TRITIUM

PKM150
Charging Station

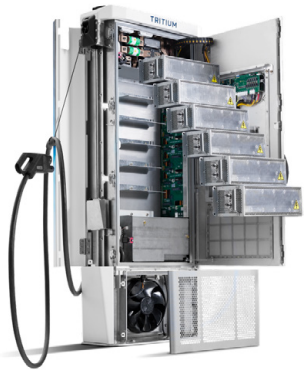
Product Specifications

ELECTRIFY TRANSPORTATION

CHARGING STATION EDITIONS

Feature	Good	Best
POWER LEVELS OFFERED	100kW / 150kW	100kW / 150kW
3RD PARTY UL AND CE CERTIFIED	✓	✓
SINGLE PERSON LIFT FIELD REPLACEABLE MODULES	✓	✓
RFID READER	✓	Included in CCR
10" LCD SCREEN	✓	✓
SENSOR PACKAGE (TILT, DOOR INGRESS)	✓	✓
SIMULTANEOUS CHARGING OF TWO VEHICLES	✓	✓
CHARGING CABLE OPTIONS AVAILABLE	CCS: 200A / 350A CHAdeMO: 125A	CCS: 200A / 350A CHAdeMO: 125A
CHARGING CABLE LENGTH	3.6 meters (11ft 9in)	6 meters (19ft 8in)
CHARGING CABLE MANAGEMENT	n/a	✓
CHARGE STATE INDICATOR LIGHTS	n/a	✓
CUSTOMER BRANDED VINYLS	Optional	✓
CREDIT CARD READER WITH RFID SUPPORT (CHARGER INTEGRATED)	Optional	✓
DC METER (REGIONAL)	Optional †	Optional †
STANDARD WARRANTY	2 years	2 years
WARRANTY EXTENSIONS AVAILABLE	+1YR / +2YR / +3YR	+1YR / +2YR / +3YR

† Pending Certification Completion



CHARGING STATION SPECIFICATIONS

Item	Specification
MAXIMUM OUTPUT POWER	Single Vehicle Charging: 150KW Simultaneous Charging: 2 x 75kW
OUTPUT VOLTAGE	CCS: 150-920VDC CHAdeMO: 50-500VDC
OUTPUT CURRENT	Single Vehicle Charging: up to 350A Dual Simultaneous Charging: up to 400A (2 x 200A) per charging station Full system has 4 charging station (8 simultanous charge sessions)
SUPPLY INPUT	950VDC (DC microgrid)
IP RATING	IP65 (NEMA 3R)
IK RATING	IK10
EFFICIENCY	>97%
MAXIMUM OPERATING ALTITUDE	3000m (9842ft)
ACOUSTIC NOISE	Maximum 65dB (variable under load)
OPERATING TEMPERATURE	-35°C to +50°C (-31°F to +122°F) (with derating)
STORAGE TEMPERATURE	-35°C to +70°C (-31°F to +158°F)
COMMUNICATION PROTOCOL	OCPP v1.6J (OCPP 2.0.1 capable in future)
NETWORK CONNECTION (SYSTEM)	Ethernet
AUTHENTICATION METHODS	RFID: MI-FARE ISO/IEC14443A/B, ISO/IEC15693, ISO/IEC18000-3, FeliCa, NFC Vehicle: ISO15118 Plug and Charge, Autocharge
ELECTRICAL PROTECTION	Over current, over voltage, under voltage, short circuit, surge protection
ENCLOSURE CONSTRUCTION	Aluminium double skin
DIMENSIONS	Footprint: 1998mm (78.6") (H) x 783mm (30.8") (W) x 309mm (12.1") (D) Maximum points: 1998mm (78.6") (H) x 898mm (35.3") (W) x 450mm (17.7") (D)
WEIGHT	Up to 335kg (739lbs) depending on configuration
ACCESSIBILITY	Meets American with Disabilities Act (ADA), EN 301 549 Accessibility Height Requirements

