MAKING MODERN LIVING POSSIBLE

TLX Inverter Series

Three phase transformerless inverter series from 6-15 kW

The TLX series includes TLX, TLX+, TLX Pro and TLX Pro+

35 kg

The weight of 6-15 kW

Ensuring easy and troublefree installation of high performance inverters

The high performance transformerless three-phase TLX inverter series, with efficiency of 98 % deliver maximum energy in all conditions.

Flexibility

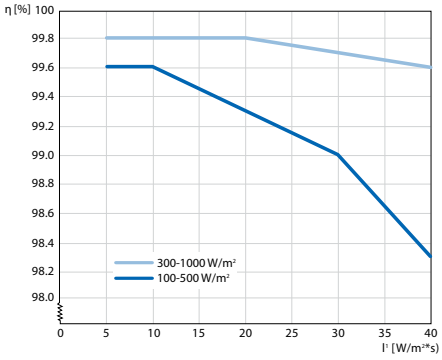
Integrating 1000 V_{DC} input range, 250-800 V MPP range and multiple DC inputs with each their own individually regulated MPP tracker, allows for more modules in a series and longer strings, while providing greater flexibility in the PV setup.

Simplicity

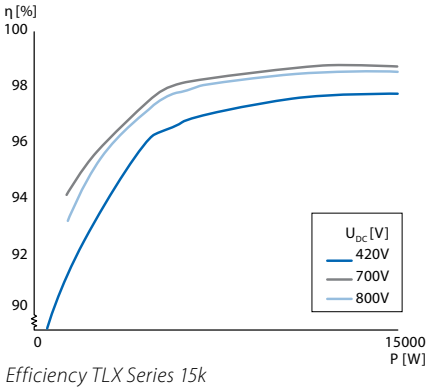
The TLX Pro series includes master inverter technology capable of controlling up to 100 inverters from a single inverter. Likewise, the integrated webserver, allows you to control, monitor and adjust your PV system from any online device.

2 Billion hours of Experience

The TLX series has been installed all over the world in both residential 6 kW systems to over 100 MW utility plants.



MPP efficiency



Efficiency TLX Series 15k

- η98 %
- 1000 V_{DC}
- 250-800 V_{MPP}
- 3x230 V_{AC}
- 6-15 kW
- PV Sweep
- Compact dimensions
- 12 pcs per pallet place
- 35 days integrated data storage
- 35 kg
- Full built-in monitoring
- 2-3 independant MPP trackers
- SMS via GSM option
- Replication of setting to 100 inverters
- Multiple languages and grid-codes
- ConnectSmart™ compliant

www.danfoss.com/solar

For additional technical data and functional descriptions please refer to the reference manual found on www.danfoss.com/solar

Unit	Parameter	TLX series				
	AC					
|S|	Rated apparent power	6.0 kVA	8.0 kVA	10 kVA	12.5 kVA	15 kVA
$P_{ac,r}$	Rated active power[1]	6.0 kW	8.0 kW	10 kW	12.5 kW	15 kW
	Reactive power range	0-3.6 kVAr	0-4.8 kVAr	0-6.0 kVAr	0-7.5 kVAr	0-9.0 kVAr
$V_{ac,r}$	Rated grid voltage (range)	3P + N + PE – 230 V / 400 V (± 20 %)				
	Nominal current AC	3 × 8.7 A	3 × 11.6 A	3 × 14.5 A	3 × 18.1 A	3 × 21.7 A
I_{acmax}	Max. current AC	3 × 9.0 A	3 × 11.9 A	3 × 14.9 A	3 × 18.7 A	3 × 22.4 A
	AC current distortion (THD %)	< 4 %		< 5 %		
$cosphi_{ac,r}$	Power factor – unregulated	> 0.99 at 100 % load and 0.95 at 20 % load				
	Power factor – regulated	0.8 over-excited – 0.8 under-excited (TLX+ and TLX Pro+)				
	"Connecting" power loss	10 W				
	Night-time power loss (off grid)	< 5 W				
f_r	Rated grid frequency (range)	50 Hz ± 5 Hz				
	DC					
$P_{mpptmax}$	Maximum PV input power per MPPT	8.0 kW				
$\Sigma_{P\ mpptmax}$	Max./nom. converted PV input power, total	6.2 kW	8.25 kW	10.3 kW	12.9 kW	15.5 kW
$V_{dc,r}$	Nominal voltage DC	700 V				
V_{mppmin} V_{mppmax}	MPP voltage-nominal power[2]	260 - 800 V	345-800 V	430-800 V	358-800 V	430-800 V
	MPP tracker	2 (2 × MC4)			3 (3 × MC4)	
V_{dcmax}	Max. DC voltage	1000 V				
$V_{dcstart}$	Turn on voltage	250 V				
V_{dcmin}	Turn off voltage	250 V				
I_{dcmax}	Max. current DC	2 × 12 A			3 × 12 A	
	Max. short circuit current DC at STC	2 × 12 A			3 × 12 A	
	Min. on grid power	20 W				
	Efficiency					
	Max. efficiency	97.8 %	97.9 %	98 %		
	Euro efficiency at $V_{dc,r}$	96.5 %	97.0 %	97.0 %	97.3 %	97.4 %
	MPP efficiency, static	99.9 %				
	Enclosure					
	Dimensions (H, W, D)	700 × 525 × 250 mm				
	Weight	35 kg				
	Acoustic noise level	max. 56 db(A)				
	Operation temperature range	-25..60 °C (45..60 °C – degrading at high loads)				
	Storage temperature	-25..60 °C				
	Relative humidity	95 % (non-condensing)				
	Ancilliary Services					
	Active power	Fixed, set point curves, remotely controlled, Fault Ride Through				
	Reactive power	Constant, set point curves, remotely controlled, Fault Ride Through (TLX+ and TLX Pro+)				
	Safety					
	Approvals and certificates	www.danfoss.com/solar ➞ Download				
	Electrical Safety	IEC 62109-1/IEC 62109-2 (Class I, grounded – communication part Class II, PELV)				
	Functional safety	Voltage and frequency monitoring, islanding detection, residual current monitoring				

[1] At rated grid voltage (Vac,r), Cos(phi) = 1
[2] At symmetric input configuration. At asymmetrical input configuration. V_{mppmin} can be as low as 250 V.

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