

33000 Series© Programmable AC Power Supply

FEATURES:

- **Output Rating:**
Power: 1.5KVA, 3 ϕ (33015); 3KVA, 3 ϕ (33030) 4.5KVA, 3 ϕ (33045); 6KVA, 3 ϕ (33060); 12KVA, 3 ϕ (33120)
- **Voltage: 0-150V/0-300V**
- **Frequency: 15~1.2kHz**
- **Phase angle: 0~360° Programmable**
- **Built-in PFC, provides input power factor of over 0.98**
- **AC+DC output mode**
- **Comprehensive measurement capability, V, Irms, Ipk, Iinrush, P, PF, CF of current etc.**
- **Programmable r.m.s. current limit**
- **Turn-on, turn-off phase angle control**
- **Full protection: OP, OC, OV and OT protection**
- **Optional GPIB and RS-232 interface**
- **Advanced PWM technology delivers high power density in a compact rack-mountable package**
- **User-definable power-on status**
- **Built-in output isolation relays**
- **Easy use graphic user interface: softpanel (Option)**
- **Optional function for transient voltage generation output, including LIST, PULSE, STEP and INTERHARMONICS mode**



Introduction

The QuadTech, Inc. AC Power Source, model 33000 series, delivers pure, 5-wire, 3-phase AC power. The instrument includes low-power rating models at an economical price, unlike the traditional 3-phase AC power source. Users can program voltage and frequency and measure critical characteristics of the output on its LCD display. The source delivers the right solution to simulate all kinds of input condition of UUT to be utilized in R&D and QA. The instrument is also suitable for commercial applications from laboratory testing to mass production.

The 33000 supplies the output voltage from 0 to 300VAC and can be set individually for each phase. Users can also set the phase angle from 0° to 360°. These kind of functions make the 33000 series simulate unbalanced 3-phase power. Because of the wide output frequency from 15 to 1200Hz, the instrument is suitable for avionics, marine and military applications. The AC+DC mode extends the output function to simulate abnormal situations when the power line contains a DC offset.

Description

The 33000 series uses the state-of-the-art PWM technology, so it is capable of generating very clean AC output with the typical distortion less than 0.3%. The power factor correction circuit allows the 33000 series to yield higher efficiency and deliver more output power.

By using advanced DSP technology, the 33000 series offers precision and high-speed measurements such as, RMS voltage, RMS current, true power, power factor and current crest factor, etc.

The 33000 series offers an optional function to output transient voltage. The function includes LIST, PULSE, STEP and INTERHARMONICS modes. Users can easily program the variant waveform for immunity testing. The 33000 series can also be controlled by a powerful, user-friendly softpanel through a GPIB or RS-232 interface. The softpanel also includes a waveform editor, which has the ability to edit up to the 40th order in harmonic components. This feature gives the 33000 series the ability to output a distorted waveform.

With the self-diagnosis routine, you gain protection against over-power, over-current, over-voltage, over-temperature and fan-fail. The 33000 series ensures the quality and reliability for even the most demanding engineering testing and production line application.



For more detailed information on specifications, pricing and special purchase, rent and lease options, contact us at:

