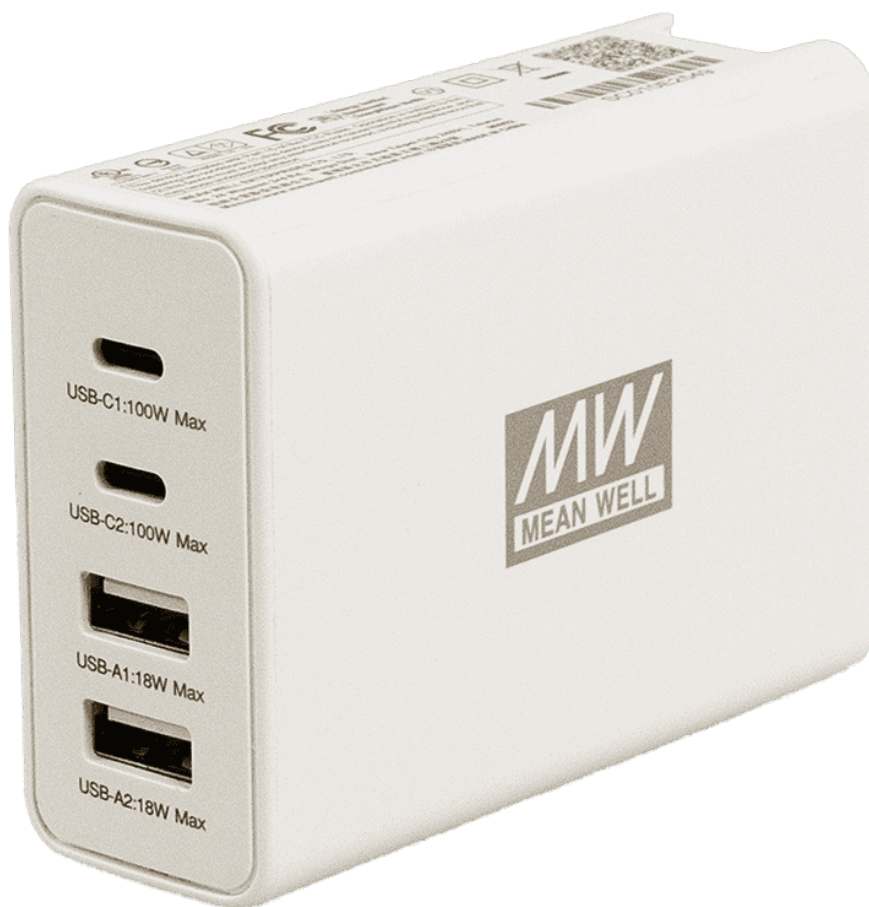


USB-C PD 100W Power Adapter

Datasheet





(NGE100: Universal Version)



(NGE100U: US Version)



GaN PD 3.0 QC 3.0



■ Features

- One model for multi-devices
- MEAN WELL Patent Application Number:202330347779.4
- Universal version: Interchangeable AC plug(NGE100);
US version: Non-interchangeable AC folding plug(NGE100U)
- Global certified
- 90~264Vac Universal AC input
- USB-2C2A, independent 4-port fast charging
- Each USB-C port offers max.100W
- Support QC2.0, QC3.0, PD3.0
- Auto-detection 5V/9V/12V/15V/20V
- Protections: Short circuit / Overload / Over temperature
- No load power consumption <0.3W
- Energy efficiency Level VI
- Compact size (62*30*85.5mm)
- Type-C cable with charging and data transmission included (100cm)
- 3 years warranty

■ Applications

- Mobile phone
- Tablet
- Laptop
- Earphone
- Game devices

■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

■ Description

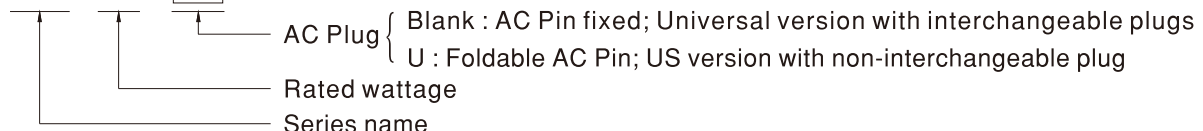
The NGE100 series is a 100W universal fast charger with gallium nitride (GaN) technology. This product offers 2 models to choose from: the universal version **NGE100**, which can be paired with 7 types of AC plugs (EU, US, UK, AU, CN, KR, IN), making it ideal for business travel. Additionally, there is a US version, **NGE100U**, equipped with a 90-degree vertically folding US plug that is suitable for countries with 2 flat pins.

