

REFR



Catalog

**Our portfolio begins with electric equipment
from the earliest origins of electric propulsion
and continues with brand new products
adapted to the developing trends
in the industry.**



All your business needs in one place

MANUFACTURING:

- Electrical Equipment For Trains
- Electrical Equipment For Passenger Cars
- Electrical Equipment For The Subway
- Urban Transport
- Charging Stations For Electric Bus Transport
- Renewable Energy Equipment

SERVICES:

- Metalworking
- Foundry Services
- Impregnation And Winding Works
- Laboratory Research
- Repairs
- SMD (Surface Mount Device)



RER Quality Of Operations

Our integrated management system is certified to ISO 9001:2015.

The implemented standards and procedures ensure efficient operation of all processes.

JSC RER performs welding according to the requirements of the European EN 15085-2 standard (Certificate ZE-16083-01-00-EN15085-2020.0118.004, certification level CL 2) and is ready to fulfill orders of any complexity.



AC TRACTION MOTORS

100 - 1000 kW Nominal voltage



1DTA.001U1

AC Motor For 3kVDC EMU Traction Drives

Nominal Power, 480 KW Nominal Voltage, 2340V
Nominal Current, 141A Revolutions Per Minute, 1100

1DTA.002U2

AC Motor For 3kVDC EMU Traction Drives

Nominal Power, 300 KW Nominal Voltage, 2340V
Nominal Current, 90A Revolutions Per Minute, 2363

5DTA.001U2

AC Motor For Underground Traction Drives

Nominal Power, 180 KW Nominal Voltage, 530V Nominal
Current, 242A Revolutions Per Minute, 1480

DTA.380 U1

AC Motor For 3kVDC EMU Traction Drives

Nominal Power, 380 KW Nominal Voltage, 2200V
Nominal Current, 121A Revolutions Per Minute, 2036

DTA.170 U2

AC Motor For Underground Traction Drives

Nominal Power, 170 KW Nominal Voltage, 530V Nominal
Current, 234A Revolutions Per Minute, 1290

TAD.350. 1-6 UHL2

AC Motor For Dump Truck

Nominal Power, 350 KW Nominal Voltage, 660V
Nominal Current, 377A Revolutions Per Minute, 600

4DTA.001 U1

AC Motor For Trams

Nominal Power, 105 KW Nominal Voltage, 430V
Nominal Current, 178A Revolutions Per Minute, 1773

6DTA.002.1 U2

AC Motor For Trolleybuses

Nominal Power, 180 KW Nominal Voltage, 420V
Nominal Current, 310A Revolutions Per Minute, 1470

6DTA.002.2 U2

AC Motor For Trolleybuses

Nominal Power, 180 KW Nominal Voltage, 370V
Nominal Current, 343A Revolutions Per Minute, 1470

6DTA.001 U1

AC Motor For Trolleybuses

Nominal Power, 125 KW Nominal Voltage, 370V
Nominal Current, 241A Revolutions Per Minute, 1474

DC TRACTION MOTORS

1TM.001 U1

DC Motor For 3kVDC EMU Traction Drives

Nominal Power, 380 KW Nominal Voltage, 1500V
Nominal Current, 295A Revolutions Per Minute 620

1TM.004 U1

DC Motor For 3kVDC EMU Traction Drives

Nominal Power, 440 KW Nominal Voltage, 1500V
Nominal Current, 347A Revolutions Per Minute 590

1DT.003.8

DC Motor For 3kVDC EMU Traction Drives

Nominal Power, 240 KW Nominal Voltage, 750V Nominal
Current, 350A Revolutions Per Minute 1240

