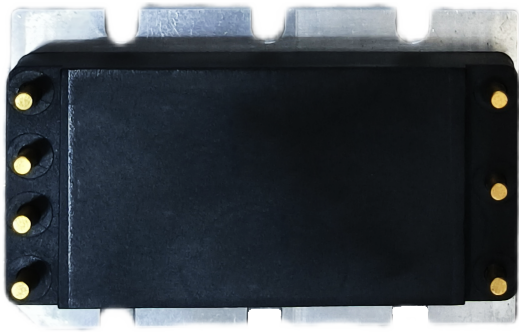


Product Characteristics

- ◆ Input voltage range: 18V-40V
- ◆ Output voltage range: 75%-110%Vout
- ◆ Efficiency≥88.5%
- ◆ Over-voltage, over-current, short-circuit and over-temperature protection
- ◆ Interior patch design
- ◆ International standard pin mode
- ◆ Three years warranty period



Product Overview

The power module of this model is 18V-40V range input, with a maximum power of 150W and an efficiency of 88.5%, with input undervoltage and output overvoltage Output overcurrent, output short circuit and over-temperature protection and other protection functions;

Application

The power supply uses an advanced control topology circuit, with advanced power Processing control and packaging technology, with high efficiency, high power density Degree, low noise and other advantages; with input overvoltage protection, output Overcurrent protection, over-temperature protection and other functions;

| Absolute rating                     | Metric   | Unit |
|-------------------------------------|----------|------|
| Voltage between the + IN and the-IN | 0.5~50   | V    |
| Voltage between the PC and the-IN   | 0.5~7.0  | V    |
| Voltage between PR and-IN           | 0.5~7.0  | V    |
| Voltage between SC and-OUT          | 0.5~1.5  | V    |
| The + OUT and the-OUT voltage       | 0.5~36.9 | V    |

Product naming

| CFMV                                            | 24                           | C                                          | 28                         | X                                                                                                                                                                              | 150                       | B                  | - |                                                    |
|-------------------------------------------------|------------------------------|--------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------|---|----------------------------------------------------|
| Changfeng MV series standard brick power supply | Input Voltage<br>24 : 18~40V | A:full brick<br>B:1/2 brick<br>C:1/4 brick | Output Voltage<br>36 : 36V | M : T <sub>c</sub> :-55~100℃<br>T <sub>s</sub> :-65~100℃<br>H: T <sub>c</sub> :-40~100℃<br>T <sub>s</sub> :-55~100℃<br>T: T <sub>c</sub> :-40~100℃<br>T <sub>s</sub> :-40~100℃ | Ouput power<br>150 : 150W | B:Standard version |   | Default:<br>Non-domestic<br>G: National production |

## Input Characteristic

| Parameter                                 | Least value | Typical value | Crest value | Unit | Working conditions                        |
|-------------------------------------------|-------------|---------------|-------------|------|-------------------------------------------|
| No-load state input power consumption     |             | 1.5           | 2           | W    | T <sub>c</sub> =25℃                       |
| Disable the state input power consumption |             | 0.5           | 0.8         | W    | V <sub>pc</sub> ≤2.3V                     |
| Input surge voltage                       |             |               | 50          | V    | T <sub>c</sub> =25℃, 100ms, the full load |
| Input underpressure                       | 14.0        | 14.9          | 15.9        | V    | The full load                             |
| Input overpressure                        | 40.5        | 42            | 43.5        | V    | The full load                             |

