



DC-DC Converters PCB Mount type

MGFW30

Ordering Information

MGF W 30 24 05 -

① ② ③ ④ ⑤ ⑥



- ① Series name
 ② Dual output
 ③ Output wattage
 ④ Input voltage
 ⑤ Output voltage
 ⑥ Optional
 G: Capacitor between Input and Output is removed.
 R: with Remote ON/OFF (Positive logic control)

| MODEL | MGFW302405 | MGFW302412 | MGFW302415 | MGFW304805 | MGFW304812 | MGFW304815 |
|-----------------------|---------------|------------|------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 20 | 30 | 30 | 20 | 30 | 30 |
| DC OUTPUT | VOLTAGE[V] *1 | ±5 or +10 | ±12 or +24 | ±15 or +30 | ±5 or +10 | ±12 or +24 |
| | CURRENT[A] | 2 | 1.25 | 1 | 2 | 1.25 |

SPECIFICATIONS

| | MODEL | MGFW302405 | MGFW302412 | MGFW302415 | MGFW304805 | MGFW304812 | MGFW304815 |
|-------------------------------|---|--|-----------------|---------------|-----------------|-----------------|------------|
| INPUT | VOLTAGE[V] | DC9 - 36 | | | DC18 - 76 | | |
| | CURRENT[A] *2 | 0.98typ | 1.42typ | 1.44typ | 0.49typ | 0.71typ | 0.72typ |
| | EFFICIENCY[%] *2 | 85typ | 88typ | 87typ | 85typ | 88typ | 87typ |
| OUTPUT | VOLTAGE[V] | ±5(+10) | ±12(+24) | ±15(+30) | ±5(+10) | ±12(+24) | ±15(+30) |
| | CURRENT[A] | 2 | 1.25 | 1 | 2 | 1.25 | 1 |
| | LINE REGULATION[mV] | 40max | 60max | 75max | 40max | 60max | 75max |
| | LOAD REGULATION[mV] | *3 500max *5 | 600max | 750max | 500max *5 | 600max | 750max |
| | | *4 250max | 480max | 600max | 250max | 480max | 600max |
| | RIPPLE[mVp-p] | -20 to +60°C | 100max | 100max | 100max | 100max | 100max |
| | | -40 to -20°C | 120max | 120max | 120max | 120max | 120max |
| | RIPPLE NOISE[mVp-p] | -20 to +60°C | 100max | 100max | 100max | 100max | 100max |
| | | -40 to -20°C | 150max | 150max | 150max | 150max | 150max |
| | TEMPERATURE REGULATION[mV] | -20 to +60°C | 50max | 150max | 180max | 50max | 150max |
| -40 to +60°C | | 80max | 240max | 290max | 80max | 240max | |
| DRIFT[mV] *7 | 50max | 50max | 60max | 50max | 50max | 60max | |
| START-UP TIME[ms] | 30max (Minimum input, I _o =100%) | | | | | | |
| OUTPUT VOLTAGE SETTING[V] *8 | 4.935 - 5.240 | 11.765 - 12.492 | 14.602 - 15.505 | 4.935 - 5.240 | 11.765 - 12.492 | 14.602 - 15.505 | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | | |
| | OVERVOLTAGE PROTECTION[V] | Works over 120 to 160% of rating (Total of +V and -V) | | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L:ON, H:OFF) | | | | | |
| ISOLATION | INPUT-OUTPUT | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) | | | | | |
| | INPUT-CASE | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) | | | | | |
| | OUTPUT-CASE | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) | | | | | |
| ENVIRONMENT | OPERATING TEMP,HUMID.AND ALTITUDE | -40 to +85°C, 20 to 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max | | | | | |
| | STORAGE TEMP,HUMID.AND ALTITUDE | -40 to +100°C, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max | | | | | |
| | VIBRATION | 10 - 55Hz, 98.0m/s ² (10G), 3minutes period, 60minutes each along X, Y and Z axis | | | | | |
| | IMPACT | 490.3m/s ² (50G), 11ms, once each along X, Y and Z axis | | | | | |
| SAFETY | AGENCY APPROVALS | UL60950-1, C-UL, EN60950-1 | | | | | |
| OTHERS | CASE SIZE/WEIGHT | 25.4 x 9.9 x 50.8mm [1 x 0.39 x 2 inches] (W x H x D) / 40g max | | | | | |
| | COOLING METHOD | Convection/Forced air | | | | | |

*1 Single output +10V, +24V, +30V with no use of COM.

