



**Wibbow**  
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# Brick DC-DC Converter (2nd Gen) Brochure



High power



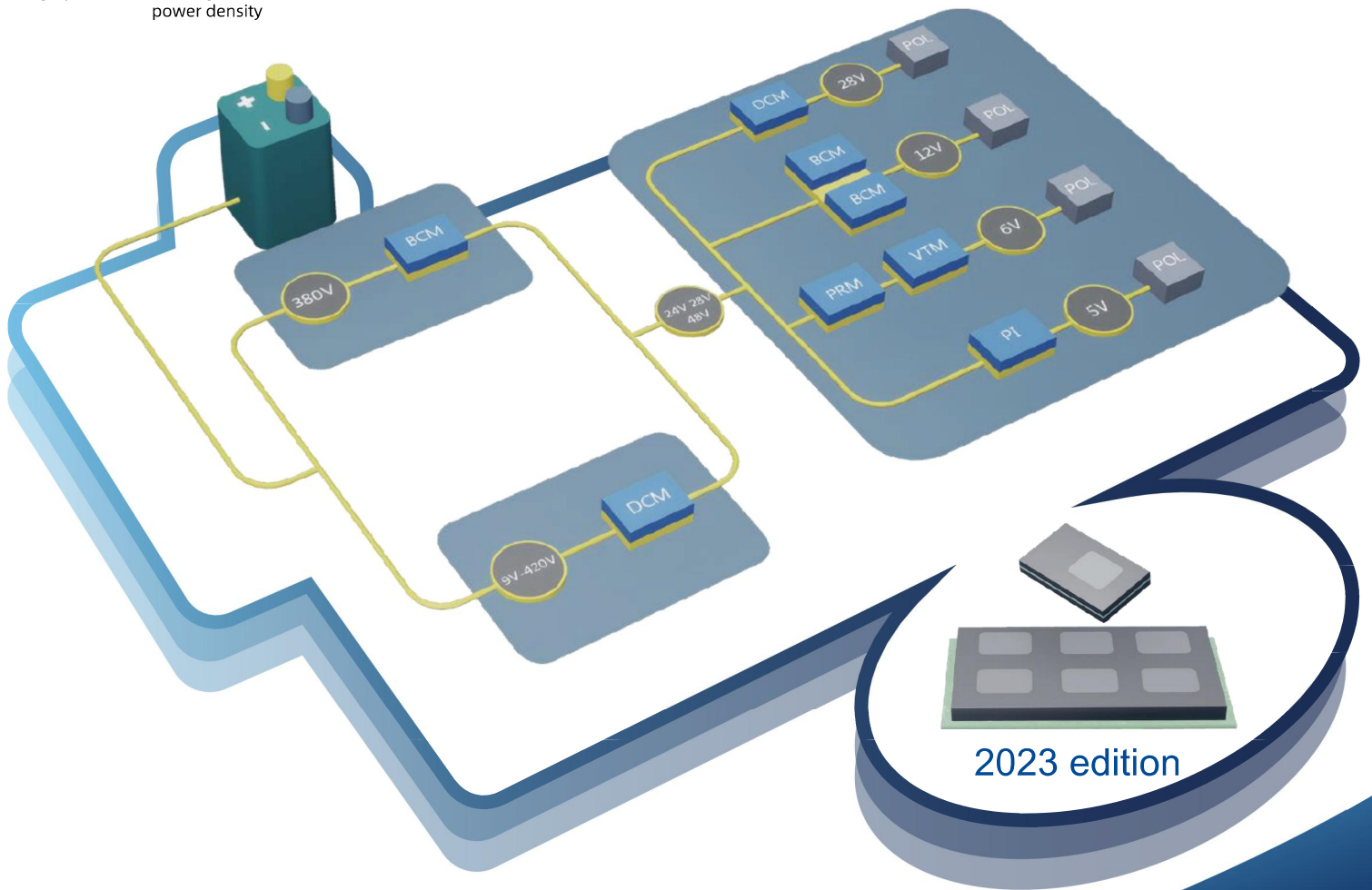
High power density



Low EMI



Parallel





## Introduction to Brick DC-DC Converters (2nd Gen)

With high efficiency, high reliability and parallelling, the Brick DC-DC Converter is based on the patented PFM control circuit topology and embedding with silicone rubber sealed by metal base and plastic cavity, providing high-efficiency and high reliability DC/DC conversion output. It is completely compatible with the same series from Vicor and supports mixed insertion without changing any periphery parameters for replacement, ensuring easy use and providing about 5% higher conversion efficiency than the same series of Vicor; and the series also have comprehensive protections (against input over-voltage and under-voltage, output over-voltage, over-current, short circuit and over-temperature), enable control and fault monitoring functions. The product design and manufacture comply with the General Specification for Microcircuit Modules (SJ20668-1998), and are ideally for onboard, missile-borne, vehicle-mounted, ship-based electronic systems, TR components and other highly reliable electronic systems.

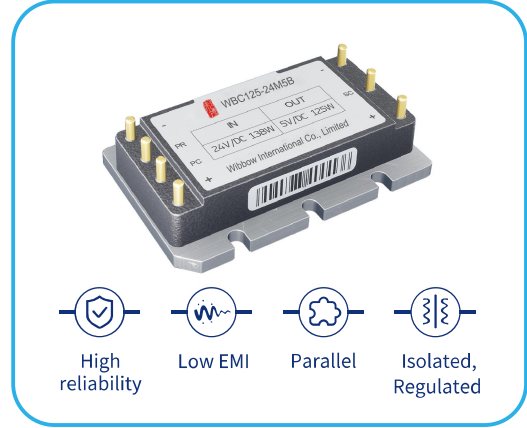
| Product series | Input voltage range | Output voltage range | Output power | Parallel expansion | Electrical characteristics | Package size          | Page |
|----------------|---------------------|----------------------|--------------|--------------------|----------------------------|-----------------------|------|
| WBC24          | 18~40V              | 3.3V~48V             | 75~150W      | Supported          | Isolated, Regulated        | 57.9 x 36.8 x 12.7mm  | 3    |
| WBB24          | 18~40V              | 3.3V~48V             | 150~350W     | Supported          | Isolated, Regulated        | 57.9 x 55.9 x 12.7mm  | 4    |
| WBA24          | 18~40V              | 3.3V~48V             | 300~500W     | Supported          | Isolated, Regulated        | 116.8 x 55.9 x 12.7mm | 5    |
| WBC300         | 180~375V            | 3.3V~48V             | 75~150W      | Supported          | Isolated, Regulated        | 57.9 x 36.8 x 12.7mm  | 6    |
| WBB300         | 180~375V            | 3.3V~48V             | 150~250W     | Supported          | Isolated, Regulated        | 57.9 x 55.9 x 12.7mm  | 7    |
| WBA300         | 180~375V            | 3.3V~48V             | 264~600W     | Supported          | Isolated, Regulated        | 116.8 x 55.9 x 12.7mm | 8    |
| WBC375         | 250~425V            | 3.3V~48V             | 75~150W      | Supported          | Isolated, Regulated        | 57.9 x 36.8 x 12.7mm  | 9    |
| WBB375         | 250~425V            | 3.3V~48V             | 150~300W     | Supported          | Isolated, Regulated        | 57.9 x 55.9 x 12.7mm  | 10   |
| WBA375         | 250~425V            | 3.3V~48V             | 264~600W     | Supported          | Isolated, Regulated        | 116.8 x 55.9 x 12.7mm | 11   |
| WBM-FIAM       | 180~375V            | 180V~375V            | 600W         | Not supported      | Input filter               | 57.9 x 55.9 x 12.7mm  | 12   |
| WB $\mu$ RAM   | 180~375V            | 30-30V               | 60W~900W     | Supported          | Ripple attenuation         | 57.9 x 36.8 x 12.7mm  | 13   |
| WBVI-ARM       | 180~264Vac          | 200VDC~375VDC        | 750W         | Not supported      | Rectifier filter           | 57.9 x 36.8 x 12.7mm  | 14   |



## WBC24 Series Quarter Brick DC-DC Converter

### Features

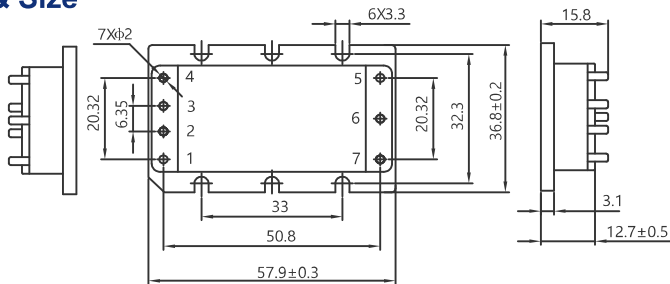
- Isolated, Regulated
- Pin-to-Pin compatible with Vicor V24C series
- Input surge resistance: 50V/100ms
- Output adjustment range: 75% ~ 110%
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion (ORING not required)
- 3000Vac isolation
- Operating temperature: -55°C~100°C (non-derating)
- Quarter brick standard package: 57.9 × 36.8 × 12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|----------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBC75-24M3V3B  | 18~40V              | 3.3V                 | 75%~110%         | 22.72A         | 75W          | 88.5%      | Available            |
| WBC125-24M5B   | 18~40V              | 5V                   | 75%~110%         | 25A            | 125W         | 90.5%      | Available            |
| WBC125-24M8B   | 18~40V              | 8V                   | 75%~110%         | 15.7A          | 125W         | 91%        | Available            |
| WBC150-24M12B  | 18~40V              | 12V                  | 75%~110%         | 12.5A          | 150W         | 91%        | Available            |
| WBC150-24M15B  | 18~40V              | 15V                  | 75%~110%         | 10A            | 150W         | 92%        | Available            |
| WBC150-24M24B  | 18~40V              | 24V                  | 75%~110%         | 6.3A           | 150W         | 88.5%      | Available            |
| WBC150-24M28B  | 18~40V              | 28V                  | 75%~110%         | 5.4A           | 150W         | 89.5%      | Available            |
| WBC150-24M36B  | 18~40V              | 36V                  | 75%~110%         | 4.17A          | 150W         | 88%        | Available            |
| WBC150-24M48B  | 18~40V              | 48V                  | 75%~110%         | 3.1A           | 150W         | 89.5%      | Available            |

### Shape & Size



| Pin No. | Label | Function                        |
|---------|-------|---------------------------------|
| 1       | +IN   | Positive input power terminal   |
| 2       | PC    | Primary side control            |
| 3       | PR    | Parallel terminal               |
| 4       | -IN   | Negative input power terminal   |
| 5       | -OUT  | Negative output power terminal  |
| 6       | SC    | Secondary side control terminal |
| 7       | +OUT  | Positive output power terminal  |

### Part Numbering

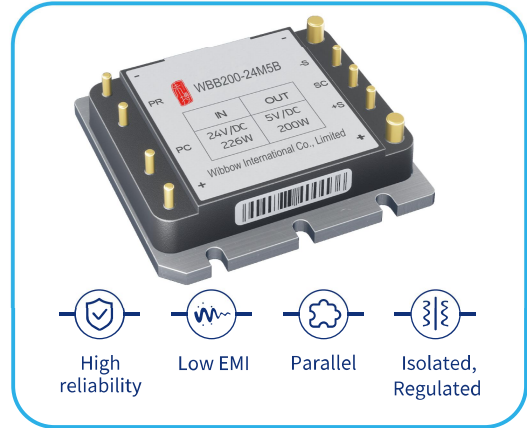
| WB         | C   | 75                                | - | 24                  | M   | 12  | B                   |
|------------|---|-----------------------------------|---|---------------------|---|---|---------------------|
| Brand Name | Package Type                                  | Output power                      | - | Input voltage range | Temperature Grade   | Output voltage range  | Version             |
| Wibbow     | A: Full-brick<br>B: 1/2 brick<br>C: 1/4 brick | 75: 75W<br>125: 125W<br>150: 150W |   | 24: 18~40V          | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>5: 5V<br>8: 8V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | B: Standard version |



## WBB24 Series Half-brick DC-DC Converter

### Features

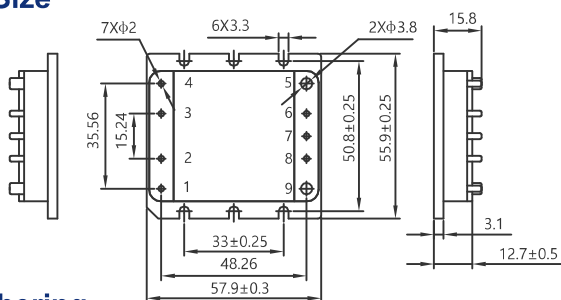
- Isolated, Regulated
- Pin-to-Pin compatible with Vicor V24B series
- Input surge resistance: 50V/100ms
- Output adjustment range: 75% ~ 110%
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion (ORING not required)
- 3000Vac isolation
- Operating temperature: -55°C~100°C (non-derating)
- Half-brick standard package: 57.9 x55.9 × 12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|----------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBB150-24M3V3B | 18~40V              | 3.3V                 | 75%~110%         | 45.5A          | 150W         | 88.2%      | Available            |
| WBB150-24M5B   | 18~40V              | 5V                   | 75%~110%         | 40A            | 150W         | 88.5%      | Available            |
| WBB200-24M8B   | 18~40V              | 8V                   | 75%~110%         | 25A            | 200W         | 88.6%      | In development       |
| WBB200-24M12B  | 18~40V              | 12V                  | 75%~110%         | 20.8A          | 200W         | 91.5%      | In development       |
| WBB200-24M15B  | 18~40V              | 15V                  | 75%~110%         | 16.7A          | 200W         | 91.0%      | In development       |
| WBB200-24M24B  | 18~40V              | 24V                  | 75%~110%         | 10.4A          | 200W         | 91.1%      | Available            |
| WBB200-24M28B  | 18~40V              | 28V                  | 75%~110%         | 8.9A           | 200W         | 90.5%      | Available            |
| WBB200-24M36B  | 18~40V              | 36V                  | 75%~110%         | 6.9A           | 200W         | 90.0%      | Available            |
| WBB200-24M48B  | 18~40V              | 48V                  | 75%~110%         | 5.2A           | 200W         | 89.1%      | Available            |

### Shape & Size



| Pin No. | Label | Function                              |
|---------|-------|---------------------------------------|
| 1       | +IN   | Positive input power terminal         |
| 2       | PC    | Primary side control                  |
| 3       | PR    | Parallel terminal                     |
| 4       | -IN   | Negative input power terminal         |
| 5       | -OUT  | Negative output power terminal        |
| 6       | -S    | Distal compensation negative terminal |
| 7       | SC    | Secondary side control terminal       |
| 8       | +S    | Distal compensation positive terminal |
| 9       | +OUT  | Positive output power terminal        |

### Part Numbering

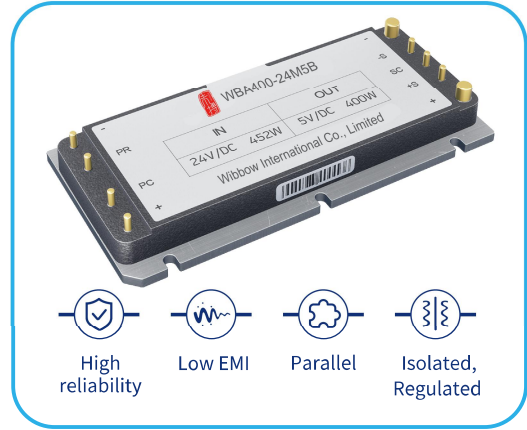
| WB         | B   | 150                    | - | 24                  | M   | 3V3   | B                   |
|------------|---|------------------------|---|---------------------|---|---|---------------------|
| Brand Name | Package Type                                  | Output power           | - | Input voltage range | Temperature Grade   | Output voltage range  | Version             |
| Wibbow     | A: Full-brick<br>B: 1/2 brick<br>C: 1/4 brick | 150: 150W<br>200: 200W |   | 24: 18~40V          | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>5: 5V<br>8: 8V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | B: Standard version |



## WBA24 Series Half-brick DC-DC Converter

### Features

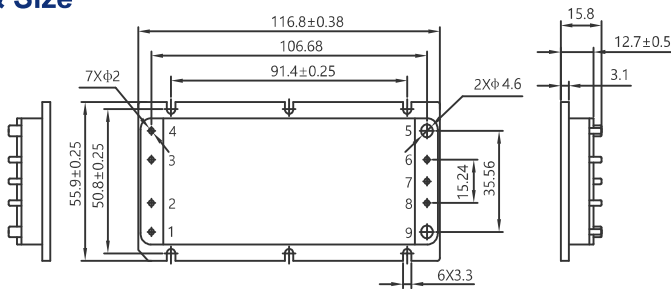
- Isolated, Regulated
- Pin-to-Pin compatible with Vicor V24A series
- Input surge resistance: 50V/100ms
- Output adjustment range: 75% ~ 110%
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion (ORING not required)
- 3000Vac isolation
- Operating temperature: -55°C~100°C (non-derating)
- Full-brick standard package: 116.8 x55.9x12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|----------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBA300-24M3V3B | 18~40V              | 3.3V                 | 75%~110%         | 90.9A          | 300W         | 88.2%      | In development       |
| WBA400-24M5B   | 18~40V              | 5V                   | 75%~110%         | 80A            | 400W         | 88.5%      | In development       |
| WBA300-24M8B   | 18~40V              | 8V                   | 75%~110%         | 37.5A          | 300W         | 88.6%      | In development       |
| WBA400-24M12B  | 18~40V              | 12V                  | 75%~110%         | 33.4A          | 400W         | 91.5%      | In development       |
| WBA400-24M15B  | 18~40V              | 15V                  | 75%~110%         | 26.7A          | 400W         | 91.0%      | In development       |
| WBA500-24M24B  | 18~40V              | 24V                  | 75%~110%         | 20.8A          | 500W         | 91.1%      | In development       |
| WBA500-24M28B  | 18~40V              | 28V                  | 75%~110%         | 17.9A          | 500W         | 90.5%      | In development       |
| WBA500-24M36B  | 18~40V              | 36V                  | 75%~110%         | 13.9A          | 500W         | 90.0%      | In development       |
| WBA500-24M48B  | 18~40V              | 48V                  | 75%~110%         | 10.4A          | 500W         | 89.1%      | In development       |

### Shape & Size



| Pin No. | Label | Function                              |
|---------|-------|---------------------------------------|
| 1       | +IN   | Positive input power terminal         |
| 2       | PC    | Primary side control                  |
| 3       | PR    | Parallel terminal                     |
| 4       | -IN   | Negative input power terminal         |
| 5       | -OUT  | Negative output power terminal        |
| 6       | -S    | Distal compensation negative terminal |
| 7       | SC    | Secondary side control terminal       |
| 8       | +S    | Distal compensation positive terminal |
| 9       | +OUT  | Positive output power terminal        |

### Part Numbering

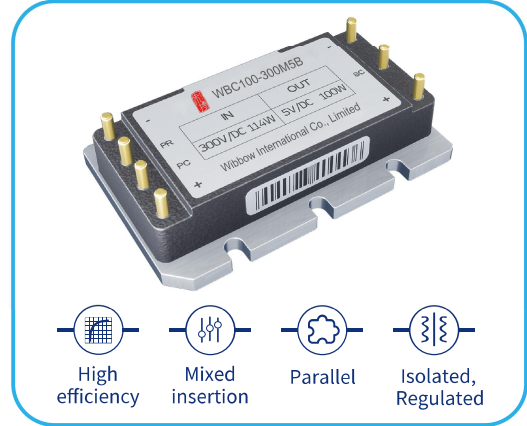
| WB         | A   | 300                                 | - | 24                  | M   | 3V3   | B                   |
|------------|---|-------------------------------------|---|---------------------|---|---|---------------------|
| Brand Name | Package Type                                  | Output power                        | - | Input voltage range | Temperature Grade   | Output voltage range  | Version             |
| Wibbow     | A: Full-brick<br>B: 1/2 brick<br>C: 1/4 brick | 300: 300W<br>400: 400W<br>500: 500W |   | 24: 18~40V          | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>5: 5V<br>8: 8V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | B: Standard version |



## WBC300 Series Quarter Brick power supply

### Features

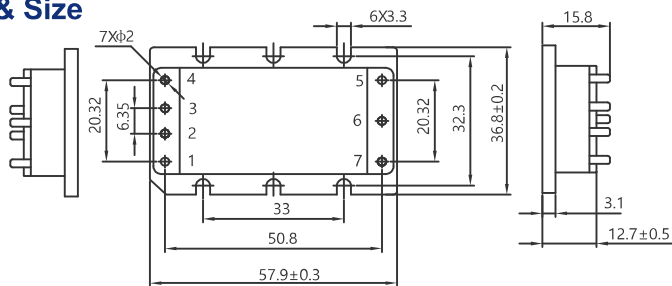
- Isolated, Regulated
- Variable frequency control, mixed insertion with Vicor V300C series
- Input surge resistance: 400V/100ms
- Wide output adjustment range: 75%-110%
- About 5% higher efficiency than similar Vicor products
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion (without ORING);
- 3000Vac isolation
- Operating temperature: -55°C~100°C (non-derating)
- Quarter brick standard package: 57.9 x 36.8 x 12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|----------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBC75-300M3V3B | 180~375V            | 3.3V                 | 75%~110%         | 22.72A         | 75W          | 86%        | Available            |
| WBC100-300M5B  | 180~375V            | 5V                   | 75%~110%         | 20A            | 100W         | 89%        | Available            |
| WBC100-300M8B  | 180~375V            | 8V                   | 75%~110%         | 12.5A          | 100W         | 88.5%      | Available            |
| WBC150-300M12B | 180~375V            | 12V                  | 75%~110%         | 12.5A          | 150W         | 89.5%      | Available            |
| WBC150-300M15B | 180~375V            | 15V                  | 75%~110%         | 10A            | 150W         | 90.7%      | Available            |
| WBC150-300M24B | 180~375V            | 24V                  | 75%~110%         | 6.25A          | 150W         | 90.5%      | Available            |
| WBC150-300M28B | 180~375V            | 28V                  | 75%~110%         | 5.36A          | 150W         | 90.5%      | Available            |
| WBC150-300M36B | 180~375V            | 36V                  | 75%~110%         | 4.17A          | 150W         | 90.5%      | Available            |
| WBC150-300M48B | 180~375V            | 48V                  | 75%~110%         | 3.13A          | 150W         | 91%        | Available            |