CHARGING STATION COMPLIANCE

Category	Standard
ELECTRICAL SAFETY	**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/CSA:** • **UL 2202** • **CSA C22.2**
ELECTROMAGNETIC COMPATIBILITY (EMC)	**Europe – CE:** • **IEC 61851-21-2** – EMC requirements for off board electric vehicle charging Emissions: Class B (Residential) • **IEC 61000-6-1** – Immunity for residential environments • **IEC 61000-6-4** – Emissions for industrial environments • **IEC 61000-6-2** – Immunity for industrial environments **North America – FCC:** • **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 301 489-52** – Standard for radio equipment and services Part 52: Specific conditions for cellular communication user equipment (UE) radio and ancillary equipment • **ETSI EN 303 446-1** – Standard for combined and/or integrated radio and non-radio equipment Part 1: Requirements for equipment intended to be used in residential, commercial and light industry locations
ELECTROMAGNETIC FIELD (EMF)	**Europe:** • **IEC 62311** Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz) **North America:** • **USA - 47 CFR § 1.130** • **Canada - RSS-210 and SPR-002**
LEGAL METROLOGY	**Dual DC Energy Meters:** • **Germany –** MessEV / VDE-AR-E 2418-3-100 † • **Europe –** METAS – LegalEVcharge - MID † • USA **California –** CTEP † **National –** NTEP †
OTHER	**Singapore:** • **TR25-1: 2022** † - Electrical vehicle charging system

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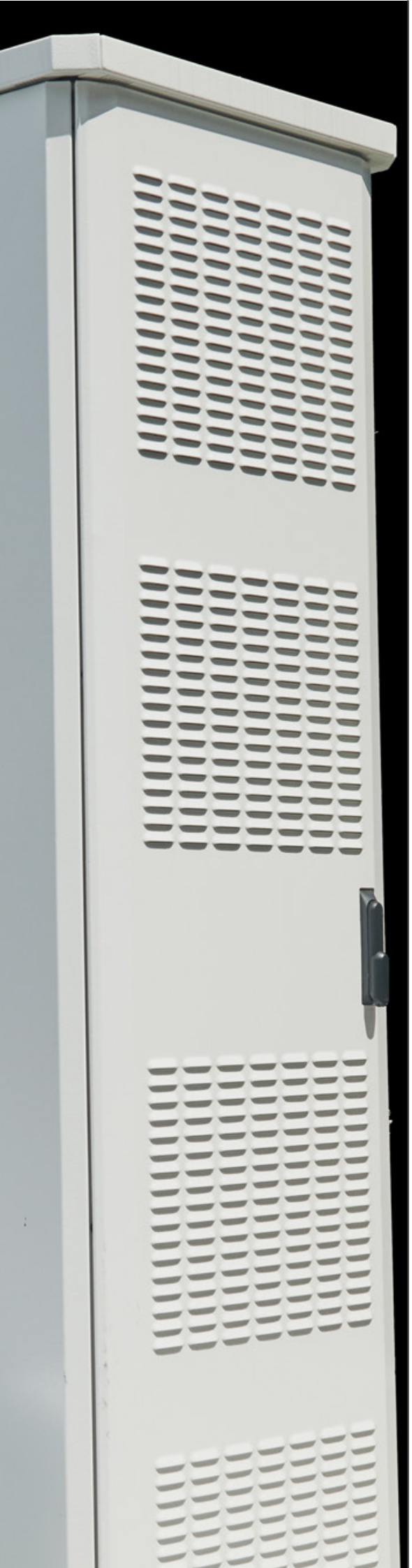


