



C3000H Series Programmable DC Power Source



- DC power source
- IV simulation
- Static & dynamic MPPT testing
- Support parallel operation
- Support multi-work-step configuration
- Shadowed condition simulation

Production Introduction

C3000H series is a high performance, programmable DC power supply developed by Kewell. It supports high DC voltage output with IV simulation. IV simulation adopts self-developed core control strategy to ensure high-precision output and high dynamic characteristics. The series is mainly used to test the MPPT efficiency of inverters, overcoming the challenge in testing and tracking the performance of high-power PV inverters.

Product Advantages

- Voltage output range: 0-1800V (adjustable)
- Current output range: 0-35A (adjustable)
- Support multi-parallel operation of 10 machines above, with power output up to 150kW.
- 3U cabinet design for easy installation
- Maximum efficiency reaches to 95%.
- Comprehensive protection including OV/OC/OPP/OTP/OPP
- Low ripple, low noise
- High setting resolution, high precision
- Standard communication interfaces

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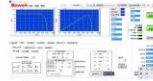


Specifications

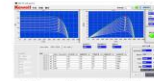
| Model | | C3000H-15K +1000-0035 | C3000H-15K +1500-0035 | C3000H-15K +1500-0035-F0 | C3000H-15K +1800-0035 | C3000H-15K +1800-0035-F0 |
|---|-----------|--------------------------|--|-------------------------------------|--------------------------|-----------------------------|
| Rated Range | Voltage | 0 ~ 1000V | 0 ~ 1500V | 0 ~ 1500V | 0 ~ 1800V | 0 ~ 1800V |
| | Current | | 0-35A | 0-35A | | |
| Load Regulation | Voltage | | ±0.02%+20mV | ±0.02%+20mV | | |
| | Current | | ±0.05%+20mA | ±0.05%+20mA | | |
| Line Regulation | Voltage | | ±0.01%+150mV | ±0.01%+150mV | | |
| | Current | | ±0.05%+20mA | ±0.05%+20mA | | |
| Setting Resolution | Voltage | | 0.1V | 0.1V | | |
| | Current | | 0.01A | 0.01A | | |
| Display Resolution | Voltage | | 0.001V | 0.001V | | |
| | Current | | 0.001A | 0.001A | | |
| Setting Precision | Voltage | | 0.05% S, ±5µgt | 0.05% S, ±5µgt | | |
| | Current | | 0.2% S, ±5µgt | 0.2% S, ±5µgt | | |
| Display Precision | Voltage | | 0.05% S, ±5µgt | 0.05% S, ±5µgt | | |
| | Current | | 0.2% S, ±5µgt | 0.2% S, ±5µgt | | |
| Ripple | Voltage | | ≤400mV (rms) & 2.4V (p-p) | ≤400mV (rms) & 2.4V (p-p) | | |
| | Current | | ±26mA (rms) | ±26mA (rms) | | |
| Temperature Coefficient of Constant Voltage & Current | Voltage | | 0.02%/°C | 0.02%/°C | | |
| | Current | | 0.001%/ms-10V/ms | 0.001%/ms-10V/ms | | |
| Rise Slow Rate (no load) | Voltage | | 0.001V/ms-10V/ms | 0.001V/ms-10V/ms | | |
| Rise Slow Rate (CR full load) | Voltage | | 0.001V/ms-10V/ms | 0.001V/ms-10V/ms | | |
| Fall Time (no load) | Voltage | | ≤2s | ≤2s | | |
| Dynamic Response Time | Voltage | | ≤1.5ms | ≤1.5ms | | |
| AC Input | Voltage | | 342VAC-462VAC | 342VAC-462VAC | | |
| | Frequency | | 45Hz ~ 65Hz | 45Hz ~ 65Hz | | |
| Efficiency | | | 95% | 95% | | |
| | PF | | 0.99 | 0.99 | | |
| Max. Input Current | | | 25A | 25A | | |
| Max. Apparent Power | | | 17kVA | 17kVA | | |
| Storage Temperature | | | -10°C-70°C | -10°C-70°C | | |
| Protection | | | OV/OC/OPP/OTP etc. | OV/OC/OPP/OTP etc. | | |
| Communication Interfaces | | | RS485/LAN/GPIB/CAN | RS485/LAN/GPIB/CAN | | |
| Other Interfaces | | | Remote sampling interface:RJ-45 | Remote sampling interface:RJ-45 | | |
| Ambient Temperature | | | 5-40°C | 5-40°C | | |
| Dimensions | | | 736mm (D) × 445mm (W) × 132.5mm (H) | 736mm (D) × 445mm (W) × 132.5mm (H) | | |
| Weight | | | 40kg | 40kg | | |
| IV Curve Setting | | | | | | |
| Range of Open-circuit Voltage | | 0 ~ 1000V | 0 ~ 1500V | 0 ~ 1500V | 0 ~ 1800V | 0 ~ 1800V |
| Range of Short-circuit Current | | | 0-35A | 0-35A | | |
| Range of Fill Factor Simulation | | | 0.4-0.95 | 0.4-0.95 | | |
| Solar Panel Types | | | Monocrystalline silicon/Polycrystalline silicon/Thin film cell | | | |
| IV Curve | | | Editable | | | |
| IV Curve Update Rate | | | 100ms-1s (editable) | | | |
| Point Count per Single Curve | | | ≤4000 | | | |

Waveform

Support DC power source, IV simulation and static/dynamic MPPT testing.



IV/VPV curve of static MPPT testing



IV/VPV curve of dynamic MPPT testing