### Shape & Size



| Pin No. | Label | Function                        |
|---------|-------|---------------------------------|
| 1       | +IN   | Positive input power terminal   |
| 2       | PC    | Primary side control            |
| 3       | PR    | Parallel terminal               |
| 4       | -IN   | Negative input power terminal   |
| 5       | -OUT  | Negative output power terminal  |
| 6       | SC    | Secondary side control terminal |
| 7       | +OUT  | Positive output power terminal  |

### Part Numbering

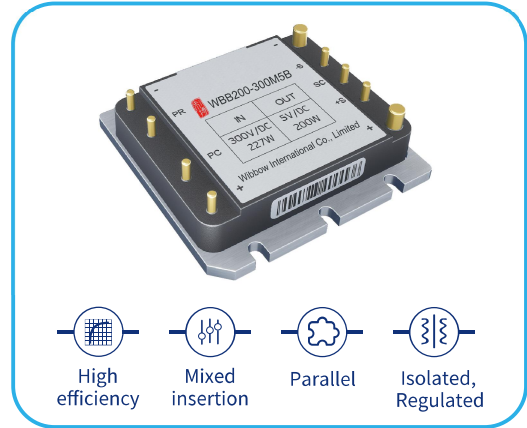
| WB         | C   | 75                                | - | 300                 | M  | 3V3   | B                   |
|------------|---|-----------------------------------|---|---------------------|--|---|---------------------|
| Brand Name | Package Type                                  | Output power                      | - | Input voltage range | Temperature Grade  | Output voltage range  | Version             |
| Wibbow     | A: Full-brick<br>B: 1/2 brick<br>C: 1/4 brick | 75: 75W<br>100: 100W<br>150: 150W |   | 300: 180~375V       | M : Tc: -55~100°C<br>Ts: -65~100°C<br>H : Tc: -40~100°C<br>Ts: -55~100°C<br>T : Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>5: 5V<br>8: 8V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | B: Standard version |



## WBB300 Series Half-brick DC-DC Converter

### Features

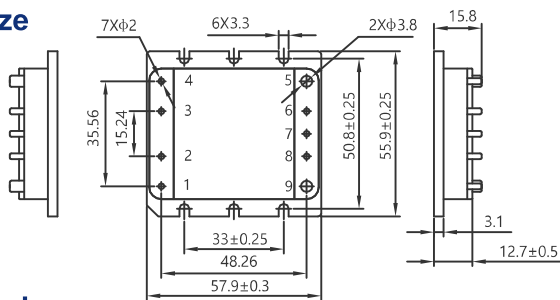
- Isolated, Regulated
- Variable frequency control, mixed insertion with Vicor V300B series
- Input surge resistance: 400V/100ms
- Wide output adjustment range: 75%~110%
- About 5% higher efficiency than similar Vicor products
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion (ORING not required)
- 3000Vac isolation
- Operating temperature: -55°C~100°C (non-derating)
- Half-brick standard package: 57.9 × 55.9 × 12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series  | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|-----------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBB150-300M3V3B | 180~375V            | 3.3V                 | 75%~110%         | 45.4A          | 150W         | 85%        | Available            |
| WBB200-300M5B   | 180~375V            | 5V                   | 75%~110%         | 40A            | 200W         | 89%        | Available            |
| WBB200-300M8B   | 180~375V            | 8V                   | 75%~110%         | 25A            | 200W         | 91%        | Available            |
| WBB250-300M12B  | 180~375V            | 12V                  | 75%~110%         | 20.8A          | 250W         | 91%        | Available            |
| WBB250-300M15B  | 180~375V            | 15V                  | 75%~110%         | 16.7A          | 250W         | 91.8%      | Available            |
| WBB250-300M24B  | 180~375V            | 24V                  | 75%~110%         | 10.4A          | 250W         | 91.5%      | Available            |
| WBB250-300M28B  | 180~375V            | 28V                  | 75%~110%         | 8.9A           | 250W         | 91.5%      | Available            |
| WBB250-300M36B  | 180~375V            | 36V                  | 75%~110%         | 6.9A           | 250W         | 90.5%      | Available            |
| WBB250-300M48B  | 180~375V            | 48V                  | 75%~110%         | 5.2A           | 250W         | 90.5%      | Available            |

### Shape & Size



| Pin No. | Label | Function                              |
|---------|-------|---------------------------------------|
| 1       | +IN   | Positive input power terminal         |
| 2       | PC    | Primary side control                  |
| 3       | PR    | Parallel terminal                     |
| 4       | -IN   | Negative input power terminal         |
| 5       | -OUT  | Negative output power terminal        |
| 6       | -S    | Distal compensation negative terminal |
| 7       | SC    | Secondary side control terminal       |
| 8       | +S    | Distal compensation positive terminal |
| 9       | +OUT  | Positive output power terminal        |

### Part Numbering

| WB         | B   | 150                                 | - | 300                 | M  | 3V3   | B                   |
|------------|---|-------------------------------------|---|---------------------|--|---|---------------------|
| Brand Name | Package Type                                  | Output power                        | - | Input voltage range | Temperature Grade  | Output voltage range  | Version             |
| Wibbow     | A: Full-brick<br>B: 1/2 brick<br>C: 1/4 brick | 150: 150W<br>200: 200W<br>250: 250W |   | 300: 180~375V       | M : Tc: -55~100°C<br>Ts: -65~100°C<br>H : Tc: -40~100°C<br>Ts: -55~100°C<br>T : Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>5: 5V<br>8: 8V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | B: Standard version |



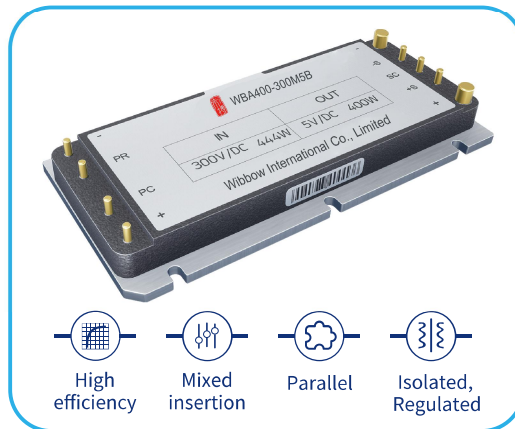
# Wibbow

info@wibbow.com

## WBA300 Series Full-brick DC-DC Converter

### Features

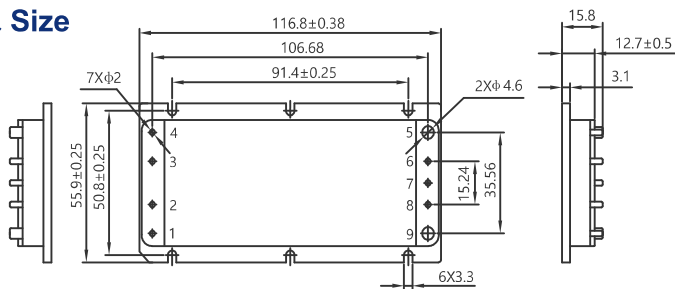
- Isolated, Regulated
- Variable frequency control, mixed insertion with Vicor V300A series
- Input surge resistance: 400V/100ms
- Wide output adjustment range: 75%-110%
- About 5% higher efficiency than similar Vicor products
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion (ORING not required)
- 3000Vac isolation
- Operating temperature: -55°C~100°C (non-derating)
- Full-brick standard package: 116.8 × 55.9 × 12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series  | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|-----------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBA264-300M3V3B | 180~375V            | 3.3V                 | 75%~110%         | 80A            | 264W         | 88%        | Available            |
| WBA400-300M5B   | 180~375V            | 5V                   | 75%~110%         | 80A            | 400W         | 91%        | Available            |
| WBA400-300M8B   | 180~375V            | 8V                   | 75%~110%         | 50A            | 400W         | 91.5%      | Available            |
| WBA600-300M12B  | 180~375V            | 12V                  | 75%~110%         | 50A            | 600W         | 92.5%      | Available            |
| WBA600-300M15B  | 180~375V            | 15V                  | 75%~110%         | 40A            | 600W         | 93%        | Available            |
| WBA600-300M24B  | 180~375V            | 24V                  | 75%~110%         | 25A            | 600W         | 93%        | Available            |
| WBA600-300M28B  | 180~375V            | 28V                  | 75%~110%         | 21.5A          | 600W         | 92.5%      | Available            |
| WBA600-300M36B  | 180~375V            | 36V                  | 75%~110%         | 16.7A          | 600W         | 93%        | Available            |
| WBA600-300M48B  | 180~375V            | 48V                  | 75%~110%         | 12.5A          | 600W         | 90.5%      | Available            |

### Shape & Size



| Pin No. | Label | Function                              |
|---------|-------|---------------------------------------|
| 1       | +IN   | Positive input power terminal         |
| 2       | PC    | Primary side control                  |
| 3       | PR    | Parallel terminal                     |
| 4       | -IN   | Negative input power terminal         |
| 5       | -OUT  | Negative output power terminal        |
| 6       | -S    | Distal compensation negative terminal |
| 7       | SC    | Secondary side control terminal       |
| 8       | +S    | Distal compensation positive terminal |
| 9       | +OUT  | Positive output power terminal        |

### Part Numbering

| WB         | A   | 264                                 | - | 300                 | M   | 3V3   | B                   |
|------------|---|-------------------------------------|---|---------------------|---|---|---------------------|
| Brand Name | Package Type                                  | Output power                        | - | Input voltage range | Temperature Grade   | Output voltage range  | Version             |
| Wibbow     | A: Full-brick<br>B: 1/2 brick<br>C: 1/4 brick | 264: 264W<br>400: 400W<br>600: 600W |   | 300: 180~375V       | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>5: 5V<br>8: 8V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | B: Standard version |





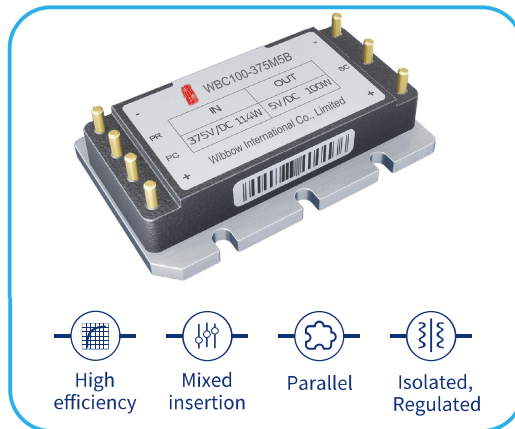
# Wibbow

info@wibbow.com

## WBC375 Series Quarter Brick DC-DC Converter

### Features

- Isolated, Regulated
- Variable frequency control, mixed insertion with Vicor V375C series
- Input surge resistance: 500V/100ms
- Wide-output voltage regulation range: 75% ~ 110%
- About 5% higher efficiency than similar Vicor products
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion (ORING not required)
- 3000Vac isolation
- Operating temperature: -55°C~100°C (non-derating)
- Quarter brick standard package: 57.9 x36.8 x12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)

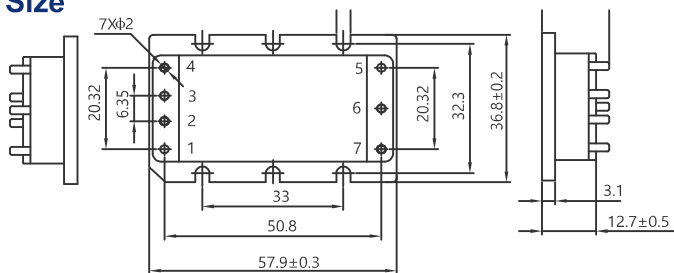


- High efficiency
- Mixed insertion
- Parallel
- Isolated, Regulated

### Product specification

| Product series | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|----------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBC75-375M3V3B | 250~425V            | 3.3V                 | 75%~110%         | 22.7A          | 75W          | 86.5%      | Available            |
| WBC100-375M5B  | 250~425V            | 5V                   | 75%~110%         | 20A            | 100W         | 89%        | Available            |
| WBC100-375M8B  | 250~425V            | 8V                   | 75%~110%         | 12.5A          | 100W         | 88.5%      | Available            |
| WBC150-375M12B | 250~425V            | 12V                  | 75%~110%         | 12.5A          | 150W         | 89.5%      | Available            |
| WBC150-375M15B | 250~425V            | 15V                  | 75%~110%         | 10A            | 150W         | 90.7%      | Available            |
| WBC150-375M24B | 250~425V            | 24V                  | 75%~110%         | 6.25A          | 150W         | 90.2%      | Available            |
| WBC150-375M28B | 250~425V            | 28V                  | 75%~110%         | 5.36A          | 150W         | 90.5%      | Available            |
| WBC150-375M36B | 250~425V            | 36V                  | 75%~110%         | 4.17A          | 150W         | 90.2%      | Available            |
| WBC150-375M48B | 250~425V            | 48V                  | 75%~110%         | 3.13A          | 150W         | 90.2%      | Available            |

### Shape & Size



| Pin No. | Label | Function                        |
|---------|-------|---------------------------------|
| 1       | +IN   | Positive input power terminal   |
| 2       | PC    | Primary side control            |
| 3       | PR    | Parallel terminal               |
| 4       | -IN   | Negative input power terminal   |
| 5       | -OUT  | Negative output power terminal  |
| 6       | SC    | Secondary side control terminal |
| 7       | +OUT  | Positive output power terminal  |

### Part Numbering

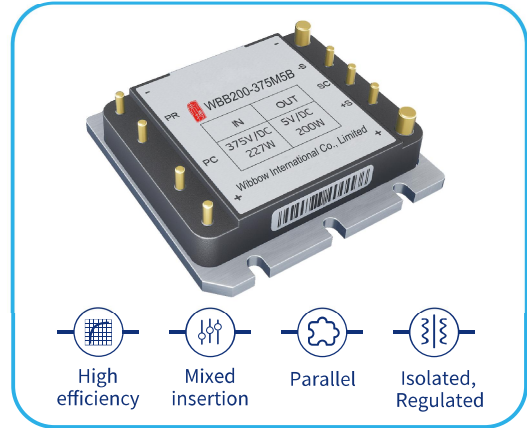
| WB         | C   | 75                                | - | 375                 | M   | 3V3   | B                   |
|------------|---|-----------------------------------|---|---------------------|---|---|---------------------|
| Brand Name | Package Type                                  | Output power                      | - | Input voltage range | Temperature Grade   | Output voltage range  | Version             |
| Wibbow     | A: Full-brick<br>B: 1/2 brick<br>C: 1/4 brick | 75: 75W<br>100: 100W<br>150: 150W |   | 375: 250~425V       | M : Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T : Tc: -40~100°C<br>T : -40~100°C | 3V3: 3.3V<br>5: 5V<br>8: 8V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | B: Standard version |



## WBB375 Series Half-brick module DC-DC Converter

### Features

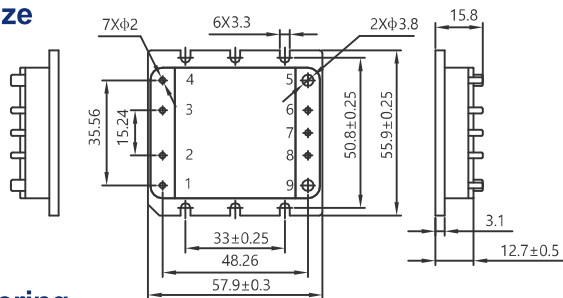
- Isolated, Regulated
- Variable frequency control, mixed insertion with Vicor V375B series
- Input surge resistance: 500V/100ms
- Wide output adjustment range: 75%~110%
- About 5% higher efficiency than similar Vicor products
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion (without ORING)
- 3000Vac isolation of primary and secondary sides
- Operating temperature: -55°C~100°C (non-derating)
- Half-brick standard package: 57.9 x 55.9 x 12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series  | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|-----------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBB150-375M3V3B | 250~425V            | 3.3V                 | 75%~110%         | 45.45A         | 150W         | 85%        | Available            |
| WBB200-375M5B   | 250~425V            | 5V                   | 75%~110%         | 40A            | 200W         | 89%        | Available            |
| WBB200-375M8B   | 250~425V            | 8V                   | 75%~110%         | 25A            | 200W         | 91%        | Available            |
| WBB300-375M12B  | 250~425V            | 12V                  | 75%~110%         | 25A            | 300W         | 90.5%      | Available            |
| WBB300-375M15B  | 250~425V            | 15V                  | 75%~110%         | 20A            | 300W         | 91.5%      | Available            |
| WBB300-375M24B  | 250~425V            | 24V                  | 75%~110%         | 12.5A          | 300W         | 91.5%      | Available            |
| WBB300-375M28B  | 250~425V            | 28V                  | 75%~110%         | 10.71A         | 300W         | 92%        | Available            |
| WBB300-375M36B  | 250~425V            | 36V                  | 75%~110%         | 8.33A          | 300W         | 91.5%      | Available            |
| WBB300-375M48B  | 250~425V            | 48V                  | 75%~110%         | 6.25A          | 300W         | 91.5%      | Available            |

### Shape & Size



| Pin No. | Label | Function                              |
|---------|-------|---------------------------------------|
| 1       | +IN   | Positive input power terminal         |
| 2       | PC    | Primary side control                  |
| 3       | PR    | Parallel terminal                     |
| 4       | -IN   | Negative input power terminal         |
| 5       | -OUT  | Negative output power terminal        |
| 6       | -S    | Distal compensation negative terminal |
| 7       | SC    | Secondary side control terminal       |
| 8       | +S    | Distal compensation positive terminal |
| 9       | +OUT  | Positive output power terminal        |

### Part Numbering

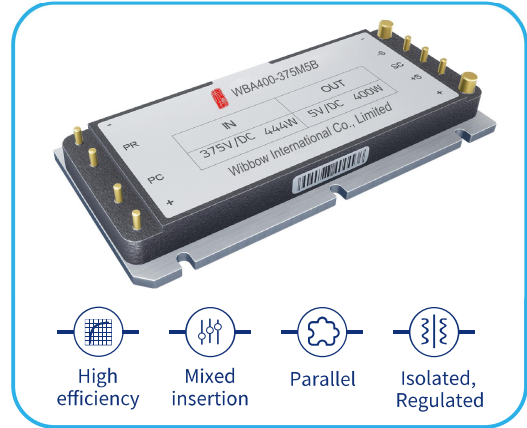
| WB         | B   | 150                                 | - | 375                 | M  | 3V3   | B                   |
|------------|---|-------------------------------------|---|---------------------|--|---|---------------------|
| Brand Name | Package Type                                  | Output power                        | - | Input voltage range | Temperature Grade  | Output voltage range  | Version             |
| Wibbow     | A: Full-brick<br>B: 1/2 brick<br>C: 1/4 brick | 150: 150W<br>200: 200W<br>300: 300W |   | 375: 250~425V       | M : Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>5: 5V<br>8: 8V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | B: Standard version |



## WBA375 Series Full-brick module DC-DC Converter

### Features

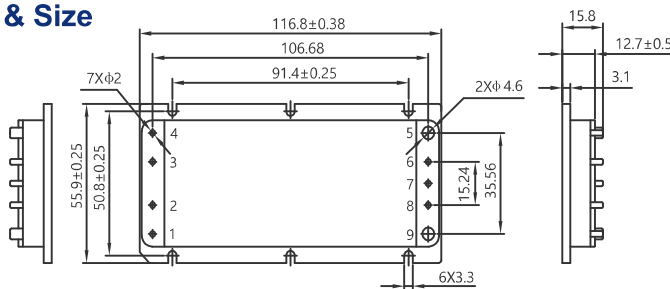
- Isolated, Regulated
- Variable frequency control, mixed insertion with Vicor V375A series
- Input surge resistance: 500V/100ms
- Wide-output voltage regulation range: 75% ~ 110%
- About 5% higher efficiency than similar Vicor products
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion (ORING not required)
- 3000Vac isolation
- Operating temperature: -55°C~100°C (non-derating)
- Full-brick standard package: 116.8 × 55.9 × 12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series  | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|-----------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBA264-375M3V3B | 250~425V            | 3.3V                 | 75%~110%         | 80A            | 264W         | 88%        | Available            |
| WBA400-375M5B   | 250~425V            | 5V                   | 75%~110%         | 80A            | 400W         | 90%        | Available            |
| WBA400-375M8B   | 250~425V            | 8V                   | 75%~110%         | 50A            | 400W         | 91.5%      | Available            |
| WBA600-375M12B  | 250~425V            | 12V                  | 75%~110%         | 50A            | 600W         | 93%        | Available            |
| WBA600-375M15B  | 250~425V            | 15V                  | 75%~110%         | 40A            | 600W         | 93%        | Available            |
| WBA600-375M24B  | 250~425V            | 24V                  | 75%~110%         | 25A            | 600W         | 93%        | Available            |
| WBA600-375M28B  | 250~425V            | 28V                  | 75%~110%         | 21.5A          | 600W         | 93%        | Available            |
| WBA600-375M36B  | 250~425V            | 36V                  | 75%~110%         | 16.7A          | 600W         | 93.5%      | Available            |
| WBA600-375M48B  | 250~425V            | 48V                  | 75%~110%         | 12.5A          | 600W         | 94%        | Available            |