1DT.003.11

DC Motor For 3kVDC EMU Traction Drives

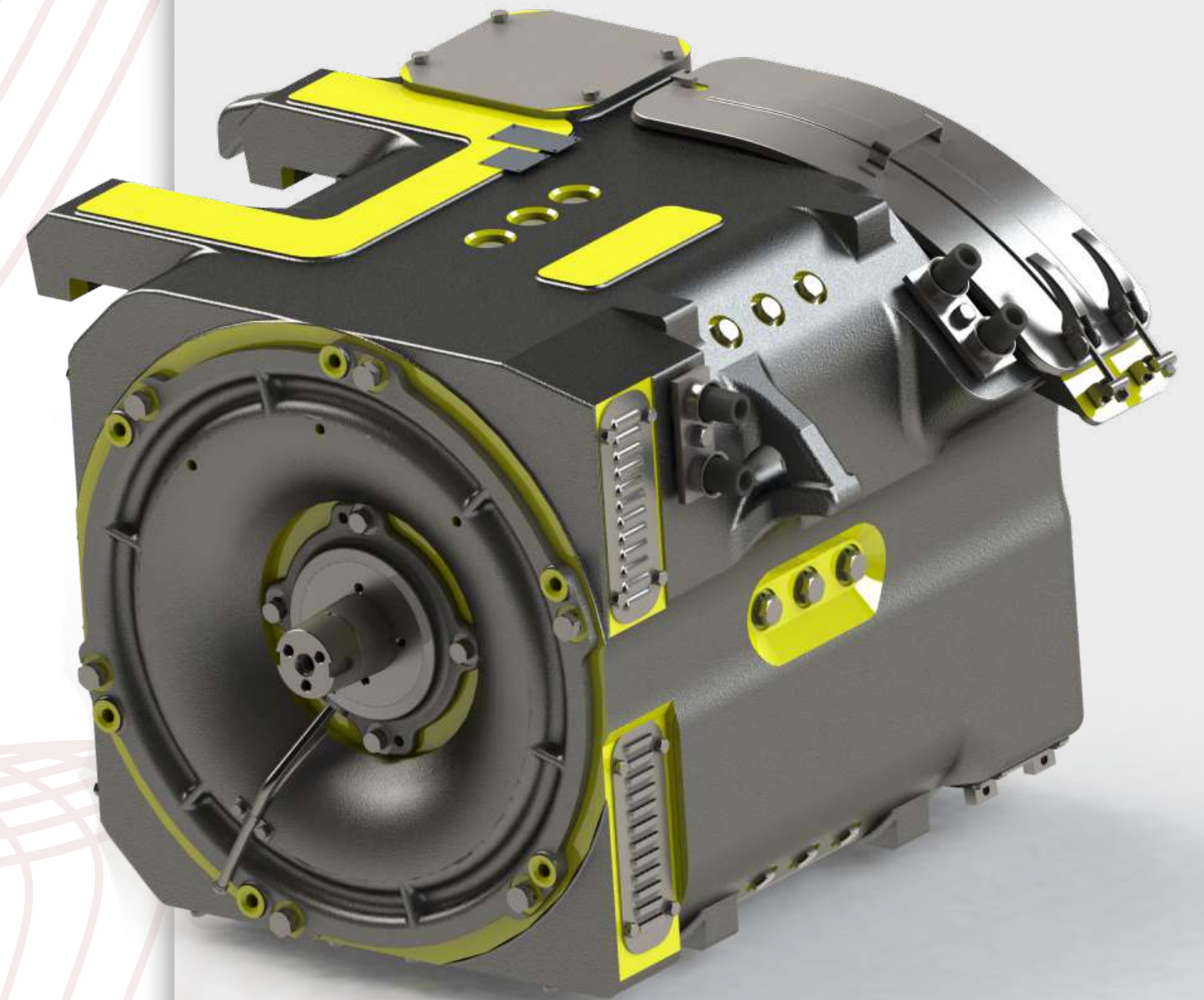
Nominal Power, 220 KW Nominal Voltage, 825V Nominal
Current, 285A Revolutions Per Minute 870

1DT.17K U1

DC Motor For 3kVDC EMU Traction Drives

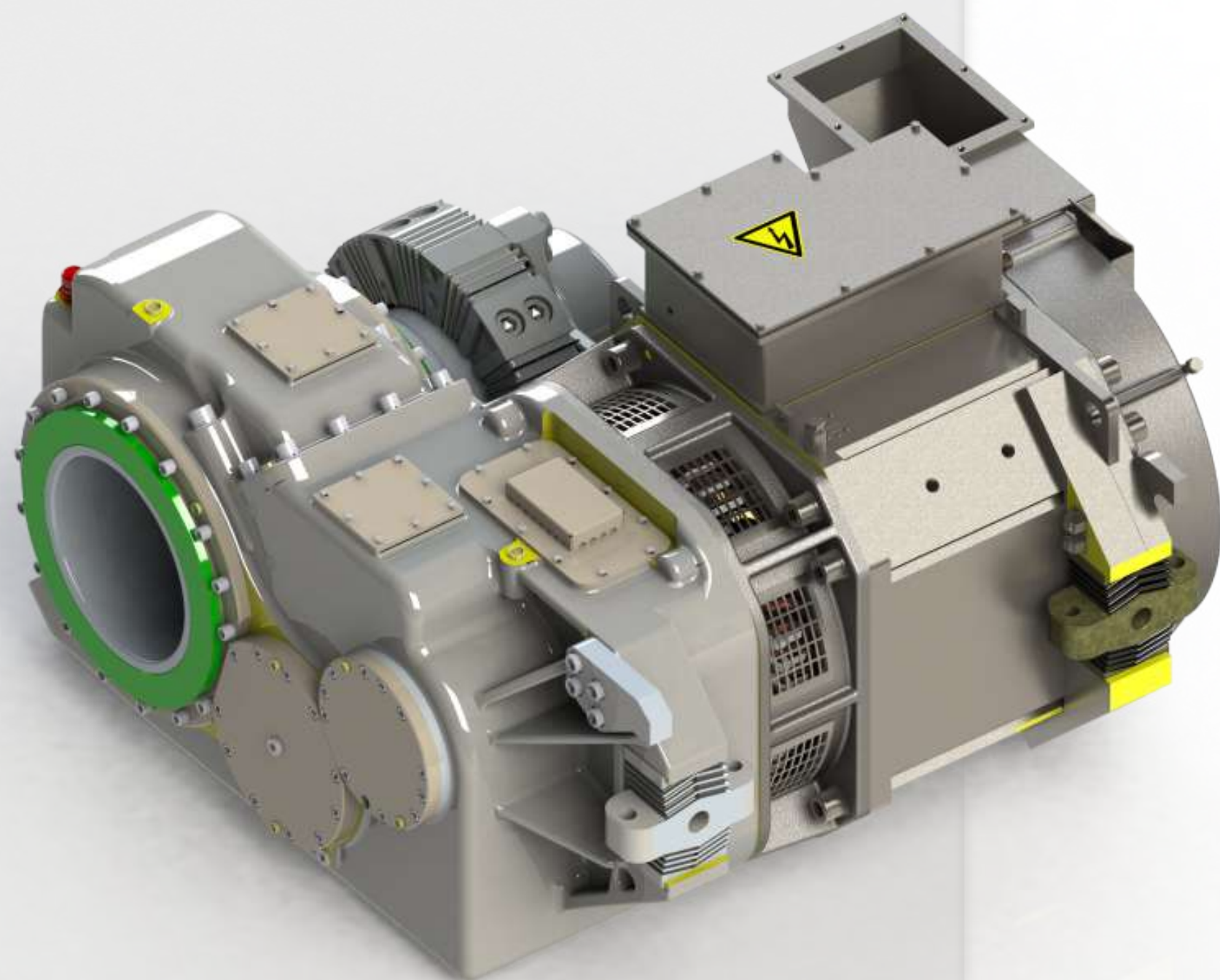
Nominal Power, 250 KW Nominal Voltage, 1500V
Nominal Current, 184A Revolutions Per Minute 780

