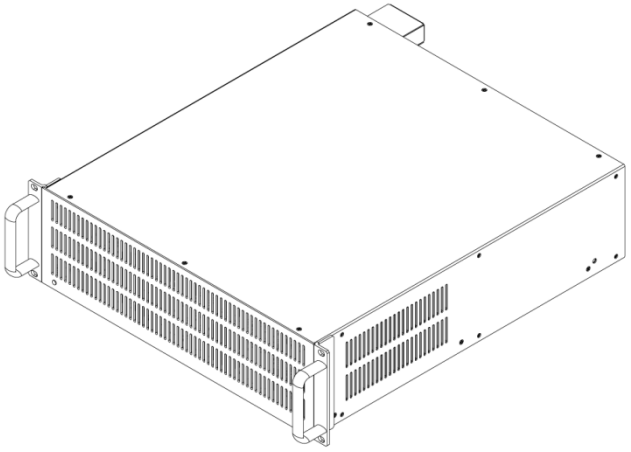
Power Dissipater

IT-E500 Series User Manual



Model:
IT-E502/IT-E503/IT-E504/IT-E505/IT-E506/IT-E507
Version No.: V2.2

Notices

Manual Part Number

IT6500D-402227

Revision

2nd Edition: July 24, 2018

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Safety Notices

CAUTION

A CAUTION sign denotes a hazard. It calls attention to an operating procedure or practice that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION sign until the indicated conditions are fully understood and met.

WARNING

A WARNING sign denotes a hazard. It calls attention to an operating procedure or practice that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING sign until the indicated conditions are fully understood and met.

NOTE

A NOTE sign denotes important hint. It calls attention to tips or supplementary information that is essential for users to refer to.

Quality Certification and Assurance

We certify that IT-E500 series power dissipater meets all the published specifications at time of shipment from the factory.

Warranty

ITECH warrants that the product will be free from defects in material and workmanship under normal use for a period of one (1) year from the date of delivery (except those described in the Limitation of Warranty below).

For warranty service or repair, the product must be returned to a service center designated by ITECH.

- The product returned to ITECH for warranty service must be shipped PREPAID. And ITECH will pay for return of the product to customer.
- If the product is returned to ITECH for warranty service from overseas, all the freights, duties and other taxes shall be on the account of customer.

Limitation of Warranty

This Warranty will be rendered invalid if the product is:

- Damaged resulting from customer-wired circuits or customer-supplied parts or accessories;
- Modified or repaired by customer without authorization;
- Damaged resulting from customer-wired circuits or use in an environment not designated by us;
- The product model or serial number is altered, deleted, removed or made illegible by customer;
- Damaged as a result of accidents, including but not limited to lightning, moisture, fire, improper use or negligence.

Safety Symbols

	Direct current		ON (power)
	Alternating current		OFF (power)
	Both direct and alternating current		Power-on state
	Chassis (earth ground) symbol.		Power-off state
	Earth (ground) terminal		Reference terminal
	Caution		Positive terminal
	Warning (refer to this manual for specific Warning or Caution information)		Negative terminal
	A chassis terminal	-	-

Regulatory Markings

CE	The CE mark indicates that the product complies with all the relevant European legal directives. The specific year (if any) affixed refers to the year when the design was approved.
	The instrument complies with the WEEE Directive (2002/96/EC) marking requirement. This affix product label indicates that you must not discard the electrical/electronic product in domestic household waste.
	This symbol indicates the time period during which no hazardous or toxic substances are expected to leak or deteriorate during normal use. The expected useful life of the product is 10 years. The product can be used safely during the 10-year Environment Friendly Use Period (EFUP). Upon expiration of the EFUP, the product must be immediately recycled.

Waste Electrical and Electronic Equiment (WEEE) Directive

2002/96/EC Waste Electrical and Electronic Equipment (WEEE) Directive

This product complies with the WEEE Directive (2002/96/EC) marking requirement. This affix product label indicates that you must not discard the electrical/electronic product in domestic household waste.