The NGE100 utilizes gallium nitride (GaN) technology and complies with Level VI of energy efficiency standards. It has a no-load power consumption of less than 0.3W and boasts an efficiency of up to 88%. With compact dimensions (62*30*85.5 mm), it features two USB-C and two USB-A charging ports, allowing simultaneous charging of multiple devices. The charger supports various fast charging protocols, including PD3.0 and QC3.0. Upon plugging in a device, it automatically recognizes and adjusts the charging voltage (5V/9V/12V/15V/20V) and allocates charging power. All ports support independent fast charging, and either USB-C1 or C2 supports a rapid 100W charge, making it suitable for charging various electronic devices such as smartphones, tablets, laptops, gaming consoles, cameras, AirPods, and more.

Furthermore, this product not only has built-in short circuit/overload/over temperature protections, but also has a 94V-0 high flame-retardant casing; obtained safety certifications from CB, DEKRA, UL, PSE, BSMI, CCC, RCM, KC, BIS, EAC, CE, UKCA, and FCC along with a 3 years warranty, it is a reliable, safe, and durable green charger.

■ Model Encoding

NGE 100















100W 4-Port USB GaN Fast Charger

NGE100 series



| SPECIFICATION | | NGE100 ○ | | | | |
|---|----------------------------|--|--|--|----------|----------|
| | | ○ =Blank, U | | | | |
| OUTPUT | | | | | | |
| USB C1 (100W max.) | | PD3.0, 5V, 9V, 12V, 15V/3A, 20V/5A | | | | |
| USB C2 (100W max.) | | PD3.0, 5V, 9V, 12V, 15V/3A, 20V/5A | | | | |
| USB A1 (18W max.) | | QC3.0, 5V/3A, 9V/2A, 12V/1.5A, 20V/0.9A | | | | |
| USB A2 (18W max.) | | QC3.0, 5V/3A, 9V/2A, 12V/1.5A, 20V/0.9A | | | | |
| TOTAL POWER | | 100W max. | | | | |
| FOR 5V ONLY(45W max.) | Note.2 | USB C1: 5V/3A, USB C2: 5V/3A, USB A1: 5V/1.5A, USB A2: 5V/1.5A | | | | |
| DC VOLTAGE | Note.3 | 5V | 9V | 12V | 15V | 20V |
| RIPPLE & NOISE (max.) | Note.4 | 200mVp-p | 200mVp-p | 200mVp-p | 200mVp-p | 200mVp-p |
| VOLTAGE TOLERANCE | Note.5 | ±5.0% | ±5.0% | ±4.0% | ±4.0% | ±4.0% |
| LINE REGULATION | Note.6 | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| LOAD REGULATION | Note.7 | ±5.0% | ±5.0% | ±4.0% | ±4.0% | ±4.0% |
| SETUP, HOLD UP TIME | | 1000ms,30ms/230Vac 2000ms,10ms/115Vac at USB C1 20V/5A | | | | |
| INPUT | | | | | | |
| VOLTAGE RANGE | Note.8 | 90 ~ 264Vac | | | | |
| FREQUENCY RANGE | | 47 ~ 63Hz | | | | |
| POWER FACTOR | | PF>0.92/230Vac; PF>0.98/115Vac | | | | |
| EFFICIENCY (Typ.) | | 88% / 20V 5A | | | | |
| AC CURRENT | | 1.6A/115Vac 0.8A/230Vac | | | | |
| INRUSH CURRENT (max.) | | 65A/115Vac 95A/230Vac | | | | |
| LEAKAGE CURRENT (max.) | | 0.5mA/240Vac | | | | |
| PROTECTION | | | | | | |
| OVERLOAD | | 101 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | |
| OVER TEMPERATURE | | Shut down o/p voltage, recovers automatically after temperature goes down | | | | |
| ENVIRONMENT | | | | | | |
| WORKING TEMP. | | -30 ~ +70℃ (Refer to "Derating Curve") | | | | |
| WORKING HUMIDITY | | 20% ~ 90% RH non-condensing | | | | |
| STORAGE TEMP., HUMIDITY | | -20 ~ +85℃, 10 ~ 95% RH non-condensing | | | | |