100 - 500 kW Nominal voltage



AC MOTOR GEAR UNITS

*AC Motor gear units for 3kVDC,
600DC*



1MGU.001

AC Motor Gear Units For 3kVDC And 380kW EMU Traction Drives

Maximal Rotation Speed 4774rpm, Gear Ratio 6,590,
Maximal Torque 2702Nm

FOR 3KVDC NETWORKS

1MGU.002

AC Motor Gear Units For 3kVDC And 300kW EMU Traction Drives

Maximal Rotation Speed 4650rpm, Gear Ratio 5,255

FOR 3KVDC NETWORKS

1MGU.004

AC Motor Gear Units Fo 600VDC And 180kW TRAM Traction Drives

Maximal Rotation Speed >10000rpm, Gear Ratio 5,255

FOR 600DC NETWORKS

ALTERNATORS

Auxiliary and traction alternators

2GV.13 U1

110V Auxiliary Generator For Passenger Coaches

Nominal Power, 180 KW Nominal Voltage, 420V Nominal Current, 310A Revolutions Per Minute 1470

AUXILIARY ALTERNATORS

7GS.002

1kVDC Synchronous Traction Alternator

Nominal Power, 750 KW Nominal Voltage, 750V Nominal Current, 343A Revolutions Per Minute 1900