Product Category

With reference to the equipment classifications described in the Annex 1 of the WEEE Directive, this instrument is classified as a “Monitoring and Control Instrument”.

To return this unwanted instrument, contact your nearest ITECH office.

Compliance Information

Complies with the essential requirements of the following applicable European Directives, and carries the CE marking accordingly:

- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
- Low-Voltage Directive (Safety) 2014/35/EU

Conforms with the following product standards:

EMC Standard

IEC 61326-1:2012/ EN 61326-1:2013 [1][2][3]

Reference Standards

CISPR 11:2009+A1:2010/ EN 55011:2009+A1:2010 (Group 1, Class A)
IEC 61000-4-2:2008/ EN 61000-4-2:2009
IEC 61000-4-3:2006+A1:2007+A2:2010/ EN 61000-4-3:2006+A1:2008+A2:2010
IEC 61000-4-4:2004+A1:2010/ EN 61000-4-4:2004+A1:2010
IEC 61000-4-5:2005/ EN 61000-4-5:2006
IEC 61000-4-6:2008/ EN 61000-4-6:2009
IEC 61000-4-11:2004/ EN 61000-4-11:2004

1. The product is intended for use in non-residential/non-domestic environments. Use of the product in residential/domestic environments may cause electromagnetic interference.
2. Connection of the instrument to a test object may produce radiations beyond the specified limit.
3. Use high-performance shielded interface cable to ensure conformity with the EMC standards listed above.

Safety Standard

IEC 61010-1:2010/ EN 61010-1:2010

Content

Chapter1 About IT-E500

1.1 General

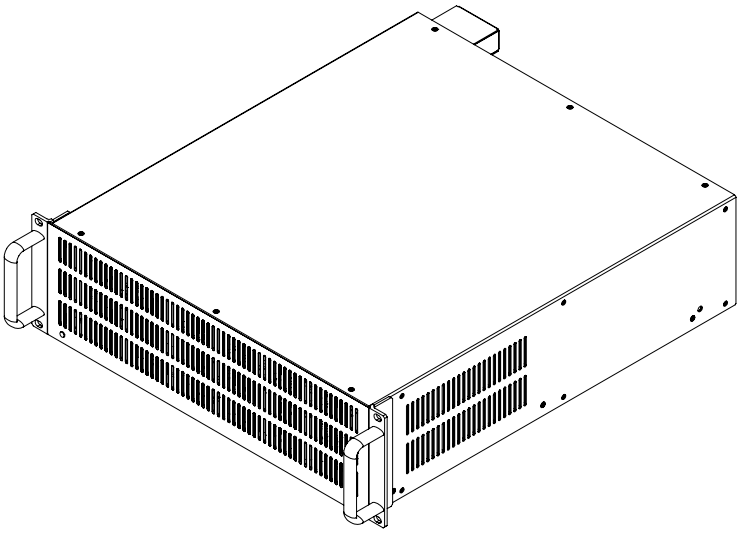
IT-E500 Series power dissipater is a simple and speedy electronic load provided by ITECH, which is an optional accessory of the IT6500C Series power supply sold separately. Work with IT6500C series power supplie, IT-E500 series power dissipater can help IT6500C series to realize external load function. The single module of IT6500C power supply can parallel maximum 3 sets of power dissipaters with same voltage specifications to extend the power range of external load. With this product, external load of the IT6500C Series power supply can reach up to 90KW discharge capacity.

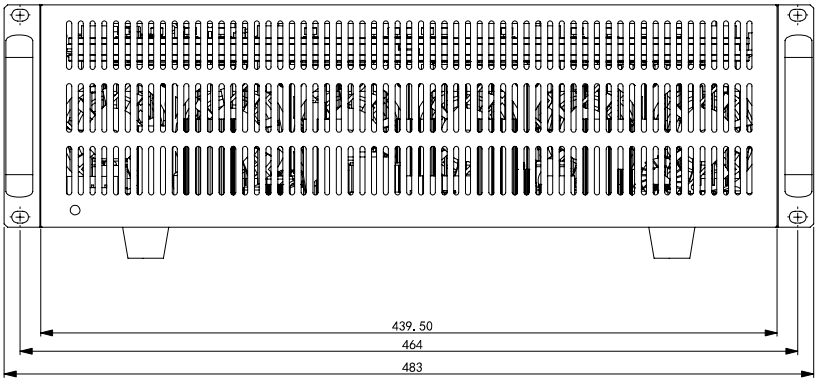
Model	Voltage	Current	Power
IT-E502	80V	120A	3KW
IT-E503	200V	60A	3KW
IT-E504	360V	30A	3KW
IT-E505	500V	20A	3KW
IT-E506	750V	15A	3KW
IT-E507	1000V	10A	3KW

