



RTM75

Product Specifications



PRODUCT SPECIFICATIONS

| ITEM | SPECIFICATION |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SUPPLY INPUT | 3∅ AC see last page for regional details |
| OUTPUT POWER | 50kW (2 x DC:DC modules) 75kW (3 x DC:DC modules) |
| OUTPUT VOLTAGE | CCS: 150-920 VDC CHAdEMO: 150-500 VDC |
| OUTPUT CURRENT | 50kW: 134A * 75kW: 200A * |
| SUPPORTED CABLES | CCS1 @ 200A, 6m (19ft 8in) with cable management CCS2 @ 200A, 6m (19ft 8in) with cable management CHAdEMO @ 125A, 6m (19ft 8in) with cable management |
| OUTLET CONFIGURATIONS | CCS CCS CHAdEMO CCS |
| SIMULTANEOUS CHARGING | Yes |
| IP RATING | IP65 (NEMA 3R) |
| IK RATING | IK10 (Including HMI) |
| EFFICIENCY | 95% |
| POWER FACTOR | >0.99 |
| TOTAL HARMONIC DISTORTION | <5% THD |
| MAXIMUM OPERATING ALTITUDE | 3000m (9842ft) |
| ACCOUSTIC NOISE | Variable under load: < 65dB @ 1m max. |
| OPERATING TEMPERATURE | 50kW: -35°C to +50°C (-31°F to +122°F) 75kW: -35°C to +50°C (-31°F to +122°F) (with de-rating) |
| STORAGE TEMPERATURE | -35°C to +70°C (-31°F to +158°F) |
| ELECTRICAL PROTECTION | Over current, over voltage, under voltage, short circuit, surge protection, protective earth continuity monitor. |
| ENCLOSURE CONSTRUCTION | Aluminium double skin |
| DIMENSIONS | Footprint: 1998 (H) x 783 (W) x 309 (D) mm (78.6" x 30.8" x 12.1") Maximum points: 1998 (H) x 898 (W) x 450 (D) mm (78.6" x 35.3" x 17.7") |
| WEIGHT | Installation: Up to 294kg with cable management (649lbs) Shipping: Up to 380kg depending on configuration (822lbs) |
| CONNECTIVITY | |
| COMMUNICATION PROTOCOL | OCPP v1.6J (ready for OCPP 2.0.1) |
| NETWORK CONNECTION | Cellular: 3G/4G Wired: Ethernet |
| USER INTERFACES | |
| AUTHENTICATION METHODS | RFID: MI-FARE ISO/IEC14443A/B, ISO/IEC15693, ISO/IEC18000-3, FeliCa, NFC Plug & Charge (ISO 15118-2) Mobile application Free mode / AutoStart |
| DISPLAY | 10.1" display with 4 control buttons |

*Unless limited by cable type

SAFETY & CERTIFICATION

| ITEM | SPECIFICATION |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SAFETY FEATURES | Tilt sensor, door ingress sensors, safety trip loop, external emergency stop button interface |
| SAFETY COMPLIANCE | <p>EUROPE CE: IEC 61851-1 - Electric vehicle conductive charging system general requirements</p> <p> IEC 61851-23 - Electric vehicle conductive charging system DC electric vehicle charging station</p> <p>NORTH AMERICA: UL 2202, CSA-C22</p> |
| ELECTROMAGNETIC COMPATIBILITY CERTIFICATION (EMC) | <p>EUROPE CE: IEC 61851-21-2 - EMC requirements for off board electric vehicle charging Emissions: Class B (Residential) Immunity: Class A (Non-residential)</p> <p> IEC 61000-6-4 - Emissions for industrial environments Emissions: Class B (Residential)</p> <p> IEC 61000-6-2 - Immunity for industrial environments</p> <p>NORTH AMERICA: USA - FCC 47 CFR Part 15 B CANADA - ICES-003</p> |
| RADIO EQUIPMENT DIRECTIVE (RED) | <p>EUROPE: ETSI EN 301 489-1 - Standard for radio equipment and services Part 1: Common technical requirements</p> <p> ETSI EN 301 489-3 - Standard for radio equipment and services Part 3: Specific conditions for short-range devices (SRD) operating on frequencies between 9 kHz and 246 GHz</p> <p> ETSI EN 301 489-52 - Standard for radio equipment and services Part 52: Specific conditions for cellular communication user equipment</p> |
| ELECTROMAGNETIC FIELD (EMF) | EUROPE EC 62311 - Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz) |
| OTHER | <p>SINGAPORE: TR25-1: 2022 - Electrical vehicle charging system</p> <p>DUAL DC ENERGY METERS Germany - MessEV / VDE-AR-E 2418-3-100 † Europe - METAS - LegalEVcharge - MID † California - CDFA-DMS - NIST Handbook 44 †</p> |
| ACCESSIBILITY | Height requirements: US Americans with Disabilities Act and EN 301 549 |
| WARRANTY | Standard 2-year warranty |
| OPTIONALS | |
| BRANDING | Customer branded vinyls Powder coating upon request |
| METERING | [DE-M] DC meter † |
| PAYMENT OPTIONS | Credit card reader contactless or 3-in-1 (region dependent), field upgradeable (optional) |
| STATUS INDICATION | Charge state indicator lights |
| CABLE LENGTH | 3.6m (11ft 10in) charging cables with no cable management |
| WARRANTY EXTENSION | +1YR / +2YR / +3YR |

