

Product Specifications

# TRI-FLEX



# DISPENSER

#### Product Specifications

Range of dispenser power levels 100 kW, 200 kW, 400 kW and 640kW

Dynamic load management with 25 kW power sharing resolution

360-degree status lighting

CCS and NACS connectors

Supporting Liquid & Dry cables

MID, Eichrecht, NTEP/CTEP DC metering

Integrated payment terminal

Large branding surfaces

IP65 sealed enclosure for harsh environments

Life expectancy 10 years

Warranty Standard 3 years, +1 yr | +2 yr extensions



#### System Characteristics

**Output Voltage:** 150-1000 V DC

**Supported Connectors:** CCS1 | CCS2 | NACS

Accessibility: Meets American with Disabilities Act (ADA), EN 301 549 Accessibility height requirements

**Display and User Interface:** 10" LCD screen with physical buttons

#### **Authentication Support:**

RFID: MI-FARE ISO/IEC 14443A/B | ISO/IEC 15693 | ISO/IEC

18000-3 | FeliCa | NFC

Credit Card: Credit card terminals — various models Vehicle: ISO15118 Plug and Charge | Autocharge

**Safety Sensors:** Tilt and door ingress

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

**System Communications:** Ethernet to Flex Hub

**Communications Protocol:** ISO 15118-2-20 ready

Electrical Protections: Over current, over voltage, under voltage, short circuit, insulation monitoring, over temperature

#### Environmental

**Maximum Operating Altitude :** 3000m (9840')

**Operating Temperature:** -35°C to +55°C (-31°F to +131°F)

**Storage Temperature:**  $-40^{\circ}$ C to  $+60^{\circ}$ C ( $-40^{\circ}$ F to  $+140^{\circ}$ F)

**IK Rating:** IK10

IP Rating: IP65 (NEMA 3R)

