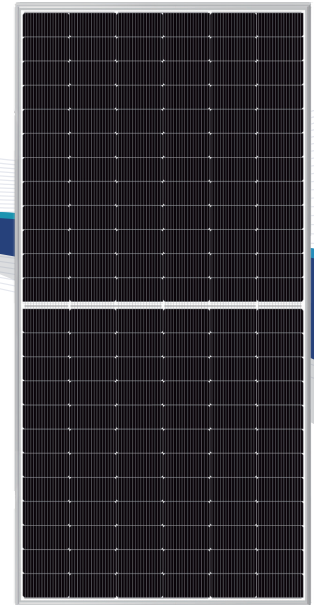


RUNERGY

HY-DH144N8

560-585W

144 Pieces | HALF-CELL | N-Type



22.6%
Max. Efficiency
N-Type
Bifacial & Dual Glass



High Conversion Efficiency

Module efficiency up to 22.6% based on N-Type wafer and advanced N-Type cell technology



Excellent Energy Yield

More power output in field operation due to better thermal behaviors, weak-light performance and bifaciality



Outstanding Anti-degradation

Unsusceptible to LID, LeTID and less annual degradation due to special characteristics of N-Type



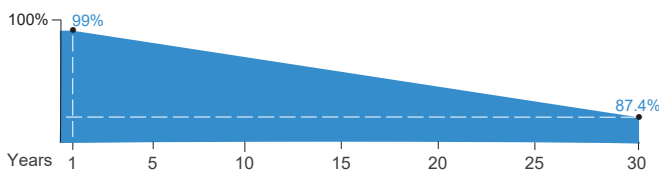
Quality Guarantee

High module quality ensures long-term reliability



Munich RE 

IEC61215 / IEC61730 / UL61730
IEC61701 / IEC62716 / IEC60068
ISO9001 / ISO14001/ ISO45001



Runergy N-Type Dual Glass Product Performance Warranty

12 Years Product Warranty

30 Years Linear Power Warranty

1% First Year Degradation

0.4% Annual Power Degradation

Jiangsu Runergy New Energy Technology Co., Ltd.
58 Xiangjiang Road, Economic Development Zone,
Yancheng City, Jiangsu Province, 224000, China

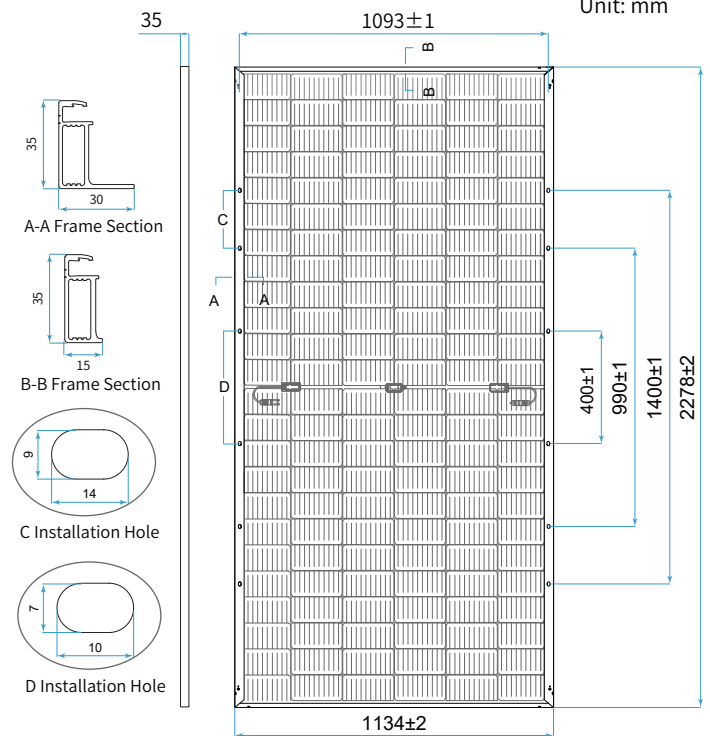
sales-inform@runergy.cn
www.runergy-solar.com

Mechanical Parameters

Solar Cell	Mono N-Type 182 mm
No. of Cells	144(6 × 24)
Dimensions	2278 × 1134 × 35mm
Weight	32.7kg
Junction Box	IP68 rated (3 bypass diodes)
Output Cable	4mm ² (IEC), 12 AWG(UL) +400/-200mm or customized
Connector	RY01 or similar
Front Cover	2.0mm semi-tempered AR glass
Back Cover	2.0mm semi-tempered glass
Container	31 pcs/Pallet, 620 pcs/40' HC

Operating Parameters

Max. System Voltage	DC 1500V (IEC/UL)
Operating Temperature	-40°C ~ +85°C
Max. Fuse Rating	30A
Frontside Max. Loading	5400Pa
Backside Max. Loading	2400Pa
Bifaciality	80%±10%
Fire Resistance	IEC Class A



Electrical Characteristics - STC

Irradiance 1000 W/m², ambient temperature 25 °C, AM1.5.