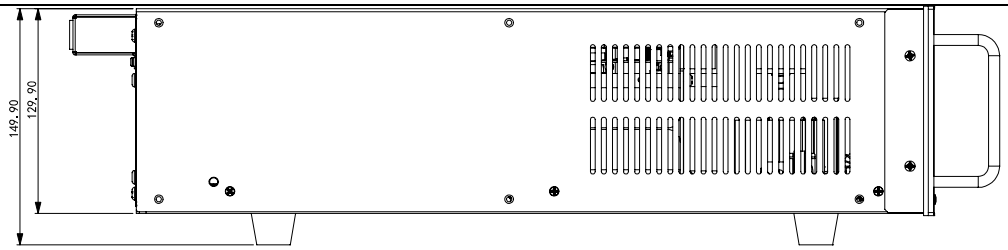
1.2 Dimensions

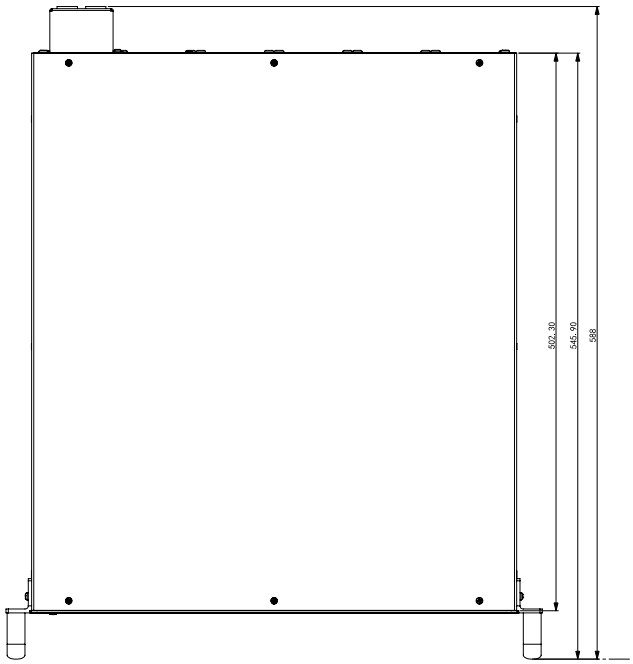
IT-E500 dimensional drawing is as shown below:

Overall dimension: 483mm × 133mm x 504.3mm (Unit: mm)



