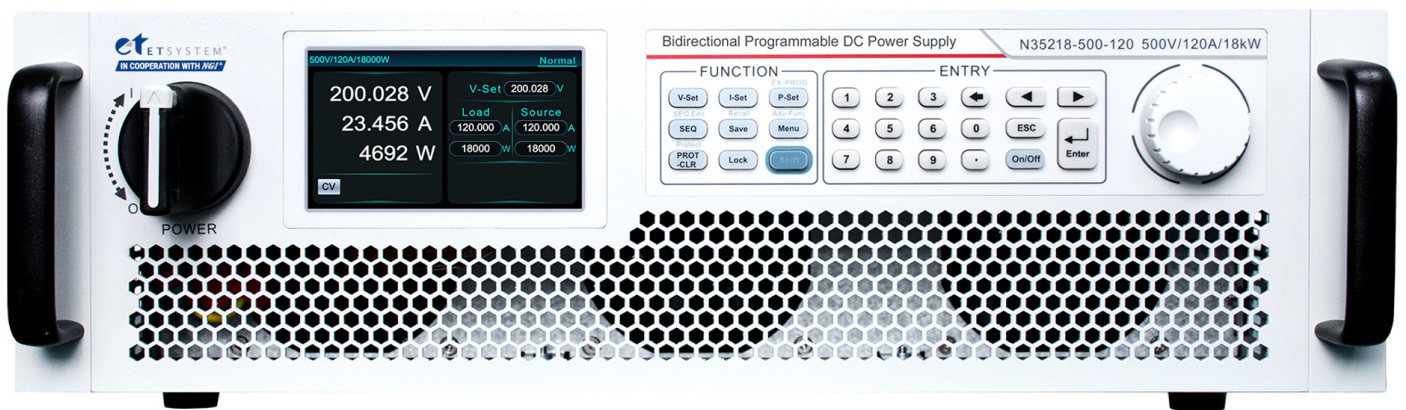


# Datenblatt *data sheet*



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**Sprachauswahl durch klicken auf Flagge**  
*Select language by clicking on flag*



## Kurze Einführung

Die N35200-Serie ist eine hochleistungsfähige bidirektionale programmierbare Gleichstromversorgung. N35200 nutzt ein Dual-Quadrant-Design, welches sowohl Leistung aufnehmen als auch abgeben und saubere Energie ans Netz zurückliefern kann, um den Energieverbrauch zu senken und die Wärmeabgabe zu reduzieren, was die Testkosten erheblich senken kann. N35200 hat ein breites Anwendungsspektrum bei Messungen, mit einem einzelnen Leistungsbereich von 6 kW bis 54 kW, Stromstärken bis zu 360 A, Spannungsbereich bis zu 1500 V. N35200 bietet hochpräzise Messungen und vielfältige Testfunktionen, die in der Erneuerbarenenergie, im Automobilsektor, bei Energiespeicherlösungen, in der Halbleiterindustrie, der Photovoltaik, dem elektrischen Antrieb und anderen Industriezweigen genutzt werden können.

## Merkmale

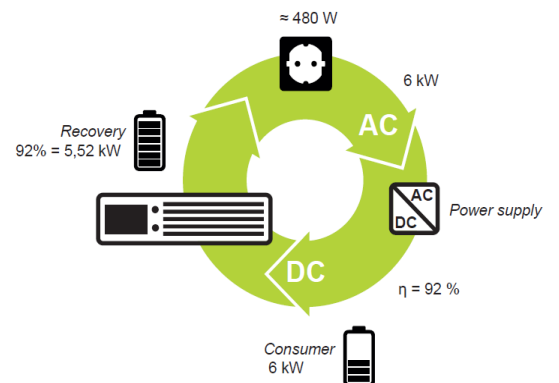
- Stromgenauigkeit 0,1% vom Messbereichsendwert
- Unterstützt Software für Batterielade-/Entladetests (optional)
- Unterstützt PV-Matrix I-V Kurvensimulationsfunktion (optional)
- Unterstützt Master/Slave-Parallelsteuerungsmodus (10 Geräte o. max. 180kW)
- Bidirektionale Energieübertragung, nahtloser Wechsel zwischen Quellen und Senken
- CC/CV-Prioritätsauswahlfunktion, einstellbare Spannungs- & Stromanstiegsgeschwindigkeit
- Mehrfacher Schutzfunktionen, OVP, UVP,  $\pm$ OCP,  $\pm$ OPP, OTP, Schutz bei Stromausfall
- Standard Schnittstelle LAN-Port und RS232. Optional GPIB, CAN, RS485 und USB
- Hochspannungs isolierten digitalen & analogen Schnittstellen und Überwachungsschnittstellen
- Interne Widerstandssimulationsfunktion, Ausgabe-Timing-Funktion, Spannungsrampen-Funktion

## Anwendungsbereiche

- Labor, Produktionslinie ATE (Automatic Test Equipment) automatisches Testsystem
- Photovoltaik-Wechselrichter, Wasserstoff-Brennstoffzelle, Solarzellenmatrix und weitere
- Energiespeicherung mit hoher Leistung, USV (Unterbrechungsfreie Stromversorgung), Mikronetz-Wechselrichter und andere Anwendungen für Energiespeicher
- BOBC, DC/DC-Wandler, Motorantrieb, Automobil-Elektronik und andere Automobilbereiche
- Halbleiter und Komponenten, Laser, Hochleistungs-LED und andere Halbleiter-Testfelder
- Kommunikationsausrüstung, UAV (Luftfahrzeug), Luftfahrt-Elektronik, Schweißen/Galvanisieren usw.
- Laden und Entladen Test von Power-Batterien, Bleiakkumulatoren und Supercapacitors

## Anwendungsbereiche

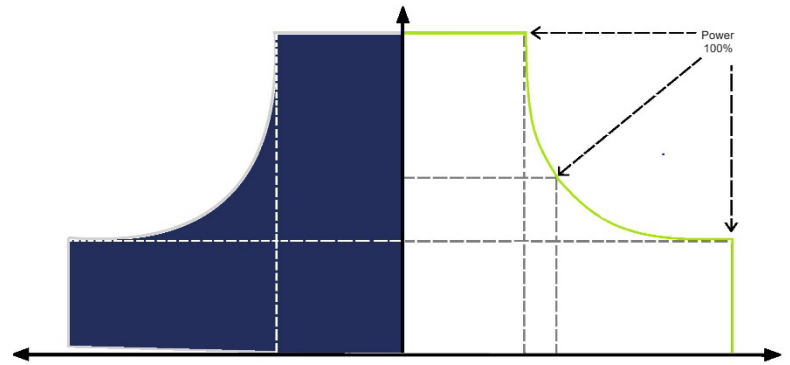
Die Geräte der N35200-Serie sind bidirektional konzipiert und können sowohl als Energiequelle als auch als Senke dienen. Diese Zweifachfunktion erlaubt es dem Gerät, nicht nur Strom zu generieren, sondern auch aufzunehmen und zurück ins Netz zu speisen, was eine hocheffiziente Nutzung ermöglicht. Im Senkenmodus wird die aufgenommene Energie nicht in Form von Wärme dissipiert, was zu einer signifikanten Kosteneinsparung beiträgt und den Bedarf an zusätzlicher Kühlung reduziert.