**Noise Emission:** ≤65 dB(A) @ 1 m, full power 25°C (77°F)

**Quiet Mode:**  $\leq$  55 dB(A)

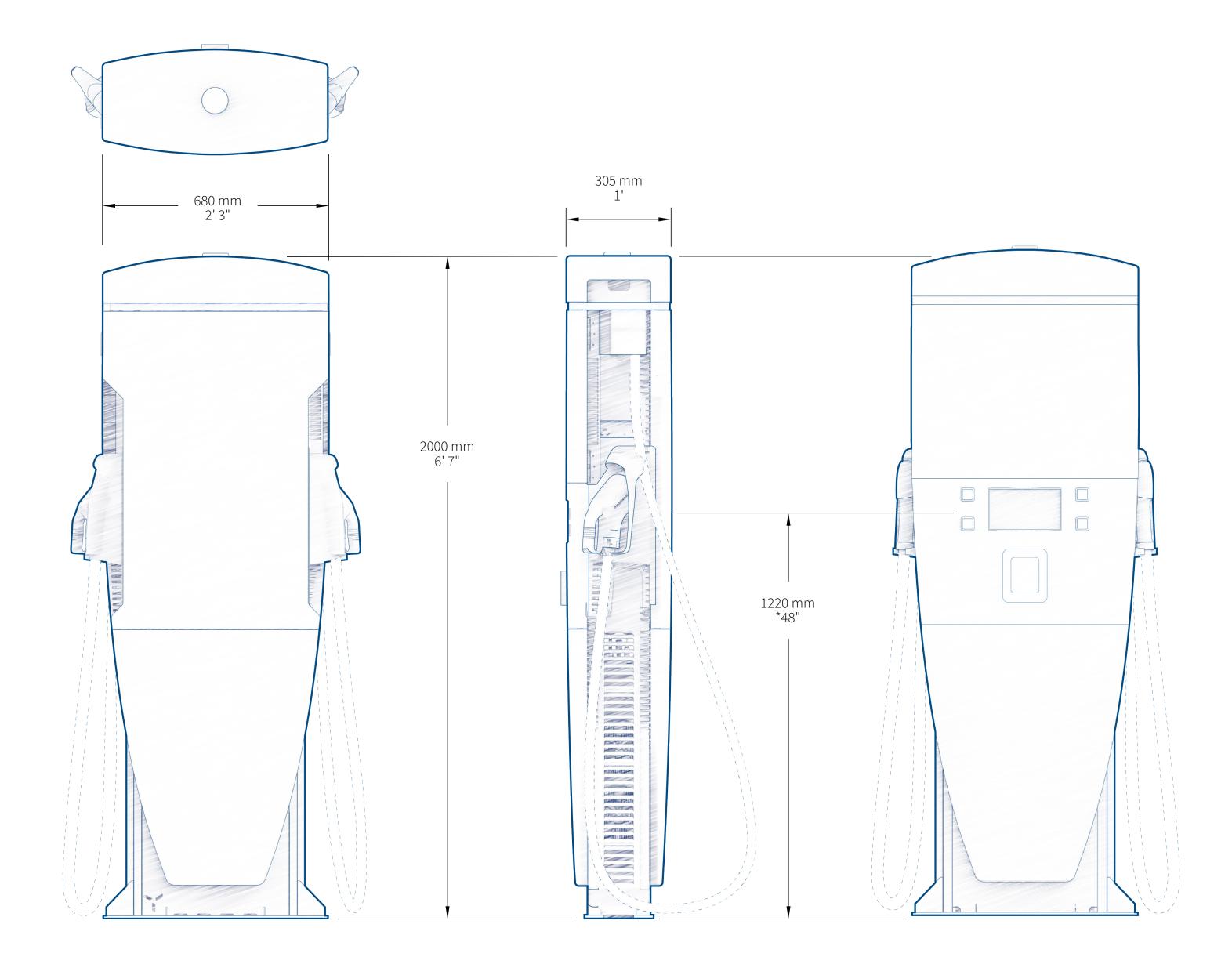


### Physical

Height 2000 mm (6' 7") Width 680 mm (2' 3") Depth 305 mm (1')

Weight 150 kg (330 lbs) Shipping Weight 240 kg (530 lbs)





TRI-FLEX









	SINGLE   DUAL CABLE			SINGLE CABLE	
DISPENSER POWER	100 kW	200 kW	400 kW	*640 kW	
SUPPORTED CABLES	CCS   NACS				
CABLE COOLING METHOD	Dry	Dry & Liquid	Dry & Liquid	Liquid	
SUPPORTED CABLES LENGTHS	3.5m   10m †	3.5m   10m †	3.5m	3.5m	
	6m with cable management	6m with cable management	6m with cable management		
METERING	MID   Eichrecht   NTEP   CTEP				
NO. OF OUTPUTS	Single   Dual			Single	
PAYMENT TERMINALS	Payter Apollo   Payter Polar   Ingenico Self 2000   Ingenico Self 5000   Nayax VPOS				
CABLE RATING OPTIONS	250A Dry	250 A   400A Dry	400A Dry (Boost to 500A)	800A Liquid Cooled	
		500A Liquid Cooled	500A Liquid Cooled (Boost to 600A)		
BRANDING	Custom Vinyls   Powder Coating **				

<sup>\* 640</sup>kW dispensers available soon

<sup>\*\*</sup> Powder coating subject to MOQ † 10m dry cable options available soon

# TRI-FLEX COMPLIANCE

#### 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 2202 | CSA C22.2

UL/CSA

#### 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 US

USA

47 CFR § 1.130

Canada

RSS-210 and SPR-002

#### Legal Metrology

Germany REA-6 California CTEP

Europe MID USA National NTEP

France: LNE

#### Electromagnetic Compatibility (EMC)

Europe: CE	IEC 61851-21-2	EMC requirements for off board electric vehicle charging emissions	
	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	
North America: FCC	USA	FCC 47 CFR Part 15 B	
	Canada	IECS-003	