### Shape & Size



| Pin No. | Label | Function                              |
|---------|-------|---------------------------------------|
| 1       | +IN   | Positive input power terminal         |
| 2       | PC    | Primary side control                  |
| 3       | PR    | Parallel terminal                     |
| 4       | -IN   | Negative input power terminal         |
| 5       | -OUT  | Negative output power terminal        |
| 6       | -S    | Distal compensation negative terminal |
| 7       | SC    | Secondary side control terminal       |
| 8       | +S    | Distal compensation positive terminal |
| 9       | +OUT  | Positive output power terminal        |

### Part Numbering

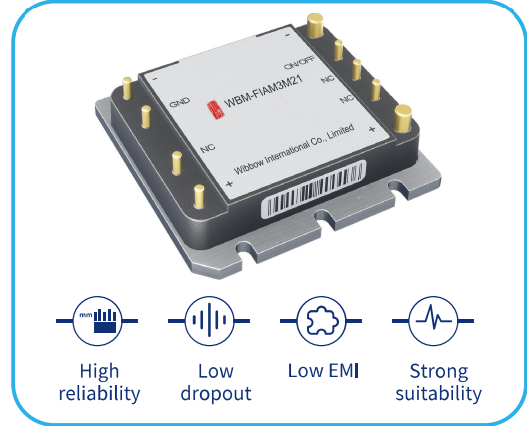
| WB         | A   | 264                                 | - | 375                 | M  | 3V3   | B                   |
|------------|---|-------------------------------------|---|---------------------|--|---|---------------------|
| Brand Name | Package Type                                  | Output power                        | - | Input voltage range | Temperature Grade  | Output voltage range  | Version             |
| Wibbow     | A: Full-brick<br>B: 1/2 brick<br>C: 1/4 brick | 264: 264W<br>400: 400W<br>600: 600W |   | 375: 250~425V       | M : Tc: -55~100°C<br>Ts: -65~100°C<br>H : Tc: -40~100°C<br>Ts: -55~100°C<br>T : Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>5: 5V<br>8: 8V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | B: Standard version |



## WBM-FIAM Series EMI input filter attenuation module

### Features

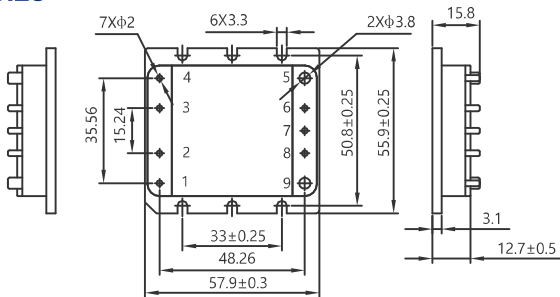
- Wide input voltage range: 180 ~ 375V
- Pin-to-Pin compatible with Vicor M-FIAM series
- High input surge: 400V/100ms
- Comply with the EMC standards such as CE101 and CE102
- EM filter, transient protection, surge current suppression
- Suitable for V300 series DC/DC modules
- Operating temperature: -55°C~100°C (non-derating)
- Half-brick standard package: 57.9 x 55.9 x 12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series | Input voltage range | Internal voltage drop | Output current | EMC         | Efficiency | Development progress |
|----------------|---------------------|-----------------------|----------------|-------------|------------|----------------------|
| WBM-FIAM3M21   | 180-375V            | 5V                    | 3A             | CE101/CE102 | 98%        | Available            |

### Shape & Size



| Pin No. | Label  | Function                       |
|---------|--------|--------------------------------|
| 1       | +IN    | Positive input power terminal  |
| 2       | NC     | NULL                           |
| 3       | GND    | EMI/GND                        |
| 4       | -IN    | Negative input power terminal  |
| 5       | -OUT   | Negative output power terminal |
| 6       | ON/OFF | Control switch                 |
| 7       | NC     | NULL                           |
| 8       | NC     | NULL                           |
| 9       | +OUT   | Positive output power terminal |

### Part Numbering

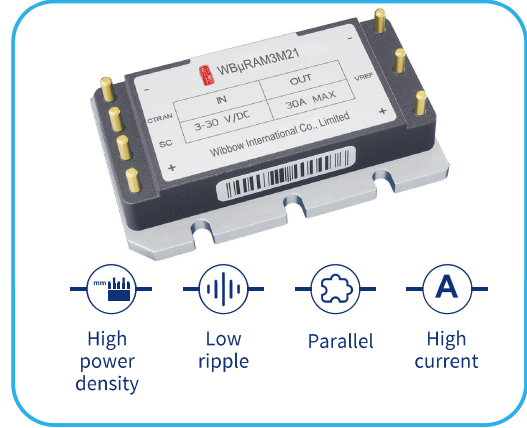
| WB         | M-FIAM                       | 3              | M   | 2           | 1           |
|------------|------------------------------|----------------|---|-------------|-------------|
| Brand Name | Series name                  | Output Current | Temperature Grade   | Pin form    | Base plate  |
| Wibbow     | M-FIAM Brick DC-DC Converter | 3: 3A          | M : T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H : T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T : T <sub>c</sub> : -40~100°C<br>T : -40~100°C | 2: Long pin | 1: Slotting |



## WB $\mu$ RAM Series Ripple attenuation module

### Features

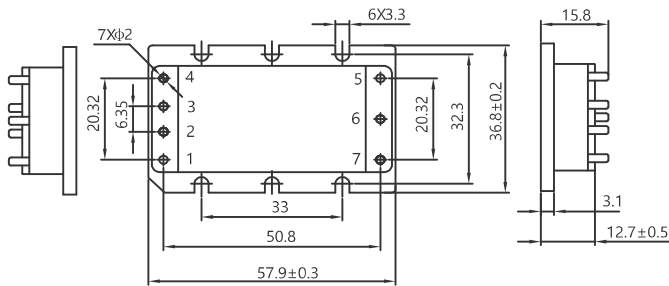
- Wide input voltage range: 3V ~ 30V
- High efficiency: 98%
- Output ripple:  $\leq 10\text{mV}$
- High-frequency ripple attenuation:  $> 40\text{dB}$  (1.1kHz-1MHz)
- Low-frequency ripple attenuation:  $> 40\text{dB}$  (100Hz-1.1kHz)
- Pin-to-Pin compatible with Vicor  $\mu$ RAM series
- Parallel expansion (reverse current protection)
- Match Vicor V300 and V375 series
- Operating temperature:  $-55^{\circ}\text{C}\sim 100^{\circ}\text{C}$  (non-derating)
- Quarter brick standard package:  $57.9 \times 36.8 \times 12.7\text{mm}$
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series   | Input voltage range | Output ripple | differential pressure | Output current | Dynam response      | Efficiency | progress  |
|------------------|---------------------|---------------|-----------------------|----------------|---------------------|------------|-----------|
| WB $\mu$ RAM2M21 | 3~30V               | 10mV          | 425mV                 | 20A            | 50mV <sub>p-p</sub> | 98%        | Available |
| WB $\mu$ RAM3M21 | 3~30V               | 10mV          | 425mV                 | 30A            | 50mV <sub>p-p</sub> | 98%        | Available |
| WB $\mu$ RAM4M21 | 3~30V               | 10mV          | 425mV                 | 40A            | 50mV <sub>p-p</sub> | 98%        | Available |

### Shape & Size



| Pin No. | Label | Function                       |
|---------|-------|--------------------------------|
| 1       | +IN   | Positive input power terminal  |
| 2       | SC    | Control terminal               |
| 3       | CTAN  | External capacitor terminal    |
| 4       | -IN   | Negative input power terminal  |
| 5       | -OUT  | Negative output power terminal |
| 6       | VREF  | Secondary side control         |
| 7       | +OUT  | Positive output power terminal |

### Part Numbering

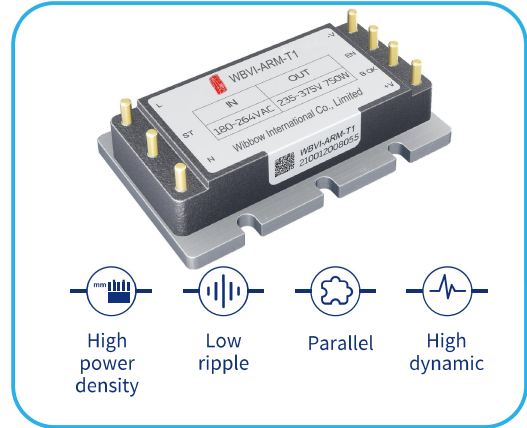
| WB         | $\mu$ RAM                       | 2                          | M   | 2           | 1           |
|------------|---------------------------------|----------------------------|---|-------------|-------------|
| Brand Name | Series name                     | Output Current             | Temperature Grade   | Pin form    | Base plate  |
| Wibbow     | $\mu$ RAM Brick DC-DC Converter | 2: 20A<br>3: 30A<br>4: 40A | M: $T_c: -55\sim 100^{\circ}\text{C}$<br>$T_s: -65\sim 100^{\circ}\text{C}$<br>H: $T_c: -40\sim 100^{\circ}\text{C}$<br>$T_s: -55\sim 100^{\circ}\text{C}$<br>T: $T_c: -40\sim 100^{\circ}\text{C}$<br>$T_s: -40\sim 100^{\circ}\text{C}$ | 2: Long pin | 1: Slotting |



## WBVI-ARM Series Ripple attenuation module

### Features

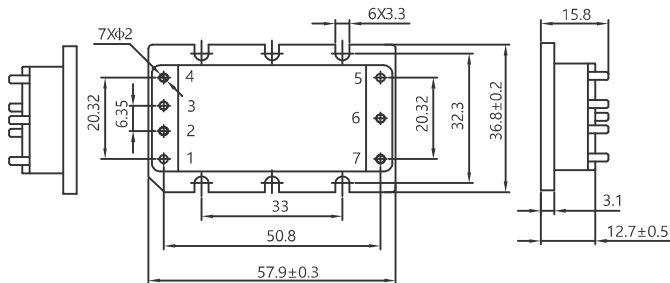
- Wide AC input range: 180Vac ~ 264Vac
- High input surge voltage: 280Vac/100ms
- Input surge current  $\leq 30A$
- Pin-to-Pin compatible with Vicor VI-ARM series
- Normal DC output indication function
- Match Vicor V300 series
- Isolation: input/output to substrate  $\geq 1500 VRMS$
- Operating temperature:  $-55^{\circ}C \sim 100^{\circ}C$  (non-derating)
- Quarter brick standard package: 57.9 x 36.8 x 12.7 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series | Input voltage range | Output voltage | Input frequency | Typical value of input voltage | Power | Efficiency | Development progress |
|----------------|---------------------|----------------|-----------------|--------------------------------|-------|------------|----------------------|
| WBVI-ARM-M12   | 180~264Vac          | 200-375V       | 47-63Hz         | 220Vac                         | 750W  | 96%        | Available            |

### Shape & Size



| Pin No. | Label | Function                          |
|---------|-------|-----------------------------------|
| 1       | -V    | -OUT                              |
| 2       | EN    | Enables and disables power supply |
| 3       | B OK  | Normal bus voltage indication     |
| 4       | +V    | +OUT                              |
| 5       | N     | N-phase                           |
| 6       | ST    | NULL                              |
| 7       | L     | L-phase                           |

### Part Numbering

| WB         | VI                           | - | ARM                  | - | M  | 1           | 2          |
|------------|------------------------------|---|----------------------|---|--|-------------|------------|
| Brand Name | Series name                  | - | Rectifier regulation | - | Temperature Grade  | Power class | Pin length |
| Wibbow     | VI-ARM Brick DC-DC Converter |   |                      |   | M : Tc: -55~100°C<br>Ts: -65~100°C<br>H : Tc: -40~100°C<br>Ts: -55~100°C<br>T : Tc: -40~100°C<br>T : -40~100°C |             |            |



# ChiP DC-DC Converter (3rd Gen) Brochure



High power



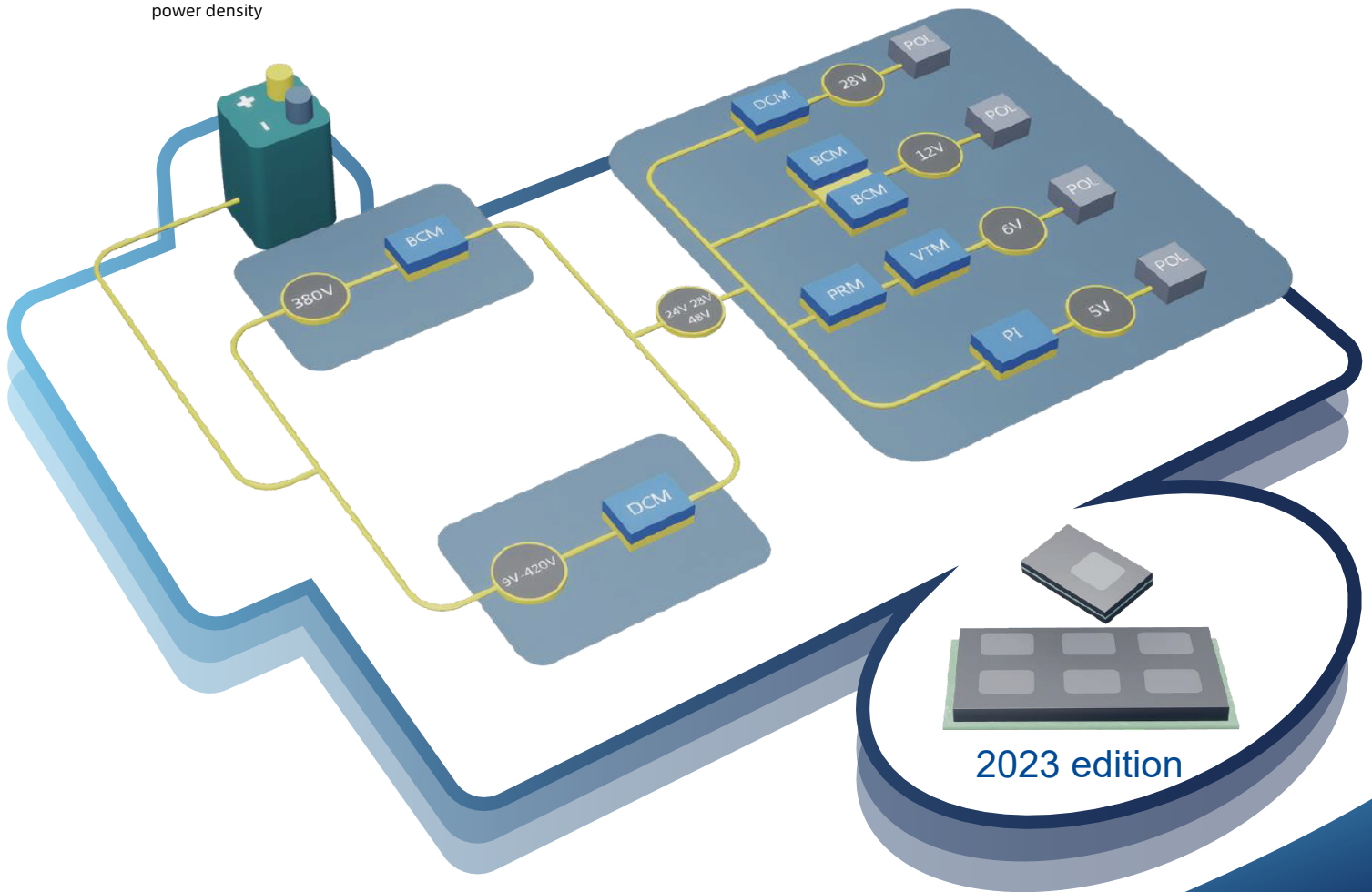
High power density



Low EMI



Parallel



2023 edition



## Introduction to ChiP DC-DC Converter

### Features

ChiP DC-DC Converter is the latest generation of modular power supply products based on the revolutionary Converter housed in Package (ChiP) technology, which is applied with advanced MHz soft-switching topology, patented control strategy and packaging technology, and has such distinctive advantages as premium efficiency (97.5%), ultra-high power density (2735W/in<sup>3</sup>), ultra-small thickness (only 6.73 mm), ultra-light weight (7.8 g), parallelling (more than 8 sets in parallel), and low EMI. Compared with the traditional module power supply, the performance indicators are improved by orders of magnitude, in which the power density is increased by 10 times and the weight is reduced to one tenth; The series also have comprehensive protections (against input over-voltage and under-voltage, output over-voltage, over-current, short circuit and over-temperature), enable control, fault monitoring and temperature monitoring functions. The product design and manufacture comply with the General Specification for Microcircuit Modules (SJ20668-1998). Typical products have passed the third-party appraisal and inspection, and are ideally for missile-borne and satellite-borne systems, UAVs, TR components, data centers, and other highly reliable electronic systems with extremely strict requirements on power, efficiency, volume, weight and height.

| Product series | Input voltage range | Output voltage range | Output power | Parallel expansion | Electrical characteristics | Package size           | Page |
|----------------|---------------------|----------------------|--------------|--------------------|----------------------------|------------------------|------|
| WBPI28H        | 16~50V              | 3.3V~48V             | 25~50W       | Not supported      | Isolated, Regulated        | 16.5 x 22.0 x 6.73mm   | 02   |
| WBPI28WH       | 9~50V               | 3.3V~48V             | 25W          | Not supported      | Isolated, Regulated        | 16.5 x 22.0 x 6.73mm   | 03   |
| WBP124H        | 18~36V              | 3.3V~48V             | 25~50W       | Not supported      | Isolated, Regulated        | 16.5 x 22.0 x 6.73mm   | 04   |
| WBDCM28BC      | 16~50V              | 3.3V~48V             | 120~320W     | Supported          | Isolated, Regulated        | 38.72 x 22.80 x 7.21mm | 05   |
| WBDCM28WBC     | 9~50V               | 3.3V~48V             | 80~160W      | Supported          | Isolated, Regulated        | 38.72 x 22.80 x 7.21mm | 06   |
| WBDCM24BC      | 18~36V              | 3.3V~48V             | 120~320W     | Supported          | Isolated, Regulated        | 38.72 x 22.80 x 7.21mm | 07   |
| WBDCM48BC      | 36~75V              | 5V~48V               | 160~320W     | Supported          | Isolated, Regulated        | 38.72 x 22.80 x 7.21mm | 08   |
| WBDCM270AC     | 160~420V            | 3.3V~48V             | 150~500W     | Supported          | Isolated, Regulated        | 47.91 x 22.80 x 7.21mm | 09   |
| WBDCM300AC     | 200~420V            | 3.3V~48V             | 150~600W     | Supported          | Isolated, Regulated        | 47.91 x 22.80 x 7.21mm | 10   |
| WBDCM275AC     | 120~420V            | 3.3V~48V             | 110~375W     | Supported          | Isolated, Regulated        | 47.91 x 22.80 x 7.21mm | 11   |
| WBPRM28F       | 16~50V              | 26V~50V              | 120~500W     | Supported          | Non-isolated, Regulated    | 32.5x 22.0 x 6.73mm    | 12   |
| WBPRM36F       | 18~60V              | 26V~55V              | 120~240W     | Supported          | Non-isolated, Regulated    | 32.5x 22.0 x 6.73mm    | 13   |
| WBPRM48BF      | 38~55V              | 5V~55V               | 400~600W     | Supported          | Non-isolated, Regulated    | 32.5x 22.0 x 6.73mm    | 14   |
| WBPRM48CF      | 45~55V              | 5V~55V               | 400~600W     | Supported          | Non-isolated, Regulated    | 32.5x 22.0 x 6.73mm    | 15   |
| WBPRM48AF      | 36~75V              | 20~55V               | 400~600W     | Supported          | Non-isolated, Regulated    | 32.5x 22.0 x 6.73mm    | 16   |
| WBVTM36F       | 26~50V              | 3V~24V               | 120W         | Supported          | Isolated, unregulated      | 32.5x 22.0 x 6.73mm    | 17   |
| WBVTM48F       | 26~55V              | 4V~32V               | 200~300W     | Supported          | Isolated, unregulated      | 32.5x 22.0 x 6.73mm    | 18   |
| WBBCM48BF      | 38~55V              | 4V~32V               | 200~300W     | Supported          | Isolated, unregulated      | 32.5x 22.0 x 6.73mm    | 19   |
| WBBCM384WEC    | 260~410V            | 12V,24V              | 816~1500W    | Supported          | Isolated, unregulated      | 61.0x 25.14 x 7.21mm   | 20   |
| WBBCM384WDC    | 260~410V            | 48V                  | 816~1680W    | Supported          | Isolated, unregulated      | 63.3x 22.8 x 7.21mm    | 21   |
| WBBCM384EC     | 360~400V            | 12V,24V              | 816~1500W    | Supported          | Isolated, unregulated      | 61.0x 25.14 x 7.21mm   | 22   |
| WBBCM384DC     | 360~400V            | 48V                  | 816~1680W    | Supported          | Isolated, unregulated      | 63.3x 22.8 x 7.21mm    | 23   |
| WBDCM270AFL    | 160~420V            | 3.3V~48V             | 150~500W     | Supported          | Isolated, Regulated        | 65.0x 27.2 x 9.8mm     | 24   |
| WBDCM270ATH    | 160~420V            | 3.3V~48V             | 150~500W     | Supported          | Isolated, Regulated        | 51.6x 39.2 x 9.8mm     | 25   |
| WBDCM300AFL    | 200~420V            | 3.3V~48V             | 150~600W     | Supported          | Isolated, Regulated        | 65.0x 27.2 x 9.8mm     | 26   |
| WBDCM300ATH    | 200~420V            | 3.3V~48V             | 150~600W     | Supported          | Isolated, Regulated        | 51.6x 39.2 x 9.8mm     | 27   |