Die Stromversorgung ermöglicht einen kontinuierlichen und nahtlosen Wechsel zwischen der Ausgabe und Aufnahme von Strom, was das Überschwingen von Spannung und Strom verhindert. Dies ist vorteilhaft für Tests von Batterien, unterbrechungsfreien Stromversorgungen (USVs) und Batterieschutz-platinen.

## Autoranging

Die bidirektionale DC-Stromversorgung der N35200-Serie ist flexibel über einen weiten Bereich einsetzbar. Ein einzelnes Gerät deckt vielfältige Spannungs- und Strombereiche (Faktor 3,3) innerhalb seiner Nennleistung ab. Dies erlaubt Anwendern, unterschiedliche Testanforderungen mit variierenden Spannungs- und Stromwerten zu realisieren, wodurch Ressourcen wie Kosten und Platz in Laboren oder automatisierten Testsystemen effizient genutzt werden.

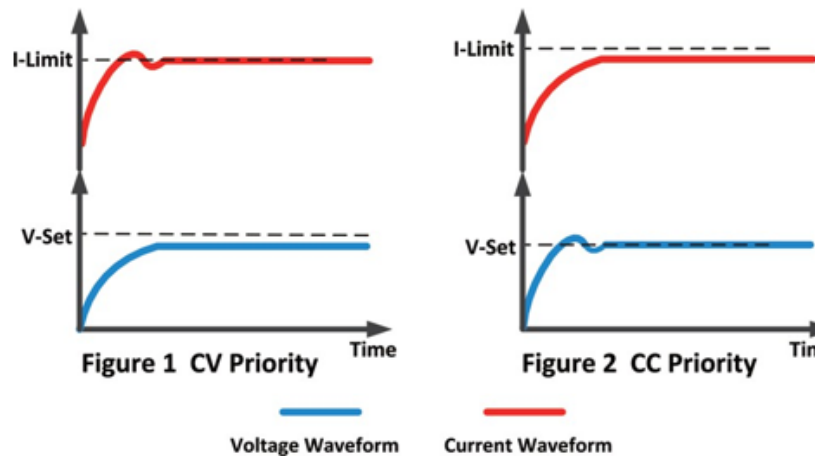


## CC&CV Prioritätsfunktion

Die N35200-Serie verfügt über die Funktion, die Priorität der Spannungsregelung oder der Stromregelung einzustellen. Sie kann den optimalen Arbeitsmodus für die Prüfung entsprechend der Eigenschaften des Prüflings annehmen, um den Prüfling besser zu schützen.

Wie in Abbildung 1 veranschaulicht, ist der Spannungsprioritätsmodus empfehlenswert, um einen raschen und gleichförmigen Anstieg der Spannung zu erreichen und gleichzeitig das Spannungsüberschwingen während des Testvorgangs zu minimieren.

Abbildung 2 zeigt, dass der Stromprioritätsmodus ideal ist, um einen zügigen und gleichmäßigen Stromanstieg zu gewährleisten, insbesondere wenn eine Reduzierung des Stromüberschwingens während des Testverfahrens erforderlich ist.



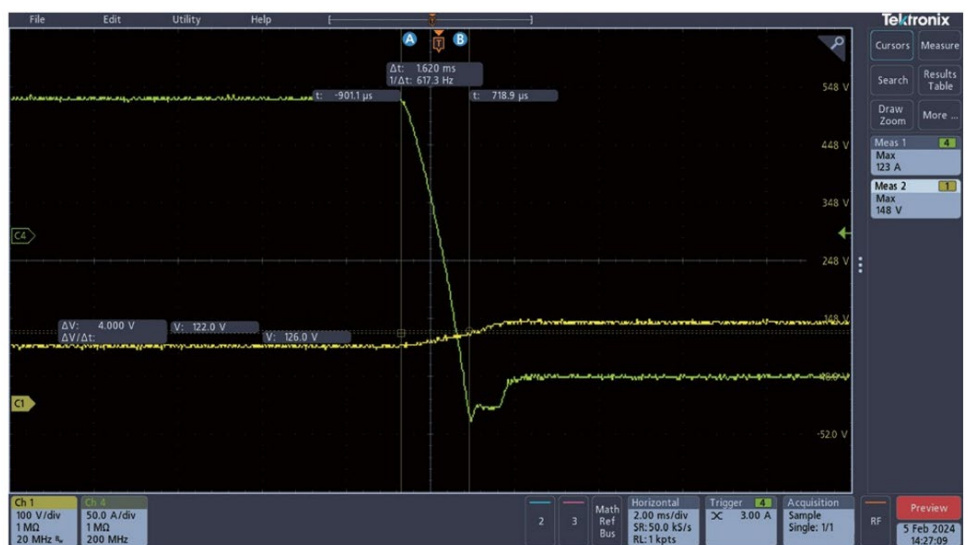
## Schnelle dynamische Reaktion

Die bidirektionale DC-Quelle der Serie N35200 kann nahtlos zwischen Quelle und Senke umschalten.

Auf dem Oszilloskopbild rechts können Sie ein Beispiel sehen. 18kW/500V/120A.

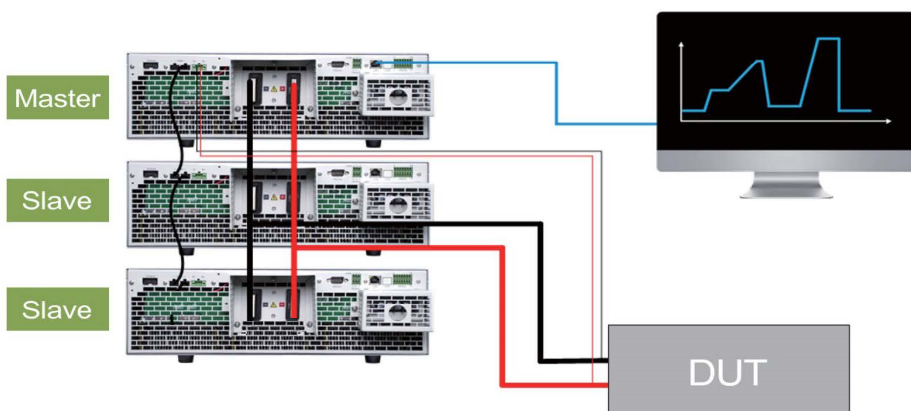
Die Umschaltzeit von der Quelle 120A zur Senke 120A beträgt weniger als 2 ms, wie die Abbildung zeigt.

CH1 Spannung CH2 Strom



## Master/slave für Leistungserweiterung

Die N35200-Serie kann sowohl einzeln als auch im Master/Slave-Parallelbetrieb eingesetzt werden, wobei ein integrierter Master/Slave-Modus vorhanden ist. Ein spezielles Stromverteilungsdesign sorgt dafür, dass die Last gleichmäßig auf alle Module verteilt wird, was die Konsistenz und Zuverlässigkeit der Nutzung erhöht.