#### Radio Equipment Directive (RED)

Europe	ETSI EN 303 446-1 ETSI EN 301 489-1 ETSI EN 301 489-52	CE compliant GSM, 4G  Part 1: Common technical requirements  Part 52: Specific conditions for cellular communication user equipment (UE) radio and ancillary equipment
North America	FCC certified GSM, 4G	ISED certified GSM, 4G

#### Environmental

Global RoHS WEEE

#### Cyber security

**Global:** ISO27001:2022

**EU:** EU Cyber Resilience Act

# POWER CABINET **FLEX HUB**

Product Specifications

Supports full range of TRI-FLEX dispenser options

400kW to 1.6MW of power

Connect up to 32 dual cable dispensers

Advanced liquid cooled power electronics

Industry-leading footprint

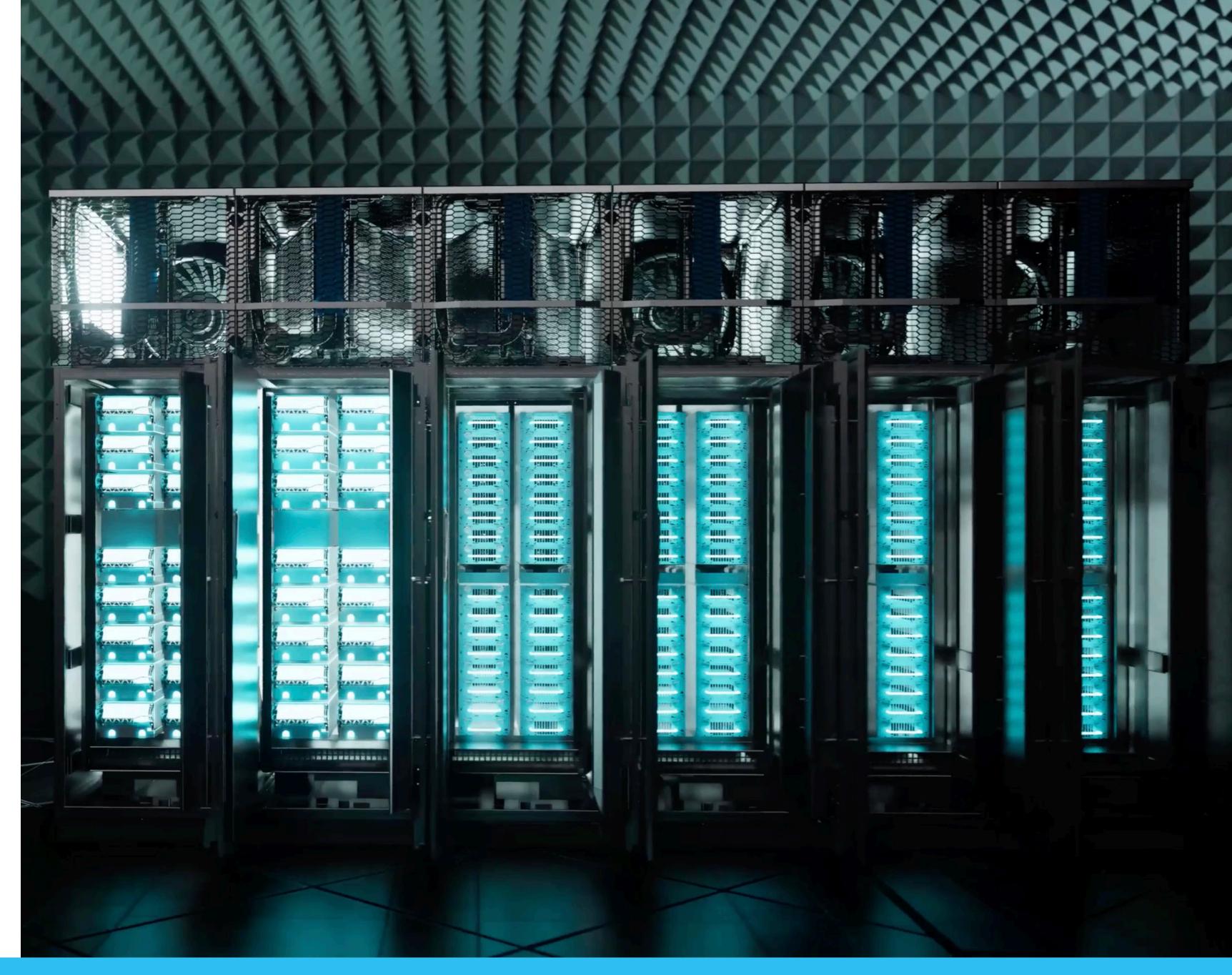
IP65 sealed enclosure for harsh environments