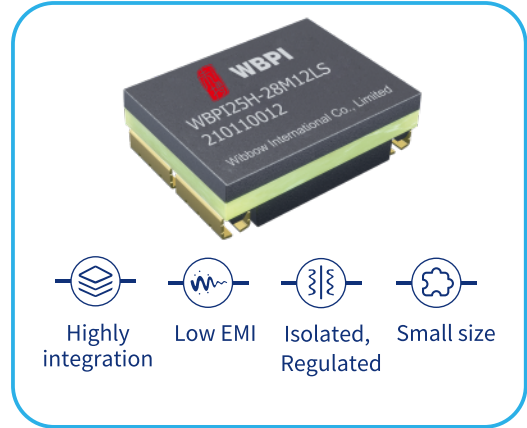




## WBPI28H Series ChiP DC-DC Converter

### Features

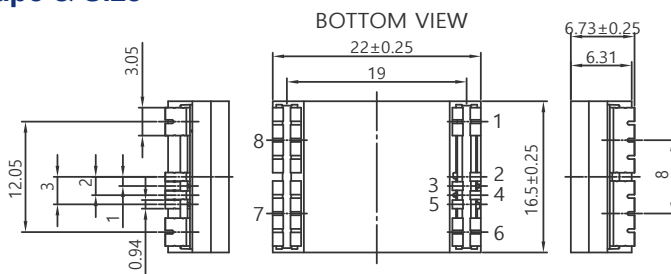
- Isolated, Regulated
- Ultra-small package
- Maximum volume power density: 334W/in3
- Weight: only 7.8 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- 2250Vdc isolation
- Operating temperature: -55°C~100°C
- HALF CHIP: Package: 16.5 x22.0x6.73 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series   | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBPI33H-28M3V3LS | 16~50V              | 3.3V                 | 2.97~3.63V       | 10A            | 33W          | 83%        | In development       |
| WBPI50H-28M05LS  | 16~50V              | 5V                   | 4.0~5.5V         | 10A            | 50W          | 85.3%      | Available            |
| WBPI50H-28M12LS  | 16~50V              | 12V                  | 9.6~13.2V        | 4.2A           | 50W          | 88%        | Available            |
| WBPI50H-28M15LS  | 16~50V              | 15V                  | 12~16.5V         | 3.3A           | 50W          | 88%        | In development       |
| WBPI50H-28M18LS  | 16~50V              | 18V                  | 14.4~19.8V       | 2.8A           | 50W          | 88%        | In development       |
| WBPI50H-28M24LS  | 16~50V              | 24V                  | 22.4~30.8V       | 2.1A           | 50W          | 88.5%      | In development       |
| WBPI50H-28M28LS  | 16~50V              | 28V                  | 22.4~30.8V       | 1.8A           | 50W          | 88.5%      | In development       |
| WBPI50H-28M48LS  | 16~50V              | 48V                  | 36~52.8V         | 1.8A           | 50W          | 89%        | In development       |
| WBPI25H-28M05LS  | 16~50V              | 5V                   | 4.0~5.5V         | 5A             | 25W          | 84.5%      | Available            |
| WBPI25H-28M12LS  | 16~50V              | 12V                  | 9.6~13.2V        | 2.1A           | 25W          | 87%        | Available            |

### Shape & Size



| Pin No. | Label  | Function                          |
|---------|--------|-----------------------------------|
| 1       | +IN    | Positive input power terminal     |
| 2       | SGND   | Signal GND                        |
| 3       | TM     | Temperature monitoring terminal   |
| 4       | TRIM   | Voltage regulation terminal       |
| 5       | ENABLE | Enables and disables power supply |
| 6       | -IN    | Negative input power terminal     |
| 7       | -OUT   | Negative output power terminal    |
| 8       | +OUT   | Positive output power terminal    |

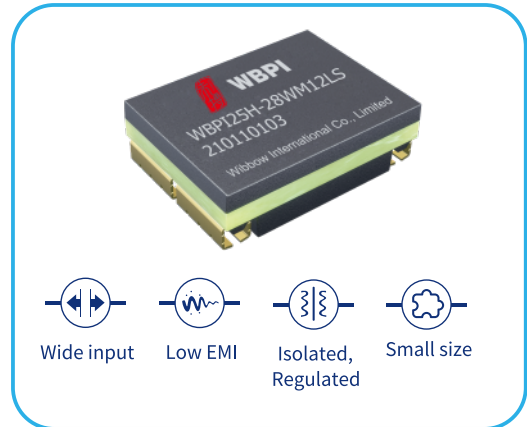
### Part Numbering

| WB         | PI                                      | 33                            | H            | - | 28                  | M   | 3V3   | L                                 | S                                     |
|------------|---|-------------------------------|--------------|---|---------------------|---|---|-----------------------------------|---------------------------------------|
| Brand Name | Series name                             | Output                        | Package Type | - | Input voltage range | Temperature Grade   | Output voltage range  | Pin Type                          | Paralleling                           |
| Wibbow     | Isolated and regulated microchip series | 33: 33W<br>50: 50W<br>25: 25W | H: HALF CHIP |   | 28:<br>16~50V       | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>18: 18V<br>24: 24V<br>28: 28V<br>48: 48V | L: Surface Mount Technology (SMT) | P: Parallel<br>S: Operate stand-alone |

## WBPI28WH Series ChiP DC-DC Converter

### Features

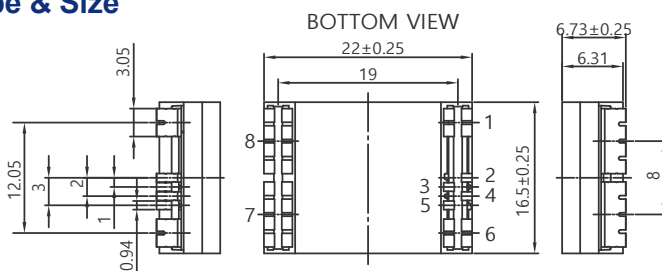
- Wide-input isolated voltage regulation: 9V-50V
- Ultra-small package
- High volume power density: 167W/in<sup>3</sup>
- High weight power density: 3.2 W/g
- Weight: only 7.8 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- 2250Vdc isolation
- Operating temperature: -55°C~100°C
- HALF CHIP package: 16.5 x22.0x6.73 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series    | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|-------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBPI16H-28WM3V3LS | 9~50V               | 3.3V                 | 2.97~3.36V       | 5A             | 16.5W        | 82%        | In development       |
| WBPI25H-28WM05LS  | 9~50V               | 5V                   | 4.0~5.5V         | 5A             | 25W          | 84.2%      | Available            |
| WBPI25H-28WM12LS  | 9~50V               | 12V                  | 9.6~13.2V        | 2.1A           | 25W          | 86%        | Available            |
| WBPI25H-28WM15LS  | 9~50V               | 15V                  | 12~16.5V         | 1.6A           | 25W          | 86%        | In development       |
| WBPI25H-28WM18LS  | 9~50V               | 18V                  | 14.4~19.8V       | 1.4A           | 25W          | 86%        | In development       |
| WBPI25H-28WM24LS  | 9~50V               | 24V                  | 22.4~30.8V       | 1.04A          | 25W          | 87%        | In development       |
| WBPI25H-28WM28LS  | 9~50V               | 28V                  | 22.4~30.8V       | 0.9A           | 25W          | 87%        | In development       |
| WBPI25H-28WM48LS  | 9~50V               | 48V                  | 38.4~52.8V       | 0.52A          | 25W          | 88%        | In development       |

### Shape & Size



| Pin No. | Label  | Function                          |
|---------|--------|-----------------------------------|
| 1       | +IN    | Positive input power terminal     |
| 2       | SGND   | Signal GND                        |
| 3       | TM     | Temperature monitoring terminal   |
| 4       | TRIM   | Voltage regulation terminal       |
| 5       | ENABLE | Enables and disables power supply |
| 6       | -IN    | Negative input power terminal     |
| 7       | -OUT   | Negative output power terminal    |
| 8       | +OUT   | Positive output power terminal    |

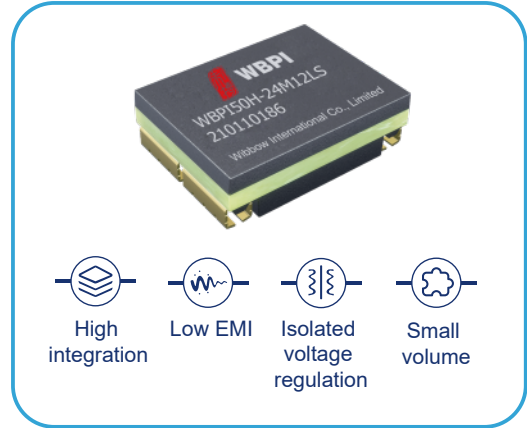
### Part Numbering

| WB         | PI                                      | 16                 | H            | - | 28W                 | M   | 3V3   | L                                 | S                                     |
|------------|---|--------------------|--------------|---|---------------------|---|---|-----------------------------------|---------------------------------------|
| Brand Name | Series name                             | Output             | Package Type | - | Input voltage range | Temperature Grade   | Output voltage range  | Pin Type                          | Paralleling                           |
| Wibbow     | Isolated and regulated microchip series | 16: 16W<br>25: 25W | H: HALF CHIP | - | 28W:<br>9~50V       | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>18: 18V<br>24: 24V<br>28: 28V<br>48: 48V | L: Surface Mount Technology (SMT) | P: Parallel<br>S: Operate stand-alone |

## WBPI24H Series Microchip DC-DC Converter

### Product Features

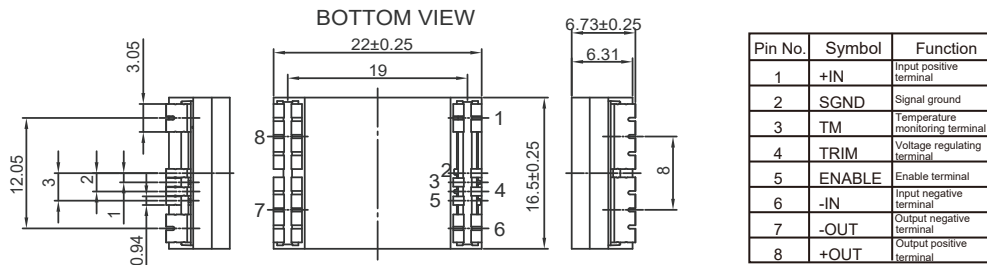
- Isolated voltage regulation
- Ultra-small size package
- High volume power density: 334 W/in<sup>3</sup>
- High weight power density: 6.4 W/g
- Weight: 7.8 g only
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- 2250 Vdc dielectric strength
- Operating temperature: -55°C~ 100°C
- HALF CHIP package: 16.5×22.0×6.73 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Adjustment range | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------|----------------|--------------|------------|------------------------|
| WBPI33H-24M3V3LS        | 18~36V        | 3.3V           | 2.97~3.36V       | 10A            | 33W          | 83.0%      | Developing             |
| WBPI50H-24M05LS         | 18~36V        | 5.0V           | 4.00~5.50V       | 10A            | 50W          | 85.3%      | Available for delivery |
| WBPI50H-24M12LS         | 18~36V        | 12V            | 9.60~13.2V       | 4.2A           | 50W          | 88.0%      | Available for delivery |
| WBPI50H-24M15LS         | 18~36V        | 15V            | 12.0~16.5V       | 3.3A           | 50W          | 88.0%      | Developing             |
| WBPI50H-24M18LS         | 18~36V        | 18V            | 14.4~19.8V       | 2.8A           | 50W          | 88.0%      | Developing             |
| WBPI50H-24M24LS         | 18~36V        | 24V            | 19.2~26.4V       | 2.1A           | 50W          | 88.5%      | Developing             |
| WBPI50H-24M28LS         | 18~36V        | 28V            | 22.4~30.8V       | 1.8A           | 50W          | 88.5%      | Developing             |
| WBPI50H-24M48LS         | 18~36V        | 48V            | 38.4~52.8V       | 1.04A          | 50W          | 89.0%      | Developing             |
| WBPI25H-24M05LS         | 18~36V        | 5.0V           | 4.00~5.50V       | 5.0A           | 25W          | 84.5%      | Developing             |
| WBPI25H-24M12LS         | 18~36V        | 12V            | 9.60~13.2V       | 2.1A           | 25W          | 87.0%      | Developing             |

### Overall dimensions



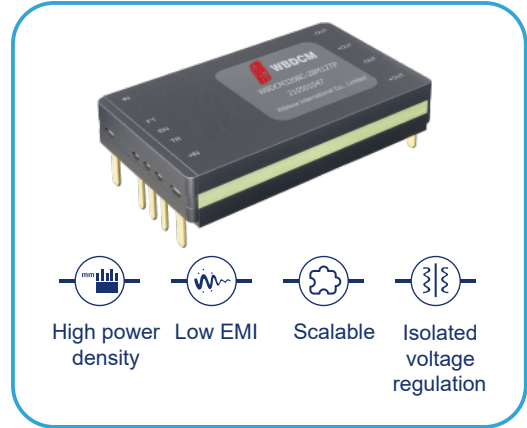
### Naming rule

| WB         | PI  | 33                 | H               | 24            | M  | 3V3   | L                 | S                             |
|------------|---|--------------------|-----------------|---------------|--|---|-------------------|-------------------------------|
| Brand name | Series name                                     | Output power       | Package code    | Input voltage | Temperature grade  | Output voltage  | Through hole type | Parallel function             |
| Wibbow     | Isolated voltage regulation<br>Microchip series | 33: 33W<br>50: 50W | H: HALF<br>CHIP | 24: 18~36V    | M : T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H : T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T : T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>18: 18V<br>24: 24V<br>28: 28V<br>48: 48V | Surface<br>mount  | S:<br>Standalone<br>operation |

## WBDCM28BC Series Microchip DC-DC Converter

### Product Features

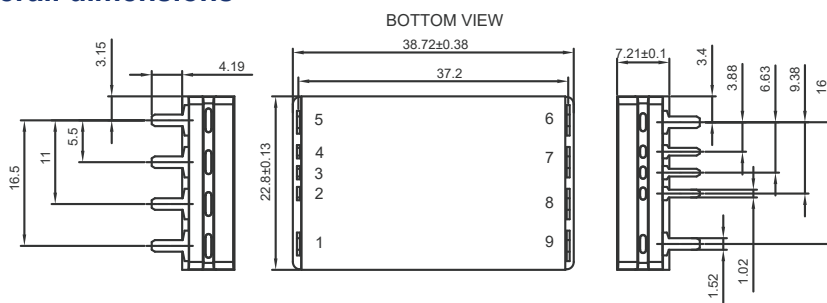
- Isolated voltage regulation
- High volume power density: 818 W/in<sup>3</sup>
- High weight power density: 13.2 W/g
- Weight: 24.2 g only
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 8 units
- 2250 Vdc dielectric strength
- Operating temperature: -55°C~100°C
- CHIP3623 package: 38.72×22.80×7.21 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Adjustment range | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------|----------------|--------------|------------|------------------------|
| WBDCM120BC-28M3V3TP     | 16~50V        | 3.3V           | 2.97~3.63V       | 36.3A          | 120W         | 88.5%      | Available for delivery |
| WBDCM180BC-28M05TP      | 16~50V        | 5.0V           | 4.00~5.50V       | 36.0A          | 180W         | 90.3%      | Available for delivery |
| WBDCM320BC-28M12TP      | 16~50V        | 12V            | 7.20~13.2V       | 26.7A          | 320W         | 92.2%      | Available for delivery |
| WBDCM320BC-28M15TP      | 16~50V        | 15V            | 9.00~16.5V       | 21.3A          | 320W         | 91.7%      | Available for delivery |
| WBDCM320BC-28M24TP      | 16~50V        | 24V            | 14.4~26.4V       | 13.3A          | 320W         | 93.2%      | Available for delivery |
| WBDCM320BC-28M28TP      | 16~50V        | 28V            | 22.0~30.8V       | 11.4A          | 320W         | 93.4%      | Available for delivery |
| WBDCM320BC-28M48TP      | 16~50V        | 48V            | 28.8~52.8V       | 6.70A          | 320W         | 93.0%      | Available for delivery |

### Overall dimensions



| Pin No. | Symbol | Function                  |
|---------|--------|---------------------------|
| 1       | +IN    | Input positive terminal   |
| 2       | TR     | Output voltage regulation |
| 3       | EN     | Enable terminal           |
| 4       | FT     | Fault indication terminal |
| 5       | -IN    | Input negative terminal   |
| 6       | -OUT   | Output negative terminal  |
| 7       | +OUT   | Output positive terminal  |
| 8       | -OUT   | Output negative terminal  |
| 9       | +OUT   | Output positive terminal  |

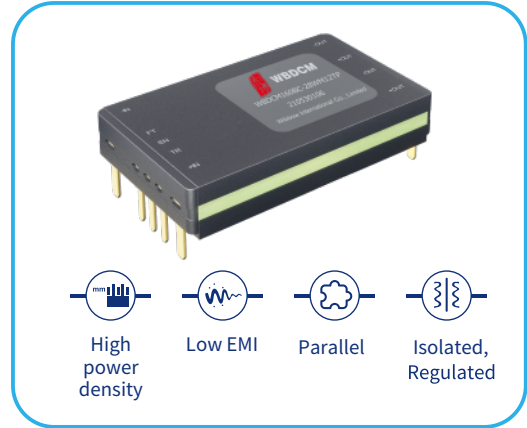
### Naming rule

| WB         | DCM   | 120                                 | BC           | 28            | M   | 3V3  | T                 | P   |
|------------|---|-------------------------------------|--------------|---------------|---|--|-------------------|---|
| Brand name | Series name                                     | Output power                        | Package code | Input voltage | Temperature grade   | Output voltage   | Through hole type | Parallel function   |
| Wibbow     | Isolated voltage regulation<br>Microchip series | 120: 120W<br>180: 180W<br>320: 320W | BC: CHIP3623 | 28: 16-50V    | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>48: 48V | Through hole      | P: Support parallel connection<br>S: Standalone operation |

## WBDCM28WBC Series ChiP DC-DC Converter

### Features

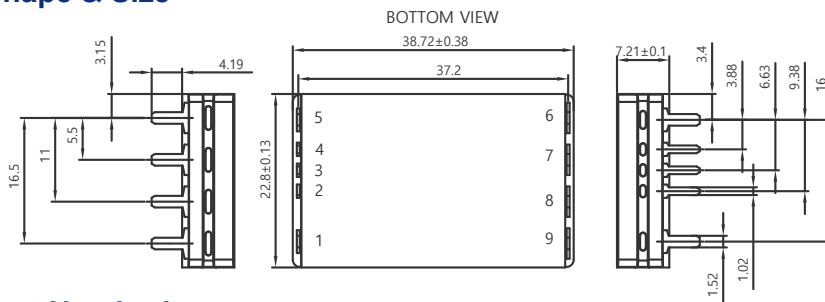
- Wide-input isolated voltage regulation
- High volume power density: 409W/in<sup>3</sup>
- High weight power density: 6.6 W/g
- Weight: only 24.2 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion
- 2250Vdc isolation
- Operating temperature: -55°C~100°C
- Package: 38.72 x 22.80 x 7.21 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series      | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|---------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBDCM80BC-28WM3V3TP | 3.3V                | 9~50V                | 2.97~3.63V       | 24.3A          | 80W          | 87.4%      | Available            |
| WBDCM80BC-28WM05TP  | 5V                  | 9~50V                | 3.5~5.5V         | 16A            | 80W          | 88.4%      | Available            |
| WBDCM160BC-28WM12TP | 12V                 | 9~50V                | 7.2~13.2V        | 13.4A          | 160W         | 90.8%      | Available            |
| WBDCM160BC-28WM15TP | 15V                 | 9~50V                | 9.0~16.5V        | 10.7A          | 160W         | 90.6%      | Available            |
| WBDCM160BC-28WM24TP | 24V                 | 9~50V                | 14.4~26.4V       | 6.7A           | 160W         | 90.8%      | Available            |
| WBDCM160BC-28WM28TP | 28V                 | 9~50V                | 16.8~30.8V       | 5.8A           | 160W         | 91.0%      | Available            |
| WBDCM160BC-28WM48TP | 48V                 | 9~50V                | 28.8~52.8V       | 3.4A           | 160W         | 90.5%      | Available            |

### Shape & Size



| Pin No. | Label | Function                          |
|---------|-------|-----------------------------------|
| 1       | +IN   | Positive input power terminal     |
| 2       | TR    | Adjusts output voltage            |
| 3       | EN    | Enables and disables power supply |
| 4       | FT    | Fault monitoring                  |
| 5       | -IN   | Negative input power terminal     |
| 6       | -OUT  | Negative output power terminal    |
| 7       | +OUT  | Positive output power terminal    |
| 8       | -OUT  | Negative output power terminal    |
| 9       | +OUT  | Positive output power terminal    |