Maximum Power at STC (Pmax/W)	585	580	575	570	565	560
Power Tolerance (W)	0 ~ +5					
Optimum Operating Voltage (Vmp/V)	42.74	42.59	42.44	42.29	42.14	41.95
Optimum Operating Current (Imp/A)	13.69	13.62	13.55	13.48	13.41	13.35
Open Circuit Voltage (Voc/V)	51.67	51.47	51.27	51.07	50.87	50.67
Short Circuit Current (Isc/A)	14.43	14.37	14.31	14.25	14.19	14.13
Module Efficiency	22.6%	22.5%	22.3%	22.1%	21.9%	21.7%

Electrical Characteristics - NMOT

Irradiance 800 W/m², ambient temperature 20 °C, AM1.5, wind speed 1 m/s.

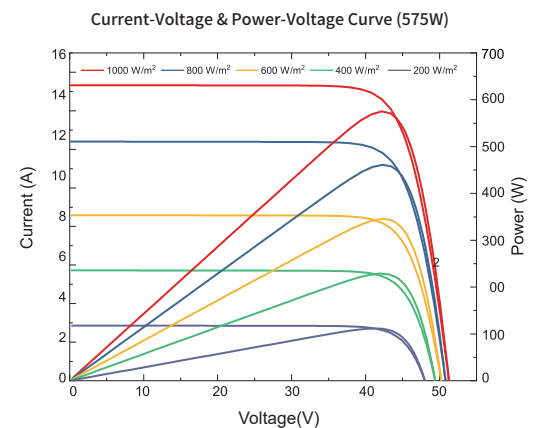
Maximum Power at NMOT (Pmax/W)	446.5	442.7	438.9	435.0	431.3	427.4
Optimum Operating Voltage (Vmp/V)	40.92	40.77	40.63	40.49	40.34	40.16
Optimum Operating Current (Imp/A)	10.91	10.86	10.80	10.75	10.69	10.64
Open Circuit Voltage (Voc/V)	49.47	49.27	49.08	48.89	48.70	48.51
Short Circuit Current (Isc/A)	11.61	11.56	11.51	11.46	11.41	11.37

Rearside Power Gain (Reference to 585W Front)

Rearside Power Gain	5%	15%	25%
Maximum Power (Pmax/W)	614	673	731
Optimum Operating Voltage (Vmp/V)	42.74	42.84	42.84
Optimum Operating Current (Imp/A)	14.37	15.70	17.07
Open Circuit Voltage (Voc/V)	51.67	51.77	51.77
Short Circuit Current (Isc/A)	15.15	16.56	18.00
Module Efficiency	23.8%	26.1%	28.3%

Temperature Characteristics

Nominal Module Operating Temperature	42 ± 2 °C
Nominal Cell Operating Temperature	45 ± 2 °C
Temperature Coefficient of Pmax	-0.31%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.05%/°C



GLIDE Wave



When EPCs and developers need a dependable, low-maintenance fixed-tilt ground mount system, they turn to GLIDE Wave. With over 5 GW of projects deployed across the U.S., our flexible design can be adapted to meet the project specific needs on any site, no matter the challenges.

Value Engineered

- Multiple foundation types are available to meet any unique underground soil conditions.
- Arrays are designed using continuous rows to follow the existing terrain and minimize the number of foundations required.
- Raised purlin are utilized as an integrated bonding and grounding method, which is UL 2703 listed, eliminating the need for additional grounding clips or washers.
- Parts and components are domestically sourced and manufactured for faster turnaround times.

Efficient Installation

- Pre-assembled parts and components reduce the number of connections needed at each table/bay by up to 50%.
- Components are designed with adjustable tolerances to make field installation a smoother process.
- Dedicated project management and in-house installation teams capable of completing full structural installation of an array.
- Integrated wire management and equipment posts available to simplify eBOS installation.