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800-253-1230

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33000 Series Specifications

Model	33015	33030	33045	33060	33120
AC Output Rating					
Max. Power	1500VA	3000VA	4500VA	6000VA	12000VA
Per Phase	500VA	1000VA	1500VA	2000VA	4000VA
Voltage (per phase)					
Range/Phase	150V/300V	150V/300V	150V/300V	150V/300V	150V/300V
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Distortion*1	0.3% @ 50/60Hz, 1.5% 15-1.2KHz	0.3% @ 50/60Hz, 1.5% 15-1.2KHz	0.3% @ 50/60Hz, 1.5% 15-1.2KHz	0.3% @ 50/60Hz, 1.5% 15-1.2KHz	0.3% @ 50/60Hz, 1.5% 15-1.2KHz
Line Regulation	0.1%	0.1%	0.1%	0.1%	0.1%
Load Regulation *2	0.2%	0.2%	0.2%	0.2%	0.2%
Temp. Coefficient	.02% per degree from 25°C				
Max. Current/Phase					
r.m.s.	4A/2A	8A/4A	12A/6A	16A/8A	32A/20A
Peak	24A/12A	48A/24A	72A/36A	96A/48A	192A/96A
Frequency					
Range	DC, 15~1.2kHz	DC, 15~1.2kHz	DC, 15~1.2kHz	DC, 15~1.2kHz	DC, 15~1.2kHz
Accuracy	0.15%	0.15%	0.15%	0.15%	0.15%
Phase Angle					
Range	0~360°	0~360°	0~360°	0~360°	0~360°
Resolution	0.3°	0.3°	0.3°	0.3°	0.3°
Accuracy	<0.8° @50/60Hz	<0.8° @50/60Hz	<0.8° @50/60Hz	<0.8° @50/60Hz	<0.8° @50/60Hz
DC Output Rating (per phase)					
Power	250W	500W	750W	1KW	2KW
Voltage	212V/424V	212V/424V	212V/424V	212V/424V	212V/424V
Current (per phase)	2A/1A	4A/2A	6A/3A	8A/4A	16A/8A
Input 3-Phase Power (per phase)					
Voltage Range	90-250V	90-250V	90-250V	90-250V	190-250V
Frequency Range	47-63Hz	47-63Hz	47-63Hz	47-63Hz	47-63Hz
Current (per phase)	9A Max.	16A Max.	10A Max.	14A Max.	28A Max.
Power Factor *3	0.97 Min.	0.98 Min.	0.98 Min.	0.98 Min.	0.98 Min.
Measurement					
Voltage (Line-Neutral)					
Range	150V/300V	150V/300V	150V/300V	150V/300V	150V/300V
Accuracy	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.	0.2%+0.2%F.S.
Resolution	0.1V	0.1V	0.1V	0.1V	0.1V
Current (per phase)					
Range(peak)	24A	48A	72A	96A	192A
Accuracy(r.m.s.)	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.	0.4%+0.3%F.S.
Accuracy(peak)	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.	0.4%+0.6%F.S.
Resolution	.01A	.01A	.01A	.01A	.01A
Others					
Efficiency *4	68%	77%	81%	82%	82%
Dimension (HxWxD)	400 x 482.6 x 600.5mm/ 15.75 x 19 x 23.64 inch	400 x 482.6 x 600.5mm/ 15.75 x 19 x 23.64 inch	400 x 482.6 x 600.5mm/ 15.75 x 19 x 23.64 inch	400 x 482.6 x 600.5mm/ 15.75 x 19 x 23.64 inch	896.4 x 546 x 699.9 mm/ 35.28 x 21.5 x 27.56 inch
Weight	75 kg/165.2 lbs.	75 kg/165.2 lbs.	75 kg/165.2 lbs.	75 kg/165.2 lbs.	150 kg/330.4 lbs
Protection	UVP, OCP, OPP, OTP, FAN				
Temperature Range					
Operation	0 ~ 40°C				
Storage	-40~+85°C				
Humidity	30% ~ 90%				
Safety & EMC	CE				

All specifications are subject to change without notice. Note 1: Maximum distortion is tested on output 125VAC (150V RANGE) and 250VAC (300V RANGE) with maximum current to linear load. Note 2: Load regulation is tested with sinewave and remote sense. Note 3: Input power factor is tested on input 220V, full load condition. Note 4: Efficiency is tested on input voltage 110V for 33015, 33030, 33045, 33060 and 33120.

Ordering Information **33015:** Programmable AC Source 0~300V/DC, 15~1.2kHz, 3ø 1.5KVA **33030:** Programmable AC Source 0~300V/DC, 15~1.2kHz, 3ø 3KVA **33045:** Programmable AC Source 0~300V/DC, 15~1.2kHz, 3ø 4.5KVA **33060:** Programmable AC Source 0~300V/DC, 15~1.2kHz, 3ø 6KVA **33120:** Programmable AC Source 0~300V, 15~1.2kHz, 3ø 12KVA A615001 : Remote Interface Board for 31000/32000/33000 Series (RS-232 Interface, GPIB Interface) **30000TG-MSA:** Softpanel for Model 33000 Series **33000TG:** Transient voltage output function, including WAVEFORM, LIST, PULSE, STEP and INTERHARMONICS mode

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