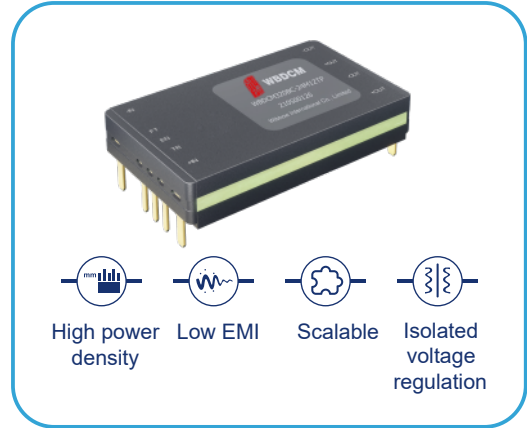
### Part Numbering

| WB         | DCM                                     | 80                   | BC           | - | 28W                 | M  | 3V3  | T               | P                                     |
|------------|---|----------------------|--------------|---|---------------------|--|--|-----------------|---------------------------------------|
| Brand Name | Series name                             | Output               | Package Type | - | Input voltage range | Temperature Grade  | Output voltage range   | Pin Type        | Paralleling                           |
| Wibbow     | Isolated and regulated microchip series | 80: 80W<br>120: 120W | BC: CHIP3623 | - | 28W:<br>9~50V       | M:<br>Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>48: 48V | T: Through hole | P: Parallel<br>S: Operate stand-alone |

## WBDCM24BC Series Microchip DC-DC Converter

### Product Features

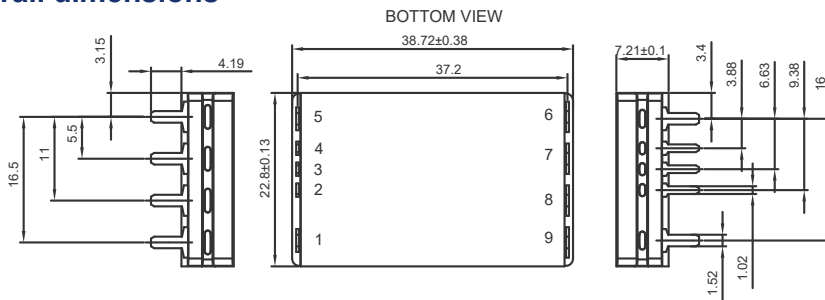
- Isolated voltage regulation
- High volume power density: 818 W/in<sup>3</sup>
- High weight power density: 13.2 W/g
- Weight: 24.2 g only
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 8 units
- 2250 Vdc dielectric strength
- Operating temperature: -55°C~ 100°C
- CHIP3623 package: 38.72 × 22.80 × 7.21 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Adjustment range | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------|----------------|--------------|------------|------------------------|
| WBDCM120BC-24M3V3TP     | 18~36V        | 3.3V           | 2.97~3.63V       | 36.3A          | 120W         | 88.4%      | Available for delivery |
| WBDCM180BC-24M05TP      | 18~36V        | 5V             | 4.0~5.5V         | 36A            | 180W         | 91.9%      | Available for delivery |
| WBDCM320BC-24M12TP      | 18~36V        | 12V            | 7.2~13.2V        | 26.7A          | 320W         | 92.2%      | Available for delivery |
| WBDCM320BC-24M15TP      | 18~36V        | 15V            | 9.0~16.5V        | 21.3A          | 320W         | 92.3%      | Available for delivery |
| WBDCM320BC-24M24TP      | 18~36V        | 24V            | 14.4~26.4V       | 13.3A          | 320W         | 91.5%      | Available for delivery |
| WBDCM320BC-24M28TP      | 18~36V        | 28V            | 16.8~30.8V       | 11.4A          | 320W         | 93.1%      | Available for delivery |
| WBDCM320BC-24M36TP      | 18~36V        | 36V            | 21.6~39.6V       | 8.8A           | 320W         | 93.0%      | Available for delivery |
| WBDCM320BC-24M48TP      | 18~36V        | 48V            | 28.8~52.8V       | 6.7A           | 320W         | 92.0%      | Available for delivery |

### Overall dimensions



| Pin No. | Symbol | Function                  |
|---------|--------|---------------------------|
| 1       | +IN    | Input positive terminal   |
| 2       | TR     | Output voltage regulation |
| 3       | EN     | Enable terminal           |
| 4       | FT     | Fault indication terminal |
| 5       | -IN    | Input negative terminal   |
| 6       | -OUT   | Output negative terminal  |
| 7       | +OUT   | Output positive terminal  |
| 8       | -OUT   | Output negative terminal  |
| 9       | +OUT   | Output positive terminal  |

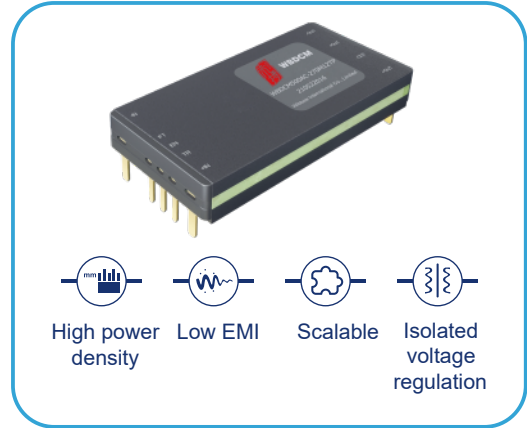
### Naming rule

| WB         | DCM   | 120                                 | BC           | 24            | M   | 3V3   | T                 | P   |
|------------|---|-------------------------------------|--------------|---------------|---|---|-------------------|---|
| Brand name | Series name                                     | Output power                        | Package code | Input voltage | Temperature grade   | Output voltage  | Through hole type | Parallel function   |
| Wibbow     | Isolated voltage regulation<br>Microchip series | 120: 120W<br>180: 180W<br>320: 320W | BC: CHIP3623 | 24: 18-36V    | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>36: 36V<br>48: 48V | Through hole      | P: Support parallel connection<br>S: Standalone operation |

## WBDCM270AC Series Series Microchip DC-DC Converter

### Product Features

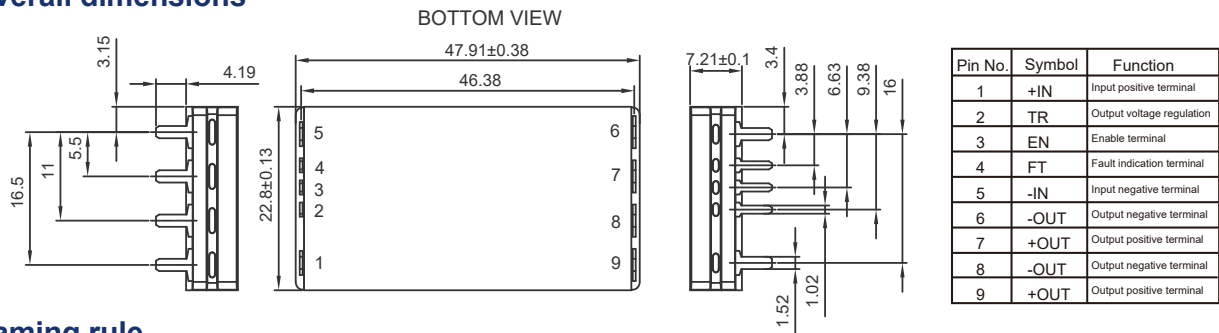
- Wide input isolated voltage regulation: 160V~420V
- High volume power density: 1040 W/in<sup>3</sup>
- High weight power density: 17.4 W/g
- Weight: 28 g only
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 8 units
- 4242 Vdc dielectric strength
- Operating temperature: -55°C~ 100°C
- CHIP3623 package: 47.91 × 22.80 × 7.21 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Adjustment range | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------|----------------|--------------|------------|------------------------|
| WBDCM150AC-270M3V3TP    | 160~420V      | 3.3V           | 3.0~3.6V         | 45.46A         | 150W         | 87.7%      | Available for delivery |
| WBDCM250AC-270M05TP     | 160~420V      | 5V             | 4.0~5.5V         | 50A            | 250W         | 89.1%      | Available for delivery |
| WBDCM500AC-270M12TP     | 160~420V      | 12V            | 7.2~13.2V        | 41.67A         | 500W         | 91.1%      | Available for delivery |
| WBDCM500AC-270M15TP     | 160~420V      | 15V            | 9.0~16.5V        | 33.4A          | 500W         | 91.8%      | Available for delivery |
| WBDCM500AC-270M24TP     | 160~420V      | 24V            | 14.4~26.4V       | 20.84A         | 500W         | 92.6%      | Available for delivery |
| WBDCM500AC-270M28TP     | 160~420V      | 28V            | 16.8~30.8V       | 17.86A         | 500W         | 93.2%      | Available for delivery |
| WBDCM500AC-270M48TP     | 160~420V      | 48V            | 28.8~52.8V       | 10.42A         | 500W         | 92.0%      | Developing             |

### Overall dimensions



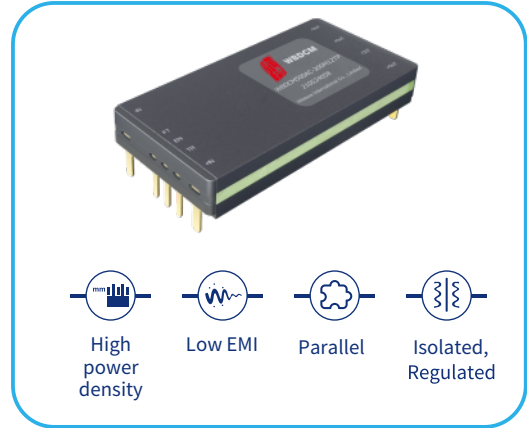
### Naming rule

| WB         | DCM   | 150                                 | AC           | 270           | M   | 3V3  | T                    | P   |
|------------|---|-------------------------------------|--------------|---------------|---|--|----------------------|---|
| Brand name | Series name                                     | Output power                        | Package code | Input voltage | Temperature grade   | Output voltage   | Through hole type    | Parallel function   |
| Wibbow     | Isolated voltage regulation<br>Microchip series | 120: 120W<br>250: 250W<br>500: 500W | AC: CHIP4623 | 270: 160~420V | M: Tc : -55~100°C<br>TS : -65~100°C<br>H: Tc : -40~100°C<br>TS : -55~100°C<br>T: Tc : -40~100°C<br>TS : -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>48: 48V | Plug-in installation | P: Support parallel connection<br>S: Standalone operation |

## WBDCM300AC Series ChiP DC-DC Converter

### Features

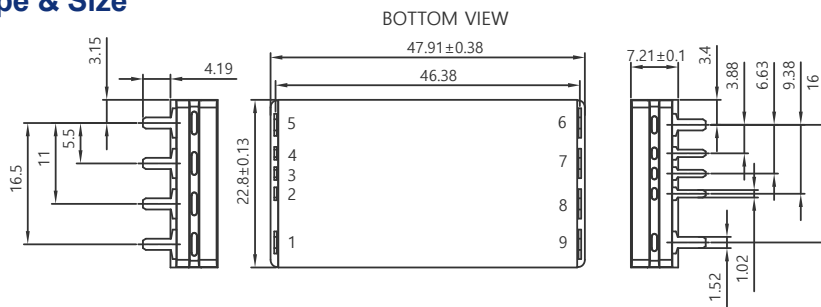
- Wide-input isolated voltage regulation: 200V-420V
- High volume power density: 1040W/in<sup>3</sup>
- High weight power density: 17.4 W/g
- Weight: only 28 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion
- 4242Vdc isolation
- Operating temperature: -55°C~100°C
- Package: 47.91 x22.80x7.21 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series       | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|----------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBDCM250AC-300M3V3TP | 200~420V            | 3.3V                 | 3.0~3.6V         | 45.46A         | 250W         | 87.7%      | In development       |
| WBDCM250AC-300M05TP  | 200~420V            | 5V                   | 4.0~5.5V         | 50A            | 250W         | 89.1%      | In development       |
| WBDCM500AC-300M12TP  | 200~420V            | 12V                  | 7.2~13.2V        | 41.67A         | 500W         | 91.1%      | Available            |
| WBDCM500AC-300M15TP  | 200~420V            | 15V                  | 9.0~16.5V        | 33.4A          | 500W         | 91.8%      | Available            |
| WBDCM500AC-300M24TP  | 200~420V            | 24V                  | 14.4~26.4V       | 20.84A         | 500W         | 92.6%      | Available            |
| WBDCM500AC-300M28TP  | 200~420V            | 28V                  | 16.8~30.8V       | 17.86A         | 500W         | 93.2%      | Available            |
| WBDCM500AC-300M48TP  | 200~420V            | 48V                  | 28.8~52.8V       | 10.42A         | 500W         | 92.0%      | In development       |
| WBDCM600AC-300M24TP  | 200~420V            | 24V                  | 14.4~26.4V       | 25A            | 600W         | 92.6%      | Available            |

### Shape & Size



| Pin No. | Label | Function                          |
|---------|-------|-----------------------------------|
| 1       | +IN   | Positive input power terminal     |
| 2       | TR    | Adjusts output voltage            |
| 3       | EN    | Enables and disables power supply |
| 4       | FT    | Fault monitoring                  |
| 5       | -IN   | Negative input power terminal     |
| 6       | -OUT  | Negative output power terminal    |
| 7       | +OUT  | Positive output power terminal    |
| 8       | -OUT  | Negative output power terminal    |
| 9       | +OUT  | Positive output power terminal    |

### Part Numbering

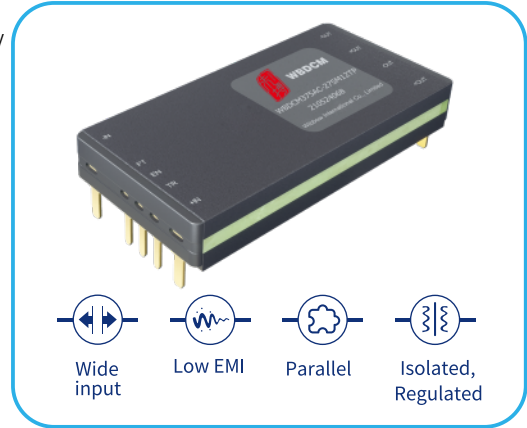
| WB         | DCM                                     | 250                                 | AC           | - | 300                      | M   | 3V3  | T               | P                                     |
|------------|---|-------------------------------------|--------------|---|--------------------------|---|--|-----------------|---------------------------------------|
| Brand Name | Series name                             | Output                              | Package Type | - | Input voltage range      | Temperature Grade   | Output voltage range   | Pin Type        | Paralleling                           |
| Wibbow     | Isolated and regulated microchip series | 250: 250W<br>500: 500W<br>600: 600W | AC: CHIP4623 | - | 200:<br>200<br>~<br>420V | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>48: 48V | T: Through hole | P: Parallel<br>S: Operate stand-alone |



## WBDCM275AC Series ChiP DC-DC Converter

### Features

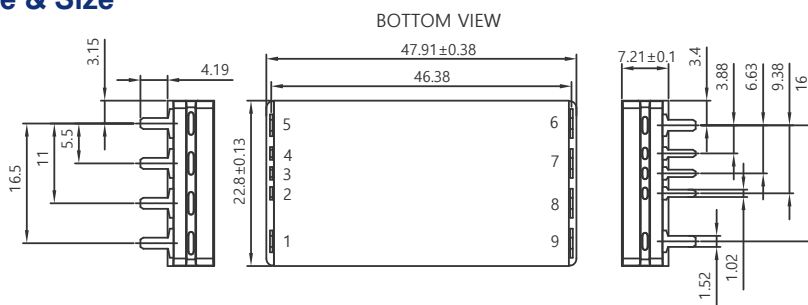
- Ultra-wide-input isolated voltage regulation: 120V-420V
- High volume power density: 1040W/in<sup>3</sup>
- High weight power density: 17.4 W/g
- Weight: only 28 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion
- 4242Vdc isolation
- Operating temperature: -55°C~100°C
- Package: 47.91 x22.80x7.21 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series       | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|----------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBDCM110AC-275M3V3TP | 120~420V            | 3.3V                 | 3.0~3.6V         | 33.4A          | 110W         | 86%        | In development       |
| WBDCM190AC-275M05TP  | 120~420V            | 5V                   | 3.5~5.5V         | 38A            | 190W         | 88.1%      | In development       |
| WBDCM375AC-275M12TP  | 120~420V            | 12V                  | 7.2~13.2V        | 31.3A          | 375W         | 92%        | Available            |
| WBDCM375AC-275M15TP  | 120~420V            | 15V                  | 9.0~16.5V        | 25A            | 375W         | 90.1%      | Available            |
| WBDCM375AC-275M24TP  | 120~420V            | 24V                  | 14.4~26.4V       | 15.7A          | 375W         | 92.6%      | Available            |
| WBDCM375AC-275M28TP  | 120~420V            | 28V                  | 16.8~30.8V       | 13.4A          | 375W         | 92.6%      | Available            |
| WBDCM375AC-275M48TP  | 120~420V            | 48V                  | 28.8~52.8V       | 7.9A           | 375W         | 91%        | In development       |

### Shape & Size



| Pin No. | Label | Function                          |
|---------|-------|-----------------------------------|
| 1       | +IN   | Positive input power terminal     |
| 2       | TR    | Adjusts output voltage            |
| 3       | EN    | Enables and disables power supply |
| 4       | FT    | Fault monitoring                  |
| 5       | -IN   | Negative input power terminal     |
| 6       | -OUT  | Negative output power terminal    |
| 7       | +OUT  | Positive output power terminal    |
| 8       | -OUT  | Negative output power terminal    |
| 9       | +OUT  | Positive output power terminal    |

### Part Numbering

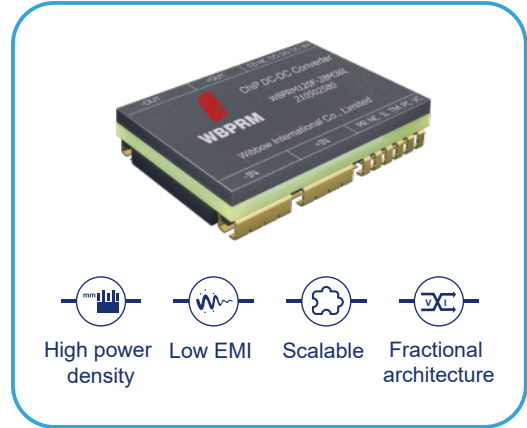
| WB         | DCM                                     | 110                                 | AC           | - | 275                      | M   | 3V3  | T               | P                                     |
|------------|---|-------------------------------------|--------------|---|--------------------------|---|--|-----------------|---------------------------------------|
| Brand Name | Series name                             | Output                              | Package Type | - | Input voltage range      | Temperature Grade   | Output voltage range   | Pin Type        | Paralleling                           |
| Wibbow     | Isolated and regulated microchip series | 110: 110W<br>190: 190W<br>375: 375W | AC: CHIP4623 | - | 275:<br>120<br>~<br>420V | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>48: 48V | T: Through hole | P: Parallel<br>S: Operate stand-alone |



## WBPRM28F Series Microchip DC-DC Converter

### Product Features

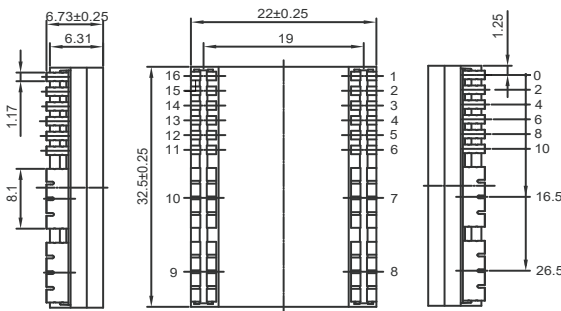
- Wide input wide output
- Maximum volume power density: 1702.7 W/in<sup>3</sup>
- Maximum weight power density: 31.25 W/g
- Weight: 16 g only
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 5 units
- Cascade JVTM composition fractional architecture
- Operating temperature: -55°C~ 100°C
- FULL CHIP package: 32.5× 22.0 × 6.73 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Adjustment range | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------|----------------|--------------|------------|------------------------|
| WBPRM120F-28M36L        | 16~50V        | 36V            | 26V~50V          | 3.33A          | 120W         | 95.5%      | Available for delivery |
| WBPRM240F-28M36L        | 16~50V        | 36V            | 26V~50V          | 6.66A          | 240W         | 95.5%      | Developing             |
| WBPRM500F-28M24L        | 20~40V        | 24V            | 20V~40V          | 20.8A          | 500W         | 95%        | Available for delivery |

### Overall dimensions



JPRM28F36M120L, JPRM28F36M240L

| Pin No. | Symbol | Function                      | Pin No. | Symbol | Function                        |
|---------|--------|-------------------------------|---------|--------|---------------------------------|
| 1       | VC     | VTM control                   | 9       | -OUT   | Output negative terminal        |
| 2       | PC     | Primary side control terminal | 10      | +OUT   | Output positive terminal        |
| 3       | TM     | Dead end                      | 11      | CD     | Voltage compensation            |
| 4       | IL     | Current limiting setting      | 12      | NC     | Dead end                        |
| 5       | NC     | Dead end                      | 13      | OS     | Output voltage setting          |
| 6       | PR     | Parallel control              | 14      | SG     | Signal ground                   |
| 7       | +IN    | Input positive terminal       | 15      | SC     | Secondary side control terminal |
| 8       | -IN    | Input negative terminal       | 16      | VH     | Auxiliary source                |

