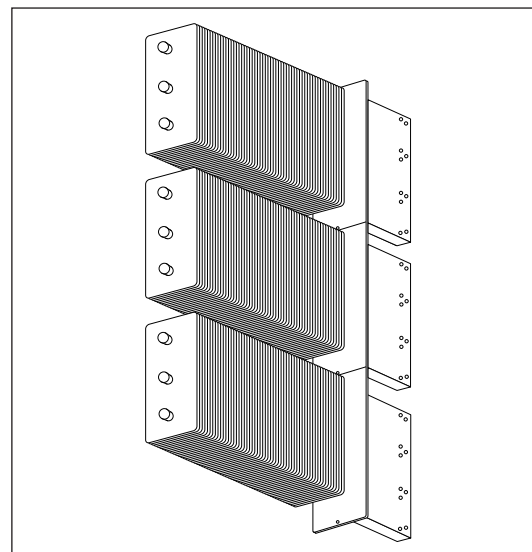




TRANSCAL® IGBT MODULES HEATPIPE SYSTEMS

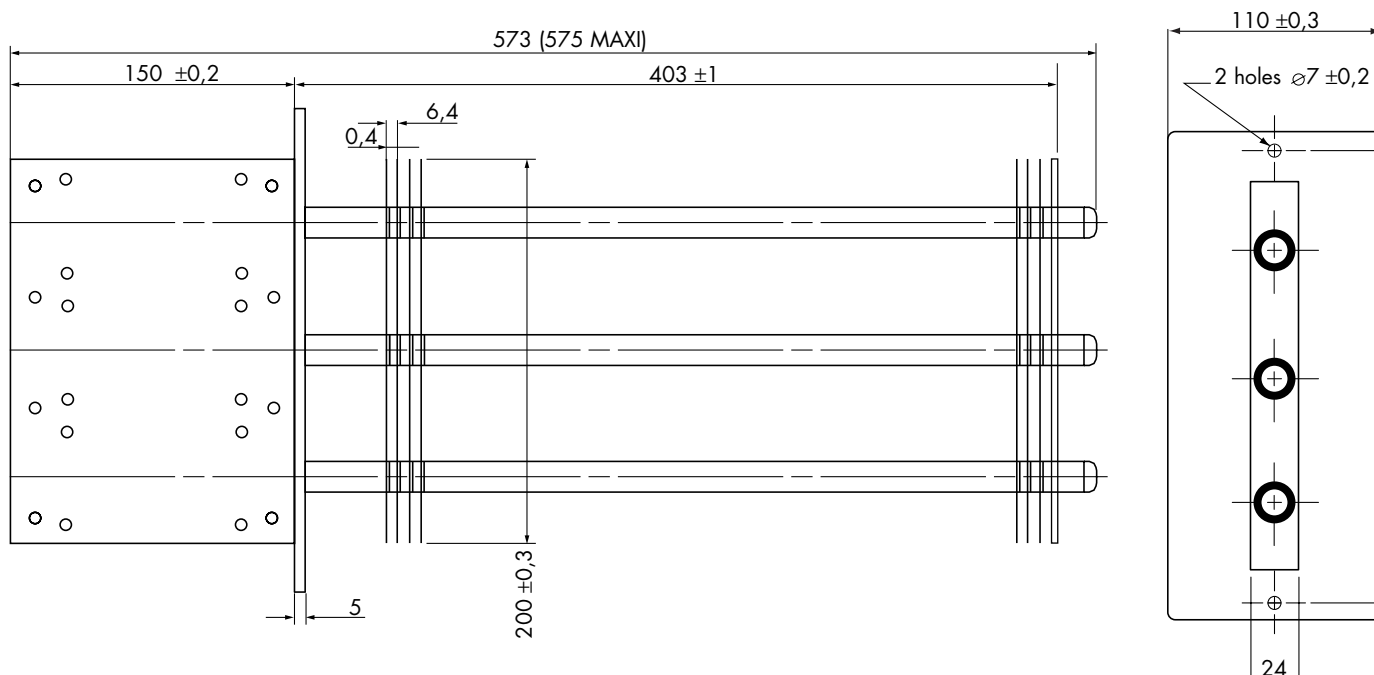


- USED IN INDUSTRIAL CONVERTERS
- NATURAL CONVECTION - TOTAL PASSIVE COMPONENT:
NO FANS / HIGH RELIABILITY AND MAINTENANCE FREE
- HALF THE WEIGHT OF EXTRUDED PROFILE VARIOUS MOUNTING POSITIONS ON SITE MAINTENANCE
- STANDARDIZED MODULAR DESIGN CONVENIENT USE AND LOW COST COMPARED WITH MACHINED EXTRUDED PROFILE
- HEATPIPE ISOTHERMALIZED PLATE: NOT HOT SPOTS
INCREASE OF POWER MODULE MTBF
- ENVIRONMENT FRIENDLY