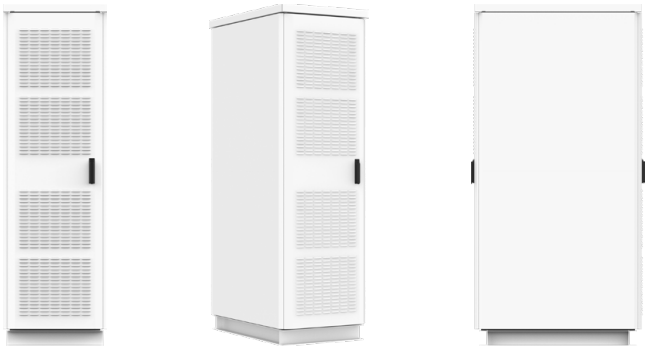
TRITIUM

PKM150

Rectification Unit

Product Specifications

ELECTRIFY TRANSPORTATION



DC MICROGRID RECTIFICATION UNIT

Item	Specification
OUTPUT POWER	**WORLDWIDE (400VAC):** Up to 300kW total **USA (480VAC):** Up to 360kW total
INPUT VOLTAGE	**WORLDWIDE (400VAC):** 400VAC 3ph +/-10%. Derating applied on low line level and phase imbalance **USA (480VAC):** 480VAC 3ph +/-10%. Derating applied on low line level and phase imbalance
FREQUENCY	**WORLDWIDE (400VAC):** 50Hz +/- 10% **USA (480VAC):** 60Hz +/- 10%
NOMINAL CURRENT AT NOMINAL VOLTAGE LEVEL	**WORLDWIDE (400VAC):** 450A **USA (480VAC):** 450A
MAXIMUM CURRENT AT LOW LINE LEVEL (NOMINAL VOLTAGE - 10%) AND POWER FACTOR >0.99	480A
INPUT OVERVOLTAGE CATEGORY	Category III
EFFICIENCY*	**WORLDWIDE (400VAC):** > 97.6% **USA (480VAC):** > 98.1%
SURGE PROTECTION	**WORLDWIDE (400VAC):** EN 61643-11 Type 2 SPD with In = 20kA 8/20us, SCCR = 150kA, including backup fuse **USA (480VAC):** UL listed Type 1 SPD In = 20kA, SCCR = 200kA, including backup fuse
OUTPUT VOLTAGE	950VDC
NO. DC OUTPUTS	Supplied with 2 or 4
SHORT CIRCUIT CURRENT RATING	18kA
ISOLATION BETWEEN AC MAINS AND CHARGING STATION	Not isolated
POWER FACTOR (CHARGING)	>0.99
TOTAL HARMONIC DISTORTION (THD)	<5%
MAXIMUM OPERATING ALTITUDE	2000m (6562ft)
OPERATING TEMPERATURE	-35°C to +50°C (-31°F to +122°F) (with derating), 5-95% Relative Humidity (RH) noncondensing
STORAGE TEMPERATURE	-40°C to +65°C (-40°F to +149°F), 5-95% Relative Humidity (RH) noncondensing
COMMUNICATION PROTOCOL	OCPP v1.6J (OCPP 2.0.1 capable in future)
NETWORK CONNECTION	3G/4G/Ethernet
NETWORK CONNECTION (SYSTEM)	Ethernet to charging stations
WEIGHT	510kg (1125lbs) for base rectifier unit + 15kg (33lbs) for cable interface + 15kg (33lbs) per DC port
SHIPPING WEIGHT	510kg (1125lbs) for base rectifier unit + 15kg (33lbs) for cable interface + 15kg (33lbs) per DC port + 90kg (199lbs) for crate
DIMENSIONS	Footprint: 2360mm (92.9") (H) x 535mm (21.0") (W) x 1028mm (40.4") (D) Maximum points: 2360mm (92.9") (H) x 694mm (27.3") (W) x 1094mm (43.0") (D)
IK RATING	IK10

DC MICROGRID RECTIFICATION UNIT *CONTINUED*

Item	Specification
IP RATING	IP54 (NEMA 3R)
POWER SUPPLY	Battery-backed Uninterruptible Power Supply (UPS) functionality for telemetry during power outage
OVER CURRENT PROTECTION DEVICE (OCPD) REQUIRED IN SITE DISTRIBUTION BOARD	Yes
RESIDUAL CURRENT MONITORING IN SITE DISTRIBUTION BOARD	Optional
UNDER-VOLTAGE RELAY OR SHUNT TRIP RELAY REQUIRED IN SITE DISTRIBUTION BOARD	Yes

DC MICROGRID RECTIFICATION UNIT OPTIONS

Feature	Rectification Unit
NO. OF DC OUTPUTS	Supplied with 2 or 4
STANDARD WARRANTY	2 years
WARRANTY EXTENSIONS AVAILABLE	+1YR / +2YR / +3YR

DC MICROGRID RECTIFICATION UNIT COMPLIANCE

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ELECTRICAL SAFETY	**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/CSA:** • **UL 2202** • **CSA C22.2**
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GRID	**Flicker & Harmonics:** • **VDE-AR-N 4110** (50Hz & 60Hz) • **IEEE-519** (50Hz & 60Hz)
OTHER	**Singapore:** • **TR25-1: 2022 †** - Electrical vehicle charging system

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