| TEMP. COEFFICIENT | | ±0.03% / °C (0 ~ 40℃) | | | | |
| VIBRATION | | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | |
| SAFETY & EMC Note.9 | | | | | | |
| SAFETY STANDARDS | | UL62368-1, DEKRA BS EN/EN62368-1, BSMI CNS15598-1, PSE J62368-1, CCC GB4943.1-2022, RCM AS/NZS 62368.1, KC KC62368-1, BIS IS13252(part1):2010/IEC60950-1:2005, EAC TPTC004 approved (Please refer to next page for more details) | | | | |
| WITHSTAND VOLTAGE | | I/P-O/P:3KVac | | | | |
| ISOLATION RESISTANCE | | I/P-O/P :100M Ohms / 500VDC / 25℃ / 70% RH | | | | |
| EMC EMISSION | | Parameter | Standard | Test Level / Note | | |
| | | Conducted emission | BS EN/EN55032(CISPR32)/FCC PART 15 / CISPR22, CAN ICES-3(B)/NMB-3(B) GB/T 9254.1-2021, KS C 9832 | Class B | | |
| | | Radiated emission | BS EN/EN55032(CISPR32)/FCC PART 15 / CISPR22, CAN ICES-3(B)/NMB-3(B) GB/T 9254.1-2021, KS C 9832 | Class B | | |
| | | Harmonic current | BS EN/EN61000-3-2, GB 17625.1-2022 | Class A | | |
| | | Voltage flicker | BS EN/EN61000-3-3 | ----- | | |
| EMC IMMUNITY | | BS EN/EN55035(CISPR35), KS C 9835 | | | | |
| | | Parameter | Standard | Test Level / Note | | |
| | | ESD | BS EN/EN61000-4-2 | Level 3, 8KV air; Level 2, 4KV contact | | |
| | | RF field susceptibility | BS EN/EN61000-4-3 | Level 2, 3V/m | | |
| | | EFT bursts | BS EN/EN61000-4-4 | Level 2, 1KV | | |
| | | Surge susceptibility | BS EN/EN61000-4-5 | Level 3, 1KV/L-N | | |
| | | Conducted susceptibility | BS EN/EN61000-4-6 | Level 2, 3V | | |
| | | Magnetic field immunity | BS EN/EN61000-4-8 | Level 1, 1A/m | | |
| | Voltage dips, interruption | BS EN/EN61000-4-11 | >95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods | | | |
| OTHERS | | | | | | |
| MTBF | | 336.4Khrsmin. MIL-HDBK-217F(25℃) | 3008.3Khrsmin. | Telcordia TR/SR-332 (Bellcore) (25℃) | | |
| DIMENSION | | 62*30*85.5mm (L*W*H) | | | | |
| PACKING (Refer to page 7) | MAIN BODY POWER UNIT | NGE100 : 484g ; 28pcs/ 14.55Kg / 1.65CUFT | | NGE100U: 249g ; 28pcs/ 10.6Kg / 1.65CUFT | | |
| | AC PLUGS | Included 7 types of AC Plugs for NGE100 | | | | |
| | Type-C Cable | Included for NGE100 / NGE100U | | | | |
| NOTE | | | | | | |
| 1. All parameters are specified at 230VAC input, rated load, 25℃ 70% RH ambient. | | | | | | |
| 2. DC voltage: The output voltage set at point measure by plug terminal & 50% load. | | | | | | |
| 3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1 μF & 47 μF capacitor. | | | | | | |
| 4. Tolerance: includes set up tolerance, line regulation, load regulation. | | | | | | |
| 5. Line regulation is measured from low line to high line at rated load. | | | | | | |
| 6. Load regulation is measured from 0% to 100% rated load | | | | | | |
| 7. Derating may be needed under low input voltage. Please check the derating curve for more details. | | | | | | |
| 8. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf) | | | | | | |
| 9. Design meet US DoE Level VII (from Docket number EERE-2020-BT-STD-0006). | | | | | | |
| * Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx | | | | | | |



