

ZA2000 SERIES

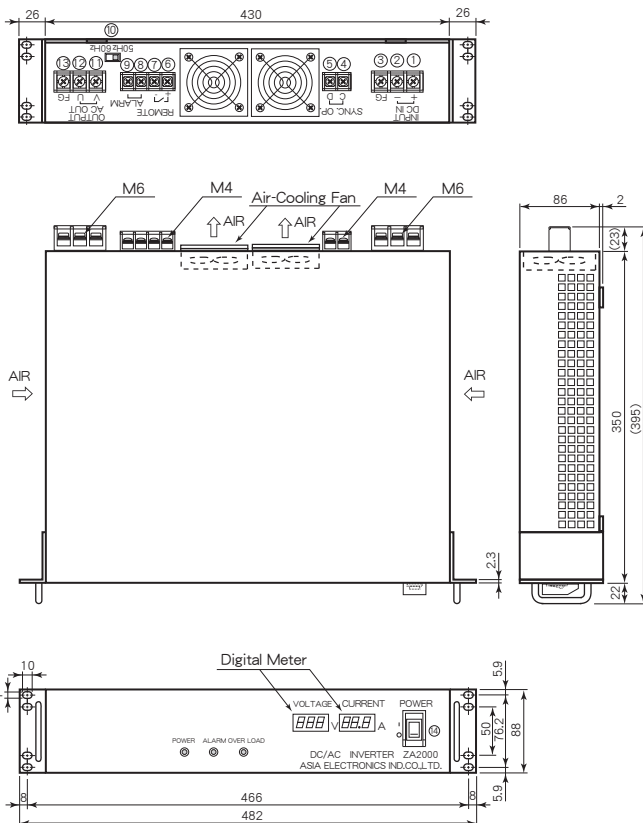
2000VA DC/AC INVERTERS (Sine Wave Output) Synchronized Parallel Operation

同期並列運転可能



H88×W482×L395 (mm)

Terminal Outs & Dimensions (±1.0mm)



Features

- Single Operation is possible
- Plural Synchronized Parallel Operation is possible
- Fit to 19" (2U) rack system
- High Efficiency 87% typ.
- Input-Output Isolation (AC2000V)
- Input Low Voltage Protection
- Input Over Voltage Protection
- Input Rush Current Protection
- Thermal Protection +90°C~+110°C
- Built-in Input Fuse
- Built-in Input and Output Noise Filter
- Built-in Frequency Changing Switch (50Hz or 60Hz)
- Conformity to RoHS Directive
- 単独運転可能
- 複数の同期並列運転可能
- 19インチラックサイズ (2U)
- 高効率 87% typical
- 入出力間絶縁 (AC2000V)
- 入力低電圧保護回路内蔵
- 入力過電圧保護回路内蔵
- 入力突入電流保護回路内蔵
- 過熱保護回路内蔵 +90°C~+110°C
- 入力ヒューズ内蔵
- 入出力ノイズフィルタ内蔵
- 周波数切替スイッチ有り (50Hz又は60Hz)
- RoHS指令対応

General Characteristics

(at Ta : 25°C, Full Load, Nominal Vin)

- Input Voltage DC48, 96, 144V (See Table 1)
- Output Voltage AC100Vrms
- Output Current See Table 1
- Output Frequency 50Hz/60Hz, ±1Hz
- Output Wave, Distortion Built-in changing switch Sine Wave, 3% max.
- Output Voltage Temperature Coefficient 0.05%/°C max.
- Output Frequency Temperature Coefficient 0.05%/°C max.
- Efficiency 86~87% (See Table 1)
- Line Regulation 0.5% max. (at Vin Range)
- Load Regulation AC103Vrms (0A Load)
AC100Vrms (10A Load)
AC97Vrms (20A Load)
- Short Circuit Protection Built-in, Shut-down (See Fig. 2)
- Output Alarm Signal Normal : Open between terminals
Abnormal : Short between terminals (Output is Shut-down)
- Remote ON/OFF Control ON : Open, OFF : Short (Between pin ⑥~⑦)
-25°C~+50°C (See Fig. 1)
- Operating Ambient Temperature -40°C~+85°C
- Storage Temperature AC2000V one minute (Input-Output-Case)
- Isolation Voltage (※注1) 100MΩ min. (at DC1000V) (Input-Output-Case)
- Isolation Impedance (※注1) 13.5kg max.
- Weight 20~90% RH
- Humidity 196m/s² (11msec 3directions)
- Shock 10~55Hz 19.6m/s² (30minutes 3directions)
- Vibration 6 Sided Metal Case
- Surface Structure 100,000H (Ta : 25°C, 80% Load, Nominal Vin)
- MTBF 5 years
- Warranty