JPRM28F24M500L

| Pin No. | Symbol | Function                      | Pin No. | Symbol | Function                     |
|---------|--------|-------------------------------|---------|--------|------------------------------|
| 1       | PR     | Parallel control              | 9       | -OUT   | Output negative terminal     |
| 2       | PC     | Primary side control terminal | 10      | +OUT   | Output positive terminal     |
| 3       | TRIM   | Output voltage setting        | 11      | VC     | VTM control                  |
| 4       | NC     | Dead                          | 12      | RE     | Outer loop reference         |
| 5       | NC     | Dead                          | 13      | SG     | Signal ground                |
| 6       | AL     | Adaptive loop control         | 14      | IF     | Current monitoring           |
| 7       | +IN    | Input positive terminal       | 15      | VS     | Auxiliary source             |
| 8       | -IN    | Input negative terminal       | 16      | VT     | VTM temperature compensation |

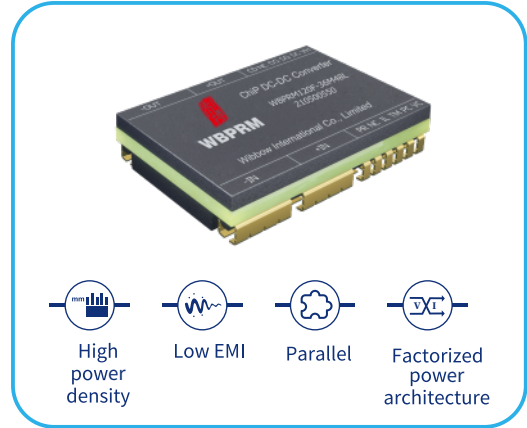
### Naming rule

| WB         | PRM   | 120                                 | F            | 28            | M   | 36                 | L                                   |
|------------|---|-------------------------------------|--------------|---------------|---|--------------------|-------------------------------------|
| Brand name | Series name                                     | Output power                        | Package code | Input voltage | Temperature grade   | Output voltage     | Through hole type                   |
| Wibbow     | Isolated voltage regulation<br>Microchip series | 120: 120W<br>240: 240W<br>500: 500W | F: FULL CHIP | 28: 16-50V    | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 36: 36V<br>24: 24V | L: Surface mount<br>T: Through hole |

## WBPRM36F Series ChiP DC-DC Converter

### Features

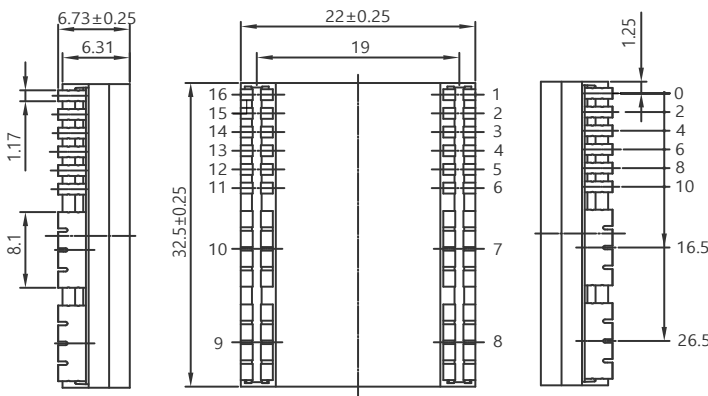
- Wide input and wide output
- Maximum volume power density: 817.3W/in3
- Maximum weight power density: 37.5 W/g
- Weight: only 16 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 5 parallel expansion
- Cascading JVTM factorized power architecture
- Operating temperature: -55°C~100°C
- FULL CHIP package: 32.5 x22.0x6.73 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series   | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBPRM120F-36M48L | 18~60V              | 48V                  | 26V~55V          | 2.5A           | 120W         | 95.0%      | Available            |
| WBPRM240F-36M48L | 18~60V              | 48V                  | 26V~55V          | 5A             | 240W         | 95.0%      | In development       |

### Shape & Size



| Pin No. | Label | Function                      | Pin No. | Label | Function                        |
|---------|-------|-------------------------------|---------|-------|---------------------------------|
| 1       | VC    | VTM control                   | 9       | -OUT  | Negative output power terminal  |
| 2       | PC    | Primary side controller       | 10      | +OUT  | Positive output power terminal  |
| 3       | TM    | NULL                          | 11      | CD    | Voltage compensation            |
| 4       | IL    | Current limiting setting      | 12      | NC    | NULL                            |
| 5       | NC    | NULL                          | 13      | OS    | Output voltage range setting    |
| 6       | PR    | Parallel control              | 14      | SG    | Signal GND                      |
| 7       | +IN   | Positive input power terminal | 15      | SC    | Secondary side control terminal |
| 8       | -IN   | Negative input power terminal | 16      | VH    | Auxiliary source                |

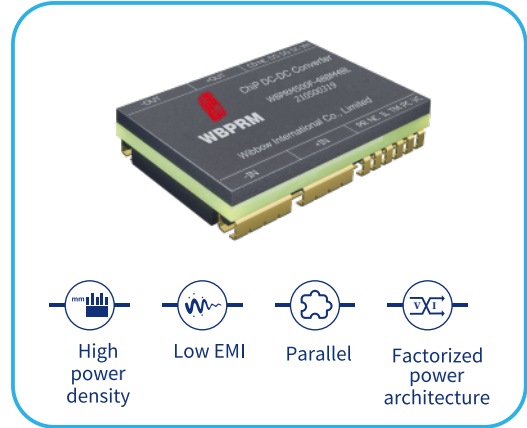
### Part Numbering

| WB         | PRM                            | 120                    | F            | - | 36                  | M   | 48                   | L  |
|------------|--------------------------------|------------------------|--------------|---|---------------------|---|----------------------|--|
| Brand Name | Series name                    | Output                 | Package Type | - | Input voltage range | Temperature Grade   | Output voltage range | Pin Type   |
| Wibbow     | Pre-regulated microchip series | 120: 120W<br>240: 240W | F: FULL CHIP | - | 36: 18~60V          | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 48: 26~55V           | L: Surface Mount Technology (SMT)<br>T: Through hole |

## WBPRM48BF Series ChiP DC-DC Converter

### Features

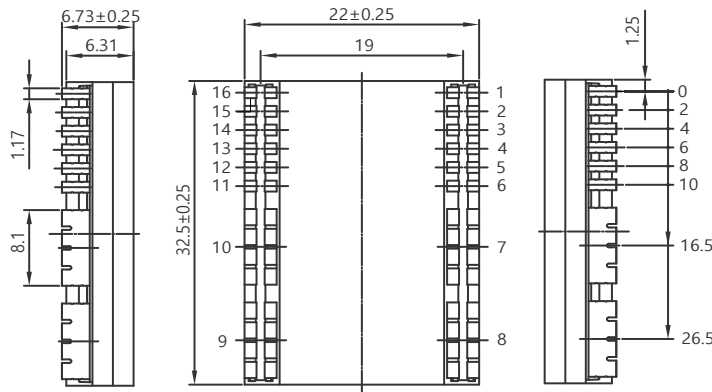
- Adjustable ultra-wide output voltage range
- Maximum volume power density: 2035W/in<sup>3</sup>
- Maximum weight power density: 37.5 W/g
- Weight: only 16 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 5 parallel expansion
- Cascading JVTM factorized power architecture
- Operating temperature: -55°C~100°C
- FULL CHIP package: 32.5 x22.0x6.73 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series    | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|-------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBPRM400F-48BM48L | 38~55V              | 48V                  | 5~55V            | 8.3A           | 400W         | 96.5%      | Available            |
| WBPRM500F-48BM48L | 38~55V              | 48V                  | 5~55V            | 10.4A          | 500W         | 97.0%      | Available            |
| WBPRM600F-48BM48L | 38~55V              | 48V                  | 5~55V            | 12.5A          | 600W         | 97.0%      | Available            |

### Shape & Size



| Pin No. | Label | Function                      | Pin No. | Label | Function                       |
|---------|-------|-------------------------------|---------|-------|--------------------------------|
| 1       | PR    | Parallel control              | 9       | -OUT  | Negative output power terminal |
| 2       | PC    | Primary side controller       | 10      | +OUT  | Positive output power terminal |
| 3       | TRIM  | Output voltage range setting  | 11      | VC    | VTM control                    |
| 4       | NC    | NULL                          | 12      | RE    | Outer ring reference           |
| 5       | NC    | NULL                          | 13      | SG    | Signal pool                    |
| 6       | AL    | Adaptive loop control         | 14      | IF    | Current monitoring             |
| 7       | +IN   | Positive input power terminal | 15      | VS    | Auxiliary source               |
| 8       | -IN   | Negative input power terminal | 16      | VT    | VTM temperature compensation   |

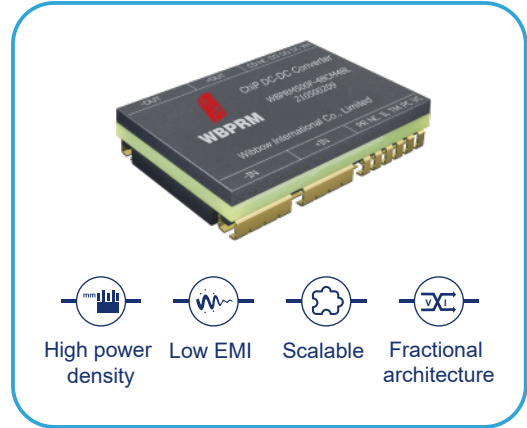
### Part Numbering

| WB         | PRM                            | 400                                 | F            | - | 48B                 | M   | 48                   | L  |
|------------|--------------------------------|-------------------------------------|--------------|---|---------------------|---|----------------------|--|
| Brand Name | Series name                    | Output                              | Package Type | - | Input voltage range | Temperature Grade   | Output voltage range | Pin Type   |
| Wibbow     | Pre-regulated microchip series | 400: 400W<br>500: 500W<br>600: 600W | F: FULL CHIP | - | 48B: 38~55V         | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 48: 5~55V            | L: Surface Mount Technology (SMT)<br>T: Through hole |

## WBPRM48CF Series Microchip DC-DC Converter

### Product Features

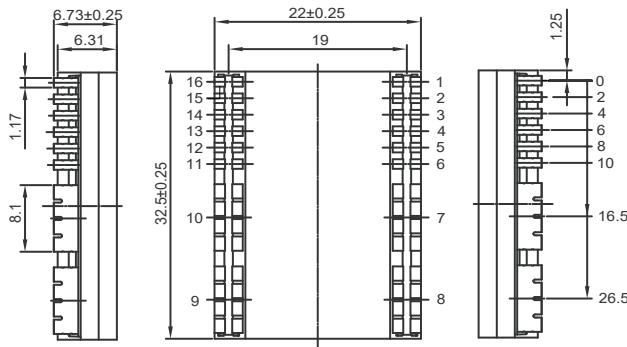
- Ultra-wide output voltage adjustable
- Maximum volume power density: 2035 W/in<sup>3</sup>
- Maximum weight power density: 37.5 W/g
- Maximum weight: 16 g only
- Over-voltage, under-voltage, over-current, short circuit, and over-temperature protection
- Support expansion by parallel connection of up to 5 units
- Cascade JVTM composition fractional architecture
- Operating temperature: -55°C~ 100°C
- FULL CHIP package: 32.5× 22.0 × 6.73 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Adjustment range | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------|----------------|--------------|------------|------------------------|
| WBPRM400F-48CM48L       | 45~55V        | 48V            | 5~55V            | 8.33A          | 400W         | 96.5%      | Available for delivery |
| WBPRM500F-48CM48L       | 45~55V        | 48V            | 5~55V            | 10.4A          | 500W         | 97.0%      | Available for delivery |
| WBPRM600F-48CM48L       | 45~55V        | 48V            | 5~55V            | 12.5A          | 600W         | 97.0%      | Available for delivery |

### Overall dimensions



| Pin No. | Symbol | Function                      | Pin No. | Symbol | Function                     |
|---------|--------|-------------------------------|---------|--------|------------------------------|
| 1       | PR     | Parallel control              | 9       | -OUT   | Output negative terminal     |
| 2       | PC     | Primary side control terminal | 10      | +OUT   | Output positive terminal     |
| 3       | TRIM   | Output voltage setting        | 11      | VC     | VTM control                  |
| 4       | NC     | Dead                          | 12      | RE     | Outer loop reference         |
| 5       | NC     | Dead                          | 13      | SG     | Signal ground                |
| 6       | AL     | Adaptive loop control         | 14      | IF     | Current monitoring           |
| 7       | +IN    | Input positive terminal       | 15      | VS     | Auxiliary source             |
| 8       | -IN    | Input negative terminal       | 16      | VT     | VTM temperature compensation |

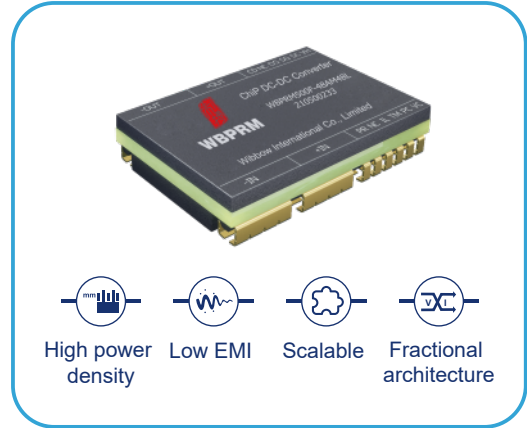
### Naming rule

| WB         | PRM   | 400                                 | F            | 48C           | M   | 48             | L                 |
|------------|---|-------------------------------------|--------------|---------------|---|----------------|-------------------|
| Brand name | Series name                                     | Output power                        | Package code | Input voltage | Temperature grade   | Output voltage | Through hole type |
| Wibbow     | Isolated voltage regulation<br>Microchip series | 400: 400W<br>500: 500W<br>600: 600W | F: FULL CHIP | 48C: 45~55V   | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 48: 48V        | L: Surface mount  |

## WBPRM48AF Series Microchip DC-DC Converter

### Product Features

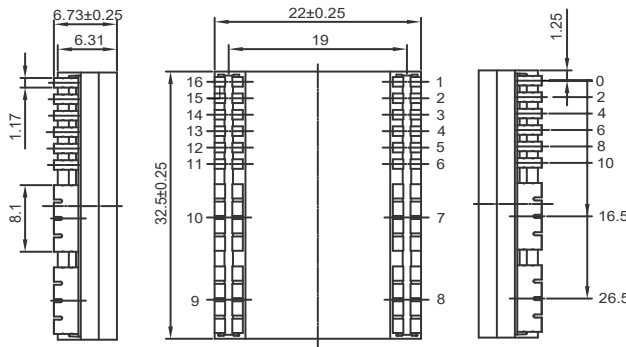
- Wide input wide output
- Maximum volume power density: 2035 W/in<sup>3</sup>
- Maximum weight power density: 37.5 W/g
- Weight: 16 g only
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 5 units
- Cascade JVTM composition fractional architecture
- Operating temperature: -55°C~ 100°C
- FULL CHIP package: 32.5× 22.0 × 6.73 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Adjustment range | Output current | Output power | Efficiency | Development progress |
|-------------------------|---------------|----------------|------------------|----------------|--------------|------------|----------------------|
| WBPRM400F-48AM48L       | 36~75V        | 48V            | 20~55V           | 8.33A          | 400W         | 96.5%      | Developing           |
| WBPRM500F-48AM48L       | 36~75V        | 48V            | 20~55V           | 10.4A          | 500W         | 97.0%      | Developing           |
| WBPRM600F-48AM48L       | 36~75V        | 48V            | 20~55V           | 12.5A          | 600W         | 97.0%      | Developing           |

### Overall dimensions



| Pin No. | Symbol | Function                      | Pin No. | Symbol | Function                     |
|---------|--------|-------------------------------|---------|--------|------------------------------|
| 1       | PR     | Parallel control              | 9       | -OUT   | Output negative terminal     |
| 2       | PC     | Primary side control terminal | 10      | +OUT   | Output positive terminal     |
| 3       | TRIM   | Output voltage setting        | 11      | VC     | VTM control                  |
| 4       | NC     | Dead                          | 12      | RE     | Outer loop reference         |
| 5       | NC     | Dead                          | 13      | SG     | Signal ground                |
| 6       | AL     | Adaptive loop control         | 14      | IF     | Current monitoring           |
| 7       | +IN    | Input positive terminal       | 15      | VS     | Auxiliary source             |
| 8       | -IN    | Input negative terminal       | 16      | VT     | VTM temperature compensation |

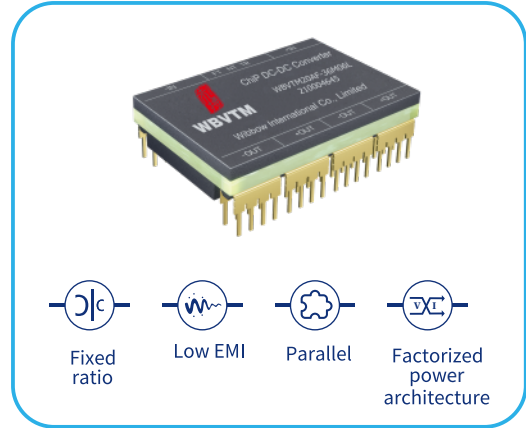
### Naming rule

| WB         | PRM   | 400                                 | F            | 48A           | M   | 48             | L                                   |
|------------|---|-------------------------------------|--------------|---------------|---|----------------|-------------------------------------|
| Brand name | Series name                                     | Output power                        | Package code | Input voltage | Temperature grade   | Output voltage | Through hole type                   |
| Wibbow     | Isolated voltage regulation<br>Microchip series | 400: 400W<br>500: 500W<br>600: 600W | F: FULL CHIP | 48A: 36~75V   | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 48: 48V        | L: Surface mount<br>T: Through hole |

## WBVTM36F Series ChiP DC-DC Converter

### Features

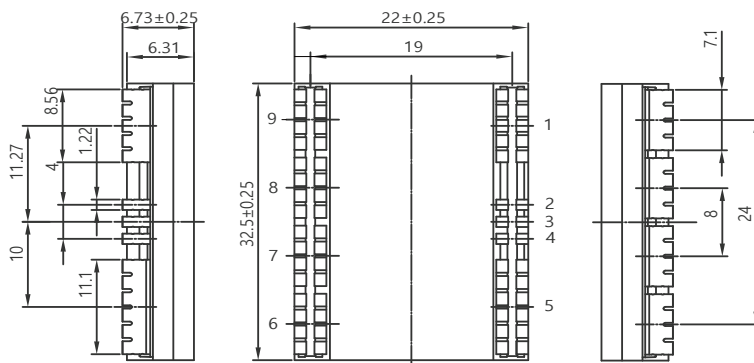
- Isolated fixed voltage ratio
- High volume power density: 557W/in<sup>3</sup>
- High weight power density: 10.9 W/g
- Weight: only 16 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion
- Cascading JPRM factorized power architecture
- Operating temperature: -55°C~100°C
- FULL CHIP package: 32.5 x22.0x6.73 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series    | Input voltage range | Output voltage range | Conversion ratio | Output current | Output power | Efficiency | Development progress |
|-------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBVTM40AF-36M03L  | 26~50V              | 3V                   | 12:1             | 40A            | 120W         | 94.0%      | In development       |
| WBVTM27AF-36M4V5L | 26~50V              | 4.5V                 | 8:1              | 27A            | 120W         | 94.7%      | In development       |
| WBVTM20AF-36M06L  | 26~50V              | 6V                   | 6:1              | 20A            | 120W         | 95.0%      | Available            |
| WBVTM13AF-36M09L  | 26~50V              | 9V                   | 4:1              | 13A            | 120W         | 95.3%      | In development       |
| WBVTM10AF-36M12L  | 26~50V              | 12V                  | 3:1              | 10A            | 120W         | 94.9%      | In development       |
| WBVTM07AF-36M18L  | 26~50V              | 18V                  | 2:1              | 7A             | 120W         | 94.0%      | In development       |
| WBVTM05AF-36M24L  | 26~50V              | 24V                  | 3:2              | 5A             | 120W         | 96.0%      | Available            |
| WBVTM03AF-36M36L  | 36~50V              | 36V                  | 1:1              | 3A             | 120W         | 95.0%      | In development       |

### Shape & Size



| Pin No. | Label | Function                       |
|---------|-------|--------------------------------|
| 1       | +IN   | Positive input power terminal  |
| 2       | TM    | Temperature measurement        |
| 3       | VC    | Modular control                |
| 4       | PC    | Primary side control           |
| 5       | -IN   | Negative input power terminal  |
| 6       | -OUT  | Negative output power terminal |
| 7       | +OUT  | Positive output power terminal |
| 8       | -OUT  | Negative output power terminal |
| 9       | +OUT  | Positive output power terminal |

