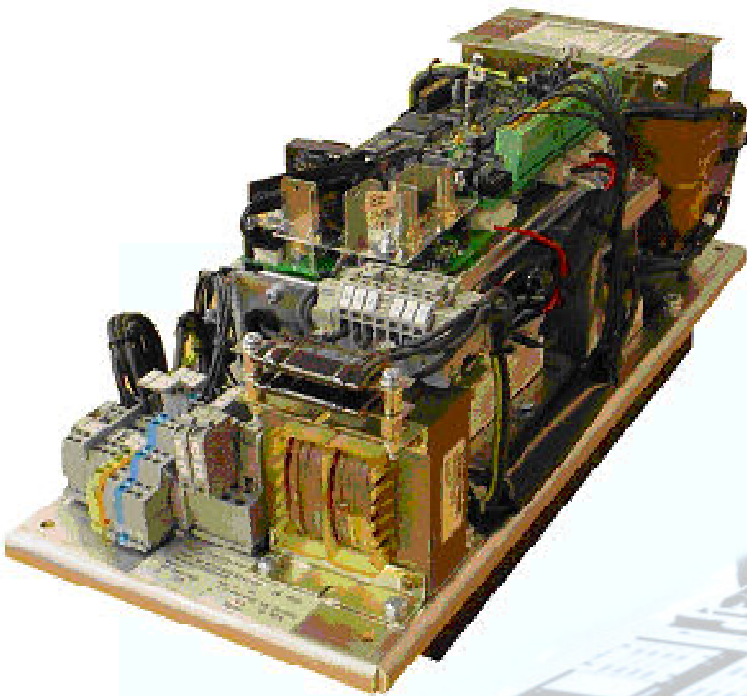


## THE INTEGRATED HVAC - CONTROLLER

The driver's cabin of an existing tramcar can be equipped with a new HVAC system including integrated HVAC-controller module. The integrated package is mounted on to the roof of the tramcar. HVAC-controller contains control logic and power converter capable to control fans and heating resistors and to power cooling compressor.



*The IP00 HVAC-controller module (above) is integrated with the HVAC unit and it's mounted on to the roof of the tramcar. The customer can program/parametrise his HVAC-application freely.*

### TECHNICAL DATA

**Type: 8TX65030DCDC25**

#### Input Characteristics:

- ∞ Nominal input voltage 600/750 V<sub>DC</sub>

#### Output Characteristics:

##### Output 1: 3\*400Vac/50Hz

- ∞ Output voltage  $U_{AN} = 3 \times 400 \text{ V}_{rms} \pm 10\%$
- ∞ Output current  $I_{AN} = 8 \text{ A}$
- ∞ Output frequency  $f_N = 50 \text{ Hz}$
- ∞ Output power 4,5 kW
- ∞ Overload capacity
- ∞ 1.5 x I<sub>AN</sub>: at +60°C 5s/10 min

##### Output 2: 24Vdc/30A

- ∞ DC output for the 24...28 V voltage / 25A<sub>dc</sub>

##### Output 3: DC-switch/600-750Vdc /25A<sub>dc</sub>

- ∞ Solid state / semiconductor relays (IGBT's) to switch on and off the main line voltage/supply of the control of heating resistors 2 x 10...25A<sub>dc</sub>

#### Applications:

- HVAC-systems
- ∞ Control of heating resistors

## Mechanical Data

Input		General	
Nominal input voltage	600 or 750 Vdc	Efficiency	> 90 %
Operating range	500 V – 1000 VDC	Temperature range	-35 ...50°C
<b>AC-output 1</b>		Humidity	15...95%
Three-phase voltage	3x 400Vac ( ± 5%)	Cooling	Forced-Air-Cooling
Frequency	50 Hz	Dimensions in mm	150 x 390 x 215
Continuous power	5 kVA	Weight	30 kg
Max. output power	7 kVA	Mounting	Integrated (*
<b>DC-output 2</b>		Housing	IP 00
Nominal output voltage	24...28 V <sub>dc</sub>	*) The integrated HVAC-controller unit is integrated with the air conditioning unit	
Output current	30 A		
<b>DC-switch 3</b>			
Nominal voltage	600 or 750 V <sub>dc</sub>		
Output current (2 pcs.)	2 x 25 A		

## Complying standards

Electrical particles	EN 50207, Railway applications – Electronic power converters for rolling stock
Vibration shock etc.	EN 50155, Railway applications – Electronic equipment used on rolling stock
EMC	EN 50121-3-2, EMC on board rolling stock

## Block diagram