## Model-Übersicht

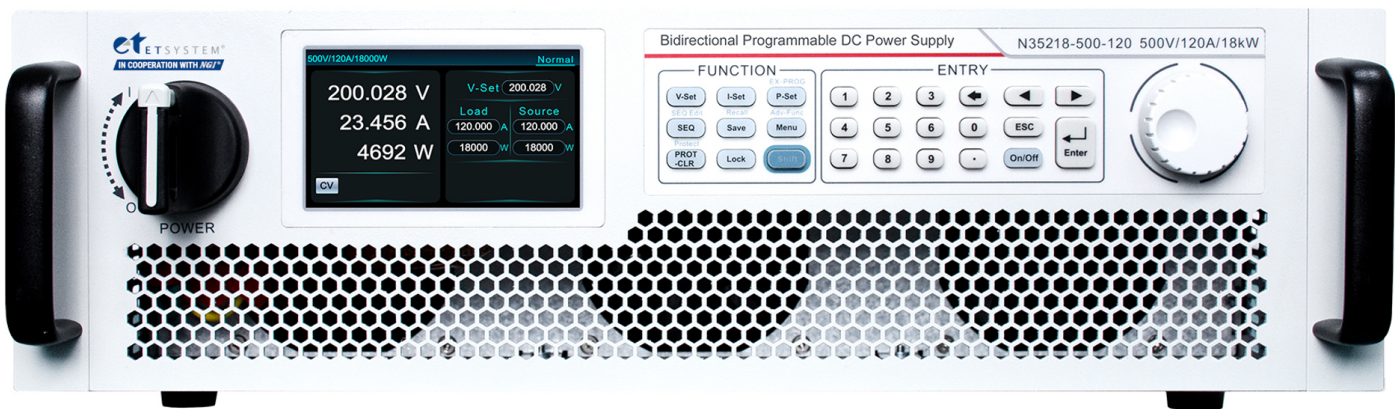
500V Model	Specification	Size	500V Model	Specification	Size
N35206-500-40	6kW/500V/40A	19inch/3U	N35236-500-240	36kW/500V/240A	19inch/6U
N35212-500-80	12kW/500V/80A	19inch/3U	N35254-500-360	54kW/500V/360A	19inch/9U
N35218-500-120	18kW/500V/120A	19inch/3U	/	/	/
1000V Model	Specification	Size	1500V Model	Specification	Size
N35212-1000-40	12kW/1000V/40A	19inch/3U	N35218-1500-40	18kW/1500V/40A	19inch/3U
N35224-1000-80	24kW/1000V/80A	19inch/6U	N35236-1500-80	36kW/1500V/80A	19inch/6U
N35236-1000-120	36kW/1000V/120A	19inch/9U	N35254-1500-120	54kW/1500V/120A	19inch/9U

## Model informationen

500V Model	Size	Line Current	Cable	Diameter
N35206-500-40	3U	9.41A	3L +1PE	6mm <sup>2</sup>
N35212-500-80	3U	18.83A	3L +1PE	6mm <sup>2</sup>
N35218-500-120	3U	28.24A	3L +1PE	6mm <sup>2</sup>
N35236-500-240	6U	56.48A	3L +1PE	10mm <sup>2</sup>
N35254-500-360	9U (3x Master)	28.24A	9L +3PE	6mm <sup>2</sup>
1000V Model	Size	Line Current	Cable	Diameter
N35212-1000-40	3U	18.83A	3L +1PE	6mm <sup>2</sup>
N35224-1000-80	6U	37.66A	3L +1PE	6mm <sup>2</sup>
N35236-1000-120	9U (3x Master)	18.83A	9L +3PE	6mm <sup>2</sup>
1500V Model	Size	Line Current	Cable	Diameter
N35218-1500-40	3U	28.24A	3L +1PE	6mm <sup>2</sup>
N35236-1500-80	6U	56.48A	3L +1PE	10mm <sup>2</sup>
N35254-1500-120	9U (3x Master)	28.24A	9L +3PE	6mm <sup>2</sup>

