



Product Specifications

# PKM150





# CHARGING STATION

## Product Specifications



**Output Power:** 50kW | 100kW | 150kW

**3<sup>rd</sup> Party UL & CE Certified**

**Simultaneous Charging of Two Vehicles**

**Charging Cable Types:** CCS: 200A/350A | NACS: 200/350A

**Charging Cable Lengths:**  
3.6m (11ft 9in)  
6m (19ft 8in) with cable management

**10" LCD Screen with customisable HMI**

**Card Reader Options (Charger Integrated):**  
Credit Card Reader with RFID Support  
RFID Reader  
No Reader

**DC Meter Option**

**Charging State Indicator Lights Option**

**Customer Branded Vinyls Option**

**Remote Management:** Remote access, configuration, diagnostics, software update

**Single Person Left Field Replaceable Modules**

**Product Warranty:**  
3 years warranty included  
+1 year | +2 year extensions available

**Power Module Warranty:** Lifetime warranty included (10 years)



# Environmental

**Enclosure Construction:** Aluminium double skin

**Impact Protection Rating:** IK10

**Ingress Protection Rating:** IP65, NEMA Type 3R

**Maximum Operating Altitude:** 3000m (9842ft)

**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)

**Acoustic Noise:** Maximum 65dB (variable under load)

# Physical

**Height** 1998mm (78.6")

**Width** 783mm (30.8")

**Depth** 309mm (12.1")

**Weight** Up to 335kg

# System Characteristics

**Supply Input:** 950V DC (DC microgrid)

**Maximum Output Power:**  
Single Vehicle Charging: 150 kW | 100 kW | 50 kW  
Simultaneous Charging: 2 x 75kW | 2 x 50kW | 2 x 25kW

**Output Voltage:** CCS: 150-920V DC

**Output Current:**  
Single Vehicle Charging: up to 350A  
Simultaneous Charging: up to 400A (2 x 200A)

**Efficiency:** >97%

**Electrical protection:** Over current, over voltage, under voltage, short circuit, surge protection

**Safety Sensors:** Tilt and door ingress

**Authentication Methods:**  
RFID: MI-FARE ISO/IEC 14443A/B | ISO/IEC 15693 | ISO/IEC 18000-3 | FeliCa | NFC  
Credit Card: Credit card terminals – various models  
Remote start: mobile application  
Vehicle: ISO15118 Plug and Charge | Autocharge  
Free mode: no authentication

**Communication Protocols:**  
EVSE to EV: ISO 15118-2, DIN 70121 | ISO 15118-20 ready  
EVSE to CSMS: OCPP 1.6J | 2.0.1 ready

**Network Connection:** Ethernet | Cellular 4G/LTE (optional)

**Accessibility:** Meets American with Disabilities Act (ADA) and EN 301 549 Accessibility Height Requirements





# RECTIFICATION UNIT

## Product Specifications



## System Characteristics

**DC Microgrid Power Supply:**

Power up to 4 x 150kW PKM charging stations

**Output Power:**

WORLDWIDE (400VAC): Up to 300kW total  
USA (480VAC): Up to 360kW total

**Grid Frequency:**

WORLDWIDE (400VAC): 50Hz +/- 10%  
USA (480VAC): 60Hz +/- 10%

**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

**Nominal Current at Nominal Voltage Level:**

WORLDWIDE (400VAC): 450A  
USA (480VAC): 450A

**Maximum Current at Low Line Level:**

480A at Nominal Voltage -10% and Power Factor >0.99

**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:** 950V DC

**No. of DC Outputs:** 2 | 4

**Isolation Between AC Mains and Charging Station:** Not isolated

**Power Factor (Charging):** >0.99

**Total Harmonic Distortion (Thd):** <5%

**Short Circuit Current Rating:** 18kA

**Communication Protocol:** OCPP v1.6J | OCPP 2.0.1 ready

**Network Connection:** Cellular 4G/LTE | Ethernet

**System Communication:** Ethernet to charging stations

**Power Supply:** Battery-backed Uninterrupted Power Supply (UPS) functionality for telemetry during power outage

**Site Distribution Board:**

- Over Current Protection Device (OCPD): Required
- Under-voltage Relay or Shunt Trip Relay: Required
- Residual Current Monitoring: Optional

**Product Warranty:**

- 3 years warranty included
- +1 year | +2 year extensions available



## Environmental

**Maximum Operating Altitude:** 2000m (6562ft)

**Operating Temperature:** 35°C to +50°C (-31°F to +122°F) (with derating), 5-95% Relative Humidity (RH) non-condensing

**Storage Temperature:** -40°C to +65°C (-40°F to +149°F), 5-95% Relative Humidity (RH) non-condensing

**Impact Protection Rating:** IK10

**Ingress Protection Rating:** IP54, NEMA Type 3R

## Physical

Height	2360mm (92.9")
Width	535mm (21.0")
Depth	1028mm (40.4")
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 module + 15kg (33lbs) per DC port (2 or 4) + 90kg (199lbs) for crate



# CHARGING STATION COMPLIANCE

## Standards

Europe: CE	IEC 61851-1, IEC 61851-23, IEC 62311, IEC 61851-21-2, ETSI EN 303 446-1, ETSI EN 301 489-1, ETSI EN 301 489-3, ETSI EN 301 489-52
North America: UL / CSA	USA: UL 2202, 47 CFR § 1.130, FCC 47 CFR Part 15 B, FCC certified GSM (4G) Canada: CSA C22.2, RSS-210 and SPR-002, ICES-003, ISED certified GSM (4G)

## Environmental

GlobalRoHS | WEEE

## Cyber security

Global  
EUISO 27001  
EU Cyber Resilience Act

## Legal Metrology

Europe	MID	USA National	NTEP †
France	LNE	California	CTEP

† Pending Certification Completion

# RECTIFICATION UNIT COMPLIANCE

## Standards

Europe: CE	IEC 61851-1, IEC 61851-23, IEC 62311, IEC 61851-21-2, ETSI EN 303 446-1, ETSI EN 301 489-1, ETSI EN 301 489-3, ETSI EN 301 489-52 VDE-AR-N 4110 (50Hz & 60Hz), IEEE-519 (50Hz & 60Hz)
North America: UL / CSA	USA: UL 2202, 47 CFR § 1.130, FCC 47 CFR Part 15 B, FCC certified GSM (4G) Canada: CSA C22.2, RSS-210 and SPR-002, ICES-003, ISED certified GSM (4G)

## Environmental

GlobalRoHS | WEEE

## Cyber security

Global  
EUISO 27001  
EU Cyber Resilience Act



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