■ Interchangeable AC Plug Specifically for NGE100

| | | | | | | | |
|-------------|---|---|---|---|---|---|---|
| Model NO. | <p>NGE100 (Universal Version)</p>  | | | | | | <p>NGE100U (US Version)</p>  |
| AC plug | <p>Interchangeable Type (Unfoldable; AC Pin fixed)</p> | | | | | | <p>Non-Interchangeable Type (Foldable AC Pin)</p> |
| | <p>EU</p>  | <p>US</p>  | <p>UK</p>  | <p>AU</p>  | <p>CN</p>  | <p>KR</p>  | |
| Certificate | <p>  </p> | | | | | | <p>  </p> |

■ Interchangeable AC Plug Installation Steps (Convertible with NGE100 only)

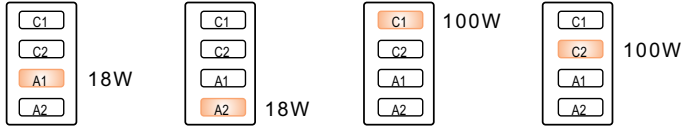
| | |
|---|---|
| <p>Step1</p>  | <p>Step2</p>  |
| <p>Slide in AC converter along the guided rail between the metal prongs until it is locked in (with a "click" sound).</p> | <p>Check if the new plug type is stable and correct before use.</p> |

Note:

NGE100 is interchangeable type, it needs to be used along with one of the AC inlet plug (EU,US,UK,AU,CN,KR,IN).

Recommended Configuration

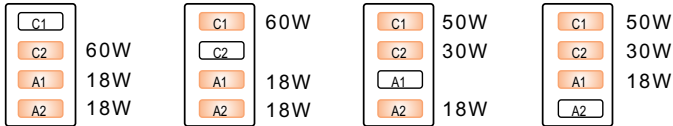
For 1 Port Charging



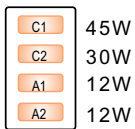
For 2 Ports Charging



For 3 Ports Charging

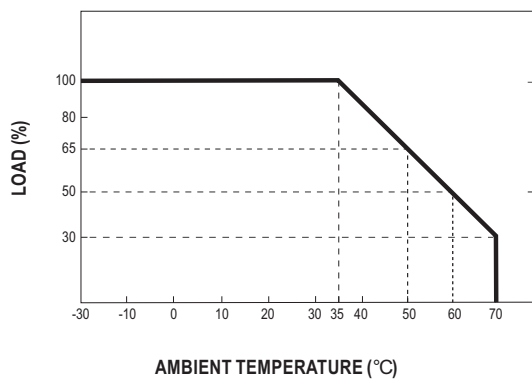


For 4 Ports Charging

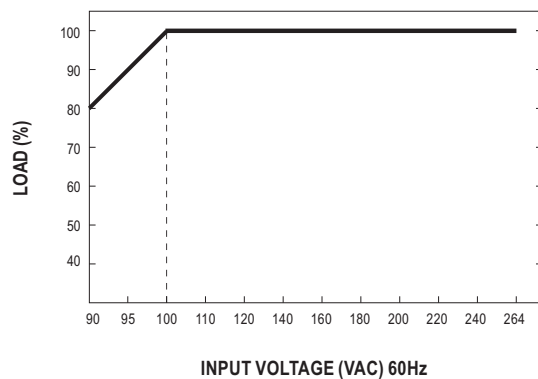


1. USB C1/C2 Type-C support PD (Power Delivery) 2.0 and 3.0; USB A1/A2 Type-A support QC (Quick Charge) 3.0
2. Due to the fast charge protocol identification and power allocation, when multiple ports are used at the same time, normal charging will be resumed after 1 to 3 interruptions, which is a protocol allocation security protection.

