



Neostar 2S

Mono-Glass Module

440W-460W

Second Generation
Comprehensive Upgrade:

 **Partial Shading Optimisation**

 **Better Temperature Coefficient**

 **High Temperature Restriction**

 **Micro-crack Resistance**

 **Higher Power**

 **Lower BOS**

 **Full Black Design**



Product
Warranty



Performance
Warranty



reddot winner 2023



Munich RE

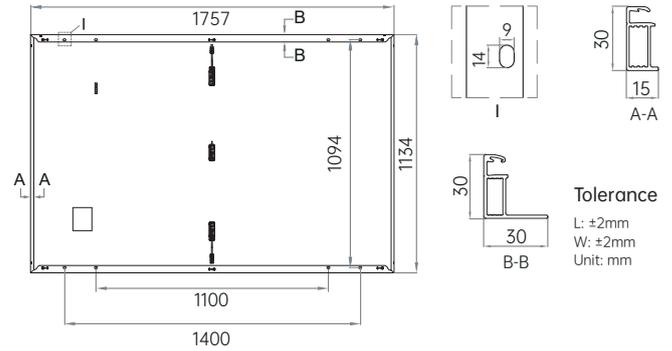
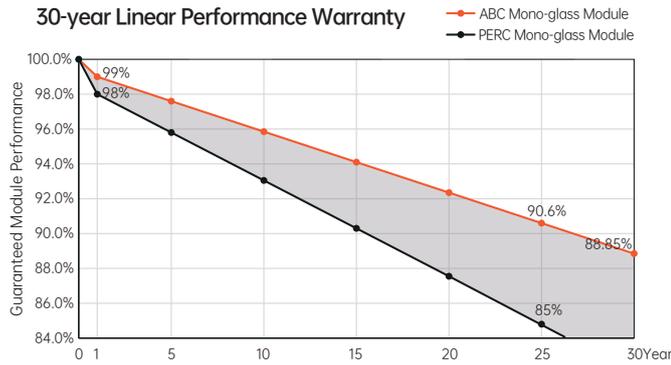


460W
Output

23.1%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30



| Electrical Characteristics (STC: AM1.5 1000W/m ² 25°C NOCT: AM1.5 800W/m ² 20°C 1m/s) | | | | | | | | | | Power Tolerance: 0~ + 3% | |
|---|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|-------|-------------------|--------------------------|--|
| Module Type | AIKO-A440-MAH54Mb | | AIKO-A445-MAH54Mb | | AIKO-A450-MAH54Mb | | AIKO-A455-MAH54Mb | | AIKO-A460-MAH54Mb | | |
| | STC | NOCT | |
| P _{max} [W] | 440 | 331 | 445 | 335 | 450 | 339 | 455 | 343 | 460 | 346 | |
| V _{oc} [V] | 40.49 | 38.24 | 40.59 | 38.33 | 40.69 | 38.43 | 40.79 | 38.52 | 40.89 | 38.62 | |
| V _{mp} [V] | 33.50 | 31.64 | 33.60 | 31.73 | 33.70 | 31.83 | 33.80 | 31.92 | 33.90 | 32.02 | |
| I _{sc} [A] | 13.91 | 11.25 | 14.02 | 11.33 | 14.12 | 11.42 | 14.22 | 11.50 | 14.32 | 11.58 | |
| I _{mp} [A] | 13.14 | 10.49 | 13.25 | 10.57 | 13.36 | 10.66 | 13.47 | 10.75 | 13.57 | 10.83 | |
| Module Efficiency | 22.1% | | 22.3% | | 22.6% | | 22.8% | | 23.1% | | |