†Pending certification completion

AC GRID INTERFACE

| ITEM | WORLDWIDE (400VAC / 415VAC) | | USA (480VAC) | |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------|
| | 50kW | 75kW | 50kW | 75kW |
| POWER LEVEL | | | | |
| VOLTAGE | 400VAC 3ph (no neutral) +/-10% | | 480VAC 3ph (no neutral) +/-10% | |
| FREQUENCY | 50Hz +/- 10% | | 60Hz +/- 10% | |
| NOMINAL CURRENT AT NOMINAL VOLTAGE LEVEL | 76A | 114A | 63A | 95A |
| MAXIMUM CURRENT AT LOW LINE LEVEL (NOMINAL VOLTAGE - 10%) AND PF>0.99 | 84A | 114A | 70A | 105A |
| OVER CURRENT PROTECTION DEVICE REQUIRED (OCPD) IN SITE DISTRIBUTION BOARD | 100A breaker recommended (required for supply cable protection) | 160A breaker recommended (required for supply cable protection) | 80A breaker recommended (required for supply cable protection) | 125A breaker recommended (required for supply cable protection) |
| FAULT CURRENT LIMITING FUSES IN SITE DISTRIBUTION BOARD | Current limiting fuses or a UL/CE certified current limiting circuit breaker MUST be installed if available fault current exceeds 37.5kA. | | | |
| RESIDUAL CURRENT MONITORING IN SITE DISTRIBUTION BOARD (OPTIONAL) | If local regulation requires a residual current monitoring device, it must feature adjustable time delay and adjustable threshold. | | | |
| UNDER-VOLTAGE RELAY/SHUNT TRIP RELAY IN SITE DISTRIBUTION BOARD (OPTIONAL) | <p>The RTM range includes options for circuitry to locally isolate the charger's power circuit if the safety loop monitor connected to the door switches, tilt sensor, leak sensor or protective earth continuity monitor is triggered.</p> <p>Additionally, the charger can also include options to allow upstream isolations in the event of a safety loop trigger event by including an under-voltage relay coil or shunt trip module on the feeder circuit breaker in the site distribution board.</p> <p>Tritium chargers should only be installed by a licensed contractor and a licensed electrician, in accordance with all local and national codes and standards. This may include additional, lockable disconnect mechanisms within line of sight of the supplied equipment.</p> | | | |
| REFERENCE CALCULATION OF BURIED CABLE SIZE FOR AC SUPPLY | Single cores in buried duct: | | Single cores in buried duct: | |
| (LENGTH OF AC CABLES AND SYSTEM EFFICIENCY SHOULD BE CONSIDERED WHEN SIZING CABLE) | 25mm ² Cu for L1,2,3 | 50mm ² Cu for L1,2,3 | 6AWG Cu for L1,2,3 | 3AWG Cu for L1,2,3 |
| | 16mm ² Cu for PE | 25mm ² Cu for PE | 8AWG Cu for PE | 4AWG Cu for PE |
| | Multicore cable in buried duct: | | Multicore cable in buried duct: | |
| | 25mm ² Cu | 50mm ² Cu | 4AWG Cu | 2AWG Cu |
| | Multicore cable direct buried: | | | |
| | 25mm ² Cu | 35mm ² Cu | | |
| AC SUPPLY CABLE SIZE | Cable sizes must be calculated on a per site basis as length, burial/conduit method, insulation rating, soil type will all affect correct sizing. | | | |