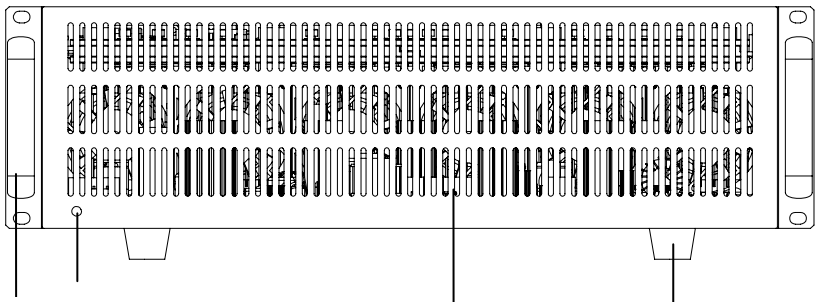




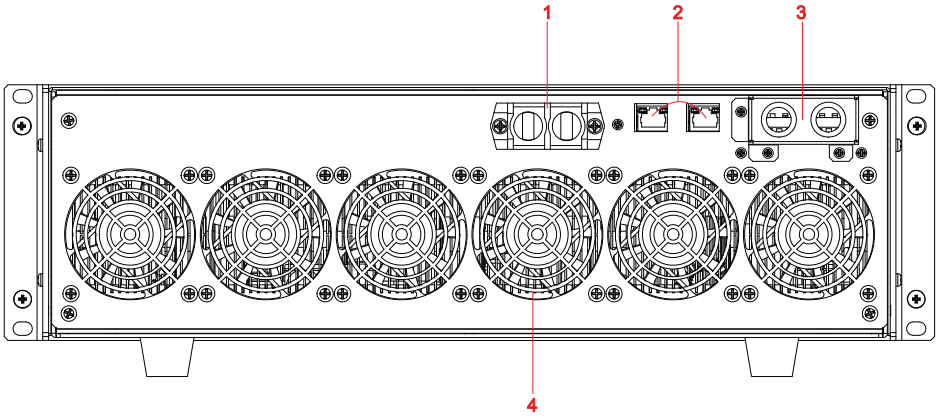


1.3 Front Panel and Rear Panel Introduction

The front panel of IT-E500 power dissipater is as shown below.



The rear panel of IT-E500 power dissipater is as shown below.

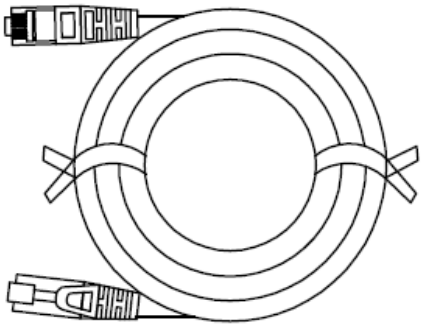


1: Load interface of power dissipater 2: Control interface of power dissipater

3: AC power supply input line 4: Fan

1.4 Connection Cable Introduction

- IT-E500 power dissipater has a piece of standard network cable of system control bus, as shown below.



- IT-E500 Series power dissipater has a piece of standard three-core power line. This power line is connected to the IT6500C rear panel and the AC input terminal of power dissipater.

1.5 Connecting Power Dissipater

The external load function of IT6500C Series power supply needs support of IT-E500 Series power dissipater. The user can parallel several IT-E500 Series power dissipaters to realize higher power range.

