SINGLE PHASE HYBRID INVERTER

DX-S Series

DX Energy-3K0S to 8K0S · 3–8 kW · Dual MPPT · IP65



WALL-MOUNTED HYBRID INVERTER

3~8 kW
RATED OUTPUT POWER

97.8 %
MAX INV EFFICIENCY

150 %
PV OVERSIZING

18 A
MAX DC INPUT PER STRING

<20 ms
SWITCH TIME

IP65
INGRESS PROTECTION

HIGHLIGHTS

Touch Screen Design
Touch screen interface for easier commissioning and day-to-day operation.

Dual MPP Trackers
Two trackers with an **80–520 V** MPPT window and 550 V max DC input voltage.

150 % PV Oversizing
Arrays up to **12000 Wp**, with 18 A max DC input current per string.

110 % Continuous AC Overload
Sustains power through continuous **110 %** AC overloading.

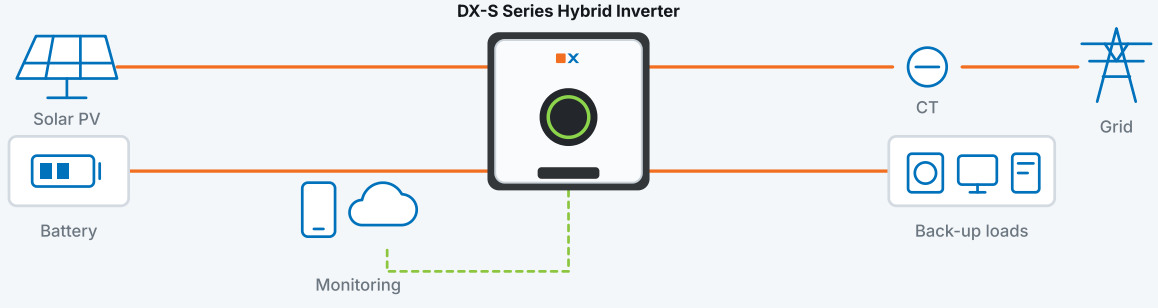
Intelligent Load Management
Controls high-power loads such as **heat pumps** and diesel generators.

Remote OTA Upgrade
Firmware updated over the air, without an on-site visit.

$LiFePO_4$ or Lead-Acid
51.2 V battery kit, **44.0–58.4 V** for $LiFePO_4$ and 40.0–60.0 V for lead-acid.

Integrated Protection
Built-in DC switch plus anti-islanding, RCD, surge and over-temperature protection.

SYSTEM OVERVIEW



MODEL CODE & MATRIX

DX Energy
Brand & series

MODEL	DX Energy-3K0S	DX Energy-3K6S	DX Energy-4K0S	DX Energy-4K6S	DX Energy-5K0S	DX Energy-6K0S	DX Energy-8K0S
PV INPUT							
Max. PV array power [Wp] @ STC	4500	5400	6000	6900	7500	9000	12000
No. of string per MPP tracker	1+1	1+1	1+1	1+1	1+1	1+1	1+2
Max. DC input current [A]	18/18	18/18	18/18	18/18	18/18	18/18	18/36
Max. DC short current [A]	20/20	20/20	20/20	20/20	20/20	20/20	20/40
BATTERY							
Max. charging power [W]	3000	3680	4000	4600	5000	6000[2]	8000[2]
Max. charging / discharging current [A]	69/69	82/82	91/91	105/105	115/115	140/140[2]	160/160[2]
AC INPUT [ON-GRID]							
Max. input power [VA]	3000	3680	4000	4600	5000	6000	8000
Rated input current [A]	13.6	16.7	18.2	20.9	22.7	27.3	36.4
Max. input current [A]	27.2	33.4	36.4	41.8	45.4	54.6	72.8
AC OUTPUT [ON-GRID]							
Rated output power [W]	3000	3680	4000	4600	5000[3]	6000[3]	8000[3]
Max. output power [VA]	3300	3680	4400	4600	5500[3]	6600[3]	8800[3]
Rated output current [A]	13.6	16.7	18.2	20.9	22.7	27.3	36.4
Max. output current [A]	15.2	16.7	20.2	20.9	25.3	30.3	40.4
AC OUTPUT [BACK-UP]							
Rated output power [W]	3000	3680	4000	4600	5000	6000[2]	8000[2]
Max. output current [A]	13.6	16.7	18.2	20.9	22.7	27.3[2]	36.4[2]

PV INPUT & BATTERY

PV INPUT	
Max. DC input voltage	550 V
Rated DC voltage	360 V
Start-up voltage	120 V
MPPT voltage range	80 – 520 V
No. of MPP trackers	2

BATTERY	
Battery type	$LiFePO_4$ / Lead-acid
Battery voltage range	44.0 – 58.4 V @ $LiFePO_4$ 40.0 – 60.0 V @ lead-acid
Battery voltage per kit	51.2 V

AC & EFFICIENCY

AC INPUT [ON-GRID]

Rated input voltage [1]	220 / 230 / 240 V, L/N/PE
Rated grid frequency [1]	50 / 60 Hz

AC OUTPUT [ON-GRID]

Rated output voltage	220 / 230 / 240 V, L/N/PE
Rated grid frequency	50 / 60 Hz
Power factor (cosφ)	0.8 leading ~ 0.8 lagging
Output THDi (@ rated output)	< 3 %

AC OUTPUT [BACK-UP]

Rated output voltage	220 / 230 / 240 V, L/N/PE
Rated output frequency	50 / 60 Hz
Output THDv (@ linear load)	< 3 %
Switch time	< 20 ms

EFFICIENCY

Max. INV efficiency	97.80 %
European efficiency	97.20 %

GENERAL DATA, PROTECTION & CERTIFICATES

GENERAL DATA

Topology	Transformerless
Ingress protection	IP65
Operating temperature range	-20 ~ 60 °C
Altitude [4]	3000 m (> 3000 m derating)
Ambient humidity [4]	0 ~ 100 %
Noise	< 25 dB
Cooling method	Natural convection
Dimensions (H × W × D)	450 × 500 × 210 mm
Weight	25 kg

PROTECTION

DC switch	Yes
Protection	Battery input reverse polarity / AC short circuit / overload / surge / residual current / AC over- and under-voltage / AC over- and under-frequency / over-temperature / anti-islanding

CERTIFICATES

EMC	IEC/EN 61000-6-1/-3
Safety	IEC/EN 62109-1/-2, IEC 62477-1
Grid	EN 50549-1, IEC 62116, VDE-AR-N-4105, CEI 0-16, CEI 0-21, C10/11, NC R+G G98 or G99, UTE C15-712, NRS 097-2-1, NTS 631

[1] The AC voltage and frequency range may vary depending on the specific country grid.
[2] The storage unit needs at least two batteries to reach > 6000 W output.
[3] When selecting the V4105 safety-certified model, the maximum power that can be fed into the grid is 4.6 kW / 4.6 kVA.
[4] The source specification sheet interchanges the altitude and humidity values; they are shown here against the correct rows. To be confirmed.

Note: Values are transcribed from the platform specification sheet for this inverter; no figures have been derived or estimated. Model designations are provisional. Certification marks apply to the products as certified — confirm the certificate scope for each power class before publishing. Specifications are subject to change without notice during product improvement. © DX Energy.