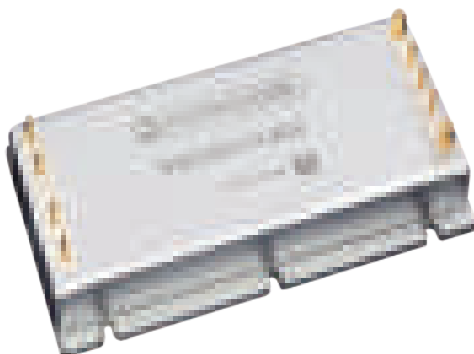
Operating Case Temperature:
-45°C ~ 105°C

High Efficiency up to 91%

Package: 6 sides aluminum case
with flange

Provide parallel function

Size: 4.62" x 2.40" x 0.59"
117.3 x 61.0 x 15.0mm



Full Brick Vicor Pinout



Full Brick Vicor Pinout/ 6-sided metal case

DC/DC Infrastructure Application Product Introduction

DC/DC Brick Series – S Product Feature

- Built-in EMI filter
- Isolation voltage up to 2250 VDC
- No life-span constrained Ceramic Capacitor inside
- Fully SMT manufacturing, Standard product, with good lead time, cost-effective
- Output voltage trim range of -10%, +10%
- Fully protected: OCP / OVP / OTP / UVLO
- The DOSA and VICOR pins are optional, can replace directly without any other additional components.
- Input voltage range up to 110 (40-180) Vin (continuous), with stronger anti input surge ability and higher reliability. Input voltage range up to 300 (180-425) Vin, can be compatible with major brands input voltage range.

SQBS Series

50W~100W / 1/8 、 1/4 Brick with DOSA 、VICOR pinout

2:1 / 4:1 Wide Input Voltage:
9-36, 18-75, 40-180, 180-425 VDC

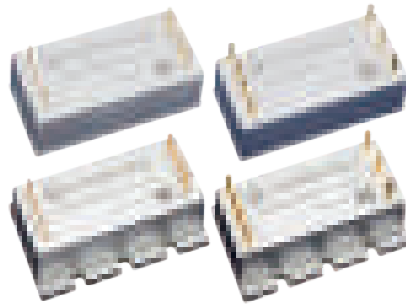
Output Voltage: 5, 12, 24, 28, 48 VDC
Output Power: 50~100W

Operating Case Temperature:
-40°C ~ 100°C

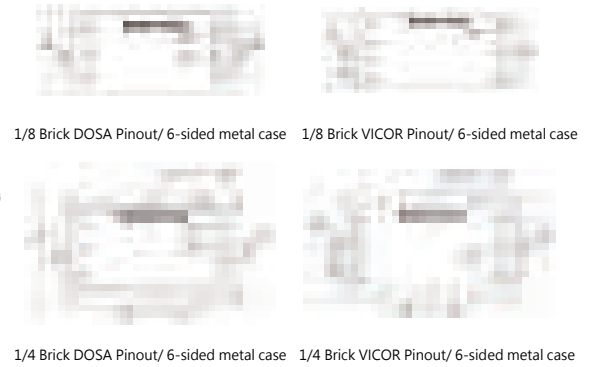
High Efficiency up to 89%

Package: 6 sides aluminum case
(1/8 Brick Flat &
1/4 Brick with flange)

Size:
1/8 Brick - 2.38" x 1.08" x 0.56"
60.4 x 27.4 x 14.2 mm
1/4 Brick - 2.38" x 1.47" x 0.56"
60.4 x 37.3 x 14.2 mm



1/8 Brick & 1/4 Brick DOSA & Vicor Pinout



1/8 Brick DOSA Pinout/ 6-sided metal case 1/8 Brick VICOR Pinout/ 6-sided metal case
1/4 Brick DOSA Pinout/ 6-sided metal case 1/4 Brick VICOR Pinout/ 6-sided metal case

SHBS Series

50W~100W / 1/2 Brick with DOSA 、VICOR pinout

2:1 / 4:1 Wide Input Voltage:
9-36, 18-36, 18-75, 40-180,
180-425 VDC

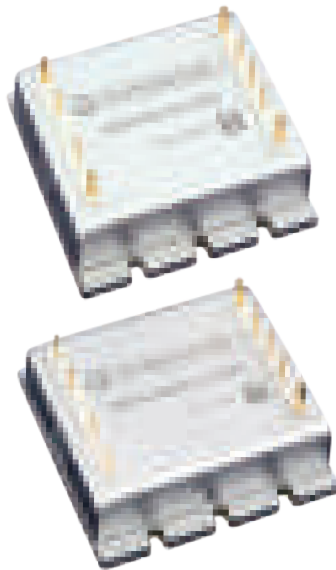
Output Voltage: 5, 12, 24, 28, 48 VDC
Output Power: 50W ~ 100W

Operating Case Temperature:
-40°C ~ 100°C

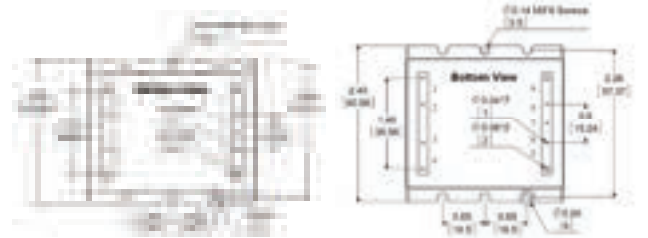
High Efficiency up to 89%

Package: 6 sides aluminum case
with flange

Size: 2.42" x 2.40" x 0.59"
61.4 x 61.0 x 15.0mm



1/2 Brick DOSA & Vicor Pinout



1/2 Brick DOSA Pinout/ 6-sided metal case 1/2 Brick VICOR Pinout/ 6-sided metal case

SFBS Series

50W~100W / Full Brick with VICOR pinout

2:1 / 4:1 Wide Input Voltage:
9-36, 18-36, 18-75, 40-180,
180-425 VDC

Output Voltage: 5, 12, 24, 28, 48 VDC

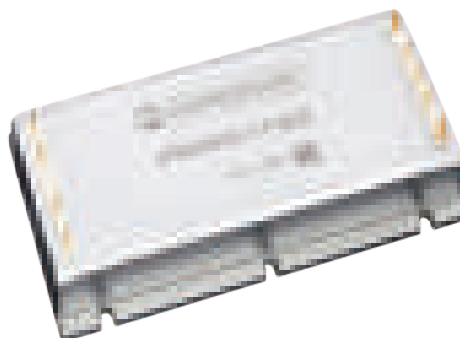
Output Power: 50W ~ 100W

Operating Case Temperature:
-40°C ~ 100°C

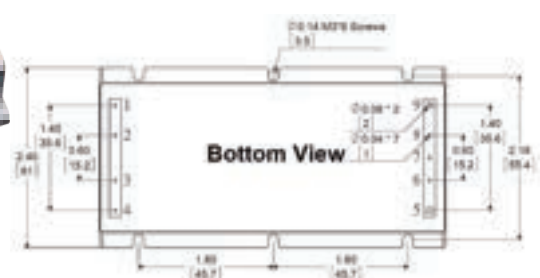
High Efficiency up to 89%

Package: 6 sides aluminum case
with flange

Size: 4.62" x 2.40" x 0.59"
117.3 x 61.0 x 15.0mm



Full Brick Vicor Pinout



Full Brick Vicor Pinout/ 6-sided metal case



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