

AE 3TL JP

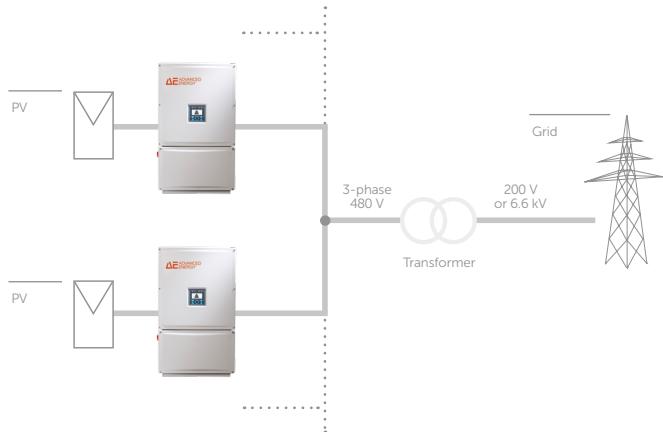


The AE 3TL JP complies with Japanese Grid Code. It is perfectly suited for smaller rooftop systems or distributed large scale PV plants.

Transformerless, compact and extremely powerful. Rated at 20 and 24 kW AC - available with max. 500 V and 1000 V DC input voltage. The AE 3TL string inverter series is known for their high efficiency, reliability and easy handling. Now this product is also available as a model to comply with the Japanese Grid Code.

The string inverters with 20 and 24 kW are the perfect match for any commercial and utility PV plant size, like rooftop systems, parking shade structures and large ground mounted systems. Using 480 V standard grid voltage, these inverters can be connected to low voltage or high voltage grid using transformers. The conversion efficiency reaches as much as 98% to boost the energy yield in any PV plant.

Integrated into the system are highly precise MPP tracking from REFUsol and a data logger for direct connection to the online monitoring system. A graphical display, Ethernet connection and RS485 interface simplify commissioning and system monitoring.



| TECHNICAL DATA | AE 3TL 020K-JP (1000V) | AE 3TL 024K-JP (1000V) | AE 3TL 020K-JP (500V) | AE 3TL 024K-JP (500V) |
|---|---|---------------------------|--------------------------|--------------------------|
| Art. no. | 862R020 | 862R024 | 863R020 | 863R024 |
| DC DATA | | | | |
| Max. recommended PV power, kW | 24 | 28.8 | 24 | 28.8 |
| MPPT range, V | 570 ... 900 | 570 ... 900 | 270 ... 450 | 285 ... 450 |
| DC start voltage, V | 200 | 200 | 200 | 200 |
| Max. DC voltage, V | 1000 | 1000 | 500 | 500 |
| Max. DC current, A | 37.5 | 44 | 2 x 37.5 | 2 x 44 |
| Max. Short circuit current of Panels, A | 100 | 100 | 2 x 100 | 2 x 100 |
| MPP tracker | 1 | 1 | 1 | 1 |
| No. DC inputs | 6 | 6 | 12 | 12 |
| Integrated DC circuit breaker | YES | YES | YES | YES |
| Type DC inputs | Sunclix | Sunclix | Sunclix | Sunclix |
| Max. ISC current per DC input, A | 20 | 20 | 20 | 20 |
| AC DATA | | | | |
| AC Nominal power, kW | 20 | 24 | 20 | 24 |
| Max. apparent power, kVA | 20 | 20 | 20 | 24 |
| AC grid connection / Feed-in phases | L1, L2, L3, N, PE | L1, L2, L3, N, PE | L1, L2, L3, N, PE | L1, L2, L3, N, PE |
| Nominal Power Factor / Range | 1 / 0.9i ... 0.9c | 1 / 0.9i ... 0.9c | 1 / 0.9i ... 0.9c | 1 / 0.9i ... 0.9c |
| Nominal voltage AC, V | 480 | 480 | 480 | 480 |
| Voltage range AC, V | 384 ... 528 | 384 ... 528 | 384 ... 528 | 384 ... 528 |
| Nominal Frequency / Frequency Range, Hz | 50, 60 / 45 ... 65 | 50, 60 / 45 ... 65 | 50, 60 / 45 ... 65 | 50, 60 / 45 ... 65 |
| Max. AC current, A | 3 x 29.2 | 3 x 29.2 | 3 x 29.2 | 3 x 29.2 |
| Max. THD, % | 3 | 3 | 3 | 3 |
| Max. Efficiency, % | 98.0 | 98.0 | 97.7 | 97.7 |
| Max. european Efficiency, % | 97.7 | 97.7 | 97.4 | 97.4 |
| Max. efficiency, % | 50 | 50 | 50 | 50 |
| European efficiency, % | 97.3 | 97.4 | 97.5 | 97.8 |
| Feed-in from, W | 50 | 50 | 50 | 50 |
| Self consumption night, W | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| AC circuit breaker | Integrated | Integrated | Integrated | Integrated |
| PROTECTION, AMBIENT CONDITIONS | | | | |
| Cooling | Natural convection | Natural convection | Natural convection | Natural convection |
| Ambient temperature, °C | -25 ... +55 | -25 ... +55 | -25 ... +55 | -25 ... +55 |
| Relative ambient humidity, % | 0 ... 100 | 0 ... 100 | 0 ... 100 | 0 ... 100 |
| Elevation (m above sea level) | 4000* | 4000* | 4000* | 4000* |
| Noise level, dBA | < 45 | < 45 | < 45 | < 45 |
| Internal overvoltage protection (EN 61643-11) | Type 3 | Type 3 | Type 3 | Type 3 |
| Protection Class (IEC 62103) | SK I | SK I | SK I | SK I |
| Overvoltage Category (EN 60664-1) | DC: II, AC: III | DC: II, AC: III | DC: II, AC: III | DC: II, AC: III |
| Environment classification (IEC 721-3-4) | 4K4H | 4K4H | 4K4H | 4K4H |
| Pollution Degree (IEC 62109-6-3) | 3 | 3 | 3 | 3 |
| Certification | Test documents according zo JET | | | |
| SZS or grid protection | Gate Block / redundant Grid Relay | | | |
| GENERAL DATA | | | | |
| Interfaces | Ethernet, RS485, isolation and irradiation sensor | | | |
| Protection class (IEC 60529) | IP65 | IP65 | IP65 | IP65 |
| Dimensions W x H x D, mm | 535 x 601 x 277 | 535 x 601 x 277 | 535 x 601 x 277 | 535 x 601 x 277 |
| Weight, kg | 49.8 | 49.8 | 49.8 | 49.8 |

*Observe derating of the DC voltage.

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