Specifications

Wind Loads	170 mph+
Snow Loads	90 psf+
Pre-Assembled Parts	Reduced installation time
Slope	Accommodates up to 30%
Warranty	20 years
Post Type	Cee posts or I-beam options available
Module Configuration	Portrait or landscape (all module frame types)
Raised Purlin	Integrated bonding and grounding
Listing	UL 2703

**Wiring Protection for Ground-Mounted Solar Systems**[Home](#)[Product](#)[Photos](#)[Order Form](#)[Installation](#)[Contact](#)

Solar Scrim is the only product expressly made to eliminate fencing around ground mounted solar installations, ensuring that conductors are “not readily accessible” as required by the NEC.

National Electric Code (NEC) Section 690.31(A) requires restricted accessibility of conductors having voltage greater than 30 volts. Solar Scrim addresses this code requirement in a unique and aesthetically pleasing way.

More and more electrical inspectors are accepting this custom-made solution in preference to the conventional interpretation of the code which entails the installation of a chain link fence. In fact, many of our customers find us through the recommendation of the inspectors themselves. In many cases, Solar Scrim may be cheaper and quicker to install than a fence, and is much more effective than plastic trellis or expanded metal barriers and other improvised solutions.

Whether the problem is project constraints, such as easement issues, an adamant system owner with high aesthetic expectations, or the sudden realization that this is a requirement at all, we can help. Since 2011, we’ve been assisting solar installers with NEC compliance when a conventional fence is simply not an option.

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100/125 kW, 1500 Vdc String Inverters for North America



CPS SCH100/125KTL-DO/US-600

The 100 and 125 kW high power CPS three-phase string inverters are designed for ground mount and carport applications at 1500 Vdc. The units are high performance, advanced, and reliable inverters designed specifically for the North American environment and grid. High efficiency at 99.1% peak and 98.5% CEC, wide operating voltages, broad temperature ranges, and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100/125 kW products ship with the Distributed or Centralized Wire Box, each fully integrated and separable with AC and DC disconnect switches. Enhanced DC Wire Boxes are available to allow DC disconnection under short circuit conditions. The CPS FlexOM Gateway enables communication, controls, and remote product upgrades.

Key Features

- UL 1741-SA/SB and IEEE 1547-2018 certified
- Touch-safe DC Fuse holders add convenience and safety
- CPS FlexOM Gateway enables remote firmware upgrades
- Integrated AC and DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper- and aluminum-compatible AC connections
- NEMA Type 4X outdoor rated enclosure
- Advanced Smart-Grid features (CA Rule 21 certified)
- kVA headroom yields 100 kW @ 0.9 PF and 125 kW @ 0.95 PF
- Generous 1.87 (100 kW) and 1.5 (125 kW) DC/AC inverter load ratios
- Separable wire box design for fast service
- Enhanced DC wire boxes available