Note: Phase Voltage: 400V

## Frontansicht



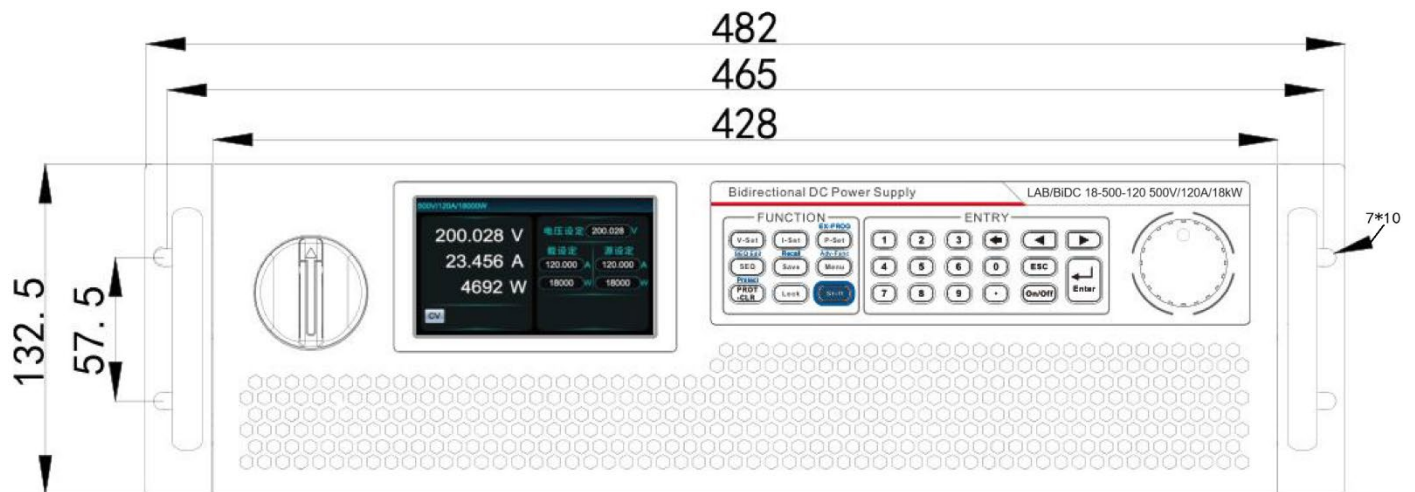
## Seitenansicht



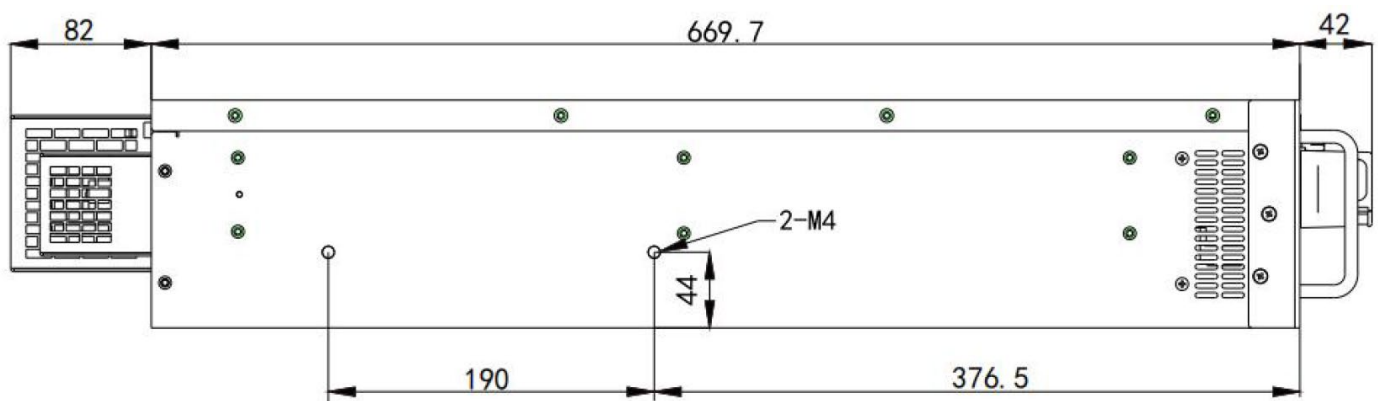
## Rückansicht



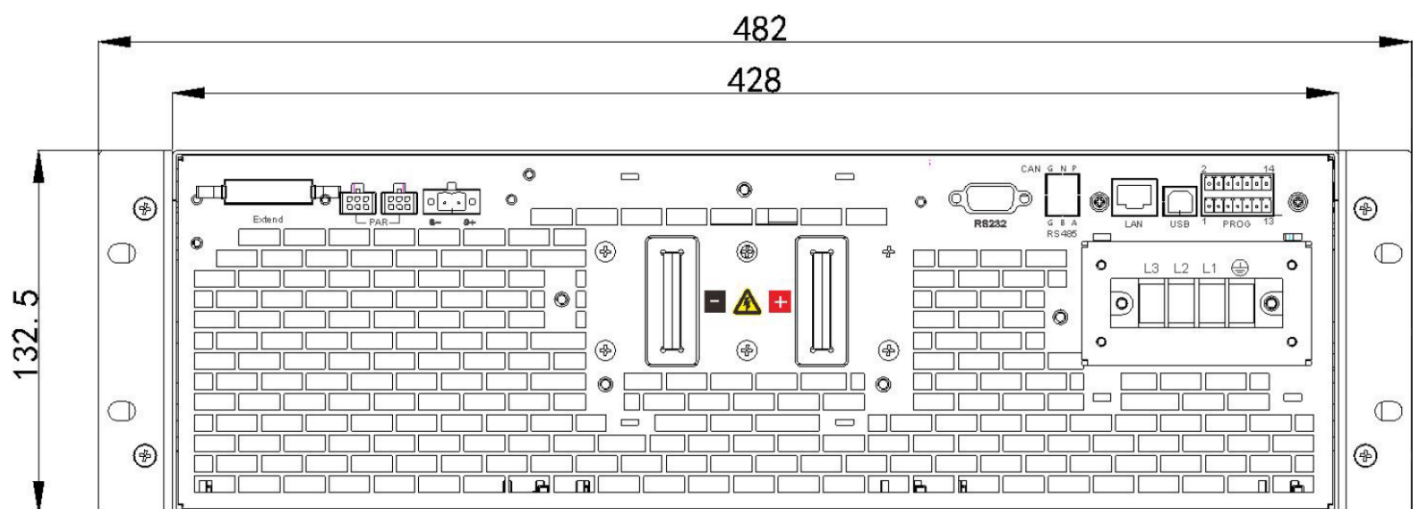
## Abmessung Vorderansicht



## Abmessung Seitenansicht



## Abmessung Rückteil



## Technical Data Sheet(1)

Model	N35206-500-40	N35212-500-80	N35218-500-120
Voltage	0~500V	0~500V	0~500V
Current	-40~40A	-80A~+80A	-120A~+120A
Power	-6kW~+6kW	-12kW~+12kW	-18kW~+18kW
CV Mode			
Range	0~500V	0~500V	0~500V
Setting Resolution	10mV	10mV	10mV
Setting Accuracy (23±5°C)	0.02%+0.02%F.S.		
RDG Resolution	10mV	10mV	10mV
RDG Accuracy(23±5°C)	0.02%+0.02%F.S.		
Noise&Ripple	≤350mVp-p	≤350mVp-p	≤500mVp-p
Temperature Coefficient	≤50ppm/°C		
CC Mode			
Range	-40~40A	-80A~+80A	-120A~+120A
Setting Resolution	1mA	1mA	10mA
Setting Accuracy (23±5°C)	0.1%+0.1%F.S.		
RDG Resolution	1mA	1mA	10mA
RDG Accuracy (23±5°C)	0.1%+0.1%F.S.		
Temperature Coefficient	≤50ppm/°C		
CP Mode			
Range	-6kW~+6kW	-12kW~+12kW	-18kW~+18kW
Setting Resolution	1W		
Setting Accuracy (23±5°C)	0.5%F.S.		
RDG Resolution	1W		
RDG Accuracy (23±5°C)	0.5%F.S.		
CR Mode			
Range	0.1Ω~2.5kΩ	0.05Ω~1.25kΩ	0.03Ω~833Ω
Setting Resolution	0.01Ω		
Setting Accuracy (23±5°C)	Vin/Rset*0.01%+0.2%IF.S.		
Line Regulation			
Voltage	≤0.01%F.S.	Current	≤0.05%F.S.
Load Regulation			
Voltage	≤0.02%F.S.	Current	≤0.05%F.S.
Dynamic Characteristics			
Voltage Rise Time (no load)	≤15ms	Voltage Fall Time (no load)	≤30ms
Voltage Rise Time (full load)	≤30ms	Voltage Fall Time (full load)	≤15ms
Transient Recovery Time	The recovery time of load varying 10%~90% and voltage recovering within 0.75% accuracy range of rated value is within 2ms.		
Others			
Efficiency	92%		
Power Factor	0.99		
Communication Interface	LAN,RS232,And Optional for CAN,RS485,GPIB,USB		
AC Input	three-phase three-wire system,Voltage 342V~480V, Frequency 47Hz~63Hz		
Temperature	Operating temperature: 0°C~40°C, storage temperature: -20°C~60°C		
Operating Environment	Altitude <2000m, relative humidity: 5%~90%RH(non-condensing), atmospheric pressure: 80~110kPa		
Net Weight	Approx. 18kg	Approx. 25kg	Approx. 32kg
Dimension	132.5(H)*482.0(W)with handle*770.0(D)mm, with output shield		

Note 1: For other specifications, please contact us.

Note 2: All specifications are subject to change without notice.

## Technical Data Sheet(2)

Model	N35236-500-240	N35212-1000-40	N35236-1000-120
Voltage	0~500V	0~1000V	0~1000V
Current	-240A~+240A	-40A~+40A	-120A~+120A
Power	-36kW~+36kW	-12kW~+12kW	-36kW~+36kW
CV Mode			
Range	0~500V	0~1000V	0~1000V
Setting Resolution	10mV	100mV	100mV
Setting Accuracy (23±5°C)	0.02%+0.02%F.S.		
RDG Resolution	10mV	100mV	100mV
RDG Accuracy(23±5°C)	0.02%+0.02%F.S.		
Noise&Ripple	≤500mVp-p	≤1000mVp-p	≤1000mVp-p
Temperature Coefficient	≤50ppm/°C		
CC Mode			
Range	-240A~+240A	-40A~+40A	-120A~+120A
Setting Resolution	10mA	1mA	10mA
Setting Accuracy (23±5°C)	0.1%+0.1%F.S.		
RDG Resolution	10mA	1mA	10mA
RDG Accuracy (23±5°C)	0.1%+0.1%F.S.		
Temperature Coefficient	≤50ppm/°C		
CP Mode			
Range	-36kW~+36kW	-12kW~+12kW	-36kW~+36kW
Setting Resolution	1W		
Setting Accuracy (23±5°C)	0.5%F.S.		
RDG Resolution	1W		
RDG Accuracy (23±5°C)	0.5%F.S.		
CR Mode			
Range	0.02Ω-417Ω	0.25Ω~5kΩ	0.08Ω~1.67kΩ
Setting Resolution	0.01Ω		
Setting Accuracy (23±5°C)	Vin/Rset*0.01%+0.2%IF.S.		
Line Regulation			
Voltage	≤0.01%F.S.	Current	≤0.05%F.S.
Load Regulation			
Voltage	≤0.02%F.S.	Current	≤0.05%F.S.
Dynamic Characteristics			
Voltage Rise Time (no load)	≤15ms	≤20ms	≤20ms
Voltage Rise Time (full load)	≤30ms	≤40ms	≤40ms
Voltage Fall Time (no load)	≤30ms	≤20ms	≤20ms
Voltage Fall Time (full load)	≤15ms	≤20ms	≤20ms
Transient Recovery Time	The recovery time of load varying 10%~90% and voltage recovering within 0.75% accuracy range of rated value is within 2ms.		
Others			
Efficiency	92%		
Power Factor	0.99		
Communication Interface	LAN,RS232,And Optional for CAN,RS485,GPIB,USB		
AC Input	three-phase three-wire system,Voltage 342V~480V, Frequency 47Hz~63Hz		
Temperature	Operating temperature: 0°C~40°C, storage temperature: -20°C~60°C		
Operating Environment	Altitude <2000m, relative humidity: 5%~90%RH(non-condensing), atmospheric pressure: 80~110kPa		
Net Weight	Approx. 65kg	Approx. 25kg	Approx. 97kg
Dimension	265.0(H)*482.0(W)with handle*770.0(D)mm with output shield	132.5(H)*482.0(W)with handle*770.0(D)mm with output shield	397.5(H)*482.0(W)with handle*770.0(D)mm with output shield

