unitz Series

D/E3000

Single-phase　Phase Control Type Thyristor feedback control type

D Type　　E Type

Features

1 For stable control of halogen lamp heaters, pure metal heaters, SiC, carbon heaters, etc.

2 Suppresses miscontrol problems when transformers are loaded

3 Can be used in poor power supply environment such as power supply voltage fluctuation, instantaneous power failure, power surge, square wave, rectangular wave, etc.

4 Allowable power supply fluctuation range 30-440V ※Need be set up

Application

- Use in areas where power supply fluctuations are severe, such as Southeast Asia.
- Adopted in semiconductor devices that require safety, reliability, and stability
- Ideal for near infrared heaters that require stable output performance

Main Specification

◆Main circuit power	Single Phase AC100 ～ 440V	Usage Voltage AC110-220-440V Factory setting
◆Control circuit power	Less than DC24V±10%	Consumption current 30A ～ 120A Spec：100mA　200A Spec：350mA
◆Power control method	Thyristor AC phase	D Type：Voltage feedback　E Type：Current feedback
◆Control input signal	DC4-20mA	Receive resistance 100Ω
	DC0-5V	
	DC0-10V	
◆Output adjust method	Front POWER VR 0-100%	External remote gain adjustment input / 0-100%（OPTION）
◆Alarm output	Dry contact output	RUN（GATE ON）Signal Input
◆ Answer back output	Dry contact output	RUN: Output during normal operation(OFF when an alarm occurs)※max DC30V Less than 0.5A
◆ Safety protection function	Alarm action	RUN Stop output
	VC ` Overcurrent protection	Main circuit overcurrent detection　action when above130%
	SAL Equipment abnormality protection	Unit failure detection　Operates when normal operation is not possible
	PAL Power failure protection	Abnormal power supply voltage detection
	OVH Overheat protection	Device Abnormal temp. detection　action when SCR Latest temp.100℃ ＊Action at 80℃ when 200A
	Protective action	
	Output current limit function	When current exceeding the rated current of 110% , the current is automatically controlled.
	Instantaneous power failure protection	If an instantaneous failure occurs , the output is stopped and then automatically started.
◆Noise resistance	EMC immunity requirements	・IEC61000-4-3　RF conducted immunity
		・IEC61000-4-4　Fast transient burst immunity
		・IEC61000-4-5　Lightning surge immunity
		・IEC61000-4-11　Voltage dip, instantaneous power failure, voltage fluctuation immunity
	SEMI requirement conformity	・Voltage sag immunity Fail-safe design compliant
◆Environmental specifications	RoHS	
◆Withstand voltage /dielectric strength	Between Power - Chassis more than DC500V 100MΩ / Between Power - Chassis AC2500V 1 min	
◆Usage environment	Temp.：0 ～ 50℃ (Reduce load current to 85% above 40℃)　Humidity：Below90% (non-condensing)	

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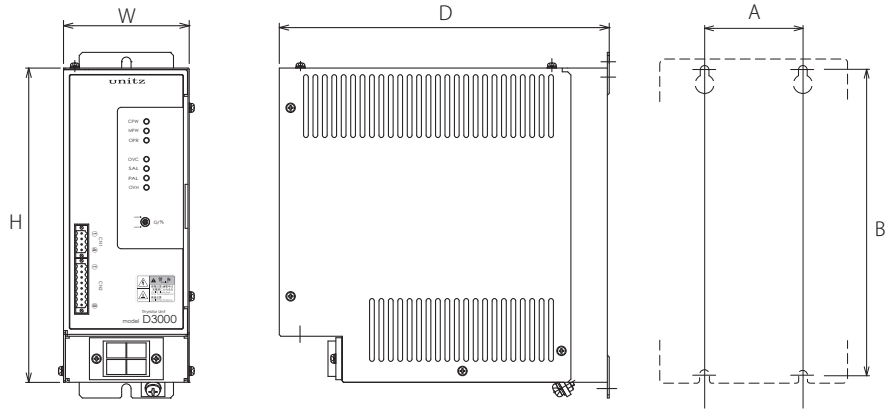
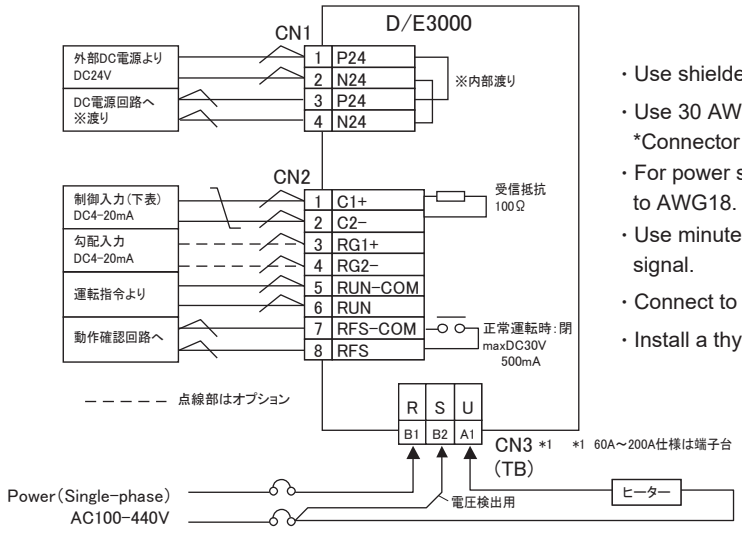
Dimension



Mounting（mm）			Mounting screw
	A	B	
3030	0	210	M4×2
3060	0	220	M4×2
3120	75	230	M5×4
3200	100	235	M5×4

Connection example



- Use shielded wires for signal wiring to prevent erroneous control.
- Use 30 AWG power supply wiring(S)with AWG12 to AWG10.
  *Connector connection for 30Atype
- For power supply wiring (S) over 60A specifications, use AWG14 to AWG18.
- Use minute current contact as the contact for the RUN command signal.
- Connect to fail-safe output with DC30V less than 500mA
- Install a thyristor breaker / fuse if necessary.

Type/Code List

Code		Specification		Dimension（mm）	Weight	
D3	Constant voltage feedback type　AC phase control power regulator					
E3	Constant current feedback type　AC phase control power regulator					
Current capacity	03	30A		W80×H200×D210	2.2 kg	
	06	60A		W90×H210×D250	3.2 kg	
	12	120A		W115×H220×D270	4.7 kg	
	20	200A		W150×H227×D285	6.1 kg	
Power　※Factory setting	1	AC110V（AC100-120V）				
	2	AC220V（AC200-240V）				
	4	AC440V（AC380-440V）				
Control input type	-1	DC4-20mA（Receive resistance 100Ω）				
	-2	DC0-5V				
	-3	DC0-10V				
Option	-R	Remote gain input (External gradient setting) Same as control input type				
	-G	Gradient volume				
	-RG	Select R/G at same time				

※ A communication function is available as an option. Please consult us for details.

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