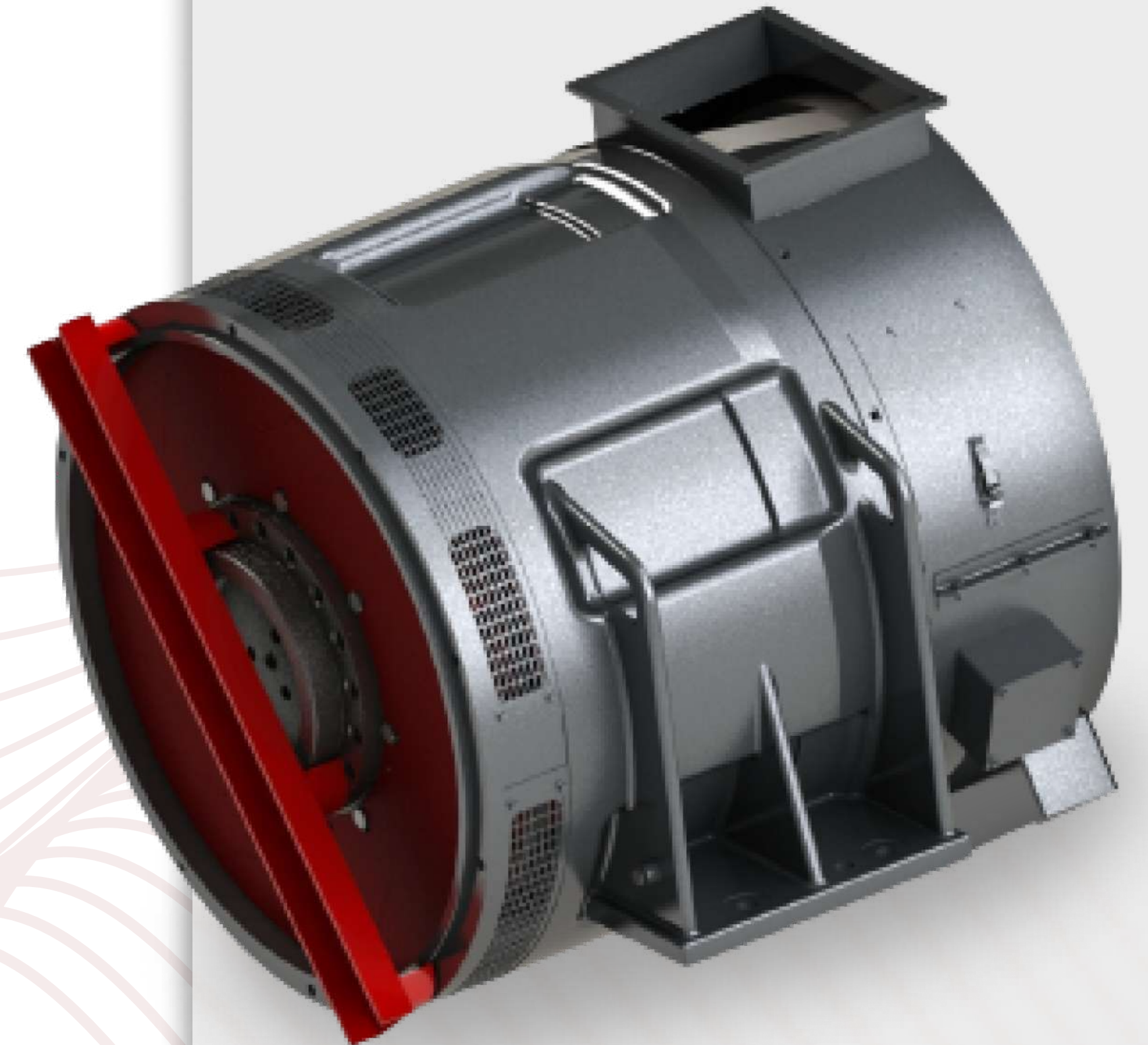
AUXILIARY ALTERNATORS

7GS.003

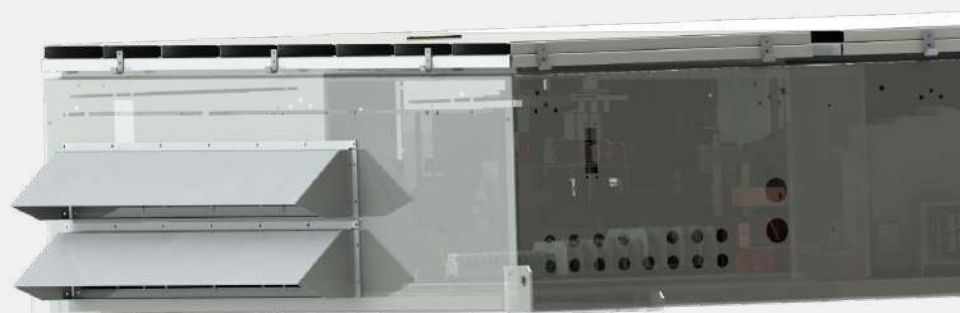
1kVDC Synchronous Traction Alternator Combined Together With Rotary Rectifier

Nominal Power, 750 KW Nominal Voltage, 750V Nominal Current, 343A Revolutions Per Minute 1900

TRACTION ALTERNATORS



CONVERTERS (INVERTERS)



**TRACTION CONVERTER
FOR TROLLEYBUSES
AND TRAMS**



**TRACTION CONVERTER
FOR TROLLEYBUS**



CONVERTERS (INVERTERS)



**TRACTION CONVERTER
FOR DUMP TRUCK**

1PTS.001

Traction Converter For Electric Trains

UDC=3kV; PTRAC=1,2MW (4×300kW)

NETWORKS CONVERTERS

1PTS.003

Traction Converter For Electric Trains

UDC=25kV; PTRAC=1,6MW (4×400kW)

NETWORKS CONVERTERS

1PTS.005 U3

Auxiliary Converter For 110V Coaches Chains

UINPUT=3x220V; UOUTPUT=110V;
Pto_coach_chains=5kW

AUXILIARY CONVERTER

6PS.011

Traction Converter For Trolleybus

UDC=600V; PTRAC=180kW; PDC/DC(600/24)=3,6kW

NETWORKS CONVERTERS

SPSU-90

Traction Converter For Dump Truck

UALT=750V; PTRAC=700kW (2×350kW)

AUTONOMOUS CONVERTER

PANELS

1B.253.43

Start And Braking Control Panel

110 VDC, 220 AC

AUXILIARY CONTROL PANELS

1B.256.43

Saloon Heating And Ventilation Control Panel

110 VDC, 220 AC

AUXILIARY CONTROL PANELS

1PA.422.44(43)

