The Danfoss DLX PV inverter series
Performance and flexibility in a user friendly design

Available in 2.0, 2.9, 3.8 and 4.6 kW

The DLX series of transformer based string inverters defines a new level of efficiency, flexibility and user friendliness.

Flexibility gives more options
Galvanic isolation makes the DLX suitable for all PV cell technologies. The IP65 die cast aluminium casing allows for indoor or outdoor mounting. Convection cooling gives consistent performance even under high ambient temperatures and reduces noise issues.

Weighing between 19 and 21 kg, the DLX is easy to handle and mount. The two-way interactive display offers multiple languages for easy country configuration.

Simple to monitor on, or off site
The full-colour screen has an intuitive user-interface with clear and easy to access graphs and diagrams. A full monitoring solution is built-in and no extra PC software is required. For larger sites, a single inverter acts as a monitoring hub, to provide a single point of access for performance checks – either remotely or on-site – at any time.

ConnectSmart™ compliant
Connecting to a CLX solution provides further monitoring and control options. The ConnectSmart™ technology of the CLX series, offers real time monitoring anywhere, anytime via smartphone, tablet or computer.

97.3%
Maximum efficiency

World class performance in a transformer based solution

Performance
- World leading efficiency of 97.3%
- Transformer-based
- Robust design with IP65
- Convection cooled for consistent performance

Flexibility
- Suitable for all kinds of PV module types
- Low noise allows indoor locations
- Multiple language options

User-friendliness
- Full built-in monitoring
- No extra PC software is required
- Master inverter functionality
- CLX compliant

www.danfoss.com/solar

Nomenclature	Parameter	DLX 2.0	DLX 2.9	DLX 3.8	DLX 4.6
	AC				
|S|	Rated apparent power	2000 VA	2900 VA	3800 VA	4600 VA
P	Rated active power [1]	2000 W	2900 W	3800 W	4600 W
Q	Reactive power range [1]	0 - 1200 VAr	0 - 1740 VAr	0 - 2280 VAr	0 - 2760 VAr
	Controlled power factor range	0.8 over-excited, 0.8 under-excited			
$V_{ac,r}$	Rated output voltage	230 V			
$V_{ac, min}$; $V_{ac, max}$	AC voltage range (P-N)	230 V ± 20 %, single or split phase			
	Nominal current AC	9 A	13 A	17 A	21 A
I_{acmax}	Max. current AC	10.5 A	15.2 A	19.7 A	23 A
	AC current distortion (THD %)	2.59 %		3.36 %	
$cosphi_{ac,r}$	Power factor @ 100 % load	1			
	Night-time power loss (off grid)	< 1 W			
f_r	Rated grid frequency	50 Hz			
f_{min}, f_{max}	Grid frequency range	50 Hz ± 5 Hz			
	DC				
	Nominal power DC	2100 W	3000 W	4000 W	4800 W
	Max power DC	2625 W	3750 W	5000 W	6000 W
	Max. recommended PV power at STC[2]	2360 Wp	3425 Wp	4485 Wp	5460 Wp
$V_{mpp\ nominal}$	Nominal MPP voltage @ max efficiency	350 V			
V_{mppmin} V_{mppmax}	MPP voltage range at nominal power	230 - 480 V			250-480 V
	MPP efficiency	99.9 %			
V_{dcmax}	Max. DC voltage	600 V			
$V_{dcstart}$	Turn on voltage	230 V			
V_{dcmin}	Turn off voltage	220 V			
I_{dcmax}	Max. current DC	9.5 A	13.5 A	18.0 A	21 A
	Max. short circuit current DC at STC	9.5 A	13.5 A	18.0 A	21 A
	Min. on grid power	7 W			
	Efficiency				
	Max. efficiency	96.9 %	97.0 %	97.2 %	97.3 %
	Euro efficiency	96.0 %	96.2 %	96.6 %	96.9 %
	CEC efficiency	96.1 %	96.4 %	96.9 %	97 %
	Other				
	Dimensions (H, W, D)	610 x 353 x 154 mm			
	Mounting method	wall bracket			
	Weight	19 kg		21 kg	
	Sealing grade	IP 65			
	Acoustic noise level	<37db (A)			
	MPP tracker / Input per MPPT	1 / 3			
	Operational temperature range	-25 °C....65 °C			
	Nom. temperature range	-25 °C....45 °C			
	Storage temperature range	-25 °C....80 °C			
	Relative humidity	4 % to 99 %			
	Protection against excessive PV power	yes			
	Overvoltage category AC	Class B			
	Overvoltage category DC	Class B			
	Ethernet connection	1 x RJ45			
	RS-485 connection	Screw terminals			
	CAN connection	Screw terminals			
	PV connection	SunClix			
	AC/grid connection	Screw terminals			
	Protection against reverse polarisation of PV	Yes			
	Ground fault monitoring	Yes			
	Integral DC switch	Yes			
	PV grounding	Field configurable, positive & negative grounded			
	Topology	High freqency transformer, galvanic isolation			
	Cooling concept	Convection			
	Performance monitoring	Graphical colour display witch 6 touch sense buttons, 3x LED's for visual status indication, Build-in Web Server			
	Functional Safety				
	Safety (protective class)	class I			
	Islanding detection - loss of mains	Active Frequency Shift			
	Voltage magnitude surveillance	included			
	Frequency surveillance	included			
	DC content of AC current surveillance	included			
	Insulation resistance surveillance	included			
	RCD Type A compliant	Yes			
	Indirect contact protection	Yes, (start class I, grounded)			
	DC short circuit protection	Yes			

[1] At rated grid voltage ($V_{ac,r}$), cosphi=1
[2] For fixed systems with semi-optimal conditions

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