Note 1: For other specifications, please contact us.

Note 2: All specifications are subject to change without notice.

## Technical Data Sheet(3)

<b>Model</b>	N35218-1500-40		
Voltage	0~1500V		
Current	-40A ~ +40A		
Power	-18kW ~ +18kW		
CV Mode			
Range	0~1500V		
Setting Resolution	100mV		
Setting Accuracy (23±5°C)	0.02%+0.02%F.S.		
RDG Resolution	100mV		
RDG Accuracy(23±5°C)	0.02%+0.02%F.S.		
Noise&Ripple	≤1500mVp-p		
Temperature Coefficient	≤50ppm/°C		
CC Mode			
Range	-40A ~ +40A		
Setting Resolution	1mA		
Setting Accuracy (23±5°C)	0.1%+0.1%F.S.		
RDG Resolution	1mA		
RDG Accuracy (23±5°C)	0.1%+0.1%F.S.		
Temperature Coefficient	≤50ppm/°C		
CP Mode			
Range	-18kW ~ +18kW		
Setting Resolution	1W		
Setting Accuracy (23±5°C)	0.5%F.S.		
RDG Resolution	1W		
RDG Accuracy (23±5°C)	0.5%F.S.		
CR Mode			
Range	0.38Ω ~ 7.5kΩ		
Setting Resolution	0.01Ω		
Setting Accuracy (23±5°C)	Vin/Rset*0.01%+0.2%IF.S.		
Line Regulation			
Voltage	≤0.01%F.S.	Current	≤0.05%F.S.
Load Regulation			
Voltage	≤0.02%F.S.	Current	≤0.05%F.S.
Dynamic Characteristics			
Voltage Rise Time (no load)	≤30ms	Voltage Fall Time (no load)	≤30ms
Voltage Rise Time (full load)	≤60ms	Voltage Fall Time (full load)	≤30ms
Transient Recovery Time	The recovery time of load varying 10%~90% and voltage recovering within 0.75% accuracy range of rated value is within 2ms.		
Others			
Efficiency	92%		
Power Factor	0.99		
Communication Interface	LAN,RS232,And Optional for CAN,RS485,GPIB,USB		
AC Input	three-phase three-wire system,Voltage 342V~480V, Frequency 47Hz ~ 63Hz		
Temperature	Operating temperature: 0°C~40°C, storage temperature: -20°C~60°C		
Operating Environment	Altitude <2000m, relative humidity: 5%~90%RH(non-condensing), atmospheric pressure: 80~110kPa		
Net Weight	Approx. 32kg		
Dimension	132.5(H)*482.0(W)with handle*770.0(D)mm, with output shield		

Note 1: For other specifications, please contact us.

Note 2: All specifications are subject to change without notice.

## Short Intruduction

The N35200 series is a wide range high-power bidirectional programmable DC power supply. N35200 adopts a dual quadrant design, which can supply and absorb power, and return power to the grid cleanly, so as to save power consumption and reduce the space heat dissipation, which can greatly reduce the test cost. N35200 has a wide range of measuring applications, with single power range of 6kW to 54kW, current range up to 360A, voltage range up to 1500V. N35200 series provides high precision measurement and multiple testing functions, which can be widely used in new energy, automotive, energy storage, semiconductor, photovoltaic, electric drive, and other industries.

## Main Features

- Supporting master/slave parallel control mode (10 devices o. max. 180kW)
- Two quadrants seamless switching, the current between the DUT and the grid flow bidirectional
- Voltage accuracy 0.02%F.S., current accuracy 0.1%F.S.
- Supporting battery charge/discharge test Software (optional)
- CC/CV priority selection function, adjustable voltage&current slew rate
- Internal resistance simulation function, output timing function, voltage output ramp function
- Multiple protection functions, OVP, UVP,  $\pm$ OCP,  $\pm$ OPP, OTP, power failure protection
- LAN port and RS232 interface as standard, GPIB, CAN, RS485 and USB as optional
- Supporting PV matrix I-V curve simulation function (optional)
- Equipped with high-voltage isolation digital & analog, and monitoring interfaces

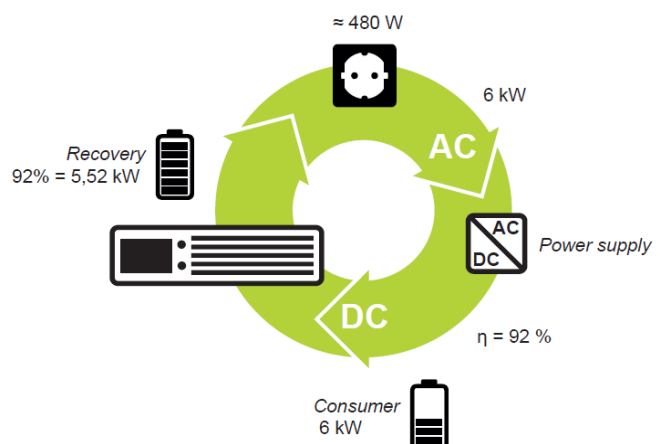
## Application Fields

- Laboratory, production line ATE automatic test system
- Photovoltaic inverter, hydrogen fuel cell, solar cell matrix and other new energy fields
- High-power energy storage, UPS, micro grid inverter and other energy storage applications
- BOBC, DC-DC, motor drive, automotive electronics and other automotive fields
- Semiconductor and components, laser, high power LED and other semiconductor testing fields
- Communication equipment, UAV, aerospace electronics, welding/electroplating, etc
- Charge and discharge test of power battery, lead storage battery and super capacitor

## Bidirectional – feedback to grid

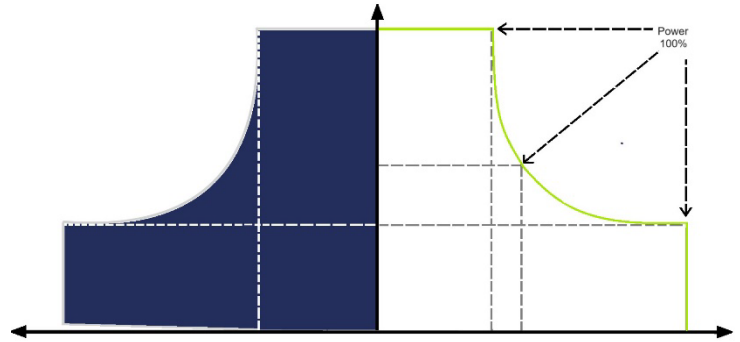
The N35200 series offers bidirectional devices that act as both a source and a sink. This duality enables the device not only to supply energy, but also to absorb it and efficiently feed it back into the power grid. In sink mode, the energy is not lost as heat, resulting in a significant cost reduction and minimizing the need for additional cooling.