Terminal Outs and Function

| | |
|---|---------------------------|
| ① | +Vdc in |
| ② | -Vdc in |
| ③ | Frame Ground (FG) |
| ④ | Sync. Op. (C) |
| ⑤ | Sync. Op. (D) |
| ⑥ | + Remote (ON/OFF) |
| ⑦ | -Remote (ON/OFF) |
| ⑧ | Alarm Signal |
| ⑨ | Alarm Signal |
| ⑩ | Frequency Changing Switch |
| ⑪ | AC out (V) |
| ⑫ | AC out (U) |
| ⑬ | Frame Ground (FG) |
| ⑭ | ON/OFF Switch |

注1 : AC出力ケース間に雷サージ対策用バリスタが入っている為絶縁試験時には同部品を取外す必要があります。(工場出荷時に同部品を取外して絶縁試験を全数実施済み)

Selection Guide

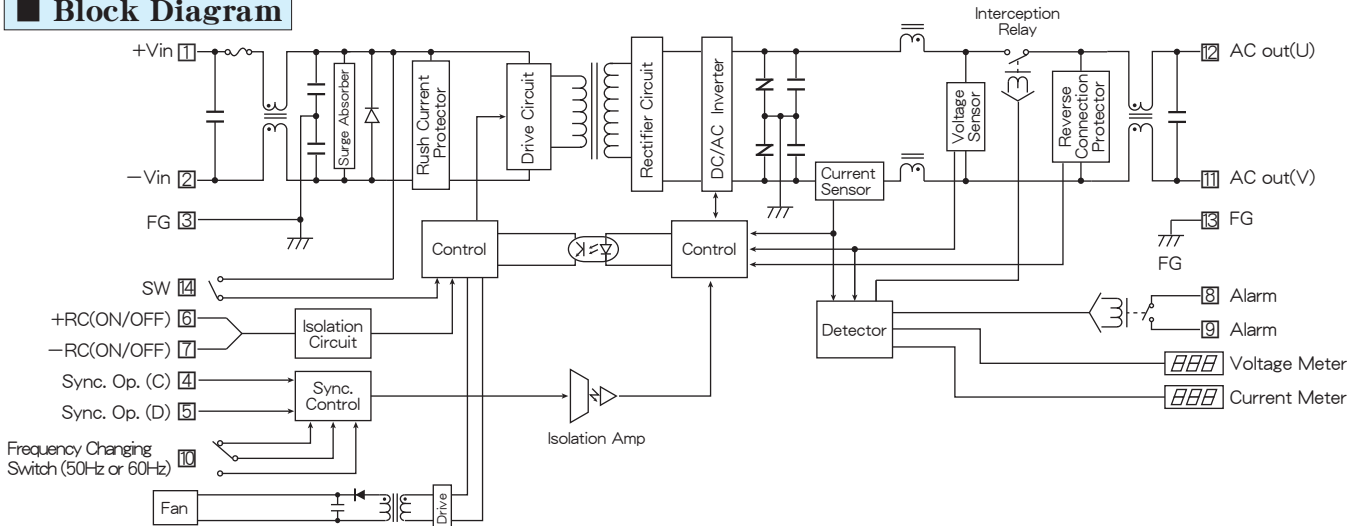
Table 1

| Model Number | Input Volt. (Range) (V. DC) | Output Voltage (V. AC) | Output Current (A rms) | ※1 Output Frequency (Hz) | Efficiency (Typical)(%) | |
|--------------------|-----------------------------|------------------------|------------------------|--------------------------|-------------------------|----------|
| | | | | | 20% Load | 80% Load |
| ZA2000-48-100S20A | 48 (36~76) | 100 | 20 | 50/60 | 86 | 87 |
| ZA2000-96-100S20A | 96 (72~144) | 100 | 20 | 50/60 | 86 | 87 |
| ZA2000-144-100S20A | 144 (108~216) | 100 | 20 | 50/60 | 86 | 87 |

※1 出力周波数(50Hz又は60Hz)は周波数切替スイッチによって選択可能です。 Output frequency(50Hz or 60Hz) is selectable by a frequency Changing Switch.
 ※2 上記仕様以外にも対応可能ですので お問い合わせ下さい。 Please consult with us about other specification.

