

 TRITIUM

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 with cable management CCS2 @ 200A, 6m with cable management CHAdeMO @ 125A, 6m 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) full power with no de-rating 75kW: -35°C to +50°C (-31°F to +122°F) de-rating applies above +40°C
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	EUROPE CE:	IEC 61851-1 - Electric vehicle conductive charging system general requirements IEC 61851-23 - Electric vehicle conductive charging system DC electric vehicle charging station
	NORTH AMERICA:	UL 2202, CSA-C22
ELECTROMAGNETIC COMPATIBILITY CERTIFICATION (EMC)	EUROPE CE:	IEC 61851-21-2 - EMC requirements for off board electric vehicle charging Emissions: Class B (Residential) Immunity: Non-residential IEC 61000-6-4 - Emissions for industrial environments Emissions: Class B IEC 61000-6-2 - Immunity for industrial environments
	NORTH AMERICA:	USA - FCC 47 CFR Part 15 B CANADA - ICES-003
RADIO EQUIPMENT DIRECTIVE (RED)	EUROPE:	ETSI EN 301 489-1 - Standard for radio equipment and services Part 1: Common technical requirements 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 ETSI EN 301 489-52 - Standard for radio equipment and services Part 52: Specific conditions for cellular communication user equipment
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	SINGAPORE:	TR25-1: 2022 - Electrical vehicle charging system
	DUAL DC ENERGY METERS	Germany - MessEV / VDE-AR-E 2418-3-100 † Europe - METAS - LegalEVcharge - MID † California - CDFA-DMS - NIST Handbook 44 †
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 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)	125A 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.			



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