The power power supply can be converted continuously seamlessly between the output and absorbed current, effectively avoiding voltage or current overshoot. It is widely used in power battery, UPS, battery protection board and other energy storage equipment testing.



## Wide range of output design

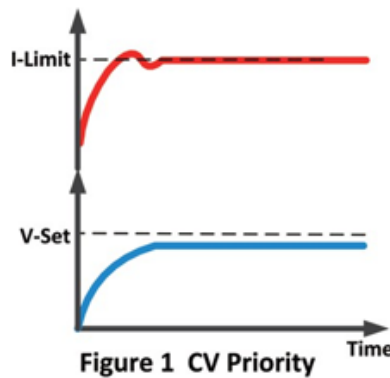
N35200 series bidirectional DC power supply adopts a wide range design. A single power supply can output a wider range of voltage and current (\*3,3) under the rated output power. This allows the user to run different test scenarios with different voltage/current levels, by saving cost and space of different requirements in laboratory or automated test systems.



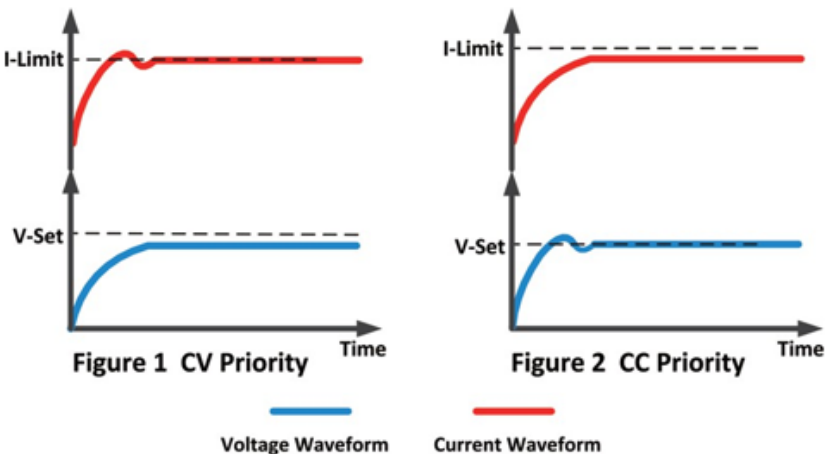
## CC&CV priority function

N35200 series has the function of setting voltage-control priority or current-control loop priority, it can adopt the optimal working mode for testing according to the characteristics of DUT, to better protect DUT.

As shown in Figure 1, when it needs to reduce voltage overshoot during testing, the voltage priority mode should be used to obtain a fast and smooth rising voltage.



As shown in Figure 2, when it needs to reduce current overshoot during testing, the current priority mode should be used to obtain a fast and smooth rising current.



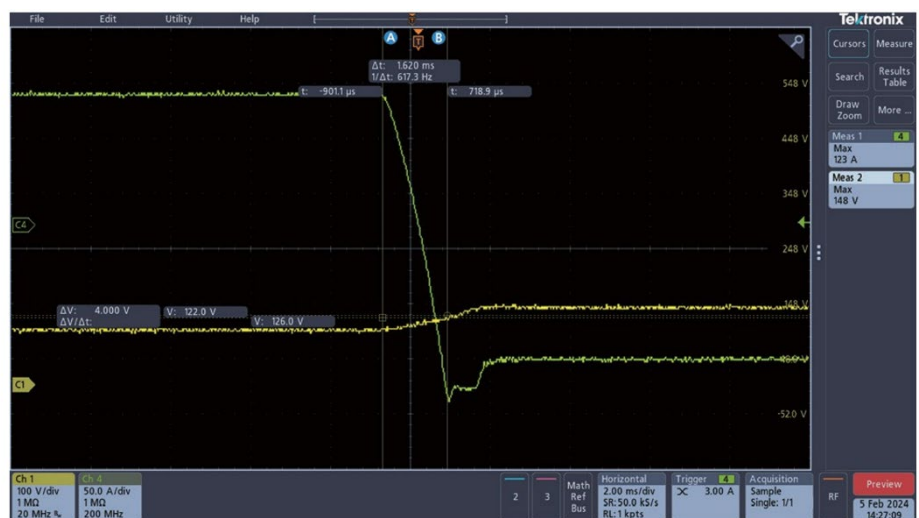
## Fast dynamic response

The bidirectional DC source N35200 series can achieve seamless switch between current output and current sink.

On the Oscilloscope image right you can see for example. 18kW/500V/120A.

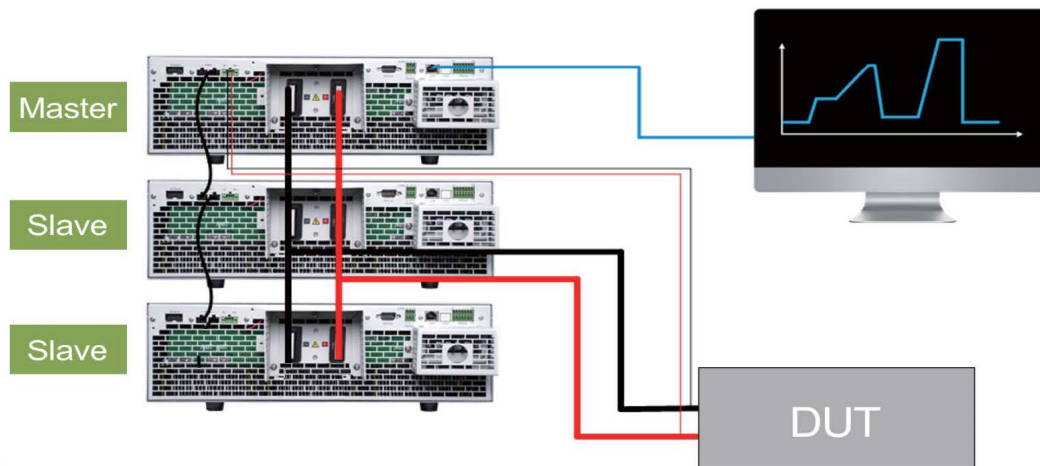
The switch time from source 120A to sink 120A is less than 2ms as the figure.

CH1 Voltage CH2 Current



## Master/slave for power expansion

N35200 can be used independently or in master/slave parallel operation. It has built-in master/slave mode. It adopts a unique current sharing design to ensure each module shares the load equally and ensure the consistency of product use.



