

AE 3TL 8-23 kW

The new generation



- \\ Future-proof
- \\ Worldwide use
- \\ Flexibly decentralized

The new generation is based on the successful platform which delivers maximum yields with no maintenance. Working hand-in-hand with our customers, we have further improved the devices, making them even more future-proof, user-friendly and reliable.

Whether you add accumulators in future, integrate the PV system in smart grids or the regulations change – the new software means you're well equipped for the future.

Plan and build your decentralized PV project flexibly. The simple layout can be rapidly multiplied, particularly with large systems. Partial systems connected to the grid during the construction phase provide early yields.

The devices are designed for worldwide use, with special versions for North America (UL version) and Japan (JP version). Even the most demanding requirements are met by our premium product, the AE 3TL 20-SCI. Thanks to silicon carbide technology, it achieves peak efficiency of 98.7 % and is ideal for high ambient temperatures.

\\ Now with
Sunclix DC connection technology:
Permanently good contact with
no special tools \\

- UL-version for North America available.
 - JP-version for Japan available.
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TECHNICAL DATA	AE 3TL 8	AE 3TL 10	AE 3TL 13	AE 3TL 17	AE 3TL 20	AE 3TL 23-MV
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Art. no.	867R008.010	867R010.010	867R013.010	867R017.010	867R020.010	867R023.010
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DC DATA

Recommended max. PV power, kWp	9.9	12.0	15.6	20.4	24.0	27.6
MPPT range, V	370 ... 850	410 ... 850	480 ... 850	460 ... 850	490 ... 850	575 ... 850
DC start voltage, V	350	350	350	350	350	350
Max. voltage DC, V	1000	1000	1000	1000	1000	1000
Max. current DC, A	23.0	25.0	31.1	38.3	41.8	41
MPP trackers	1	1	1	1	1	1
Number of DC inputs	6 x Phoenix Sunclix®					
DC disconnection switch	Yes	Yes	Yes	Yes	Yes	Yes

AC DATA

AC nominal power, kW	8.25	10.0	13.0	17.0	20.0	23.0
Max. apparent power, kVA	8.25	10.0	13.0	17.0	20.0	23.0
AC grid connection	L1, L2, L3, N, PE					
Nominal power factor / range	1 / 0,8i ... 0,8c					
Nominal voltage AC, V	400	400	400	400	400	460
Voltage range AC, V	320 ... 460	320 ... 460	320 ... 460	320 ... 460	320 ... 460	368 ... 529
Nominal frequency / frequency range, Hz	50, 60 / 45 ... 65					
Max. current AC, A	3 x 12	3 x 16	3 x 21	3 x 29.2	3 x 29.2	3 x 29.2
Max. THD, %	2.5	2.5	2.5	1.8	1.8	1.8
Max. efficiency, %	98.0	98.0	98.0	98.2	98.2	98.3
European efficiency, %	97.3	97.4	97.5	97.8	97.8	98.1
Feed-in starting at, W	20	20	20	20	20	20
Self consumption in night operation, W	< 0,5	< 0,5	< 0,5	< 0,5	< 0,5	< 0,5

CHARACTERISTICS

Cooling	Natural convection					
Ambient temperature, °C	-25 ... +55	-25 ... +55	-25 ... +55	-25 ... +55	-25 ... +55	-25 ... +55
Relative ambient humidity, %	0 ... 100	0 ... 100	0 ... 100	0 ... 100	0 ... 100	0 ... 100
Site altitude	4000*	4000*	4000*	4000*	4000*	4000*
Noise, dBA	< 45	< 45	< 45	< 45	< 45	< 45
Internal overvoltage protection (EN 61643-11)	Type 3	Type 3	Type 3	Type 3	Type 3	Type 3
Protection class (IEC 62109)	I	I	I	I	I	I
Overvoltage category (EN 60664-1)	DC: II, AC: III	DC: II, AC: III	DC: II, AC: III	DC: II, AC: III	DC: II, AC: III	DC: II, AC: III
Environmental classification (IEC 721-3-4)	4K4H	4K4H	4K4H	4K4H	4K4H	4K4H
Certification, EC conformity	Current certificates can be found at http://www.advanced-energy.com/3TLcerts					
SZS or grid protection	Acc. to VDE 0126-1-1					

GENERAL DATA

Interfaces	Ethernet, RS485, irradiation and temperature sensor					
Type of protection (IEC 60529)	IP65	IP65	IP65	IP65	IP65	IP65
Dimensions W x H x D, mm	535 x 601 x 277					
Weight, kg	38.4	38.4	38.4	38.4	38.4	38.4

*Note the derating of the DC voltage.

Subject to modification. Technical specifications are subject to change without notice.

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