SC 55 TYPE

POWER DISSIPATION.....	Thermal tests performed up to 1kW Power is not the limiting factor
THERMAL RESISTANCE.....	e.g: 0.1°C/W at 500W power loss at 20°C ambient
SURFACE TEMPERATURE RISE.....	40°C at 350W, 50°C at 500W at 20°C ambient
WORKING FLUID	Water
MECHANICAL SHOCKS AND VIBRATIONS BEHAVIOUR	According to IEC 77 traction standard
IGBT MODULE COOLING	Nickel plated block - Customization for fixing IGBT modules Example: 1 module 190 mm x 130 mm or 3 modules 90 mm x 60 mm
INVERTER FUNCTION COOLING.....	Assembly of 2 TRANSCAL SC 55 to cool 6 IGBTs modules (90 mm x 60 mm) or 2 IGBTs modules (190 mm x 130 mm) example given: 40°C temperature rise at 700W total dissipation
WEIGHT	Each TRANSCAL SC55: 4.3 kg An assembly of 2 TRANSCAL SC 55 weights 8.6 kg to meet 40°C temperature rise at 700W total dissipation

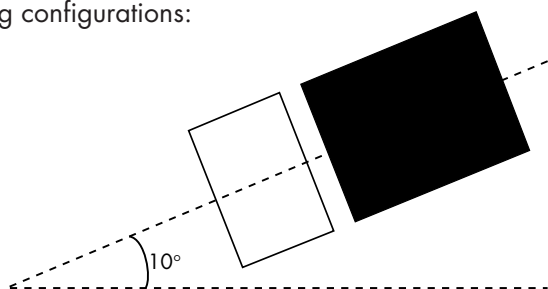
OUTLINE DRAWINGS (mm)



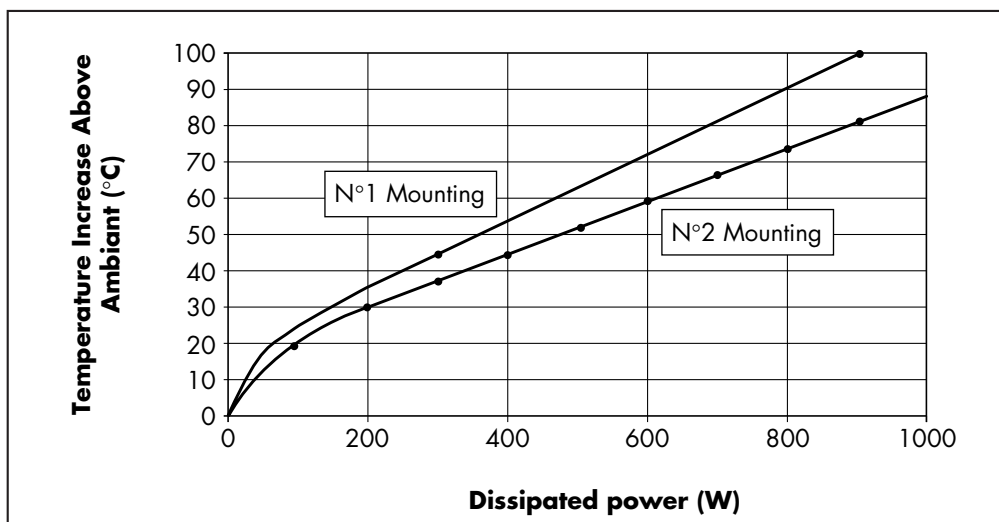
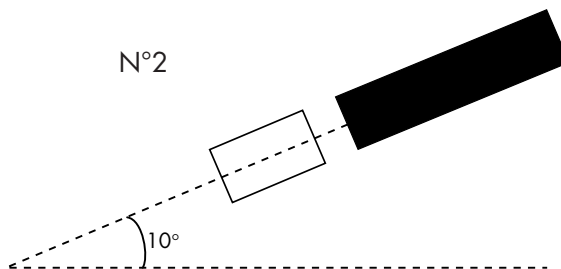
EXAMPLE OF THERMAL FEATURES

Mounting configurations:

N°1



N°2



Test conditions: NATURAL AIR CONVECTION

Ambiant at 20°C, 3 Heaters fixed on one side with 5Nm Torque, Thermal Grease Used, Block Height: 700 mm above floorlevel in test configuration.

(provisory document for information purpose only)

Forced air convection data soon available.

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