

# AR5KTSI/AR6KTSI/AR8KTSI/AR10KTSI AR13KTSI/AR16KTSI (Three-Phase)

**ARES**  
Since 1988



- Compact and contemporary design
- Unmatched power density
- Highest efficiency in the industry (max. 98.65%)
- Fuseless and fanless design
- Industrial-grade high quality components
- All-round lightning protection
- IP65 waterproof and dustproof
- Smart connected

## Technical Data

| MODEL                                | AR5KTSI   | AR6KTSI     | AR8KTSI     | AR10KTSI    | AR13KTSI        | AR16KTSI    |
|--------------------------------------|---|-------------|-------------|-------------|-----------------|-------------|
| <b>INPUT (DC)</b>                    |   |             |             |             |                 |             |
| Max. input power                     | 6.5 kW  | 7.8 kW      | 10.4 kW     | 13 kW       | 16.9 kW         | 20.8 kW     |
| Max. input voltage                   | 1000 V  |             |             |             |                 |             |
| Start-up voltage                     | 180 V   |             |             |             | 250 V           |             |
| MPPT voltage range                   | 120 – 950 V   |             |             | 200 – 950 V |                 |             |
| MPPT voltage range at full load      | 250 – 850 V   | 280 – 850 V | 380 – 850 V | 470 – 850 V | 410 – 850 V     | 500 – 850 V |
| Max. input current                   | 11 A / 11 A   |             |             |             | 11 × 2 A / 11 A |             |
| Max. short circuit current           | 12 A / 12 A   |             |             |             | 12 × 2 A / 12 A |             |
| Number of MPPTs                      | 2   |             |             |             |                 |             |
| Number of DC inputs                  | A:1 / B:1   |             |             |             | A:2 / B:1       |             |
| <b>OUTPUT (AC)</b>                   |   |             |             |             |                 |             |
| Rated output power                   | 5 kW  | 6 kW        | 8 kW        | 10 kW       | 13 kW           | 16 kW       |
| Max. active power                    | 5 kW  | 6 kW        | 8 kW        | 10 kW       | 13 kW           | 16 kW       |
| Max. apparent power                  | 5 kVA   | 6 kVA       | 8 kVA       | 10 kVA      | 13 kVA          | 16 kVA      |
| Max. output current                  | 7.3 A   | 8.7 A       | 11.6 A      | 14.5 A      | 18.9 A          | 23.2 A      |
| Rated grid voltage                   | 230 / 400 V, 3 W + N + PE   |             |             |             |                 |             |
| Grid voltage range                   | 176 – 276 V / 304 – 480 V *   |             |             |             |                 |             |
| Rated grid frequency                 | 50 / 60 Hz  |             |             |             |                 |             |
| Grid frequency range                 | 45 – 55 / 55 – 65 Hz *  |             |             |             |                 |             |
| THD                                  | < 3% (rated power)  |             |             |             |                 |             |
| Output current DC component          | < 0.5% I <sub>n</sub>   |             |             |             |                 |             |
| Power factor                         | > 0.99 (rated power)  |             |             |             |                 |             |
| Power factor adjustable              | 0.8 leading ~ 0.8 lagging   |             |             |             |                 |             |
| <b>EFFICIENCY</b>                    |   |             |             |             |                 |             |
| Max. efficiency                      | 98.65%  |             |             |             |                 |             |
| European efficiency                  | 98.2%   |             |             |             |                 |             |
| <b>OTHERS</b>                        |   |             |             |             |                 |             |
| Protections                          | Anti-islanding protection, output overcurrent/overvoltage protection, leakage current protection, DC reverse polarity protection, DC/AC surge protection, ground insulation resistance detection, DC switch (standard), PID prevention and restoration (optional) |             |             |             |                 |             |
| Communications                       | RS485, Wi-Fi/Ethernet (optional), GPRS (optional)   |             |             |             |                 |             |
| Display                              | LED, Bluetooth (optional)   |             |             |             |                 |             |
| Self-consumption at night            | < 1 W   |             |             |             |                 |             |
| IP rating                            | IP 65   |             |             |             |                 |             |
| Cooling                              | Natural cooling   |             |             |             |                 |             |
| Isolation                            | Transformerless   |             |             |             |                 |             |
| Standards                            | IEC/EN 62109-1, IEC/EN 62109-2, VDE AR-N-4105, AS/NZS 4777.2, CEI 0-21, EN 50438, IEC 61683, IEC 61727, IEC 62116, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4   |             |             |             |                 |             |
| Operating temperature                | -25°C ~ +60°C (> 45°C downgrading)  |             |             |             |                 |             |
| Relative humidity                    | 0 ~ 100% (non-condensing)   |             |             |             |                 |             |
| Altitude                             | 2000 m  |             |             |             |                 |             |
| Dimensions (W × D × H) (mm)          | 515 × 166.5 × 435   |             |             |             |                 |             |
| Packaged dimensions (W × D × H) (mm) | 605 × 536 × 245   |             |             |             |                 |             |
| Weight (kg)                          | 25  |             |             |             |                 |             |
| Gross weight (kg)                    | 28  |             |             |             |                 |             |

• The AC voltage and frequency range may vary depending on specific country grid.

**Disclaimer:**

- These data in this document are tested under specified conditions. It may result in difference between actual results and these data due to some uncertain factors. The statement about this product is for reference only. It makes no representation or warranty.
- All specifications are subject to change without notice.