Standard Wire Boxes



Enhanced DC Wire Boxes

Model Name	CPS SCH100KTL-DO/US-600	CPS SCH125KTL-DO/US-600
DC Input		
Max. PV power	187.5 kW	
Max. DC input voltage	1500 V	
Operating DC input voltage range	860-1450 Vdc	
Start-up DC input voltage / power	900 V / 250 W	
Number of MPP trackers	1	
MPPT voltage range ¹	870-1300 Vdc	
Max. PV short-circuit current ²	220 A	
Number of DC inputs	Distributed Wire Box: 20 PV source circuits, positive and negative fused Centralized Wire Box: 1 input circuit, 1-2 terminations per pole, non-fused	
DC disconnection type	Load-rated DC switch	
DC surge protection	Type II MOV (with indicator/remote signaling)	
AC Output		
Rated AC output power ³	100 kW	125 kW
Max. AC apparent power (selectable ⁴)	100 kVA / 111 kVA (PF>0.9)	125 kVA / 132 kVA (PF>0.95)
Rated output voltage	600 Vac	
Output voltage range ⁵	528-660 Vac	
Grid connection type ⁶	3Φ / PE / N (neutral optional)	
Max. AC output current @ 600 Vac	96.2 A (@ 100 kVA) / 106.8 A (@ 111 kVA)	120.3 A (@ 125 kVA) / 127.0 A (@ 132 kVA)
Rated output frequency	60 Hz	
Output frequency range ⁵	57-63 Hz	
Power factor	>0.99 (±0.8 adjustable)	
Current TRD @ rated load	< 3%	
Max. fault current contribution (1 cycle RMS)	41.47 A	
Max. OCPD rating	200 A	
AC disconnection type	Load-rated AC switch	
AC surge protection	Type II MOV (with indicator/remote signaling)	
System		
Topology	Transformerless	
Max. efficiency	99.1%	
CEC efficiency	98.5%	
Standby / night consumption	< 4 W	
Environment		
Enclosure protection degree	NEMA Type 4X	
Cooling method	Variable speed cooling fans	
Operating temperature range ⁴	-22°F to 140°F / -30°C to 60°C	
Non-operating temperature range	-40°F to 158°F / -40°C to 70°C	
Operating humidity	0-100%	
Operating altitude	8202 ft / 2500 m (no derating)	
Audible noise	< 65 dBA @ 1 m and 77°F (25°C)	
Display and Communication		
User interface and display	LED indicators, Wi-Fi and app	
Inverter monitoring	Modbus RS485	
Site-level monitoring	CPS FlexOM Gateway (1 per 32 inverters)	
Modbus data mapping	SunSpec / CPS	
Remote diagnostics / firmware upgrade functions	Standard / (with FlexOM Gateway)	
Mechanical		
Dimensions (W × H × D)	Distributed Wire Box: 45.28 × 24.25 × 9.84 in (1150 × 616 × 250 mm) Centralized Wire Box: 39.37 × 24.25 × 9.84 in (1000 × 616 × 250 mm)	
Weight	Inverter: 121 lbs (55 kg) Distributed Wire Box: 55 lbs (25 kg) Centralized Wire Box: 33 lbs (15 kg)	
Mounting / installation angle	15-90 degrees from horizontal (vertical or angled)	
AC termination	M10 stud type terminal [3Φ] (wire range: 1/0 AWG-500 kcmil CU/AL; lugs not supplied) Screw clamp terminal block [N] (#12-1/0 AWG CU/AL)	
DC termination	Distributed Wire Box: Screw clamp fuse holder (wire range: #12-#6 AWG CU) Centralized Wire Box: Busbar, M10 bolts (wire range: #1 AWG-500 kcmil CU/AL [1 termination per pole], #1 AWG-300 kcmil CU/AL [2 terminations per pole]; lugs not supplied)	
Fused string inputs	Distributed Wire Boxes: 20 A or 25 A fuses provided (fuse values up to 30 A acceptable)	
Safety		
Certifications and standards	UL 1741-SA/SB Ed. 3, CSA-C22.2 NO.107.1-01, IEEE 1547-2018, FCC PART15	
Selectable grid standards	IEEE 1547a-2014, IEEE 1547-2018 ⁷ , CA Rule 21, ISO-NE	
Smart-grid features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Vol-Watt	
Warranty		
Standard	5 years	
Extended terms	10, 15, and 20 years	

1) See user manual for further information regarding MPPT voltage range when operating at non-unity PF.

2) The sum of parallel-connected PV module short-circuit currents.

3) 100 kW active power derating begins at 113°F (45°C) when MPPT ≥ Vmin; 125 kW active power derating begins at 107.6°F (42°C) when PF = ±0.95 and MPPT ≥ Vmin, and at 113°F (45°C) when PF=1 and MPPT ≥ Vmin.

4) Inverters are factory set to 100 kVA and 125 kVA by default. Contact CPS to enable the higher kVA setting.

5) The "output voltage range" and "output frequency range" may differ according to the specific grid standard.

6) Delta configurations must not be corner-grounded.

7) Firmware version 12.0 or later required.

Three-phase pad-mounted compartmental type transformer



General

At Eaton, we are constantly striving to introduce new innovations to the transformer industry, bringing you the highest quality, most reliable transformers. Eaton's Cooper Power series Transformer Products are ISO 9001 compliant, emphasizing process improvement in all phases of design, manufacture, and testing. In order to drive this innovation, we have invested both time and money in the Thomas A. Edison Technical Center, our premier research facility in Franksville, Wisconsin. Such revolutionary products as distribution-class UltraSIL™ Polymer-Housed Evolution™ surge arresters and Envirotemp™ FR3™ fluid have been developed at our Franksville lab.

With transformer sizes ranging from 45 kVA to 12 MVA and high voltages ranging from 2400 V to 46 kV, Eaton has you covered. From fabrication of the tanks and cabinets to winding of the cores and coils, to production of arresters, switches, tap changers, expulsion fuses, current limit fuses, bushings (live and dead) and molded rubber goods, Eaton does it all. Eaton's Cooper Power series transformers are available with electrical grade mineral oil or Envirotemp™ FR3™ fluid, a less-flammable and bio-degradable fluid. Electrical codes recognize the advantages of using Envirotemp™ FR3™ fluid both indoors and outdoors for fire sensitive applications. The bio-based fluid meets Occupational Safety and Health Administration (OSHA) and Section 450.23 NEC Requirements.