Auxiliary System Safety Control Panel

110 VDC, 220 AC

AUXILIARY CONTROL PANELS

1B.248.43

Static Excitation Rectifier

110 VDC, 220 AC

TRACTION AND BRAKING SYSTEM CONTROL PANELS

1B.249.43

Traction And Braking Control Panel

110 VDC, 220 AC

TRACTION AND BRAKING SYSTEM CONTROL PANELS

1B.250.43

Control Panel Of Auxiliary Compressor, Disconnect, Safety Interlock Relay

110 VDC, 220 AC

AUXILIARY CONTROL PANELS

1B.673.21

Excitation Transformer Control Panel

110 VDC, 220 AC

TRACTION AND BRAKING SYSTEM CONTROL PANELS

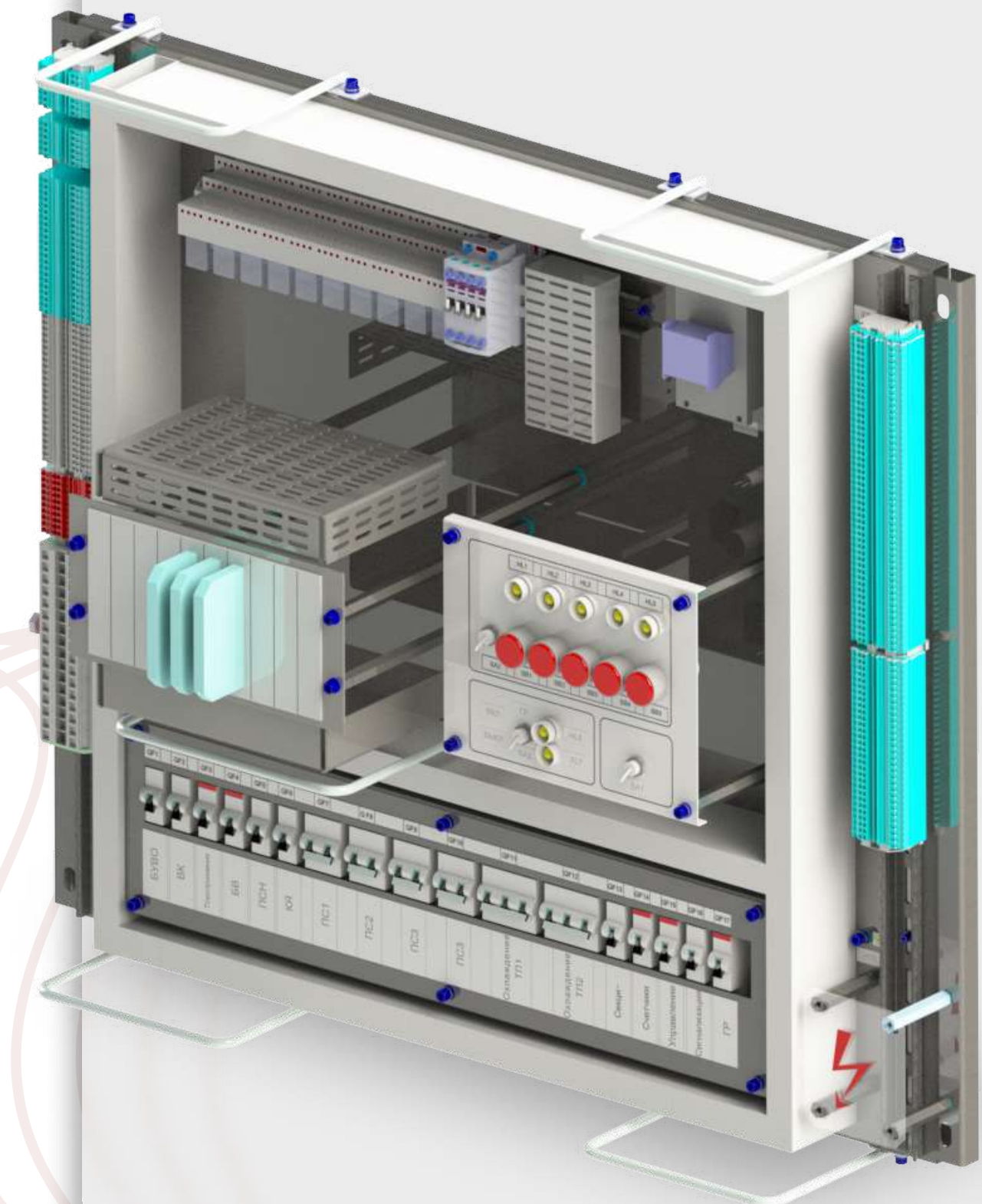
1B.251.43

Saloon Heating And Ventilation Control Panel Combined With Compressor And Electropneumatic Unit