Derating Curve



Static Characteristics

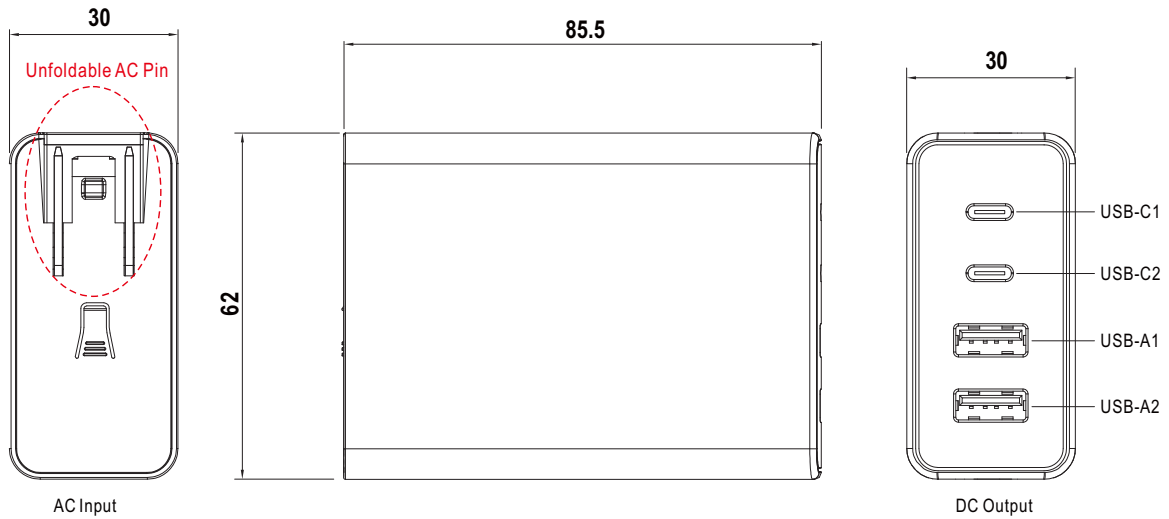


■ Mechanical Specification

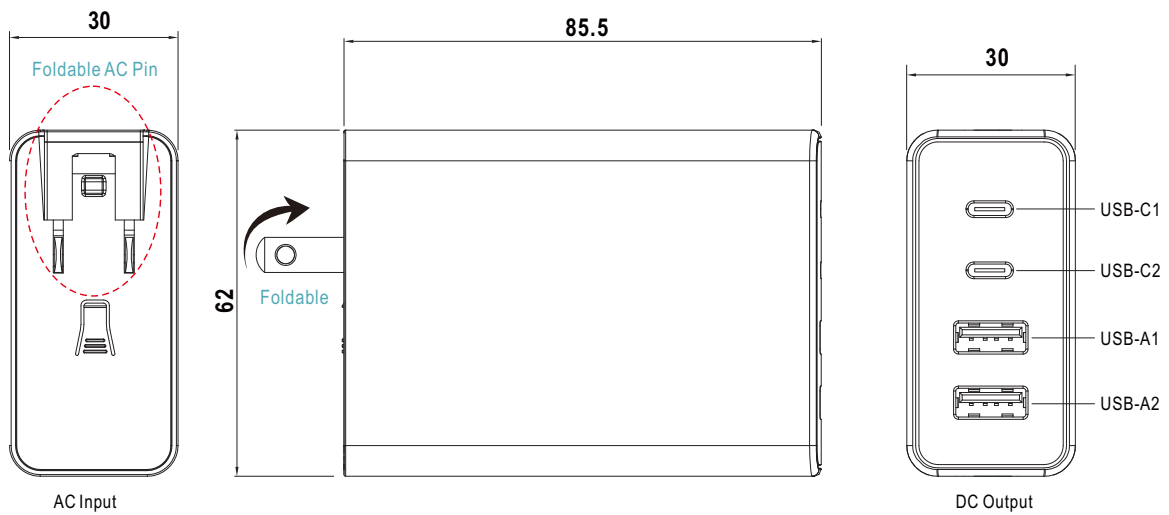
(Unit: mm , tolerance ± 1 mm)

