Derating Curves 4580

Derating curves describe the correlation between the maximum permissible current load of the connector and the ambient temperature. There is always a base curve given (representing ideal, theoretical maximums) and a corrected curve (adjusting these data for safe, real-world application).

Here, examples of derating curves for various cross-sections of the test PCB tracks are shown. These are intended to provide guidance for various application scenarios.

The contact blade used in the tests - unless otherwise indicated in the diagram- is the standard Lumberg contact blade according data sheet made of CuZn (nickel and tin-plated).

Other influencing factors must always be taken into account, such as the application setup, PCB layout, mating connector material and all application-specific standards.

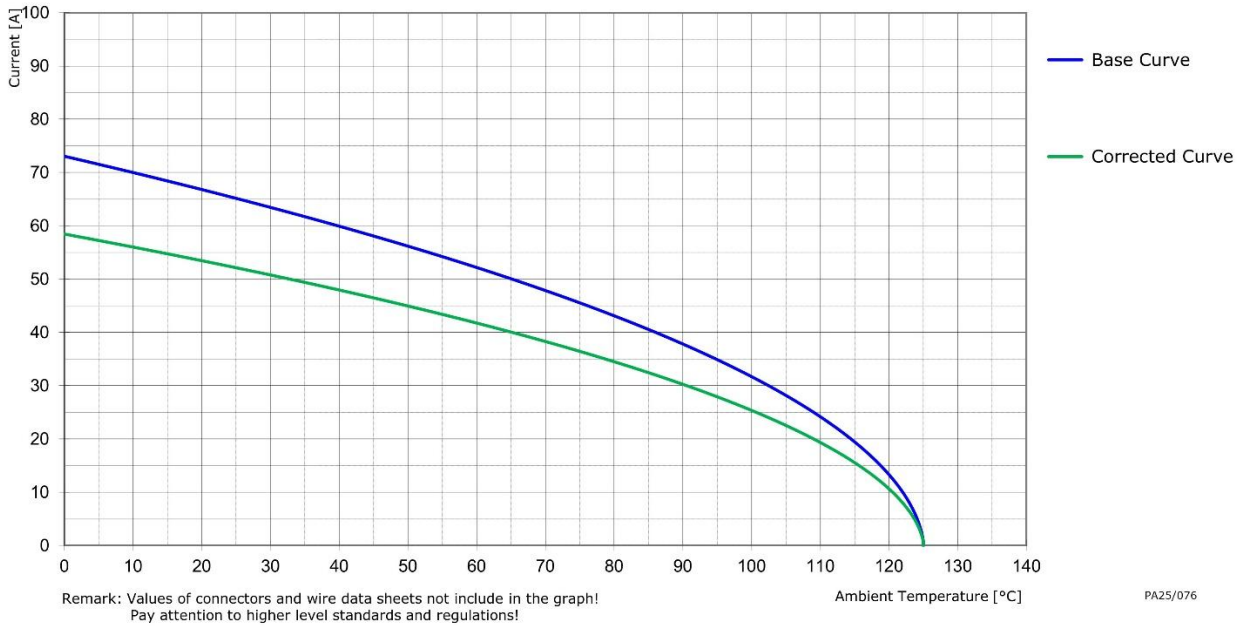
It is the user's responsibility to ensure that a selected Lumberg product is suitable for the intended application.