*2 Rated input 12V, 24V or 48V DC I_o=100%

*3 Symmetrical loading from 5% to 100%.

*4 Symmetrical loading from 20% to 100%.

*5 Refer to the instruction manual 11.

*6 Ripple and Ripple Noise is measured by using test board with ceramic capacitor 22μF at 50mm from output pins. (20MHz Oscilloscope)

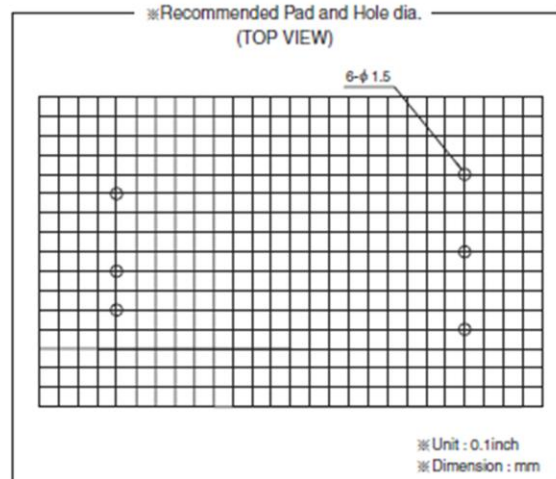
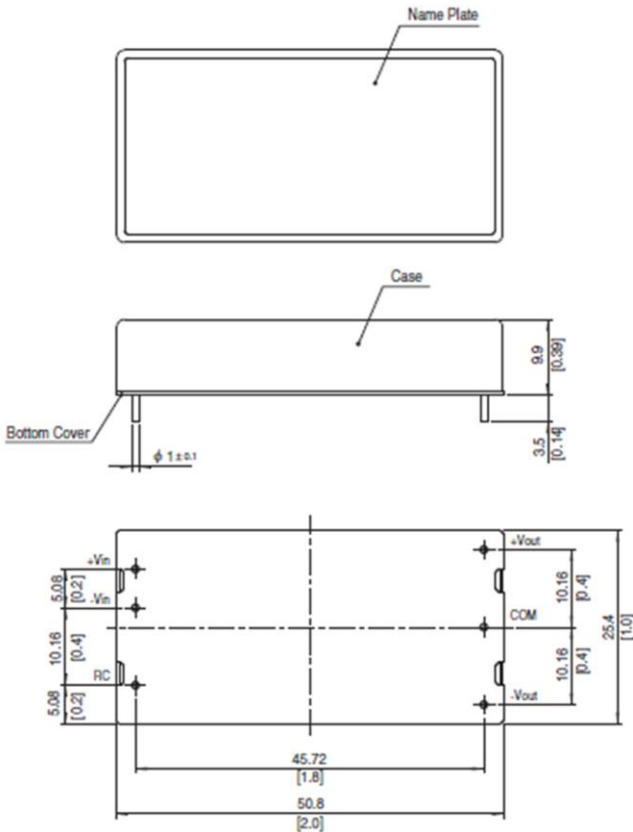
*7 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25°C.

*8 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25°C.

* Parallel operation with other model is not possible.



electronic powersolutions



- ※ Tolerance ± 0.5 [± 0.02]
- ※ Dimensions in mm, []-inches
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Bottom Cover : FR4 (1-0.6) [1-0.024]
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Weight 40g max

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