

## AE 3TL 8–20 kW

A type for all scenarios



- ✓ Maximum yields
- ✓ Robust and reliable
- ✓ Variety of applications

Five performance classes, one task: High yields. As systems can differ enormously in their size, we have designed the three-phase string inverter AE 3TL 8–20 kW with a broad range. Irrespective of whether you deploy this string inverter in a medium-sized, commercial rooftop system – all the versions of the AE 3TL 8–20 kW range are maintenance free, easy to handle weighing less than 40 kilograms, and boast efficiency levels of up to 98.7 %. That saves installation and operation costs and increases profits.

The inverters are dust-tight and protected against water spray – as required by the protection class IP65. Plan your system and select flexibility with 8.25, 10, 13, 17, or 20 kW output. What you get in every case are amazing performance data, a broad MPPT range, and a high-quality plug&play function with a data logger, Ethernet connection, RS485 interface, and a noise-free, pollution-free convection cooling system.

- UL-version for North America available (600 V and 1000 V).
  - JP-version for Japan available (600 V and 1000 V).
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TECHNICAL DATA	AE 3TL 8	AE 3TL 10	AE 3TL 13	AE 3TL 17	AE 3TL 20	AE 3TL 20-SCI
<b>Art. no.</b>	866R008	866R010	866R013	867R017	867R020	807R020
<b>DC DATA</b>						
Recommended max. PV power, kWp	9.9	12.0	15.6	20.4	24.0	24.0
MPPT range, V	370 ... 850	410 ... 850	480 ... 850	460 ... 850	490 ... 850	490 ... 800
DC start voltage, V	350	350	350	350	350	350
Max. voltage DC, V	1,000	1,000	1,000	1,000	1,000	1,000
Max. current DC, A	23.0	25.0	31	38.3	41.8	41.8
MPP trackers	1	1	1	1	1	1
Number of DC inputs	4 x MC4	4 x MC4	4 x MC4	6 x MC4	6 x MC4	6 x MC4
DC disconnection switch	Yes	Yes	Yes	Yes	Yes	Yes
<b>AC DATA</b>						
AC nominal power, kW	8.25	10.0	13.0	17.0	20.0	20.0
Max. apparent power, kVA	8.25	10.0	13.0	17.0	20.0	20.0
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	400
Voltage range AC, V	320 ... 460	320 ... 460	320 ... 460	320 ... 460	320 ... 460	320 ... 460
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	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	98.7
European efficiency, %	97.3	97.4	97.5	97.8	97.8	98.5
Feed-in starting at, W	50	50	50	50	50	20
Self consumption in night operation, W	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
<b>CHARACTERISTICS</b>						
Cooling	Natural convection					
Ambient temperature, °C	-25 ... +55	-25 ... +55	-25 ... +55	-25 ... +55	-25 ... +55	-25 ... +60
Relative ambient humidity, %	0 ... 100	0 ... 100	0 ... 100	0 ... 100	0 ... 100	0 ... 100
Site altitude	2,000	2,000	2,000	4,000*	4,000*	4,000*
Noise, dBA	< 45	< 45	< 45	< 45	< 45	< 35
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	Current certificates can be found on our website					
SZS or grid protection	Acc. to VDE 0126-1-1					
<b>GENERAL DATA</b>						
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	32.2	32.2	32.2	38.4	38.4	40

\*Note the derating of the DC voltage.