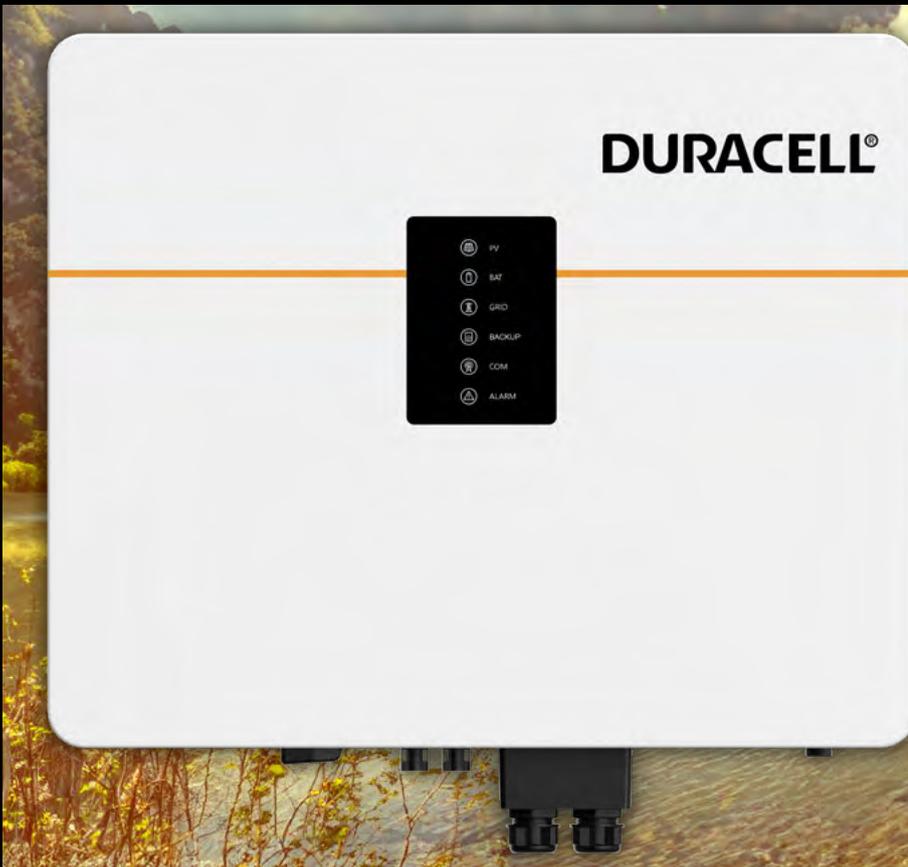
| Mechanical Specification | |
|--------------------------|--|
| Cell Type | N-Type ABC |
| Front Cover Mono glass | 3.2 mm tempered glass |
| Frame | Black anodized aluminum |
| Cable | 4mm ² (IEC) 12AWG(UL) 1200mm |
| No. of Cells | 108(6*18) |
| Junction Box | IP68,3 bypass diodes |
| Connector | MC4-Evo2 |
| Weight | 21.5kg |
| Dimension | 1757*1134*30mm |
| Package Detail | 36pcs per pallet / 216pcs per 20'GP / 936pcs per 40'HC |

| Temperature Ratings (STC) | |
|---|-------------|
| Temperature Coefficient of I _{sc} | + 0.05%/ °C |
| Temperature Coefficient of V _{oc} | - 0.22%/ °C |
| Temperature Coefficient of P _{max} | - 0.26%/ °C |

| Installation Guide | |
|---|-------------------------------|
| Operation Temperature | -40°C - +85°C |
| Maximum Series Fuse Rating | 25A |
| Protection Class | Class II |
| V _{oc} and I _{sc} Tolerance | ±3% |
| Maximum System Voltage | DC1500V |
| Maximum Static Loading | Front 5400Pa Back 2400Pa |
| Hail Test | 25 mm diameter hail at 23 m/s |
| Fire Rating | IEC Class C |



Dura-i Inverter



**Dura5 battery
compatible with Dura-i**



Dura-i Inverter

**Model Nos. PD-DH1P-3.6K-G1
PD-DH1P-4.6K-G1
PD-DH1P-6K-G1**

Key Inverter Features

-  Hybrid & Connects as AC
-  9KWp of PV
-  Integrated Energy Meter
-  Modular - connect up to 6 inverters in parallel
-  Dura5 Battery compatible

