



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

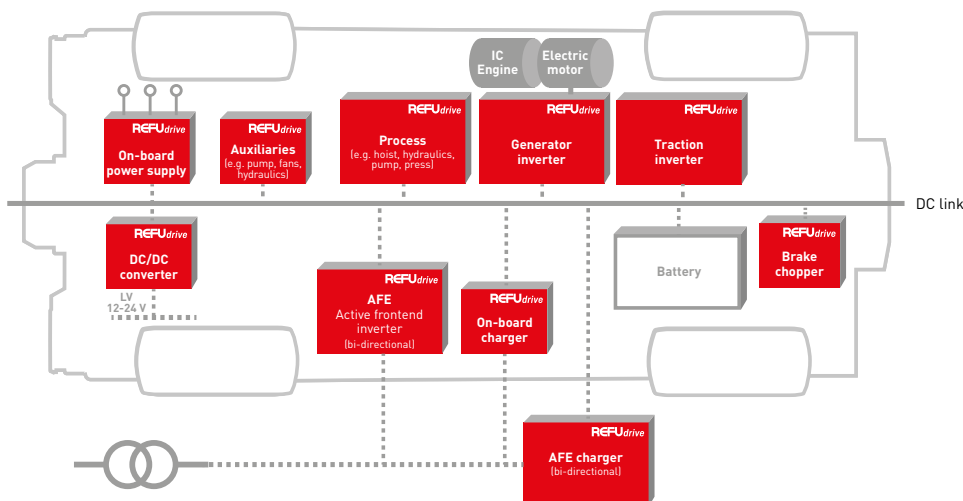
| | | |
|-----------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Nominal power | 220 kW | |
| Input voltage (IT/TN network) | 3~ 400 V AC \pm 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. voltage | 805 V | 850 V |
| 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