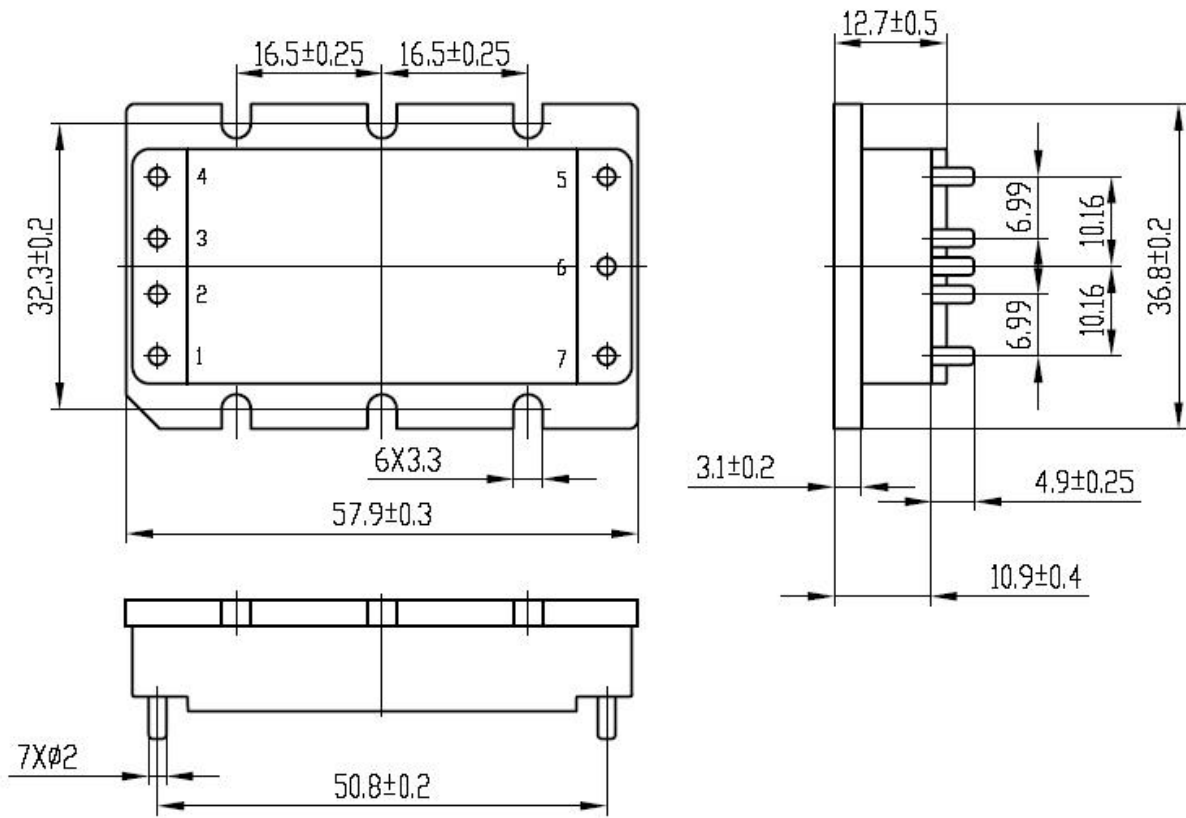
## Output Characteristic

| Parameter                                | Least value | Typical value | Crest value | Unit | Working conditions                                                         |
|------------------------------------------|-------------|---------------|-------------|------|----------------------------------------------------------------------------|
| Output current                           |             |               | 12.5        | A    |                                                                            |
| Output voltage                           | 27.72       | 28            | 28.28       | V    | T <sub>c</sub> =25℃, The full load                                         |
| Windle and noise voltage                 |             | 200           | 300         | mV   | Bandwidth Bw = 20 MHz, The full load                                       |
| Voltage regulation                       |             | 0.05          | 0.2         | %    | V <sub>in</sub> : 18V-24V, 24V-40V, The full load                          |
| Load Regulation                          |             | 0.05          | 0.2         | %    | Carrying idler~The full load                                               |
| Temperature coefficient                  |             |               | 0.02        | %/℃  | The full load                                                              |
| Output voltage regulation capability     | 75          |               | 110         | %    | The full load                                                              |
| Output voltage protection point          | 31.5        |               | 33.9        | V    | T <sub>c</sub> =25℃, carrying idler                                        |
| Output current limiting protection point | 5.5         |               | 8.5         | A    |                                                                            |
| Short-circuit current                    |             |               | 35          | A    | T <sub>c</sub> =25℃, V <sub>o</sub> <250mV                                 |
| Dynamics                                 |             |               |             |      |                                                                            |
| Peak deviation                           |             | 2             | 5           | %    | 50% -100% -50% load step<br>Rate of change of the output current: 1A / μ S |
| Recovery time                            |             | 50            | 100         | μs   |                                                                            |
| Operating voltage of the PC end          | 5.50        |               | 6.00        | V    | T <sub>c</sub> =25℃, I <sub>pc</sub> =1.0mA, The full load                 |
| The PC terminal working current          | 2.5         |               | 4.5         | mA   | T <sub>c</sub> =25℃, V <sub>pc</sub> =5.5V, The full load                  |
| The PC terminal has a prohibited voltage | 2.3         |               | 2.9         | V    | The full load                                                              |
| The PC terminal alarm voltage            | 0           |               | 0.5         | V    | Each protection function                                                   |
| PC terminal on output delay              |             | 7             | 15          | ms   | The full load                                                              |
| The PR output voltage amplitude          | 1.5         |               | 5.0         | V    | T <sub>c</sub> =25℃, The full load                                         |
| PR drive capability                      | 6           |               |             | 只    | T <sub>c</sub> =25℃, No buffer amplification circuit                       |
| SC reference voltage                     | 1.21        | 1.23          | 1.25        | V    |                                                                            |
| SC alarm voltage                         |             |               | 0.5         | V    | Each protection function                                                   |
| Efficiency                               | 88.5        |               |             | %    | T <sub>c</sub> =25℃, The full load                                         |

## Isolation Characteristics

| Parameter                          | Least value | Unit            | Working conditions                                              |
|------------------------------------|-------------|-----------------|-----------------------------------------------------------------|
| Insulation and pressure resistance |             |                 |                                                                 |
| Enter to output                    | 3000        | V <sub>AC</sub> | 60s, T <sub>c</sub> =25℃, The leakage current is less than 3 mA |
| Input into the shell               | 1500        | V <sub>AC</sub> | 60s, T <sub>c</sub> =25℃, The leakage current is less than 1 mA |
| Output to shell                    | 500         | V <sub>AC</sub> | 60s, T <sub>c</sub> =25℃, The leakage current is less than 1 mA |
| Insulation resistance              |             |                 |                                                                 |
| Enter to output                    | 200         | MΩ              | T <sub>c</sub> =25℃, 500V <sub>DC</sub> test                    |
| Input into the shell               | 200         | MΩ              | T <sub>c</sub> =25℃, 500V <sub>DC</sub> test                    |
| Output to shell                    | 200         | MΩ              | T <sub>c</sub> =25℃, 500V <sub>DC</sub> test                    |

## Structural Drawings



## Pipe Foot Definition

| Pin | Symbol | Function                      | Pin | Symbol | Function                |
|-----|--------|-------------------------------|-----|--------|-------------------------|
| 1   | +IN    | Enter the positive end        | 5   | -OUT   | Output the negative end |
| 2   | PC     | The original edge control end | 6   | SC     | Secondary control end   |
| 3   | PR     | Parallel end                  | 7   | +OUT   | Output the positive end |
| 4   | -IN    | Enter the negative end        |     |        |                         |
|     |        |                               |     |        |                         |



**CHEWINS Beijing Science & Technology Co., Ltd.**

Address: No. 25, Torch South Street, Zhuozhou Development Zone, Hebei Province, People's Republic of China  
Tel: 86-10-68817997    Mobile phone: 15600309099    E-mail: saleslyf@chewins.net    www.chewins.net