DC integration with batteries and microgrids

Large branding surfaces

Life expectancy: 10 years

Warranty Standard 3 years, +1 yr | +2 yr extensions



#### Electrical Safety

Surge Protection: Type 1+2 SPD

Input Overvoltage Category: Category III

Short Circuit Current Rating: 85kA

Electrical Protections: Over current, over voltage, under voltage, short circuit, over temperature

Under-Voltage Relay or Shunt Trip: Optional

#### Environmental

Maximum Operating Altitude: 3000m (9840')

Operating Temperature: -35°C to +55°C (-31°F to +131°F)

Storage Temperature: -40°C to +60°C (-40°F to +140°F)

IK Rating: IK10

IP Rating: IP65 (NEMA 3R)

Noise Emission: ≤65 dB(A) @ 1 m, full power 25°C (77°F)

Quiet Mode: ≤ 55 dB(A)

#### System Characteristics

Grid Voltage: 400VAC 3ph +10%/-15% | 480VAC 3ph +10%/-15%

Grid Frequency:  $50Hz \pm 10\% \mid 60Hz \pm 10\%$ 

Efficiency: 97.2%

Communication Protocol: OCPP 1.6J | OCPP 2.0.1

Network Communications: Ethernet or Cellular SIM 4G/LTE

Earthing Systems: TT, TN-C-S, TN-S, TN-C

Local load management interface: Modbus TCP