Powering Business Worldwide

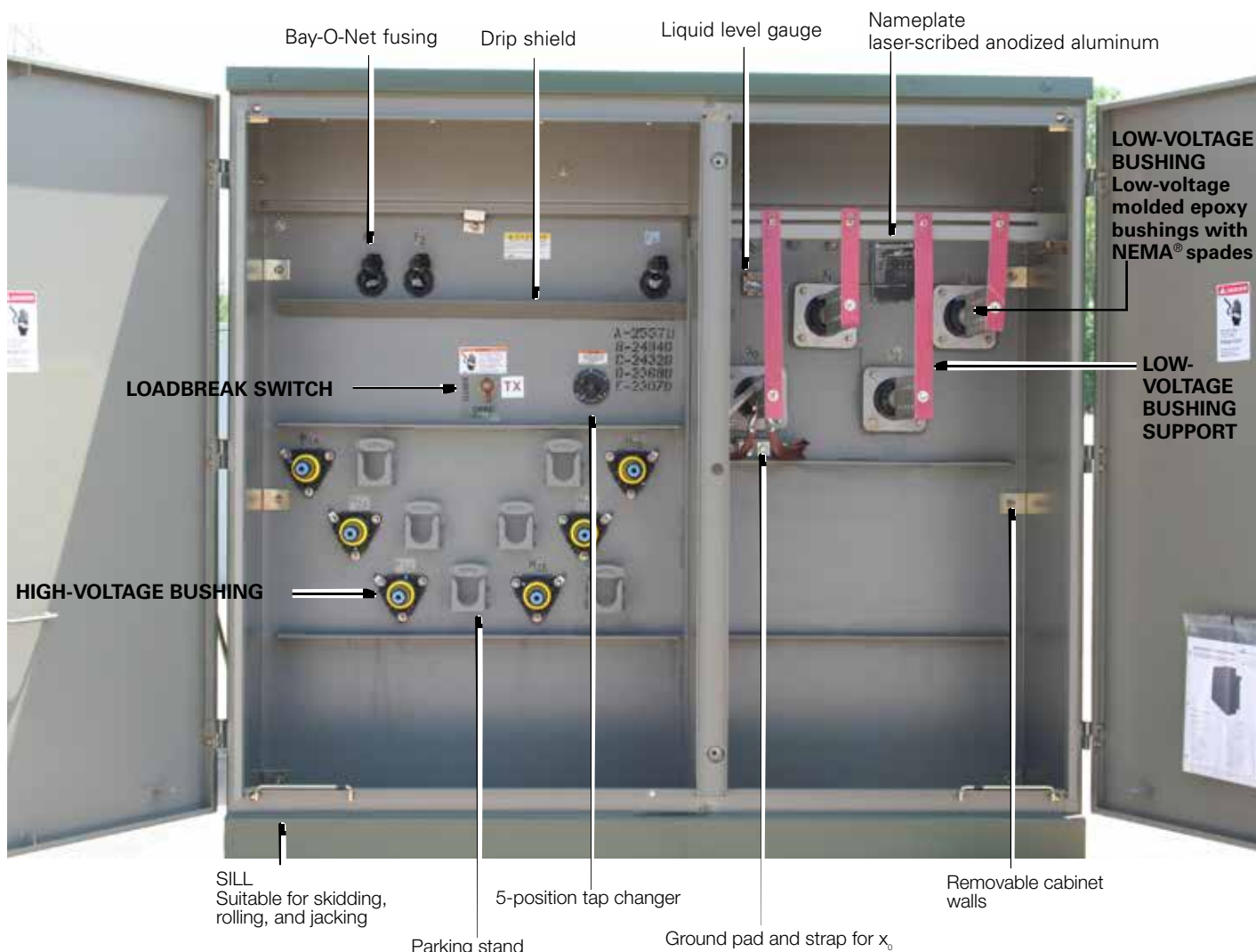


Figure 1. Three-phase pad-mounted compartmental type transformer.

Table 1. Product Scope

Type	Three Phase, 50 or 60 Hz, 65 °C Rise (55 °C, 55/65 °C), 65/75 °C, 75 °C
Fluid Type	Mineral oil or Envirotemp™ FR3™ fluid
Coil Configuration	2-winding or 4-winding or 3-winding (Low-High-Low), 3-winding (Low-Low-High)
Size	45 – 10,000 kVA
Primary Voltage	2,400 – 46,000 V
Secondary Voltage	208Y/120 V to 14,400 V
Specialty Designs	Inverter/Rectifier Bridge
	K-Factor (up to K-19)
	Vacuum Fault Interrupter (VFI)
	UL® Listed & Labeled and Classified
	Factory Mutual (FM) Approved®
	Solar/Wind Designs
	Differential Protection
	Seismic Applications (including OSHPD)
	Hardened Data Center