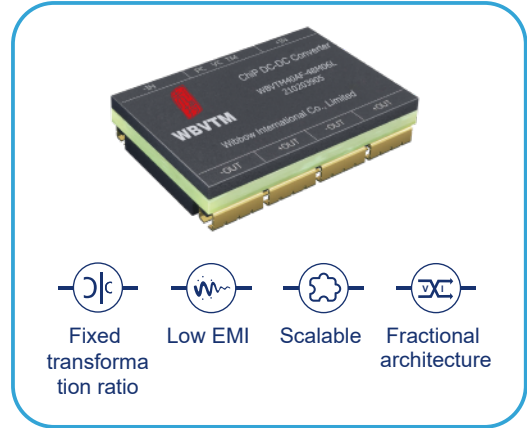
### Part Numbering

| WB         | VTM                                   | 40A   | F            | - | 36                  | M   | 48  | L  |
|------------|---------------------------------------|---|--------------|---|---------------------|---|---|--|
| Brand Name | Series name                           | Output  | Package Type | - | Input voltage range | Temperature Grade   | Output voltage range  | Pin Type   |
| Wibbow     | Isolated unregulated microchip series | 40A: 40A<br>27A: 27A<br>20A: 20A<br>13A: 13A<br>10A: 10A<br>07A: 7A<br>05A: 5A<br>03A: 3A | F: FULL CHIP | - | 36: 36~50V          | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 03: 3V<br>4V5: 4.5V<br>06: 6V<br>09: 9V<br>12: 12V<br>18: 18V<br>24: 24V<br>36: 36V | L: Surface Mount Technology (SMT)<br>T: Through hole |

## WBVTM48F Series Microchip DC-DC Converter

### Product Features

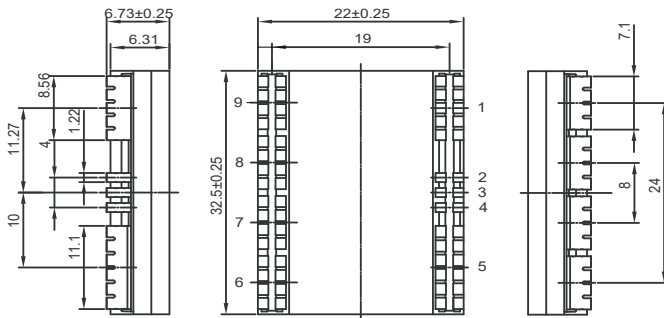
- Isolated fixed voltage ratio
- High volume power density: 1114 W/in<sup>3</sup>
- High weight power density: 22 W/g
- Weight: 16 g only
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 8 units
- Cascade JPRM composition fractional architecture
- Operating temperature: -55°C~ 100°C
- FULL CHIP package: 32.5× 22.0 × 6.73 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Voltage transformation ratio | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------------------|----------------|--------------|------------|------------------------|
| WBVTM50AF-48M04L        | 26~55V        | 4V             | 12: 1                        | 50A            | 200W         | 94.0%      | Developing             |
| WBVTM40AF-48M06L        | 26~55V        | 6V             | 8: 1                         | 40A            | 240W         | 94.6%      | Available for delivery |
| WBVTM30AF-48M08L        | 26~55V        | 8V             | 6: 1                         | 30A            | 240W         | 95.4%      | Available for delivery |
| WBVTM25AF-48M9V6L       | 26~55V        | 9.6V           | 5: 1                         | 25A            | 240W         | 95.8%      | Developing             |
| WBVTM25AF-48M12L        | 26~55V        | 12V            | 4: 1                         | 25A            | 300W         | 95.8%      | Available for delivery |
| WBVTM15AF-48M16L        | 26~55V        | 16V            | 3: 1                         | 15A            | 240W         | 95.0%      | Available for delivery |
| WBVTM12A5F-48M24L       | 26~55V        | 24V            | 2: 1                         | 12.5A          | 300W         | 95.5%      | Developing             |
| WBVTM09A5F-48M32L       | 26~55V        | 32V            | 3: 2                         | 9.5A           | 300W         | 96.2%      | Developing             |

### Overall dimensions



| Pin No. | Symbol | Function                 |
|---------|--------|--------------------------|
| 1       | +IN    | Input positive terminal  |
| 2       | TM     | Temperature detection    |
| 3       | VC     | Module control           |
| 4       | PC     | Primary side control     |
| 5       | -IN    | Input negative terminal  |
| 6       | -OUT   | Output negative terminal |
| 7       | +OUT   | Output positive terminal |
| 8       | -OUT   | Output negative terminal |
| 9       | +OUT   | Output positive terminal |

### Naming rule

| WB         | VTM                                      | 50A   | F            | 48            | M   | 04  | L                                   |
|------------|--|---|--------------|---------------|---|---|-------------------------------------|
| Brand name | Series name                              | Output current  | Package code | Input voltage | Temperature grade   | Output voltage  | Through hole type                   |
| Wibbow     | Isolated non-stabilized microchip series | 50A: 50A<br>40A: 40A<br>30A: 30A<br>25A: 25A<br>15A: 15A<br>12A: 12A<br>09A: 9A | F: FULL CHIP | 48: 26~55V    | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 04: 4V<br>06: 6V<br>08: 8V<br>9V6: 9.6V<br>12: 12V<br>16: 16V<br>24: 24V<br>32: 32V | L: Surface mount<br>T: Through hole |

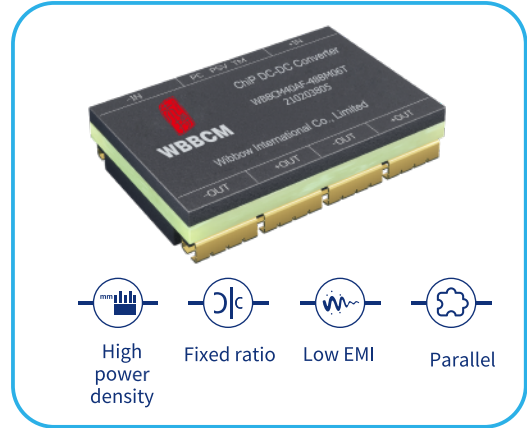




## WBBCM48BF Series Chip DC-DC Converter

### Features

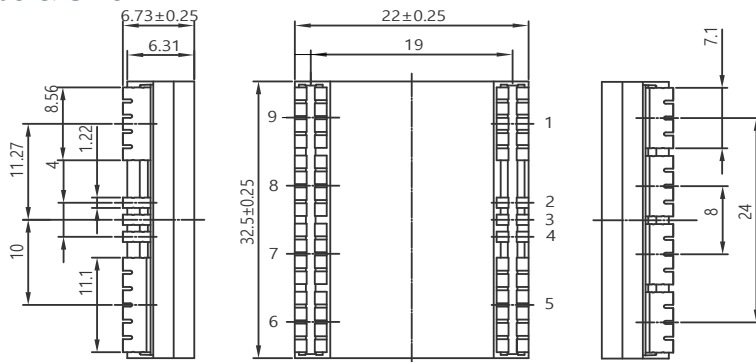
- Isolated fixed voltage ratio
- High volume power density: 1114W/in<sup>3</sup>
- High weight power density: 22WW/g
- Weight: only 16 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion
- Operating temperature: -55°C~100°C
- FULL CHIP package: 32.5 x 22.0 x 6.73 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series     | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|--------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBBCM50AF-48BM04L  | 38~55V              | 4V                   | 12:1             | 50A            | 200W         | 94.1%      | In development       |
| WBBCM40AF-48BM06L  | 38~55V              | 6V                   | 8:1              | 40A            | 240W         | 94.7%      | Available            |
| WBBCM30AF-48BM08L  | 38~55V              | 8V                   | 6:1              | 30A            | 240W         | 95.6%      | Available            |
| WBBCM25AF-48BM9V6L | 38~55V              | 9.6V                 | 5:1              | 25A            | 240W         | 95.8%      | In development       |
| WBBCM25AF-48BM12L  | 38~55V              | 12V                  | 4:1              | 25A            | 300W         | 96.0%      | Available            |
| WBBCM15AF-48BM16L  | 38~55V              | 16V                  | 3:1              | 15A            | 240W         | 95.3%      | Available            |
| WBBCM12A5F-48BM24L | 38~55V              | 24V                  | 2:1              | 12.5A          | 300W         | 95.5%      | In development       |
| WBBCM09AF-48BM32L  | 38~55V              | 32V                  | 3:2              | 9.5A           | 300W         | 96.2%      | In development       |

### Shape & Size



| Pin No. | Label | Function                       |
|---------|-------|--------------------------------|
| 1       | +IN   | Positive input power terminal  |
| 2       | TM    | Temperature measurement        |
| 3       | RSV   | NULL                           |
| 4       | PC    | Primary side control           |
| 5       | -IN   | Negative input power terminal  |
| 6       | -OUT  | Negative output power terminal |
| 7       | +OUT  | Positive output power terminal |
| 8       | -OUT  | Negative output power terminal |
| 9       | +OUT  | Positive output power terminal |

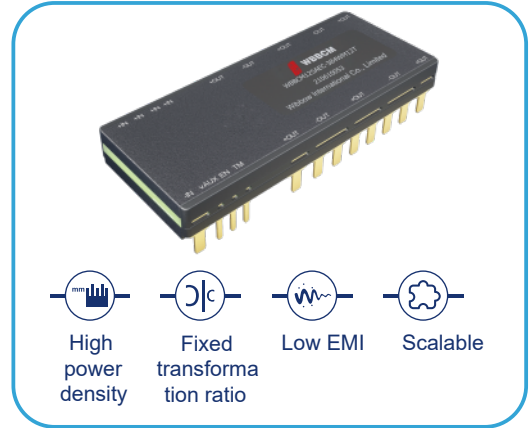
### Part Numbering

| WB         | BCM                                   | 50A   | F            | - | 48B                 | M   | 04  | L  |
|------------|---------------------------------------|---|--------------|---|---------------------|---|---|--|
| Brand Name | Series name                           | Output  | Package Type | - | Input voltage range | Temperature Grade   | Output voltage range  | Pin Type   |
| Wibbow     | Isolated unregulated microchip series | 50A: 50A<br>40A: 40A<br>30A: 30A<br>25A: 25A<br>15A: 15A<br>12A: 12A<br>09A: 9A | F: FULL CHIP | - | 48B: 38~55V         | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 04: 4V<br>06: 6V<br>08: 8V<br>9V6: 9.6V<br>12: 12V<br>16: 16V<br>24: 24V<br>32: 32V | L: Surface Mount Technology (SMT)<br>T: Through hole |

## WBBCM384WEC Series Microchip DC-DC Converter

### Product Features

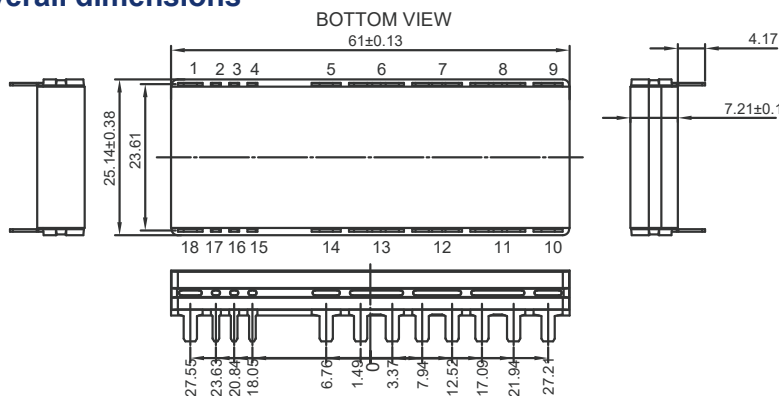
- High voltage wide input isolated fixed transformation ratio
- High volume power density: 2352 W/in<sup>3</sup>
- High weight power density: 40 W/g
- Weight: 41 g only
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 8 units
- Support bidirectional operation
- Operating temperature: -55°C~ 100°C
- CHIP6123 package: 61.0× 25.14 × 7.21 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Voltage transformation ratio | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------------------|----------------|--------------|------------|------------------------|
| WBBCM68AEC-384WM12T     | 260~410V      | 12V            | 32: 1                        | 68A            | 816W         | 97.1%      | Available for delivery |
| WBBCM125AEC-384WM12T    | 260~410V      | 12V            | 32: 1                        | 125A           | 1500W        | 96.4%      | Available for delivery |
| WBBCM62A5EC-384WM12T    | 260~410V      | 24V            | 16: 1                        | 62.5A          | 1500W        | 96.5%      | Available for delivery |

### Overall dimensions



| Pin No.        | Symbol | Function                        |
|----------------|--------|---------------------------------|
| 1              | -IN    | Input negative terminal         |
| 2              | VAUX   | Auxiliary source terminal       |
| 3              | EN     | Enable terminal                 |
| 4              | TM     | Temperature monitoring terminal |
| 5,7,9,10,12,14 | +OUT   | Output positive terminal        |
| 6,8,11,13      | -OUT   | Output negative terminal        |
| 15,16,17,18    | +IN    | Input positive terminal         |

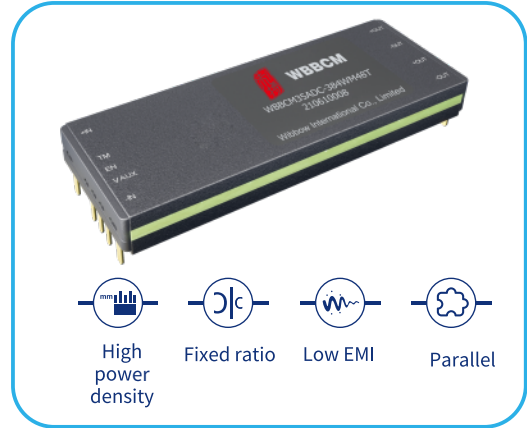
### Naming rule

| WB         | BCM                                      | 68A                                  | EC   | 384W           | M   | 12             | T                 |
|------------|--|--------------------------------------|--|----------------|---|----------------|-------------------|
| Brand name | Series name                              | Output current                       | Package code                               | Input voltage  | Temperature grade   | Output voltage | Through hole type |
| Wibbow     | Isolated non-stabilized microchip series | 68A: 68A<br>125A: 125A<br>62A5: 62A5 | EC: CHIP6123 (Through hole from long edge) | 384W: 260-410V | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 12: 12V        | T: Through hole   |

## WBBCM384WDC Series ChiP DC-DC Converter

### Features

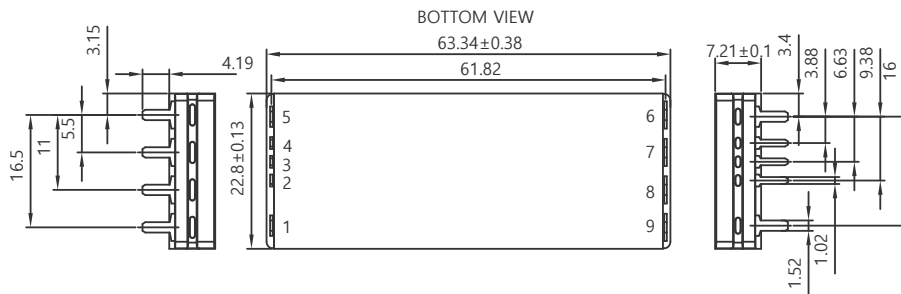
- High-voltage wide-input isolated fixed ratio
  - High volume power density: 2735W/in<sup>3</sup>
  - High weight power density: 42.7 W/g
  - Weight: only 41 g
  - Over-voltage, under-voltage, over-current, short-circuit and thermal protections
  - Supports 8 parallel expansion
  - Two-way operation
  - Operating temperature: -55°C~100°C
  - Package: 63.3 x22.8x7.21 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series      | Input voltage range | Output voltage range | Voltage variation | Output current | Output power | Efficiency | Development progress |
|---------------------|---------------------|----------------------|-------------------|----------------|--------------|------------|----------------------|
| WBBCM17ADC-384WM48T | 260~410V            | 48V                  | 8:1               | 17A            | 816W         | 97.5%      | Available            |
| WBBCM26ADC-384WM48T | 260~410V            | 48V                  | 8:1               | 26A            | 1248W        | 97.4%      | Available            |
| WBBCM35ADC-384WM48T | 260~410V            | 48V                  | 8:1               | 35A            | 1680W        | 96.6%      | Available            |

### Shape & Size



| Pin No. | Label | Function                          |
|---------|-------|-----------------------------------|
| 1       | +IN   | Positive input power terminal     |
| 2       | TM    | Temperature measurement terminal  |
| 3       | EN    | Enables and disables power supply |
| 4       | VAUX  | Auxiliary source                  |
| 5       | -IN   | Negative input power terminal     |
| 6       | -OUT  | Negative output power terminal    |
| 7       | +OUT  | Positive output power terminal    |
| 8       | -OUT  | Negative output power terminal    |
| 9       | +OUT  | Positive output power terminal    |

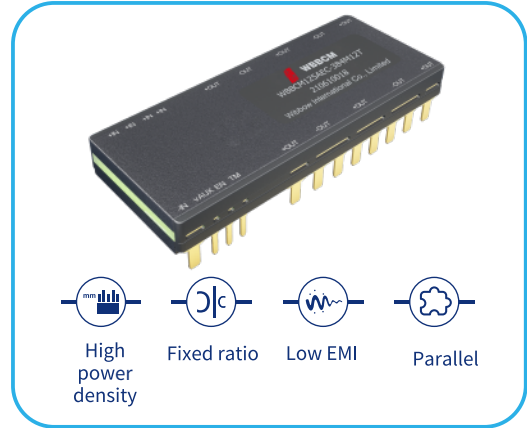
### Part Numbering

| WB         | BCM                                   | 17A                              | DC                                   | - | 384W                | M   | 48                   | T               |
|------------|---------------------------------------|----------------------------------|--------------------------------------|---|---------------------|---|----------------------|-----------------|
| Brand Name | Series name                           | Output                           | Package Type                         | - | Input voltage range | Temperature Grade   | Output voltage range | Pin Type        |
| Wibbow     | Isolated unregulated microchip series | 17A: 17A<br>26A: 26A<br>35A: 35A | DC: CHIP6123 (Pin-out on short side) |   | 384W: 260~410V      | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 48: 48V              | T: Through hole |

## WBBCM384EC Series ChiP DC-DC Converter

### Features

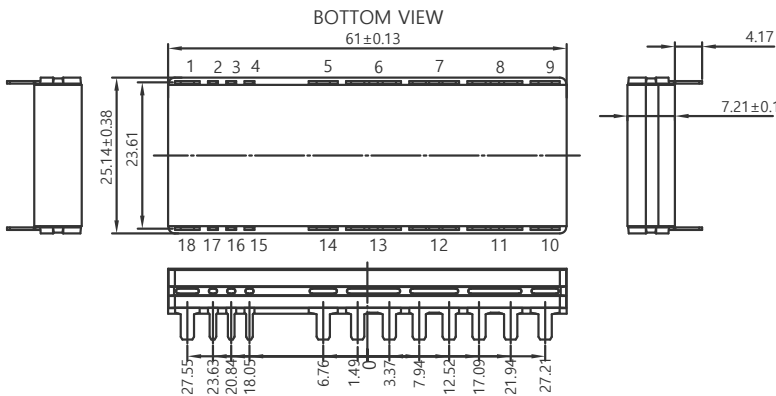
- High-voltage wide-input isolated fixed ratio
- High volume power density: 2352W/in<sup>3</sup>
- High weight power density: 40 W/g
- Weight: only 41 g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion
- Two-way operation
- Operating temperature: -55°C~100°C
- Package: 61 x25.14x7.21 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series      | Input voltage range | Output voltage range | Voltage variation | Output current | Output power | Efficiency | Development progress |
|---------------------|---------------------|----------------------|-------------------|----------------|--------------|------------|----------------------|
| WBBCM68AEC-384M12T  | 360~400V            | 12V                  | 32:1              | 68A            | 816W         | 97.1%      | Available            |
| WBBCM125AEC-384M12T | 360~400V            | 12V                  | 32:1              | 125A           | 1500W        | 96.4%      | Available            |
| WBBCM62A5EC-384M12T | 360~400V            | 24V                  | 16:1              | 62.5A          | 1500W        | 96.5%      | Available            |

### Shape & Size



| Pin No.        | Label | Function                          |
|----------------|-------|-----------------------------------|
| 1              | -IN   | Negative input power terminal     |
| 2              | VAUX  | Auxiliary source                  |
| 3              | EN    | Enables and disables power supply |
| 4              | TM    | Temperature monitoring terminal   |
| 5,7,9,10,12,14 | +OUT  | Positive output power terminal    |
| 6,8,11,13      | -OUT  | Negative output power terminal    |
| 15,16,17,18    | +IN   | Positive input power terminal     |

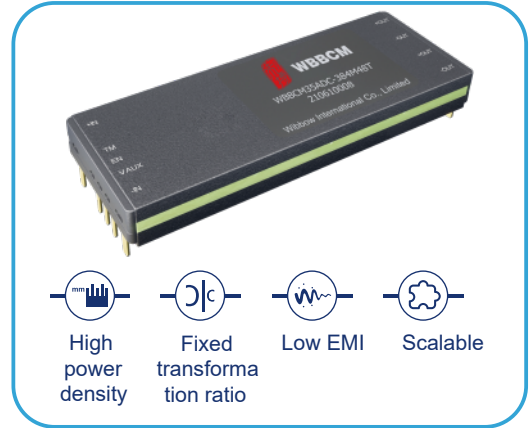
### Part Numbering

| WB         | BCM                                   | 68A                                   | EC                                  | - | 384                 | M   | 12                   | T               |
|------------|---------------------------------------|---------------------------------------|-------------------------------------|---|---------------------|---|----------------------|-----------------|
| Brand Name | Series name                           | Output                                | Package Type                        | - | Input voltage range | Temperature Grade   | Output voltage range | Pin Type        |
| Wibbow     | Isolated unregulated microchip series | 68A: 12A<br>125A: 125A<br>65A5: 62.5A | EC: CHIP6123 (Pin-out on long side) |   | 384: 360~400V       | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 12: 12V              | T: Through hole |

