



ULX Inverter Series

Residential single-phase transformer-based

Range: 1.8, 3.0, 3.6, 4.0 & 5.4 kW

3

MPPT's

Provide greater flexibility in setup while achieving greater yield in static and dynamic conditions



The ULX inverter series features single-phase, transformer-based indoor and outdoor cabinets.

Transformer-based Galvanic Isolation

The ULX inverter is equipped with a transformer that provides galvanic isolation between the AC and DC side. The ULX inverter can also be paired with thin-film panels as the modules can be grounded due to galvanic isolation.

Quality & Reliability

The ULX inverter series relies on over forty years of power electronics expertise to produce the highest quality and most reliable inverters available, continuously updating to meet compliance and regulatory requirements.

Flexibility

Available in both MV and HV input ranges, the ULX inverter series is compatible with a wide variety of modules; thereby limiting potential power losses and assuring the correct string voltage to best optimise total energy output.

The ULX inverter range has one to three string inputs, each with their own independent MPP tracker. Module mismatch losses and losses resulting from partial shading are greatly reduced by running in individual mode.

Additionally, should one string not function optimally, the remaining strings will continue production unaffected.

All ULX inverters run in both individual and parallel mode, depending upon setup configuration. When using identical modules, parallel connection is the optimal choice. The inverter will automatically detect the wiring by running an auto detection algorithm.

Trusted Performance

The ULX inverter series is also compliant in 24 European countries including Low Voltage requirements in Germany. Configuration can be completed on-site, according to country, during set-up. The ULX inverter can deliver reactive power. For Loss of Main detection the ULX inverter utilises Sandia Active Frequency Shift or ROCOF and Impedance Pulse Measurement where required.

Uniquely Designed

Light weight and slim design make the ULX inverter ideal for a wide range of residential installations, as detailed engineering went into the development of both the indoor and outdoor versions - with IP54 housing for outdoor conditions; and silent, natural, convection cooling for indoor use.

Easy Install

The complete installation can be completed without having to open the inverter itself. The setup is performed through the simple and easy to use front panel display.



	ULX 1800	ULX 3000	ULX 3600	ULX 4000	ULX 5400
Specification:					
Nominal Power DC	1800 W	3000 W	3600 W	4375 W	5400 W
Max Power DC	1950 W	3900 W	3900 W	5850 W	5850 W
Max recommended PV power at STC ¹⁾	1950 Wp	3200 Wp	3900 Wp	4720 Wp	Outdoor: 5400/5850 Wp Indoor: 5400 Wp
Nominal Power AC	1650 W	2750 W	3300 W	4000 W	Outdoor: 4600/5000 W Indoor: 4600 W ²⁾
Max Power AC	1800 W	3000 W	3600 W	4000 W	5000/5400 W ²⁾
Max efficiency	93.70 %	94.20%	94.20 %	93,70 %	94.30 %
Euro efficiency	91.60 %	92.90%	93.40 %	93,10 %	93.40 %
Power factor	0.97 at > 20 % load	0.97 at > 20 % load	0.97 at > 20 % load	0.97 at > 20 % load	0.97 at > 20 % load
Turn on power	20 W				
Standby consumption	8 W				
Night consumption	< 0.2 W				
Voltages:					
Nominal Voltage DC MV	310 V				
Nominal Voltage DC HV	430 V				
MPP voltage range MV - nominal power	180-350 V	150-350 V	180-350 V	145-350 V	180-350 V
MPP voltage range HV - nominal power	260-500 V	250-500 V	260-500 V	250-500 V	260-500 V
MAX DC voltage MV Individual/Parallel	450/410 V				
MAX DC voltage HV Individual/Parallel	600/550 V				
Turn on voltage DC MV	125 V				
Turn on voltage DC HV	250 V				
Turn off voltage DC MV	100 V				
Turn off voltage DC HV	200 V				
AC voltage range	230 ± 15 % V				
Grid frequency	50 ± 5 Hz				
Currents:					
Max current DC MV	10 A	2 x 10 (20) A*	2 x 10 (20) A*	3 x 10 (20) A*	3 x 10 (30) A*
Max current DC HV	7 A	2x7 (14) A	2x7 (14) A	3 x 7 (14) A	3 x 7 (21) A*
Nominal current AC	7.2 A	12 A	14.5 A	17.4 A	Outdoor: 20/22 A / Indoor: 20 A
Max current AC	8 A	13 A	15.5 A	17.4 A	23 A
Distortion (THD%)	< 5 %				
Other:					
Dimensions (L,W,H)	Outdoor: 489x434x192 mm Indoor: 369x386x188 mm	Outdoor: 618x434x192 mm Indoor: 498x386x188 mm	Outdoor: 618x434x192 mm Indoor: 498x386x188 mm	Outdoor: 747x434x192 mm Indoor: 631x386x188 mm	Outdoor: 747x434x192 mm Indoor: 631x386x188 mm
Weight	Outdoor: 17 kg / Indoor: 14 kg	Outdoor: 20 kg / Indoor: 20 kg	Outdoor: 20 kg / Indoor: 20 kg	Outdoor: 23 kg / Indoor: 23 kg	Outdoor: 23 kg / Indoor: 23 kg
Acoustic Noise level	Outdoor: 55 dB(A) / Indoor: 45 dB(A)				
Operation temperature range	-25 - +60 °C				
MPP Tracker	1	2	2	3	3
MPP efficiency (static)	99,9 %				
Overload operation	Change of operating point				
Grid surveillance	U/f window & impedance monitoring				
Mounting recommendation	Wall bracket				
IP	Indoor IP 21/ Outdoor IP 54				
Isolation monitoring	Included				
Galvanic Isolation	Transformer				
Serial Communication	RS485				
Display	Yes				
DC switch	Yes				
Parallel String Operation (PSO)	PSO /Autodetection				
Normative references:					
Directive LVD	73 / 23 / EC				
Directive EMC	2004 / 108 / EC				
Safety	EN 50178				
EMC immunity	EN 61000-6-1 / EN 61000-6-2 / EN 61000-4-13, -14, -28 / EN 60146-1				
EMC emission	EN 61000-6-3 / EN 61000-6-4				
Utility Interference	EN 61000-3-2, -3	EN 61000-3-2, -3	EN 61000-3-2, -3	EN 61000-3-11, -12	EN 61000-3-11, -12
Functional safety, Anti-islanding	DIN VDE 0126-1-1 / VDE 0126-1-1/A1 & VDE AR-N-4105				
CE	Yes				
Utility characteristics	IEC 61727, EN 50160				
Italy	DK5940				
Spain	RD1663				
United Kingdom	G83-1-1				excluding UK

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*Max. 16 A per string

1) For fixed systems with semi optimal conditions

2) Depending on country setting

Danfoss Solar Inverters A/S

Ulsnaes 1
DK-6300 Graasten
Denmark
Tel: +45 7488 1300
Fax: +45 7488 1301

E-mail: solar-inverters@danfoss.com

www.danfoss.com/solar

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