110 VDC, 220 AC

AUXILIARY CONTROL PANELS

100 - 500 kW Nominal voltage



RESISTANCE UNITS

1BS.093, 1BS.094

**Start An Braking Resistance
Blocks For EMU (Roof Aun
Undercoach Design)**

UN=3000VDC

1BS.105

**Start An Braking Resistance
Blocks For EMU (Roof Aun
Undercoach Design)**

UN=3000VDC

1BS.059

**Start An Braking Resistance
Blocks For EMU (Roof Aun
Undercoach Design)**

UN=3000VDC

1BS.095

**Start An Braking Resistance
Blocks For EMU (Roof Aun
Undercoach Design)**

UN=3000VDC

TRANSFORMERS

1TR.133.1

**3-Phase Transformer For
EMU DC Motor Excitation**

UN=220/110V, Uins=3kV

1TR.021

**3-Phase Power Transformer
For EMU**

UN=220/85/34V

CONTROL BOXES

BUSD1

Stepper Motor Control Unit

Nominal Voltage, 75V Nominal Current, 8A, Two Control
Channels ModBUS/RS-485

2YA.144 U1

Undercoach Alternator Power Supply Up To 7.5km/H Velocity

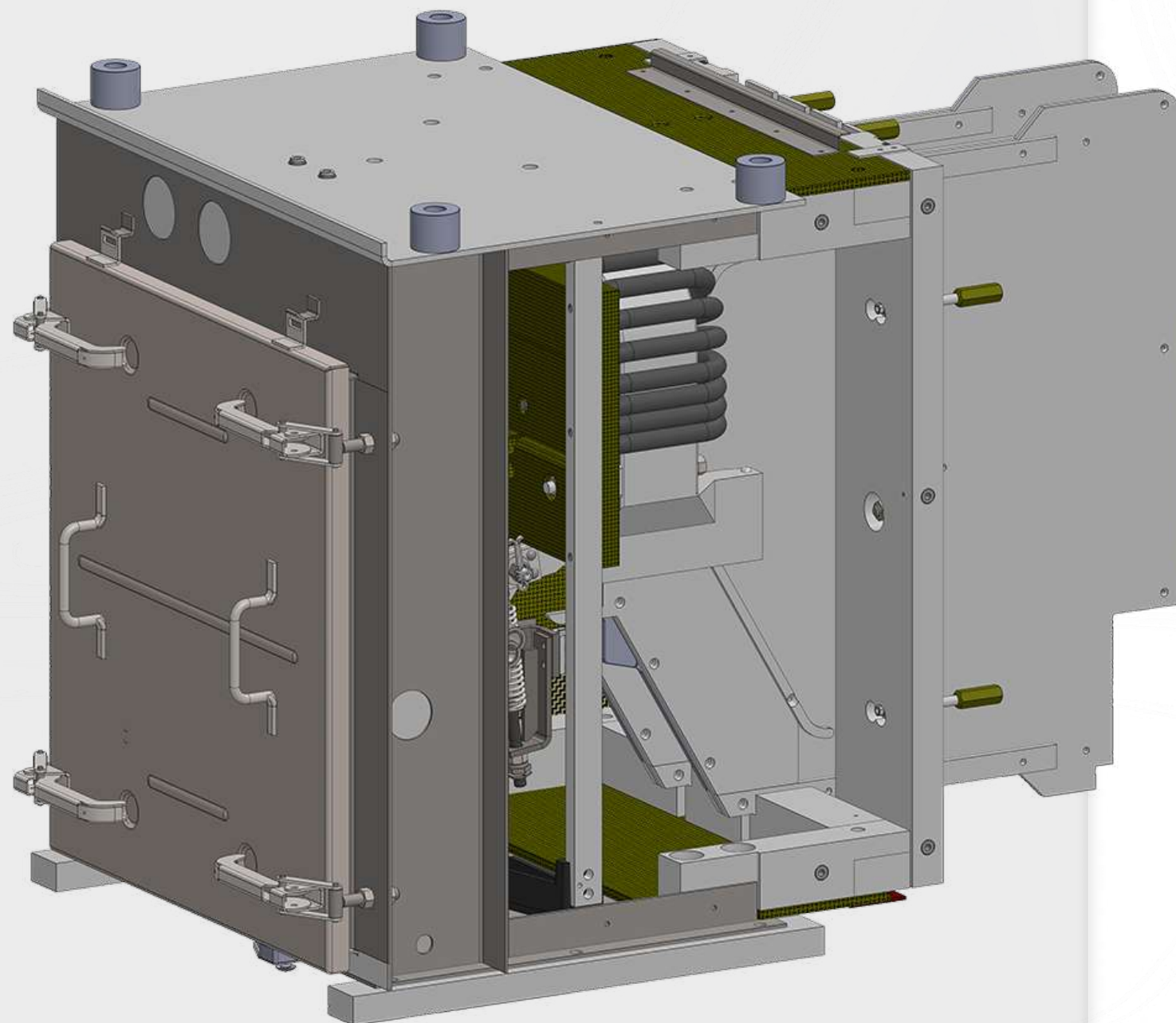
Nominal Voltage, 75V Nominal Current, 8A, Two Control
Channels ModBUS/RS-485

*Stepper motor control and
alternator power supply units*



CONTACTORS

*Line and safety, auxiliary
contactors*



1KP.005

Line Contactor (Pneumatic)

UN=3000VDC, IN=300A, IHEAT=400A, Ucontrol=110V

LINE AND SAFETY CONTACTORS

1KM.016

Heating Circuit Contactor For EMU (Electromagnetic)

UN=3000VDC, IN=3...100A, IHEAT=400A,
Ucontrol=110V

AUXILIARY CONTACTORS

2KM.020, 2KM.020M

Heating Circuit Contactor For Train Coaches (Electromagnetic)

UN=3000VDC, IN=3...100A, IHEAT=400A, Ucontrol=110V

AUXILIARY CONTACTORS

KMB-3.13

Fast-Acting Safety Contactor For Braking Chains (With Electronic Control)

UN=3000VDC, IN=190A

LINE AND SAFETY CONTACTORS

BVP-105A.13

Fast-Acting Safety Contactor For Traction Chains (Pneumatic)

UN=3000VDC, IN=250A, IMAX=20kA

LINE AND SAFETY CONTACTORS

CONTROLLERS

1KS.025

Power Controller (Pneumatic)

UN=3000VDC, IN=200A (Currentless Switching)

1KS.026

Power Braking Controller (Pneumatic)

UN=3000VDC, IN=200A (Currentless Switching)