## WBBCM384DC Series Microchip DC-DC Converter

### Product Features

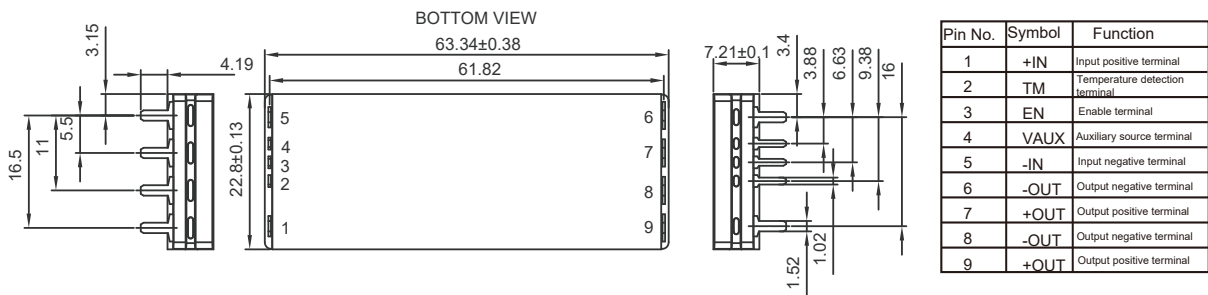
- High voltage wide input isolated fixed transformation ratio
- High volume power density: 2735 W/in<sup>3</sup>
- High weight power density: 42.7 W/g
- Weight: 41 g only
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 8 units
- Support bidirectional operation
- Operating temperature: -55°C~ 100°C
- CHIP6123 package: 63.3× 22.8 × 7.21 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Voltage transformation ratio | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------------------|----------------|--------------|------------|------------------------|
| WBBCM17ADC-384M48T      | 360~400V      | 48V            | 81                           | 17A            | 816W         | 97.5%      | Available for delivery |
| WBBCM26ADC-384M48T      | 360~400V      | 48V            | 81                           | 26A            | 1248W        | 97.4%      | Available for delivery |
| WBBCM35ADC-384M48T      | 360~400V      | 48V            | 81                           | 35A            | 1680W        | 96.6%      | Available for delivery |

### Overall dimensions



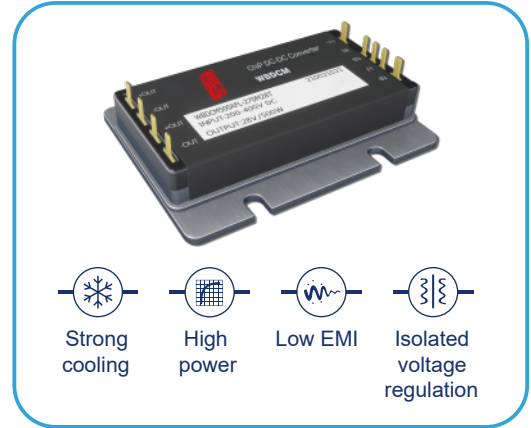
### Naming rule

| WB         | BCM                                      | 17A                              | DC  | - | 384           | M   | 48             | T                       |
|------------|--|----------------------------------|---|---|---------------|---|----------------|-------------------------|
| Brand name | Series name                              | Output current                   | Package code                                |   | Input voltage | Temperature grade   | Output voltage | Through hole type       |
| Wibbow     | Isolated non-stabilized microchip series | 17A: 17A<br>26A: 26A<br>35A: 35A | DC: CHIP6123 (Through hole from short edge) |   | 384: 360-400V | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 12: 12V        | T: Plug-in installation |

## WBDCM270AFL Series Microchip DC-DC Converter

### Product Features

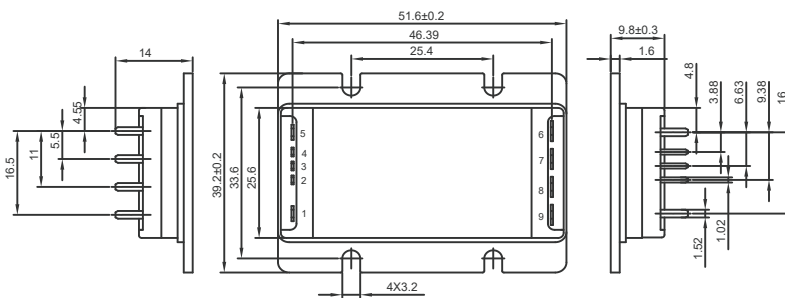
- Metal casing reinforced cooling
- Wide input isolated voltage regulation: 160V~420V
- High volume power density: 612 W/in<sup>3</sup>
- Weight: 45 g
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 8 units
- 4242 Vdc dielectric strength
- Operating temperature: -55°C~ 90°C
- 4623 metal flange package: 65.0× 27.2 × 9.8 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Adjustment range | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------|----------------|--------------|------------|------------------------|
| WBDCM150AFL-270M3V3T    | 160~420V      | 3.3V           | 3.0~3.6V         | 45.46A         | 150W         | 87.7%      | Developing             |
| WBDCM250AFL-270M05T     | 160~420V      | 5V             | 4.0~5.5V         | 50A            | 250W         | 89.1%      | Developing             |
| WBDCM500AFL-270M12T     | 160~420V      | 12V            | 7.2~13.2V        | 41.67A         | 500W         | 91.1%      | Available for delivery |
| WBDCM500AFL-270M15T     | 160~420V      | 15V            | 9.0~16.5V        | 33.4A          | 500W         | 91.8%      | Available for delivery |
| WBDCM500AFL-270M24T     | 160~420V      | 24V            | 14.4~26.4V       | 20.84A         | 500W         | 92.6%      | Available for delivery |
| WBDCM500AFL-270M28T     | 160~420V      | 28V            | 16.8~30.8V       | 17.86A         | 500W         | 93.2%      | Available for delivery |
| WBDCM500AFL-270M48T     | 160~420V      | 48V            | 28.8~52.8V       | 10.42A         | 500W         | 92.0%      | Developing             |

### Overall dimensions



| Pin No. | Symbol | Function                  |
|---------|--------|---------------------------|
| 1       | +IN    | Input positive terminal   |
| 2       | TR     | Output voltage regulation |
| 3       | EN     | Enable terminal           |
| 4       | FT     | Fault indication terminal |
| 5       | -IN    | Input negative terminal   |
| 6       | -OUT   | Output negative terminal  |
| 7       | +OUT   | Output positive terminal  |
| 8       | -OUT   | Output negative terminal  |
| 9       | +OUT   | Output positive terminal  |

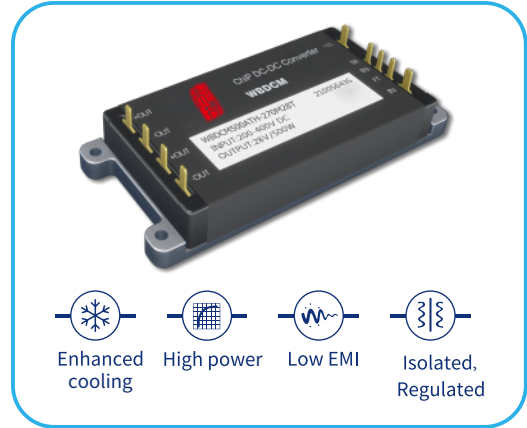
### Naming rule

| WB         | DCM  | 150                                 | AFL                            | - | 270           | M  | 3V3  | T                 |
|------------|--|-------------------------------------|--------------------------------|---|---------------|--|--|-------------------|
| Brand name | Series name                                  | Output current                      | Package code                   |   | Input voltage | Temperature grade  | Output voltage   | Through hole type |
| Wibbow     | Isolated voltage regulation Microchip series | 150: 150W<br>250: 250W<br>500: 500W | AFL: 4623 metal flange housing |   | 270: 160~420V | M : T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>48: 48V | T: Through hole   |

## WBDCM270ATH Series ChiP DC-DC Converter

### Features

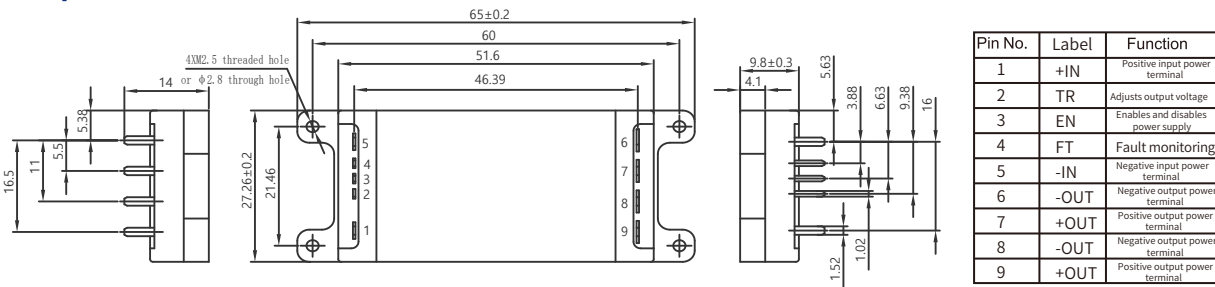
- Enhanced cooling by metal case
- Wide-input isolated voltage regulation: 160V-420V
- High volume power density: 578W/in<sup>3</sup>
- Weight: 46g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion
- 4242Vdc isolation
- Operating temperature: -55°C~90°C
- 4623 metal flange package: 65.0 x27.2 x9.8 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series       | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|----------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBDCM150ATH-270M3V3T | 160~420V            | 3.3V                 | 3.0~3.6V         | 45.46A         | 150W         | 87.7%      | In development       |
| WBDCM250ATH-270M05T  | 160~420V            | 5V                   | 4.0~5.5V         | 50A            | 250W         | 89.1%      | In development       |
| WBDCM500ATH-270M12T  | 160~420V            | 12V                  | 7.2~13.2V        | 41.67A         | 500W         | 91.1%      | Available            |
| WBDCM500ATH-270M15T  | 160~420V            | 15V                  | 9.0~16.5V        | 33.4A          | 500W         | 91.8%      | Available            |
| WBDCM500ATH-270M24T  | 160~420V            | 24V                  | 14.4~26.4V       | 20.84A         | 500W         | 92.6%      | Available            |
| WBDCM500ATH-270M28T  | 160~420V            | 28V                  | 16.8~30.8V       | 17.86A         | 500W         | 93.2%      | Available            |
| WBDCM500ATH-270M48T  | 160~420V            | 48V                  | 28.8~52.8V       | 10.42A         | 500W         | 92.0%      | In development       |

### Shape & Size



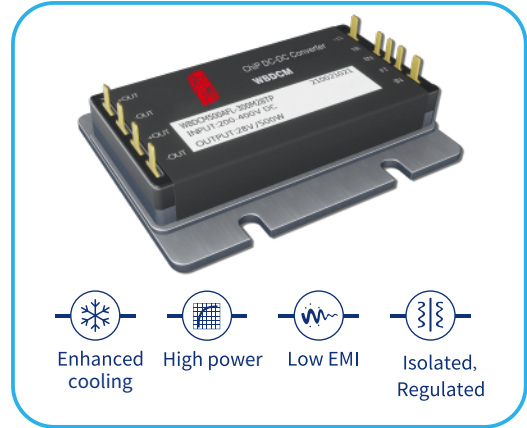
### Part Numbering

| WB         | DCM                                     | 150                                 | ATH                           | - | 270                      | M   | 3V3  | T               | P                                     |
|------------|---|-------------------------------------|-------------------------------|---|--------------------------|---|--|-----------------|---------------------------------------|
| Brand Name | Series name                             | Output                              | Package Type                  | - | Input voltage range      | Temperature Grade   | Output voltage range   | Pin Type        | Paralleling                           |
| Wibbow     | Isolated and regulated microchip series | 150: 150W<br>250: 250W<br>500: 500W | ATH: 4623 Metal thread casing | - | 270:<br>160<br>~<br>420V | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>48: 48V | T: Through hole | P: Parallel<br>S: Operate stand-alone |

## WBDCM300AFL Series ChiP DC-DC Converter

### Features

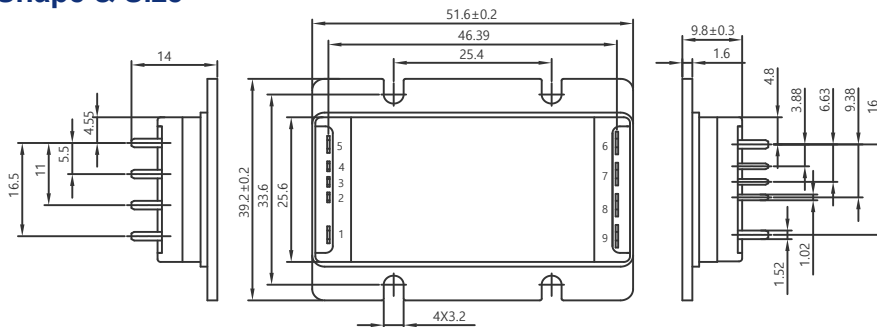
- Enhanced cooling by metal case
- Wide-input isolated voltage regulation: 200V-420V
- High volume power density: 612W/in<sup>3</sup>
- Weight: 45g
- Over-voltage, under-voltage, over-current, short-circuit and thermal protections
- Supports 8 parallel expansion
- 4242Vdc isolation
- Operating temperature: -55°C~90°C
- 4623 metal flange package: 65.0 x 27.2 x 9.8 mm
- Comply with the General Specification for Microcircuit Modules (SJ20668)



### Product specification

| Product series        | Input voltage range | Output voltage range | Adjustable range | Output current | Output power | Efficiency | Development progress |
|-----------------------|---------------------|----------------------|------------------|----------------|--------------|------------|----------------------|
| WBDCM150AFL-300M3V3TP | 200«420V            | 3.3V                 | 3.0«3.6V         | 45.46A         | 150W         | 87.7%      | In development       |
| WBDCM250AFL-300M05TP  | 200«420V            | 5V                   | 4.0«5.5V         | 50A            | 250W         | 89.1%      | In development       |
| WBDCM500AFL-300M12TP  | 200«420V            | 12V                  | 7.2«13.2V        | 41.67A         | 500W         | 91.1%      | Available            |
| WBDCM500AFL-300M15TP  | 200«420V            | 15V                  | 9.0~16.5V        | 33.4A          | 500W         | 91.8%      | Available            |
| WBDCM500AFL-300M24TP  | 200«420V            | 24V                  | 14.4~26.4V       | 20.84A         | 500W         | 92.6%      | Available            |
| WBDCM500AFL-300M28TP  | 200«420V            | 28V                  | 16.8~30.8V       | 17.86A         | 500W         | 93.2%      | Available            |
| WBDCM500AFL-300M48TP  | 200«420V            | 48V                  | 28.8~52.8V       | 10.42A         | 500W         | 92.0%      | In development       |
| WBDCM600AFL-300M24TP  | 200«420V            | 24V                  | 14.4~26.4V       | 25A            | 600W         | 92.6%      | Available            |

### Shape & Size



| Pin No. | Label | Function                          |
|---------|-------|-----------------------------------|
| 1       | +IN   | Positive input power terminal     |
| 2       | TR    | Adjusts output voltage            |
| 3       | EN    | Enables and disables power supply |
| 4       | FT    | Fault monitoring                  |
| 5       | -IN   | Negative input power terminal     |
| 6       | -OUT  | Negative output power terminal    |
| 7       | +OUT  | Positive output power terminal    |
| 8       | -OUT  | Negative output power terminal    |
| 9       | +OUT  | Positive output power terminal    |

### Part Numbering

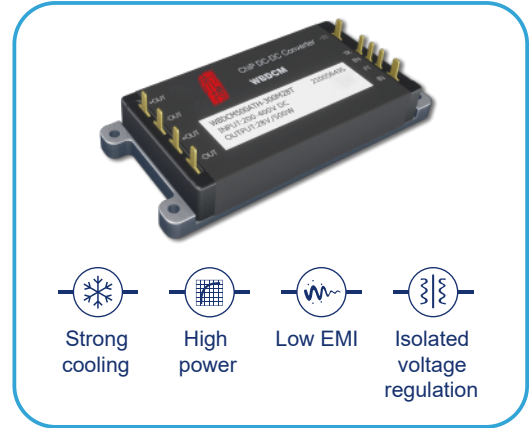
| WB         | DCM                                     | 150  | AFL                         | - | 300                 | M   | 3V3  | T               | P                                     |
|------------|---|--|-----------------------------|---|---------------------|---|--|-----------------|---------------------------------------|
| Brand Name | Series name                             | Output   | Package Type                | - | Input voltage range | Temperature Grade   | Output voltage range   | Pin Type        | Paralleling                           |
| Wibbow     | Isolated and regulated microchip series | 150: 150W<br>250: 250W<br>500: 500W<br>600: 600W | AFL: 4623 Metal flange case | - | 300: 200 ~ 420V     | M: Tc: -55~100°C<br>Ts: -65~100°C<br>H: Tc: -40~100°C<br>Ts: -55~100°C<br>T: Tc: -40~100°C<br>Ts: -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>48: 48V | T: Through hole | P: Parallel<br>S: Operate stand-alone |



## WBDCM300ATH Series Microchip DC-DC Converter

### Product Features

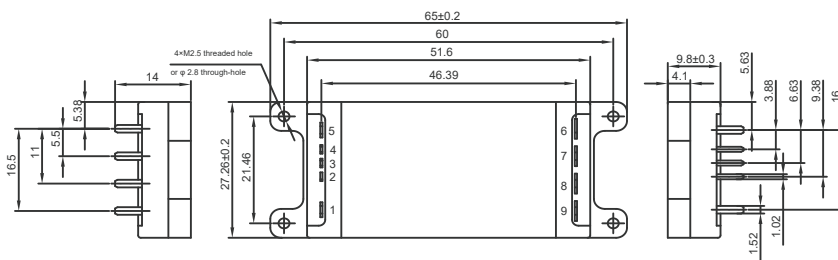
- Metal casing reinforced cooling
- Wide input isolated voltage regulation: 200V~420V
- High volume power density: 578 W/in<sup>3</sup>
- Weight: 46 g
- Over-voltage, under-voltage, over-current, short circuit, and overtemperature protection
- Support expansion by parallel connection of up to 8 units
- 4242 Vdc dielectric strength
- Operating temperature: -55°C~ 90°C
- 4623 metal flange package: 65.0× 27.2 × 9.8 mm
- Conform to SJ 20668 General Specification for Microcircuit Modules



### Product specification

| Specification and model | Input voltage | Output voltage | Adjustment range | Output current | Output power | Efficiency | Development progress   |
|-------------------------|---------------|----------------|------------------|----------------|--------------|------------|------------------------|
| WBDCM150ATH-300M3V3T    | 200~420V      | 3.3V           | 3.0~3.6          | 45.46A         | 150W         | 87.7%      | Developing             |
| WBDCM250ATH-300M05T     | 200~420V      | 5V             | 4.0~5.5          | 50A            | 250W         | 89.1%      | Developing             |
| WBDCM500ATH-300M12T     | 200~420V      | 12V            | 7.2~13.2         | 41.67A         | 500W         | 91.1%      | Available for delivery |
| WBDCM500ATH-300M15T     | 200~420V      | 15V            | 9.0~16.5         | 33.4A          | 500W         | 91.8%      | Available for delivery |
| WBDCM500ATH-300M24T     | 200~420V      | 24V            | 14.4~26.4        | 20.84A         | 500W         | 92.6%      | Available for delivery |
| WBDCM500ATH-300M28T     | 200~420V      | 28V            | 16.8~30.8        | 17.86A         | 500W         | 93.2%      | Available for delivery |
| WBDCM500ATH-300M48T     | 200~420V      | 48V            | 28.8~52.8        | 10.42A         | 500W         | 92.0%      | Developing             |
| WBDCM600ATH-300M24T     | 200~420V      | 24V            | 14.4~26.4        | 25A            | 600W         | 92.6%      | Available for delivery |

### Overall dimensions



| Pin No. | Symbol | Function                  |
|---------|--------|---------------------------|
| 1       | +IN    | Input positive terminal   |
| 2       | TR     | Output voltage regulation |
| 3       | EN     | Enable terminal           |
| 4       | FT     | Fault indication terminal |
| 5       | -IN    | Input negative terminal   |
| 6       | -OUT   | Output negative terminal  |
| 7       | +OUT   | Output positive terminal  |
| 8       | -OUT   | Output negative terminal  |
| 9       | +OUT   | Output positive terminal  |

### Naming rule

| WB         | DCM   | 150  | ATH                                       | - | 300           | M   | 3V3  | T                 |
|------------|---|--|---|---|---------------|---|--|-------------------|
| Brand name | Series name                                     | Output current                                   | Package code                              |   | Input voltage | Temperature grade   | Output voltage   | Through hole type |
| Wibbow     | Isolated voltage regulation<br>Microchip series | 150: 150W<br>250: 250W<br>500: 500W<br>600: 600W | ATH: 4623<br>metal<br>threaded<br>housing |   | 300: 200~420V | M: T <sub>c</sub> : -55~100°C<br>T <sub>s</sub> : -65~100°C<br>H: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -55~100°C<br>T: T <sub>c</sub> : -40~100°C<br>T <sub>s</sub> : -40~100°C | 3V3: 3.3V<br>05: 5V<br>12: 12V<br>15: 15V<br>24: 24V<br>28: 28V<br>48: 48V | T: Through hole   |