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MOUNTING COMPONENTS ON HEAT SINK

1 REVISION HISTORY

Revision	Date	Changed by	Change	Reviewed by or protocol
A	2001-04-12	WDE / US	Mounting instruction created	
B	2020-01-24	Krzysztof Jaszkowski	Diode module torque change	Christer Lindgren

Note: Remove preliminary revision rows when formal release (in order to reduce list)

2 INSTRUCTION

Mounting power components on heat sink

Apply thermal conducting paste to the following components before fitting them.
Start by cleaning the heat sink, and then apply a **very thin** and even layer of thermal paste to the contact surfaces of the components. The main role of thermal paste is to eliminate air gaps or spaces (which act as thermal insulation) from the interface area in order to maximize heat transfer and dissipation between the component and the heat sink. Mount the components as described below.
See the spare parts list for the order number for thermal paste. Use only ESAB recommended paste.

Fitting instructions

IGBT transistors

Clean the heat sink and apply thermal conducting paste as described above. Fit the transistor and tighten the screws alternately to a torque of 2.5 Nm, and then further tighten them to 4.5 Nm. **NB:** The screws must be tightened diagonally.

Tighten the screws that connect the IGBT transistors to circuit board 15AP1 to a torque of 4.5 Nm.

Warning: Incorrectly fitted IGBT transistors can cause failure. Do not tighten the screws to more than 4.5 Nm.

Diode modules (big Type)

Clean the heat sink and apply thermal conducting paste as described above. Fit the module and tighten the screws to a torque of 1 Nm, and then further tighten them to 2.5 Nm.

Tighten the connections to the busbars to 4.5 Nm.

Diode modules (Isotop Type)

Clean the heat sink and apply thermal conducting paste as described above. Fit the module and tighten the screws to a torque of 0.5 Nm and then further tighten them to 1.5 Nm

Tighten the connections to the busbars to 1.5 Nm.

Rectifier bridge

Clean the heat sink and apply thermal conducting paste as described above. Fit the bridge and tighten the screws to a torque of 1 Nm, and then further tighten them to 4.5 Nm.

Tighten the screws that connect the bridge to circuit board 15AP1 to 4.5 Nm.

Thermal overload cutout

Clean the heat sink and apply thermal conducting paste as described above. Fit the thermal overload cutout