1P.008

Reverser

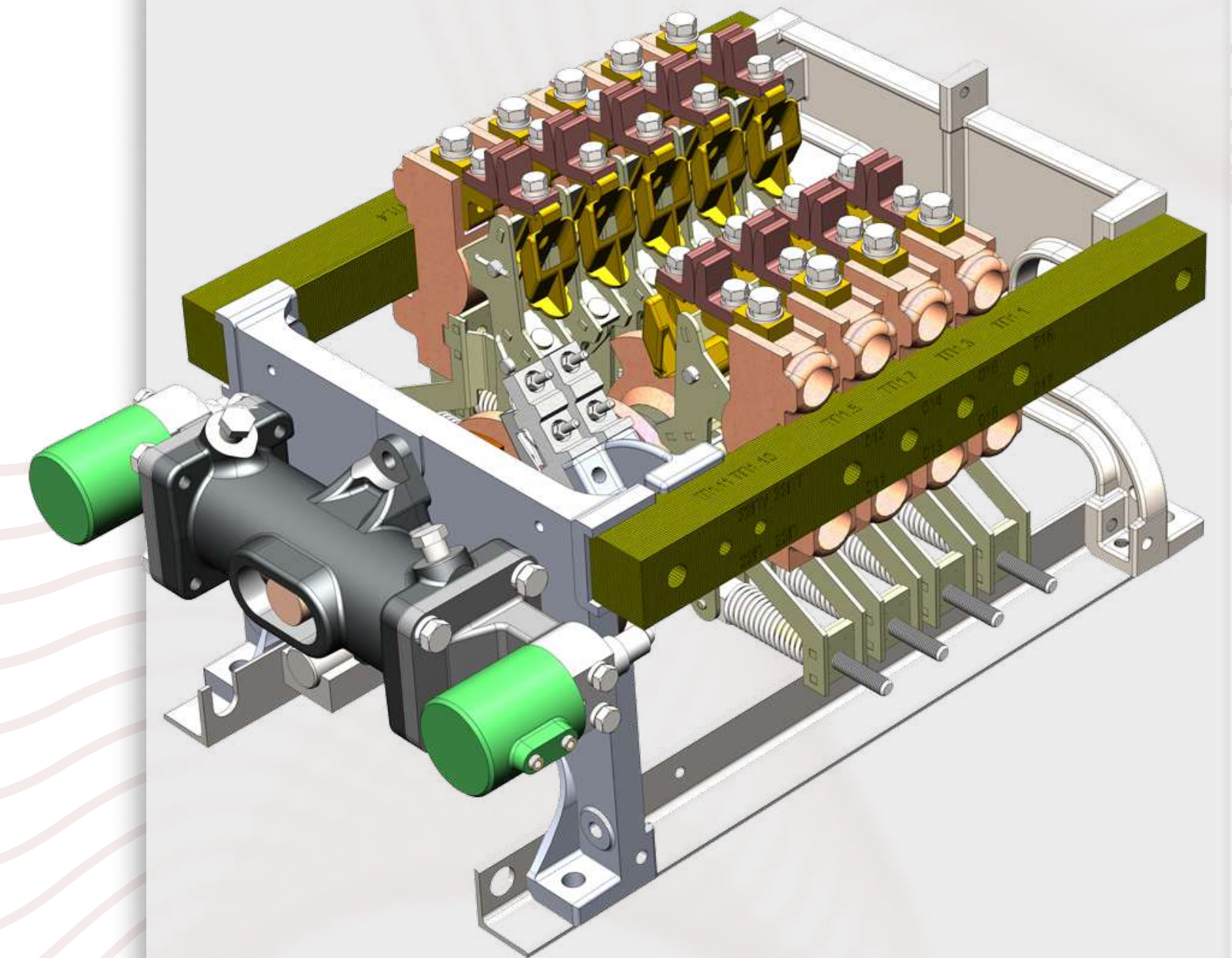
UN=3000VDC, IN=200A (Currentless Switching)

1P.004

Double Controller

UN=3000VDC, IN=200A (Currentless Switching)

*Power, braking controllers,
reversers*



INDUCTORS AND CHOKES

1DR.050M

Radio Interference Choke

UN=3000VDC, IN=410A, L=250uH

**1SI.004,
1SI.001.3**

Induction Shunts For Short Circuit Current Limitation

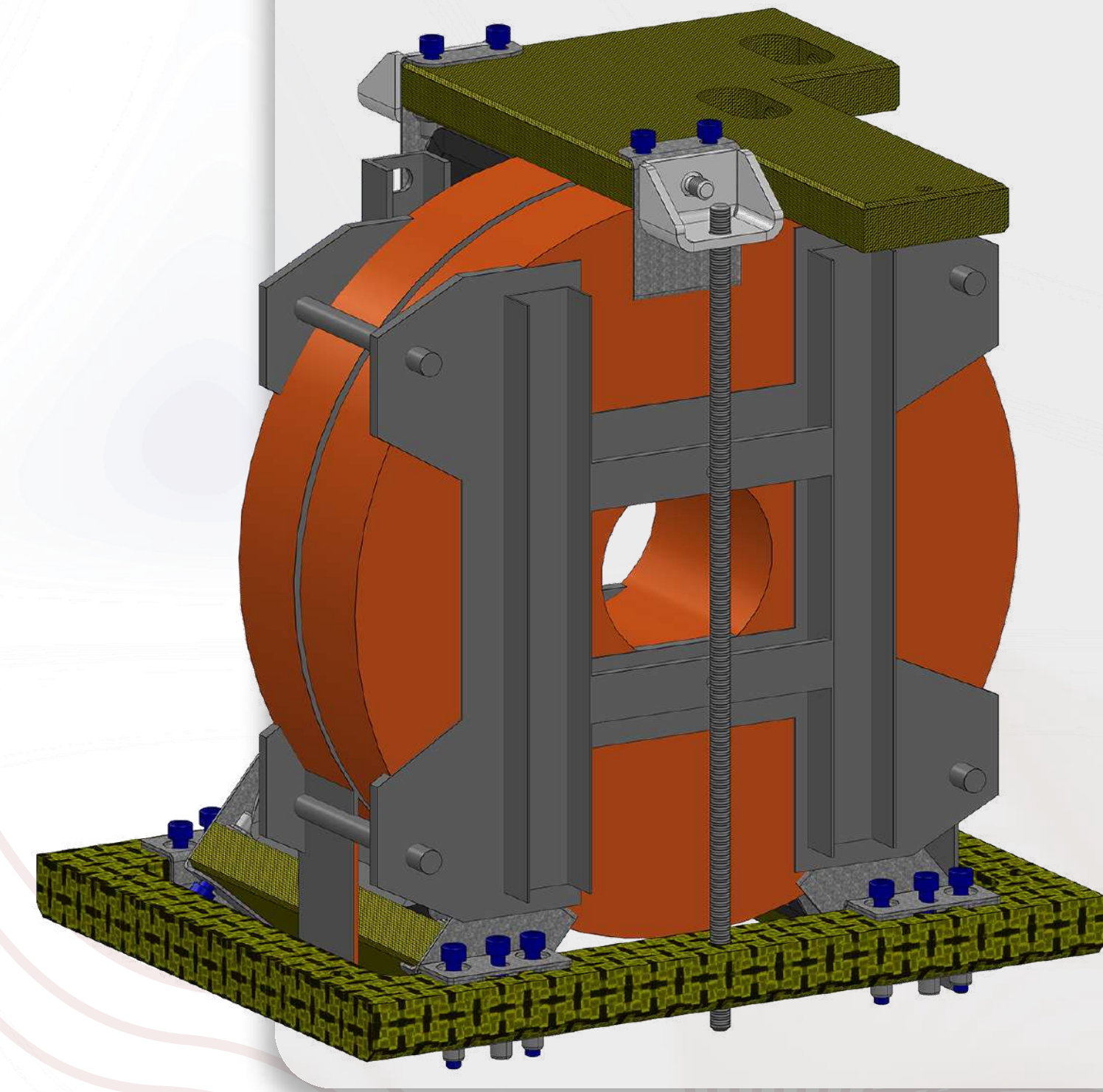
UN=3000VDC, IN=107A, L=50uH, IN=185A
(1SI.001.3)