## Model Overview

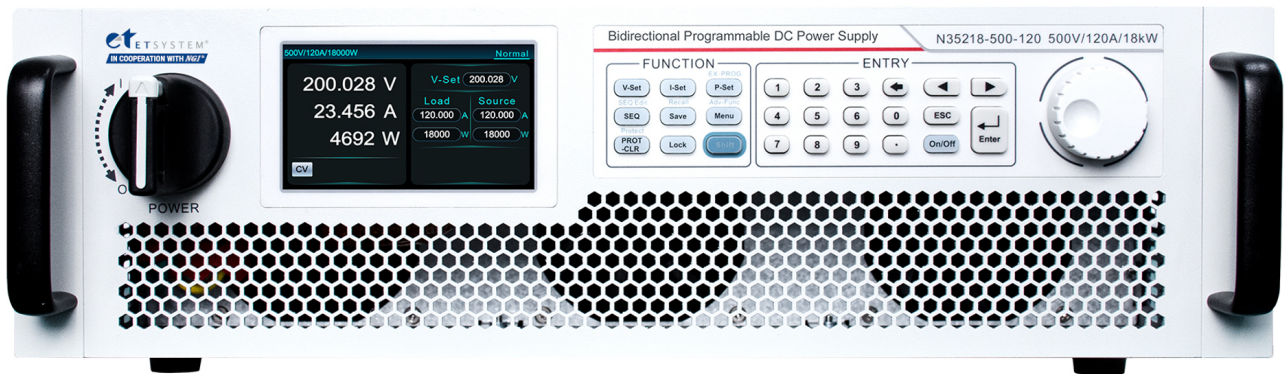
500V Model	Specification	Size	500V Model	Specification	Size
N35206-500-40	6kW/500V/40A	19inch/3U	N35236-500-240	36kW/500V/240A	19inch/6U
N35212-500-80	12kW/500V/80A	19inch/3U	N35254-500-360	54kW/500V/360A	19inch/9U
N35218-500-120	18kW/500V/120A	19inch/3U	/	/	/
1000V Model	Specification	Size	1500V Model	Specification	Size
N35212-1000-40	12kW/1000V/40A	19inch/3U	N35218-1500-40	18kW/1500V/40A	19inch/3U
N35224-1000-80	24kW/1000V/80A	19inch/6U	N35236-1500-80	36kW/1500V/80A	19inch/6U
N35236-1000-120	36kW/1000V/120A	19inch/9U	N35254-1500-120	54kW/1500V/120A	19inch/9U

## Model information

500V Model	Size	Line Current	Cable	Diameter
N35206-500-40	3U	9.41A	3L +1PE	6mm <sup>2</sup>
N35212-500-80	3U	18.83A	3L +1PE	6mm <sup>2</sup>
N35218-500-120	3U	28.24A	3L +1PE	6mm <sup>2</sup>
N35236-500-240	6U	56.48A	3L +1PE	10mm <sup>2</sup>
N35254-500-360	9U (3x Master)	28.24A	9L +3PE	6mm <sup>2</sup>
1000V Model	Size	Line Current	Cable	Diameter
N35212-1000-40	3U	18.83A	3L +1PE	6mm <sup>2</sup>
N35224-1000-80	6U	37.66A	3L +1PE	6mm <sup>2</sup>
N35236-1000-120	9U (3x Master)	18.83A	9L +3PE	6mm <sup>2</sup>
1500V Model	Size	Line Current	Cable	Diameter
N35218-1500-40	3U	28.24A	3L +1PE	6mm <sup>2</sup>
N35236-1500-80	6U	56.48A	3L +1PE	10mm <sup>2</sup>
N35254-1500-120	9U (3x Master)	28.24A	9L +3PE	6mm <sup>2</sup>

Note: Phase Voltage: 400V

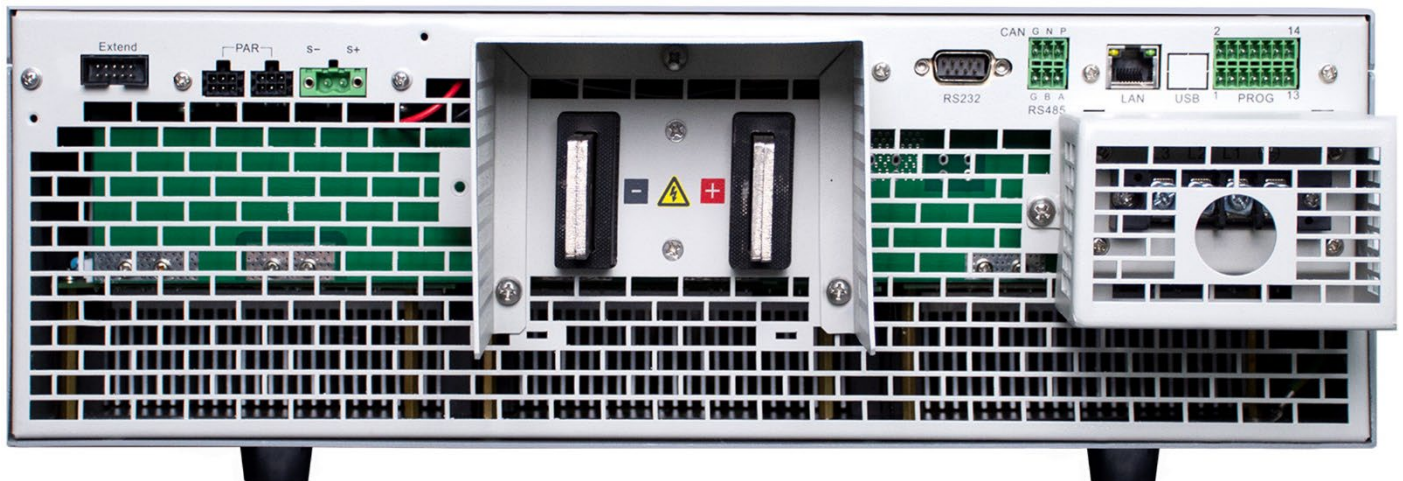
## Front view



## Side view



## Back view





## Technical Data Sheet(1)

Model	N35206-500-40	N35212-500-80	N35218-500-120
Voltage	0~500V	0~500V	0~500V
Current	-40~40A	-80A~+80A	-120A~+120A
Power	-6kW~+6kW	-12kW~+12kW	-18kW~+18kW
CV Mode			
Range	0~500V	0~500V	0~500V
Setting Resolution	10mV	10mV	10mV
Setting Accuracy (23±5°C)	0.02%+0.02%F.S.		
RDG Resolution	10mV	10mV	10mV
RDG Accuracy(23±5°C)	0.02%+0.02%F.S.		
Noise&Ripple	≤350mVp-p	≤350mVp-p	≤500mVp-p
Temperature Coefficient	≤50ppm/°C		
CC Mode			
Range	-40~40A	-80A~+80A	-120A~+120A
Setting Resolution	1mA	1mA	10mA
Setting Accuracy (23±5°C)	0.1%+0.1%F.S.		
RDG Resolution	1mA	1mA	10mA
RDG Accuracy (23±5°C)	0.1%+0.1%F.S.		
Temperature Coefficient	≤50ppm/°C		
CP Mode			
Range	-6kW~+6kW	-12kW~+12kW	-18kW~+18kW
Setting Resolution	1W		
Setting Accuracy (23±5°C)	0.5%F.S.		
RDG Resolution	1W		
RDG Accuracy (23±5°C)	0.5%F.S.		
CR Mode			
Range	0.1Ω~2.5kΩ	0.05Ω~1.25kΩ	0.03Ω~833Ω
Setting Resolution	0.01Ω		
Setting Accuracy (23±5°C)	Vin/Rset*0.01%+0.2%IF.S.		
Line Regulation			
Voltage	≤0.01%F.S.	Current	≤0.05%F.S.
Load Regulation			
Voltage	≤0.02%F.S.	Current	≤0.05%F.S.
Dynamic Characteristics			
Voltage Rise Time (no load)	≤15ms	Voltage Fall Time (no load)	≤30ms
Voltage Rise Time (full load)	≤30ms	Voltage Fall Time (full load)	≤15ms
Transient Recovery Time	The recovery time of load varying 10%~90% and voltage recovering within 0.75% accuracy range of rated value is within 2ms.		
Others			
Efficiency	92%		
Power Factor	0.99		
Communication Interface	LAN,RS232,And Optional for CAN,RS485,GPIB,USB		
AC Input	three-phase three-wire system,Voltage 342V~480V, Frequency 47Hz~63Hz		
Temperature	Operating temperature: 0°C~40°C, storage temperature: -20°C~60°C		
Operating Environment	Altitude <2000m, relative humidity: 5%~90%RH(non-condensing), atmospheric pressure: 80~110kPa		
Net Weight	Approx. 18kg	Approx. 25kg	Approx. 32kg
Dimension	132.5(H)*482.0(W)with handle*770.0(D)mm, with output shield		

