

	Danfoss TLX 12.5 k	SMA TL11000	Fronius IG plus 150	SolarMAX 20S	KACO 8000xi
<b>Specification:</b>					
MPP	3	1	1	1	1
MPP part	4 300 W	11 400 W	12 600 W	24 000 W	9 000 W
Max power DC	12 900 W	11 400 W	12 600 W	24 000 W	9 000 W
Nominal power AC	12 500 W	11 000 W	12 000 W	20 000 W	8 000 W
Max power AC	12 500 W	11 000 W	12 000 W	22 000 W	8 000 W
Max efficiency	98%	98%	96%	96,6%	97%
Euro efficiency	> 97%	97,5%	95,5%	96%	96,5
Power factor	> 0.97 at 20% load	-	-	-	-
Turn on power	20 W	-	-	-	-
Turn off power	15 W	-	-	-	-
Standby consumption	10 W	<10 W	-	-	-
Night consumption	< 5 W	0,25 W	1 W	7 W	-
<b>Voltages:</b>					
Max voltage DC	1000 V	700 V	600 V	900 V	800 V
Nominal voltage DC	700 V	400 V	400 V	700 V	-
MPP voltage range - nominal power	430-800 V	333-500 V	230-500 V	400-800 V	350-600 V
MPP range	550 V	167 V	270 V	400 V	250 V
MPP start up voltage	250 V	-	-	-	-
Turn off voltage DC	245 V	-	-	-	-
AC Voltage range	3x400 V +15-20%	230 V +15-20%	3x400 V +15-20%	3x400 V +15-20%	230 V +15-20%
Grid frequency	50 ± 5 Hz	50 ± 4,5 Hz	50 ± 5 Hz	50 ± 5 Hz	50 ± 5 Hz
<b>Currents:</b>					
Max current DC	3x10 (30) A	34 A	54,9 A	-	35 A
Nominal current AC	19 A	48 A	-	-	17,5 A
Max current AC	19 A	48 A	-	-	35 A
Distortion (THD%)	< 4%	-	< 3,5%	< 3%	-
<b>Other:</b>					
Dimensions (L,W,H)	700x525x250 mm	468x613x242 mm	1221x434x244 mm	655x455x1090 mm	810x340x220 mm
Weight	35 kg	35 kg	49 kg	98 kg	38 kg
Acoustic Noise level	56 dB(A)	-	-	-	-
Operation temperature range	-25..60°C (>45°C deratin g)	-25+60°C	-20+50°C	-25+60°C	-25 +60°C
MPPT efficiency (static)	99,90%	99,00%	99,90%	99,00%	-
MPPT efficiency (dynamic)	99,60%	-	-	-	-
Overload operation	Change of operating point	-	-	-	-
Grid surveillance	Three phase monitoring	-	-	-	-
Mounting recommendation	Wall bracket	-	-	-	-
IP	IP 54	IP 64	IP 44	IP 54	IP 54
Isolation monitoring	included	-	-	-	-
<b>Standard:</b>					
Serial Communication	RS485	RS485	RS485	RS485 / Ethernet	RS485
Potential free contact	x 2	-	-	-	-
Sensor input	x 2 (temperature, irradiation)	-	-	-	-
Energy meter	S0 input	-	-	-	S0
<b>Options:</b>					
Modem	GSM	-	-	-	-
Datalogger	Weblogger	-	-	-	-
Warranty	5 years	5 years	5 years	2 years	7 years
<b>Normative references:</b>					
Directive LVD	2006/95/EC	-	-	-	-
Directive EMC	2004 / 108 / EC	-	-	-	-
Safety	EN 50178	-	-	-	-
EMC immunity	EN 61000-6-1	-	-	-	-
	EN 61000-6-2	-	-	-	-
EMC emission	EN 61000-6-3	-	-	-	-
	EN 61000-6-4	-	-	-	-
Utility interference	EN 61000-3-11/-12	-	-	-	-
Functional safety, anti-islanding	DIN VDE 0126-1-1	-	-	-	-
CE	Yes	Yes	Yes	Yes	Yes
Utility characteristics	IEC 61727	-	-	-	-
	EN 50160	-	-	-	-
Italy	DK5940	-	-	-	-
Spain	RD1663	-	-	-	-
Spain	RD661	-	-	-	-