



REFUdrive

BATTERY CHARGING STATION

- +** Fast charging of large batteries
- +** For industrial applications
- +** As cabinet or IP 68 housing
- +** For rough environmental conditions
- +** Charging capacity up to 220 kW

REFUdrive

AFE 220

High power charging

www.refu-drive.com



Exemplary illustration

POWER DATA

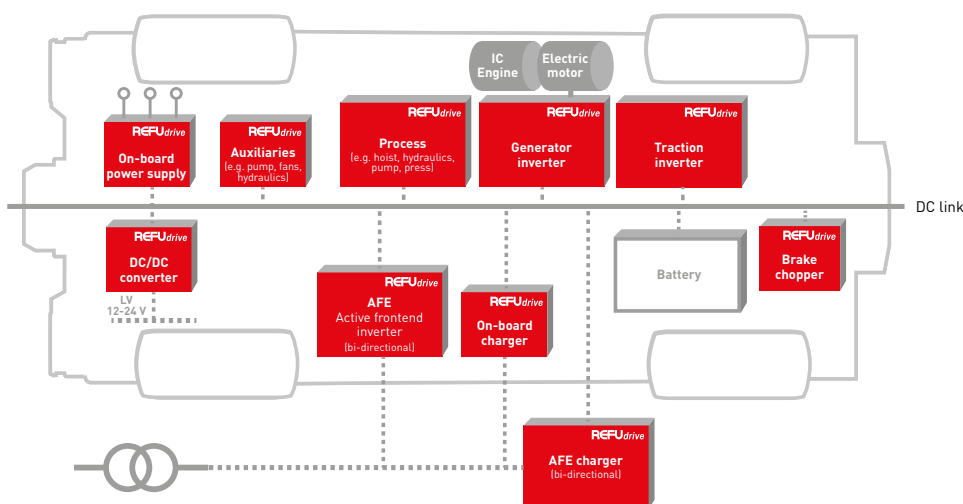
Nominal power	220 kW	
Input voltage (IT/TN network)	3~ 400 V AC ± 10 %, 50 – 60 Hz (-10 ... -15 % with derating)	
Input current	350 A (@ In 3~400 V AC / Out 760 V DC)	
Output voltage	670 – 785 V DC	650 – 830 V DC
Max. output current	300 A @ 785 V (226 A @ 830 V)	
Internal supply of electronic (DC-link)	Yes	
Additional supply voltage	1~ 230 V DC + 10 / -15 %, 50 – 60 Hz	24 V DC + 20 % / -15 %
Communication interfaces	RS485, CAN	
Inputs / outputs	Optional: Digital inputs / outputs 2 Digital inputs 4 Analog inputs 2	Digital inputs / outputs 4 Digital inputs 4 Digital outputs 4 Analog inputs / outputs 2 Relay outputs 1
Dimensions [L x W x H]	1,660 x 302 x 800 mm	Customer-specific
Weight	Approx. 360 kg	-
Degree of protection	IP 68	IP 54 / IP 00

AMBIENT CONDITIONS

Installation height	2,000 m (a.s.l.)	
Ambient temperature	-25 to 70 °C	
Type of cooling	Liquid: water-glycol	
Losses at nominal power	7.5 kW	
Temperature of coolant inlet	-25 to 50 °C	
Mix ratio of cooling liquid (Water / Antifrogen -N)	56 / 44 %	
Operating pressure of the coolant	Max. 4.0 bar	
Coolant flow rate	20 l/min	
Electromagnetic compatibility (EMC) emission	EN 61000-6-3 (residential) EN 61000-6-4 (industrial)	EN 61000-6-4* (industrial)
Electromagnetic compatibility (EMC) immunity	EN 61000-6-2 (industrial)	EN 61000-6-2* (industrial)

* an EMC-compliant cabinet design is required

POWERFUL DRIVE SOLUTIONS FOR E-MOBILITY



+ APPLICATIONS

- Construction equipment
- Tunneling/Mining
- Industrial vehicles
- Port equipment