Dura-i Inverter - Technical Specification

| Product | | Dura-i Inverter | | |
|--|--|-----------------|---------------|--|
| Model No. | PD-DH1P-3.6K-G1 | PD-DH1P-4.6K-G1 | PD-DH1P-6K-G1 | |
| Efficiency | | | | |
| Max. efficiency (PV to AC) | 97.30% | | | |
| Eur. Efficiency (PV to AC) | 96.8% | | | |
| Max. efficiency (BAT to AC) | 94.30% | | | |
| Input (PV) | | | | |
| Max. PV power (W) | 9000W | | | |
| Max. PV voltage (V) | 550V | | | |
| Max. input current (input A/input B) (A) | 15A/15A | | | |
| Max. short current (input A/input B) (A) | 20A/20A | | | |
| Start operating voltage (V) | 90V | | | |
| MPPT voltage range @full load (V) | 70-540V | | | |
| No. of MPPT | 2 | | | |
| String per MPPT | 1 | | | |
| Input (BAT) | | | | |
| Compatible battery type | Lithium-ion | | | |
| Nominal battery voltage | 48V | | | |
| Battery voltage range | 40V-65V | | | |
| Max. charge/discharge current (A) | 60A/60A | 120A/120A | 120A/120A | |
| Max. charge/discharge power (W) | 3,000W/3,000W | 5,000W/5,000W | 6,000W/6,000W | |
| Lithium battery charge curve | Self-adaption to BMS | | | |
| Output (Grid) | | | | |
| Nominal AC output power (W) | 3,600W | 4,600W | 6,000W | |
| Max. AC output apparent power (VA) | 3,960VA | 4,600VA | 6,000VA | |
| Max. AC output power (PF=1) (W) | 3,960W | 4,600W | 6,000W | |
| Max. AC Output current (A) | 18A | 22A | 27.2A | |
| Rated AC voltage (V) | 230V | | | |
| AC voltage range (V) | 150-300V (adjustable) | | | |
| Rated grid frequency (Hz) | 50/60 | | | |
| AC frequency range (Hz) | 45-55 / 55-65 (adjustable) | | | |
| Grid connection | Single phase | | | |
| Power factor | 0.99 @rated power (adjustable 0.8 LG - 0.8 LD) | | | |
| THDI | <3% | | | |
| Output (Back up) | | | | |
| Nominal output voltage (V) | 230V | | | |
| Nominal output frequency (Hz) | 50/60Hz | | | |
| Nominal output power (W) | 3000W | 4600W | 6000W | |
| Nominal output current (A) | 13.1A | 20A | 26.1A | |
| Transfer Time (ms) | 10ms (typ) / 20ms (max) | | | |
| THDV | <3% @100% R Load | | | |

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Dura-i Inverter - Technical Specification

| Product | Dura-i Inverter | | |
|----------------------------------|---|-----------------|---------------|
| Model no. | PD-DH1P-3.6K-G1 | PD-DH1P-4.6K-G1 | PD-DH1P-6K-G1 |
| Protection | | | |
| Protection category | Class I | | |
| DC switch | Yes | | |
| Anti-islanding protection | Yes | | |
| AC overcurrent protection | Yes | | |
| DC/AC overvoltage protection | Yes | | |
| AC short circuit protection | Yes | | |
| DC reverse protection | Yes | | |
| Surge arrester | DC Type III, AC Type III | | |
| Insulation detection | Yes | | |
| Leakage current protection | Yes | | |
| PV overvoltage category | II | | |
| AC overvoltage category | III | | |
| General | | | |
| Max. operation altitude (m) | 4000m | | |
| Noise emission (DB) | <35 | | |
| Ingress protection degree | IP65 | | |
| Operating temperature range (°C) | -25°~60° | | |
| Relative humidity (%) | 0~100% | | |
| Cooling concept | Natural Cooling | | |
| Mounting | Wall bracket | | |
| Dimensions (mm, W x H x D) | 585 x 485 x 175mm | | |
| Weight (kg) | 25kg | | |
| PV connection type | MC4/H4 | | |
| Battery connection type | Dedicated DC connector | | |
| AC connection type | Dedicated AC connector | | |
| HMI & COM | | | |
| Display | LED + APP | | |
| Communication Interface | RS485/CAN (for BMS), RS485, USB, Ethernet, DRM/RS485 for meter, Optional: WiFi/GPRS | | |
| Monitoring | | | |
| Monitoring | APP (OS/Android) | | |
| Certification | | | |
| Grid safety | IEC62109-1/-2, EN/IEC 61000-6-1/-2/-3/-4, G98/G99 | | |
| EMC | IEC61000-6-2/3 | | |
| Warranty (years) | 5 years standard, 10 years optional | | |