ZA2000 SERIES DATA SHEET

■ Block Diagram



■ Characteristic Curves

Fig. 1 Derating Curve

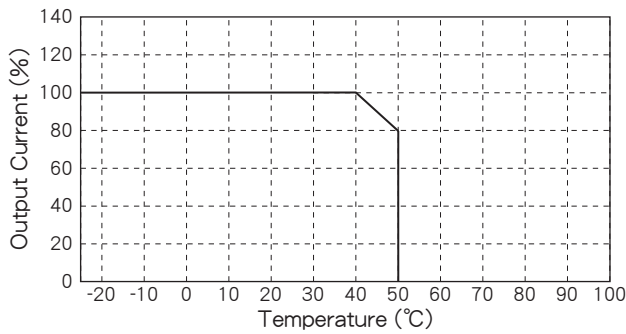
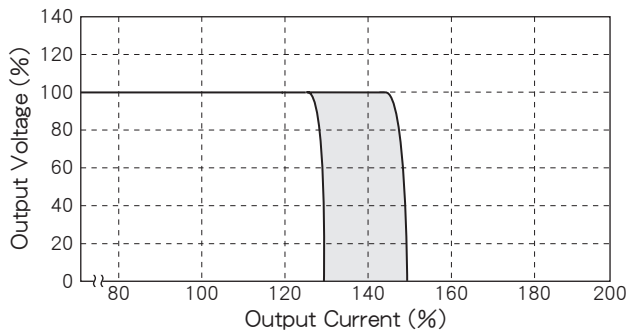


Fig. 2 Short Circuit Operating Area



※出力過負荷が10～15秒間続くと、出力が停止します。
入力再投入で、出力電圧が復帰します。

※When an output overload continues 10-15 seconds,
the output stops.
By an input reintroduction, the output voltage returns.

■ 主な機能及び注意事項

Function and direction in application

同期並列運転方法 (3台まで可能)

(注: 設定周波数は必ず同じにして下さい。)

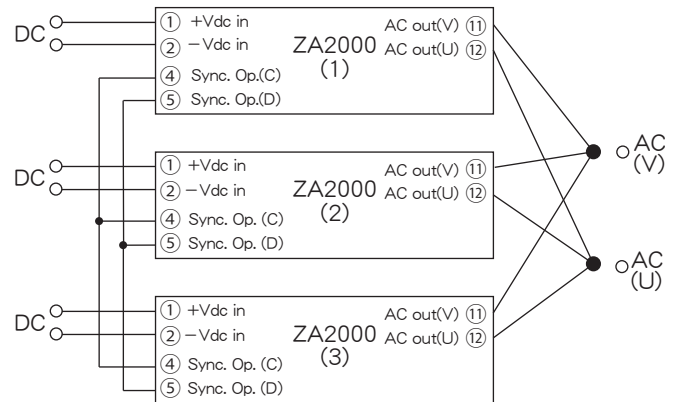
(注: 端子の接続を間違えると破損することがあります。)

Synchronized parallel operating method

(ZA2000 is able to synchronize to 3 sets.)

※Use all ZA2000 at the same frequency.

※ZA2000 may be damaged if you make a mistake
in connection of terminals.



アラーム出力

出力方式: リレー接点出力 (DC30V-2A max.) (AC125V-0.4A max.)

(参考: 最低電圧, 電流 DC10mV, 10mA)

異常検出時: 接点間ショート

アラーム出力条件

| 直流入力異常時 | 交流出力異常時 | 並列接続異常時 | その他 |
|--|----------------|----------------------------|-----------------------------------|
| 入力低電圧 入力過電圧 起動スイッチOFF リモート コントロールOFF | 出力過電流 出力低電圧 | 周波数混在 出力結線逆接 同期信号線逆接 | 過熱保護 内蔵ヒューズ断線 内部パワー 素子破損 |