1A.004

Capacity Filter

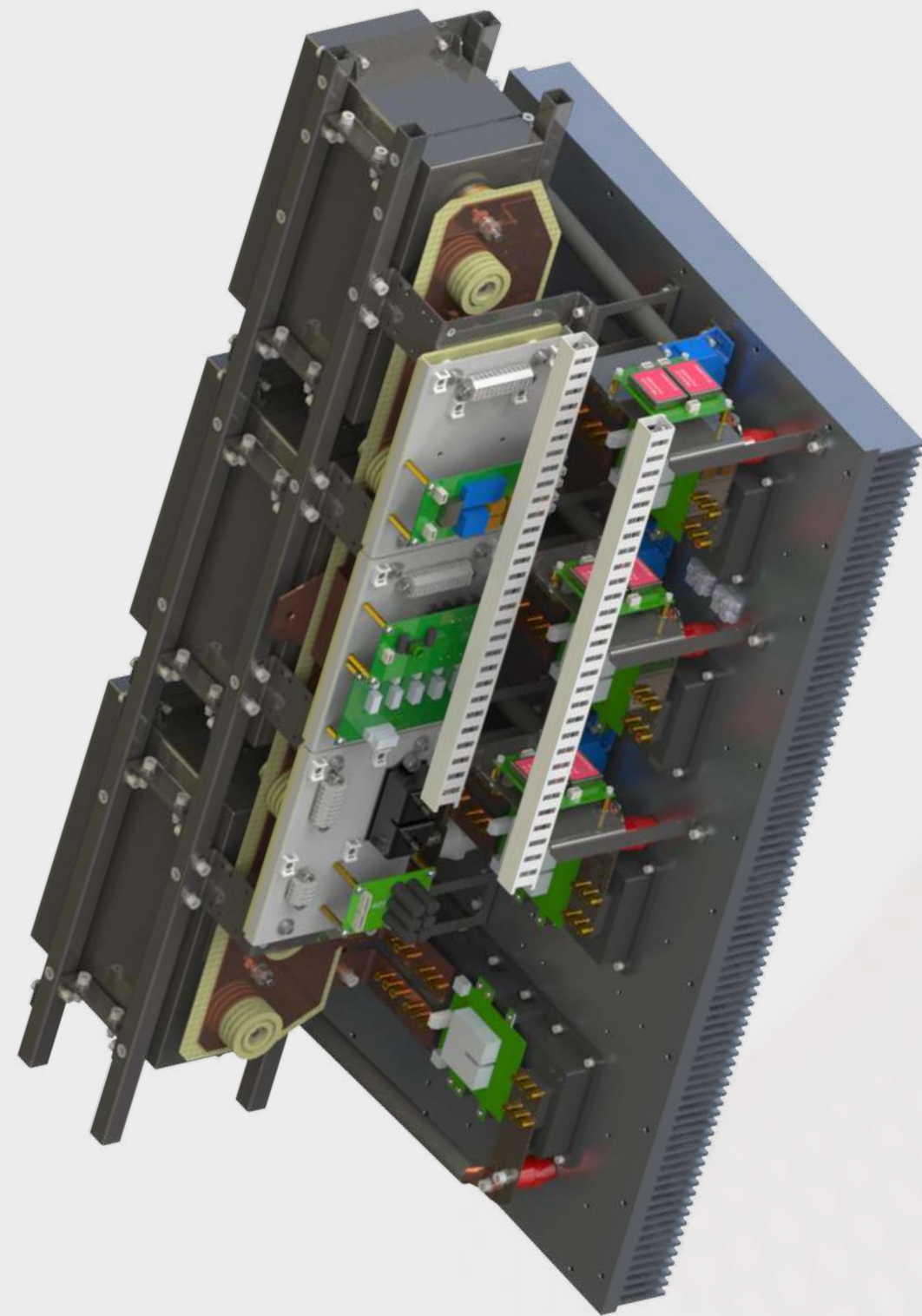
UN=3000VDC, L=1.0uF

*EMC, short circuit current
limitation chokes*



HV DISCONNECTORS

High voltage disconnectors



1RV.002

High Voltage Disconnectors

UN=3000VDC, IN=400A, 1-Pole

1RV.004

High Voltage Disconnectors

UN=3000VDC, IN=450A, 50A, 3-Pole

FOR MORE INFORMATION, FEEL FREE TO CONTACT US

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