Note 1: For other specifications, please contact us.

Note 2: All specifications are subject to change without notice.

## Technical Data Sheet(2)

Model	N35236-500-240	N35212-1000-40	N35236-1000-120
Voltage	0~500V	0~1000V	0~1000V
Current	-240A~+240A	-40A~+40A	-120A~+120A
Power	-36kW~+36kW	-12kW~+12kW	-36kW~+36kW
CV Mode			
Range	0~500V	0~1000V	0~1000V
Setting Resolution	10mV	100mV	100mV
Setting Accuracy (23±5°C)	0.02%+0.02%F.S.		
RDG Resolution	10mV	100mV	100mV
RDG Accuracy(23±5°C)	0.02%+0.02%F.S.		
Noise&Ripple	≤500mVp-p	≤1000mVp-p	≤1000mVp-p
Temperature Coefficient	≤50ppm/°C		
CC Mode			
Range	-240A~+240A	-40A~+40A	-120A~+120A
Setting Resolution	10mA	1mA	10mA
Setting Accuracy (23±5°C)	0.1%+0.1%F.S.		
RDG Resolution	10mA	1mA	10mA
RDG Accuracy (23±5°C)	0.1%+0.1%F.S.		
Temperature Coefficient	≤50ppm/°C		
CP Mode			
Range	-36kW~+36kW	-12kW~+12kW	-36kW~+36kW
Setting Resolution	1W		
Setting Accuracy (23±5°C)	0.5%F.S.		
RDG Resolution	1W		
RDG Accuracy (23±5°C)	0.5%F.S.		
CR Mode			
Range	0.02Ω-417Ω	0.25Ω~5kΩ	0.08Ω~1.67kΩ
Setting Resolution	0.01Ω		
Setting Accuracy (23±5°C)	Vin/Rset*0.01%+0.2%IF.S.		
Line Regulation			
Voltage	≤0.01%F.S.	Current	≤0.05%F.S.
Load Regulation			
Voltage	≤0.02%F.S.	Current	≤0.05%F.S.
Dynamic Characteristics			
Voltage Rise Time (no load)	≤15ms	≤20ms	≤20ms
Voltage Rise Time (full load)	≤30ms	≤40ms	≤40ms
Voltage Fall Time (no load)	≤30ms	≤20ms	≤20ms
Voltage Fall Time (full load)	≤15ms	≤20ms	≤20ms
Transient Recovery Time	The recovery time of load varying 10%~90% and voltage recovering within 0.75% accuracy range of rated value is within 2ms.		
Others			
Efficiency	92%		
Power Factor	0.99		
Communication Interface	LAN,RS232,And Optional for CAN,RS485,GPIB,USB		
AC Input	three-phase three-wire system,Voltage 342V~480V, Frequency 47Hz~63Hz		
Temperature	Operating temperature: 0°C~40°C, storage temperature: -20°C~60°C		
Operating Environment	Altitude <2000m, relative humidity: 5%~90%RH(non-condensing), atmospheric pressure: 80~110kPa		
Net Weight	Approx. 65kg	Approx. 25kg	Approx. 97kg
Dimension	265.0(H)*482.0(W)with handle*770.0(D)mm with output shield	132.5(H)*482.0(W)with handle*770.0(D)mm with output shield	397.5(H)*482.0(W)with handle*770.0(D)mm with output shield

Note 1: For other specifications, please contact us.

Note 2: All specifications are subject to change without notice.

### Technical Data Sheet(3)

<b>Model</b>	N35218-1500-40		
Voltage	0~1500V		
Current	-40A ~ +40A		
Power	-18kW ~ +18kW		
<b>CV Mode</b>			
Range	0~1500V		
Setting Resolution	100mV		
Setting Accuracy (23±5°C)	0.02%+0.02%F.S.		
RDG Resolution	100mV		
RDG Accuracy(23±5°C)	0.02%+0.02%F.S.		
Noise&Ripple	≤1500mVp-p		
Temperature Coefficient	≤50ppm/°C		
<b>CC Mode</b>			
Range	-40A ~ +40A		
Setting Resolution	1mA		
Setting Accuracy (23±5°C)	0.1%+0.1%F.S.		
RDG Resolution	1mA		
RDG Accuracy (23±5°C)	0.1%+0.1%F.S.		
Temperature Coefficient	≤50ppm/°C		
<b>CP Mode</b>			
Range	-18kW ~ +18kW		
Setting Resolution	1W		
Setting Accuracy (23±5°C)	0.5%F.S.		
RDG Resolution	1W		
RDG Accuracy (23±5°C)	0.5%F.S.		
<b>CR Mode</b>			
Range	0.38Ω ~ 7.5kΩ		
Setting Resolution	0.01Ω		
Setting Accuracy (23±5°C)	Vin/Rset*0.01%+0.2%IF.S.		
<b>Line Regulation</b>			
Voltage	≤0.01%F.S.	Current	≤0.05%F.S.
<b>Load Regulation</b>			
Voltage	≤0.02%F.S.	Current	≤0.05%F.S.
<b>Dynamic Characteristics</b>			
Voltage Rise Time (no load)	≤30ms	Voltage Fall Time (no load)	≤30ms
Voltage Rise Time (full load)	≤60ms	Voltage Fall Time (full load)	≤30ms
Transient Recovery Time	The recovery time of load varying 10%~90% and voltage recovering within 0.75% accuracy range of rated value is within 2ms.		
<b>Others</b>			
Efficiency	92%		
Power Factor	0.99		
Communication Interface	LAN,RS232,And Optional for CAN,RS485,GPIB,USB		
AC Input	three-phase three-wire system,Voltage 342V~480V, Frequency 47Hz ~ 63Hz		
Temperature	Operating temperature: 0°C~40°C, storage temperature: -20°C~60°C		
Operating Environment	Altitude <2000m, relative humidity: 5%~90%RH(non-condensing), atmospheric pressure: 80~110kPa		
Net Weight	Approx. 32kg		
Dimension	132.5(H)*482.0(W)with handle*770.0(D)mm, with output shield		

Note 1: For other specifications, please contact us.

Note 2: All specifications are subject to change without notice.