Power Factor (Full Power) >0.99

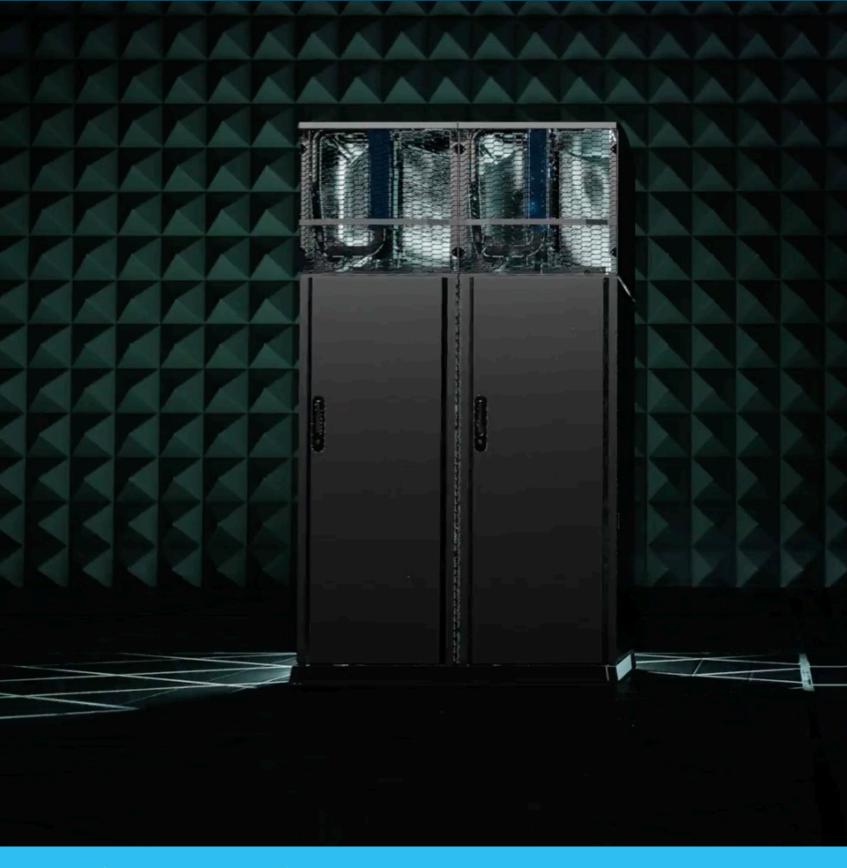
Total Harmonic Distortion (Thd) :<5%

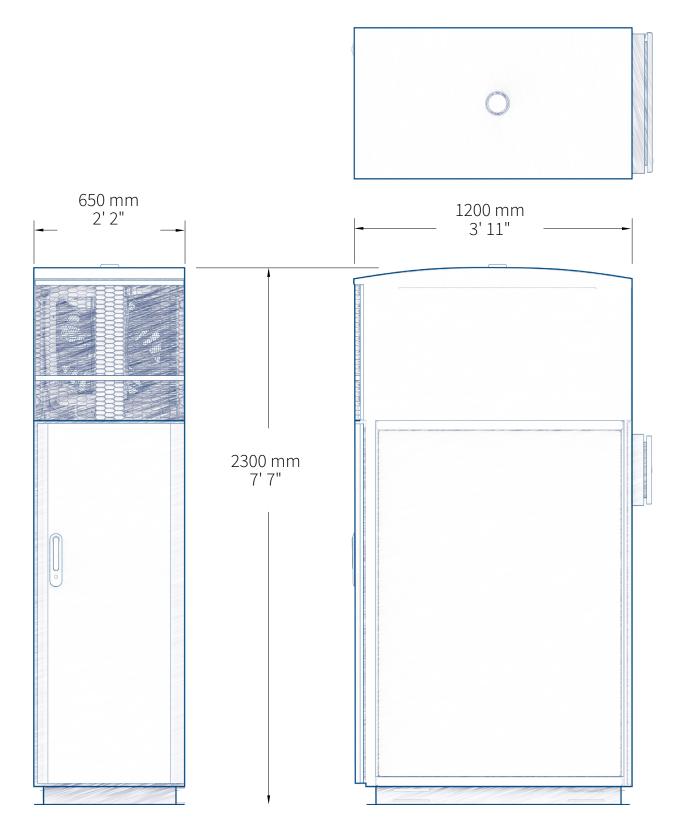
Remote management: remote access, configuration, diagnostics, software update



## Physical

Height 2300 mm (7' 7") Width 650 mm (2' 2") 1200 mm (3' 11") Depth















	400KW - 800KW GRID CONNECTION		1000KW - 1600KW GRID CONNECTION		
DISPENSER POWER	NUMBER OF DISPENSERS				
100KW	8	16	16	32	
200KW	4	8	8	16	
400KW	2	4	4	8	
640KW	1	2	2	4	
Nominal Input Current	400V AC : 1260A   480V AC : 1050A		400V AC : 2520A   480V AC : 2100A		
Low Line Input Current	400V AC: 1290A   480V AC: 1170A		400V AC : 2580A   480V AC : 2340A		
DIMENSIONS					
Height	2300mm (7' 7")	2300mm (7' 7")	2300mm (7' 7")	2300mm (7' 7")	
Width	1300mm (4' 18")	1950mm (6' 4")	2600mm (8' 6")	3900mm (12' 9")	
Depth	1200mm (3' 11")	1200mm (3' 11")	1200mm (3' 11")	1200mm (3' 11")	
Weight	1430kg	2120kg	2860kg	4240kg	
Shipping Weight	1610kg	2300kg	3040kg	4420kg	



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