Dura5

Stack or Wall-Mount Battery



Dura5

51.2V 100Ah LiFePO4

This 5.12kWh battery utilises the safest and highest performing chemistry; lithium iron phosphate.

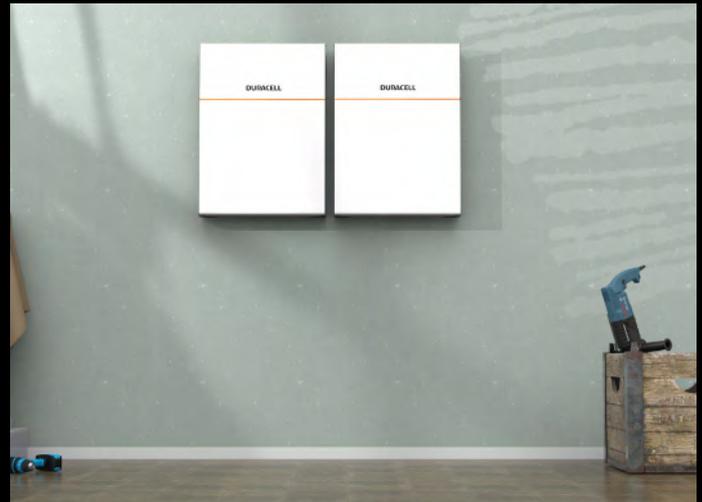
The Dura5 boasts a 10 year warranty and 1C operation allowing you to charge each battery by 100A.

Key Features

-  1C/1C charge and discharge
-  Plug-and-play (all cables included)
-  Master BMS autoselect
-  Modular up to 32 units (stacks of 16)
-  Module-level auto-balancing.
Add additional batteries at any time
-  10 Year warranty
-  IP65 protection



Stack (16 x 2)

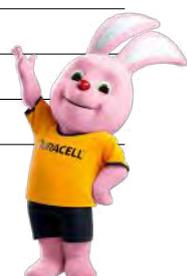


Wall-Mount

Dura5 5.12KWh LiFePO4 Technical Specification

| Product | Dura5 |
|--|--------------------------------------|
| Model No. | PD-5KWH-50V-2G |
| Battery module energy (kWh) | 5.12kWh |
| Useable energy (kWh) | 4.6kWh |
| Max output power (A) | 100A |
| Peak output power (A) | 110A |
| Nominal voltage (V) | 51.2Vdc |
| Operating voltage range (single phase) | 43.2V-56.8V |
| Dimensions (mm, W x D x H) | 490 x 105 x 685mm |
| Weight (kg) | 46±1kg |
| Installation | Stackable or Wall-mount |
| Operating temperature (°C) | -10°C~+55°C |
| Operating altitude | 0-3000m (Derating above 2000m) |
| Enclosure Protection Rate | IP65 |
| Environment | Indoor/Outdoor |
| Relative humidity | 5%~95% |
| Cooling | Natural Convection |
| Display | LED Indicator |
| Cell technology | LiFePO4 |
| Scalability | Max 32 Systems In Parallel Operation |
| Communication ports | CAN /RS485 |
| Cycles | 8000 |
| Warranty | 10 years |

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INCLUDES FREE BIRD PROTECTION



MRS BROWN

We already had solar panels installed but we're very troubled with pigeons. Deege installed the netting, the men were efficient extremely polite and tidy workers. Delighted to say we have no constant cooing now. Would highly recommend.



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ENHANCE THE AESTHETICS OF YOUR SYSTEM



MINIMISE CLEANING AND MAINTENANCE COSTS