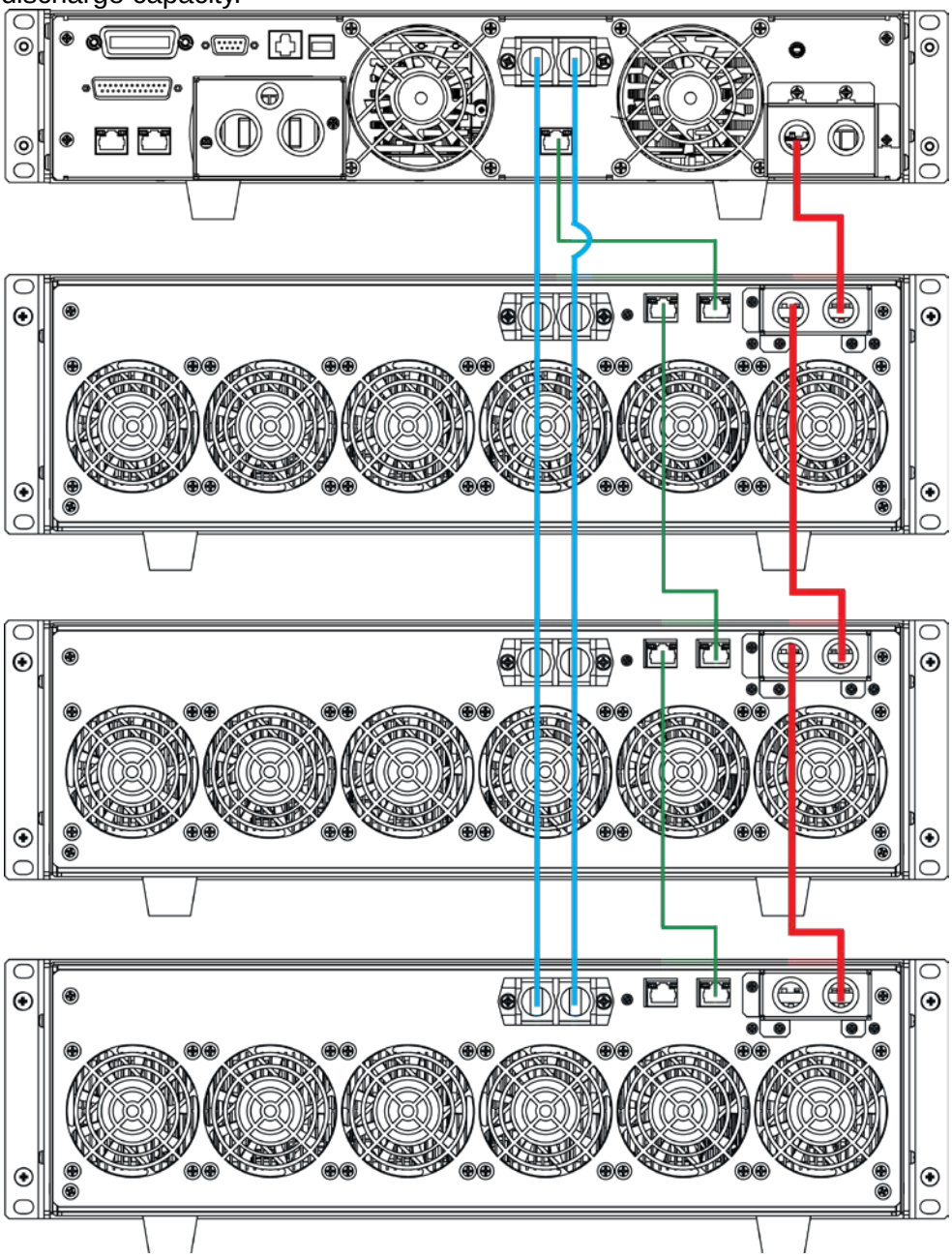
Take IT6522C as an example, wiring of three IT-E502 power dissipaters in parallel is as shown below.

Connection method:

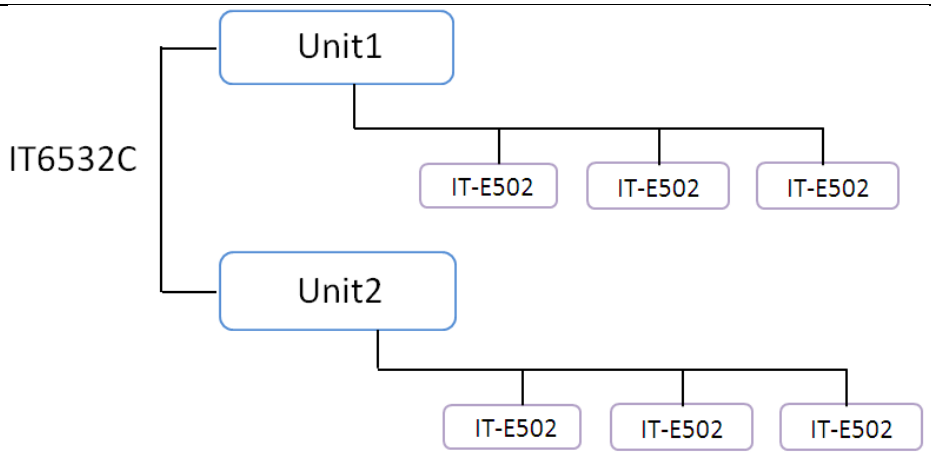
IT6512C-IT6527C Series power supply is a set of 2U single instrument. It can parallel 3 sets of power dissipaters at maximum.

For example, when using the external load function of IT6522C, connect three IT-E502 power dissipaters as shown below to reach 9KW power

discharge capacity.