Case No. NGE100

※ NGE100 (Universal Version - AC Pin fixed; With interchangeable plugs)



※ NGE100U (US Version - Foldable AC Pin; With non-interchangeable plug)



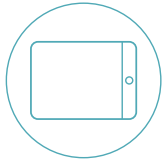


■ Application

※ One For Multi-Devices



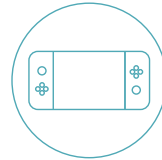
iOS&
Android Phone



Tablet



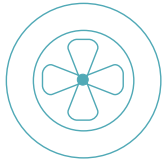
Laptop



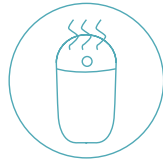
Game
Console



Headset



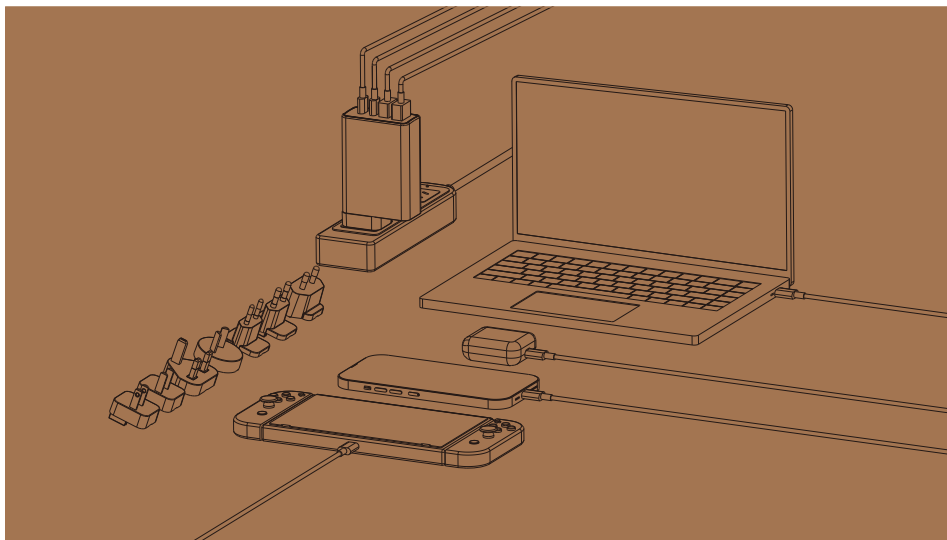
Fan



Humidifier



More Devices





■ Accessory List

※ NGE100 : Includes 7 types of AC Plugs(EU, US, UK, AU, CN, KR, IN) 、 a 100cm USB Type-C cable、 a drawstring accessory pouch
 NGE100U: Includes a 100cm USB Type-C cable

| Model NO. | Item | Photo |
|-----------|--|-------|
| NGE100 | AC Plugs (EU, US, UK, AU, CN, KR, IN) | |
| | 100cm USB Type-C cable | |
| | Drawstring Accessory Pouch | |
| NGE100U | 100cm USB Type-C cable | |

■ Packing

| Model NO. | Dimension (L*W*H) | Photo | | Per Package weight | Max.Q'TY /Carton (pcs) | One Carton G.W |
|-----------|----------------------|-------|--------|--------------------------|------------------------------|----------------------|
| | | Outer | Inside | | | |
| NGE100 | | | | 466g | 28pcs | 13.8Kg |
| NGE100U | | | | 353g | 28pcs | 10.6Kg |

■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>

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