For IT6532C-IT6597C Series power supply, several sets of power dissipaters should be connected based on number of single machines. The number of power dissipaters connected to each single machine should be kept consistent. Take IT6532C as an example, parallel 3 sets of power dissipaters. Example diagram is as shown below:



Connect the power supply and power dissipater based on the above schematic diagram.

1. Connect the external load's connection terminal of IT6500C Series power supply to the load input interface of IT-E500 Series power dissipater. Connections of other power dissipaters are as shown in blue lines in the figure.
2. Connect the control bus, as the green lines shown. Directly insert the network cables.
3. AC input connection of power dissipater. The power dissipater is configured with a piece of three-core power line. The user needs to connect the power line to the AC output terminal at the IT6500C rear panel, as the red lines shown above. Note that the L, N and earth terminals should be corresponding.

Use Method

After the power dissipater is connected to the IT6500C power supply, the user can directly turn on the external load function on the IT6500C Series power supply to realize negative current output or to discharge the DUT through the discharging capacity of the power dissipater.

Chapter2 Specifications

This chapter introduces detailed specifications of IT-E500 series power dissipater. For details, refer to specifications of each model.

IT-E502 Specification

Parameters		IT-E502
Input Rating	Voltage	0.1V-80V
	Current	0.1A-120A
	Power	0W-3000W
Interface	System Bus	
Dimention(WxHxD)	483 mm x 133mm x 504.3mm	
Weight	25Kg	
AC Input	Voltage	100-240V AC
	Frequency	47-63 Hz
	Working current	<2.5A(110V), <1.25A(220V)

IT-E503 Specification

Parameters		IT-E503
Input Rating	Voltage	0.1V-200V
	Current	0.1A-60A
	Power	0W-3000W
Interface	System Bus	
Dimention (WxHxD)	483 mm x 133mm x 504.3mm	
Weight	25Kg	
AC Input	Voltage	100-240V AC
	Frequency	47-63 Hz
	Working current	<2.5A(110V), <1.25A(220V)

IT-E504 Specification

Parameters	IT-E504
DC Section	

Input Rating	Voltage	0.1~360V
	Current	0.1~30A
	Power	0~3000W
Other		
Interface	System Bus	
Dimention (WxHxD)	483 mm x 133mm x 504.3mm	
Weight	25Kg	
AC Input	Voltage	100~240V AC
	Frequency	47~63 Hz
	Working current	<2.5A(110V), <1.25A(220V)

IT-E505 Specification

Parameters	IT-E505	
DC Section		
Input Rating	Voltage	0.1~500V
	Current	0.1~20A
	Power	0~3000W
Other		
Interface	System Bus	
Dimention (WxHxD)	483 mm x 133mm x 504.3mm	
Weight	25Kg	
AC Input	Voltage	100~240V AC
	Frequency	47~63 Hz
	Working current	<2.5A(110V), <1.25A(220V)

IT-E506 Specification

Parameters	IT-E506	
DC Section		
Input Rating	Voltage	0.1~750V
	Current	0.1~15A

	Power	0~3000W
Other		
Interface	System Bus	
Dimention **(WxHxD)**	483 mm x 133mm x 504.3mm	
Weight	25Kg	
AC Input	Voltage	100~240V AC
	Frequency	47~63 Hz
	Working current	<2.5A(110V), <1.25A(220V)

IT-E506 Specification

Parameters	IT-E507	
DC Section		
Input Rating	Voltage	0.1~1000V
	Current	0.1~10A
	Power	0~3000W
Other		
Interface	System Bus	
Dimention **(WxHxD)**	483 mm x 133mm x 504.3mm	
Weight	25Kg	
AC Input	Voltage	100~240V AC
	Frequency	47~63 Hz
	Working current	<2.5A(110V), <1.25A(220V)

The above specifications may be subject to change without prior notice.

Contact US

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1. Please refer to the CD-ROM of related user's manual in package.
2. Click www.itechate.com or scan the right two-dimension code to visit the ITECH website.
3. Send E-mail to fae@itech.sh or dial the service hot-line in China: 4006025000
4. Select the most convenient contact method for further consultancy.