The following derating curves are valid for 4580 01 and 4580 03

1. High Current Contact 4580 01

1.1. 4580 01 SP T0,5 assembled on PCB FR4, 105 µm Cu double-sided

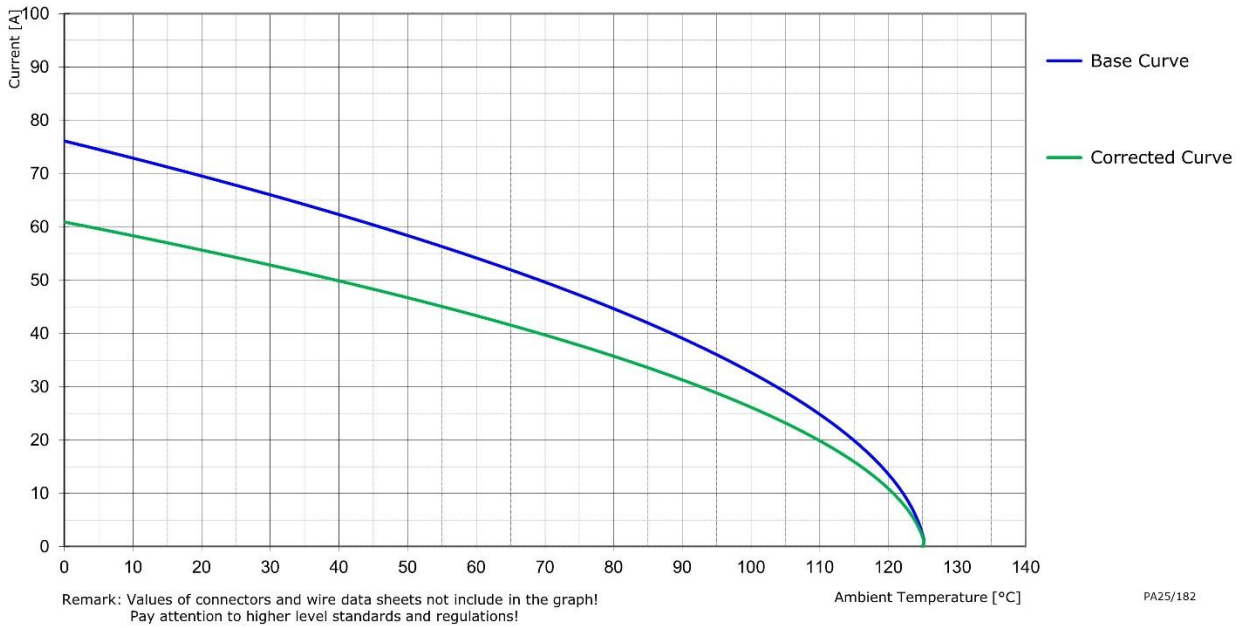
High Current Contact 4580 01 SP T0,5
PCB: FR4, 105µm Cu double-sided, Track width 6mm
Wire size 6 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

1.2. 4580 01 SP T0,6 assembled on PCB FR4, 105 µm Cu double-sided

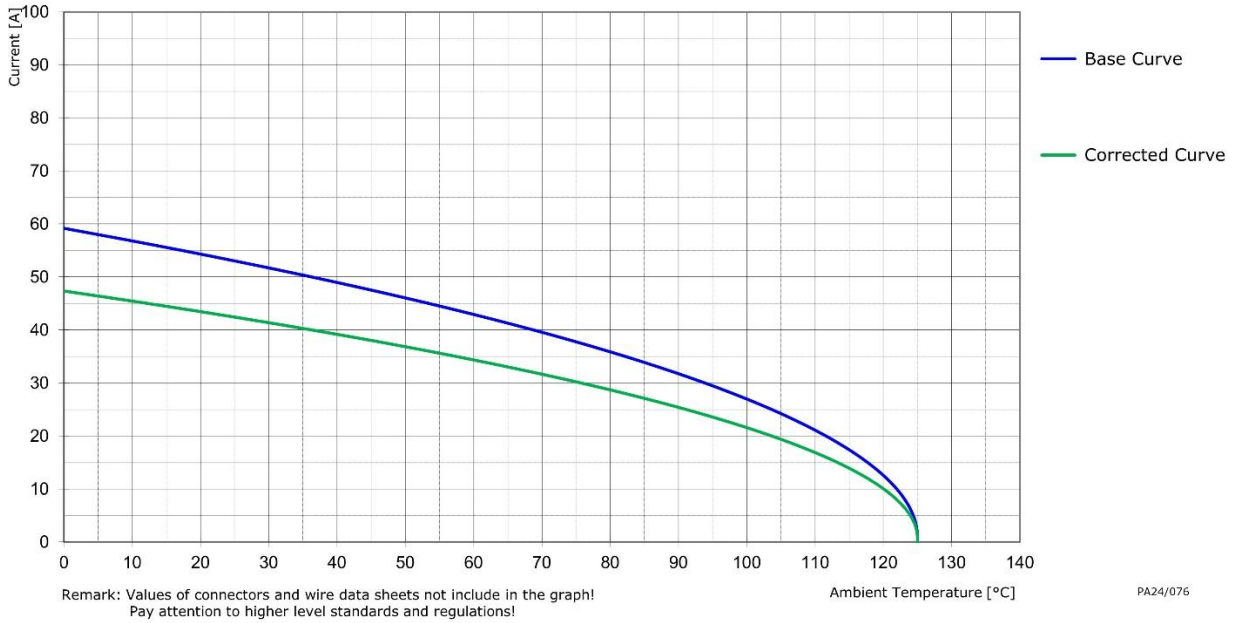
High Current Contact 4580 01 SP T0,6
PCB: FR4, 105µm Cu double-sided, Track width 6mm
Wire size 6 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

1.3. 4580 01 SP T0,8 assembled on PCB FR4, 35 µm Cu double-sided

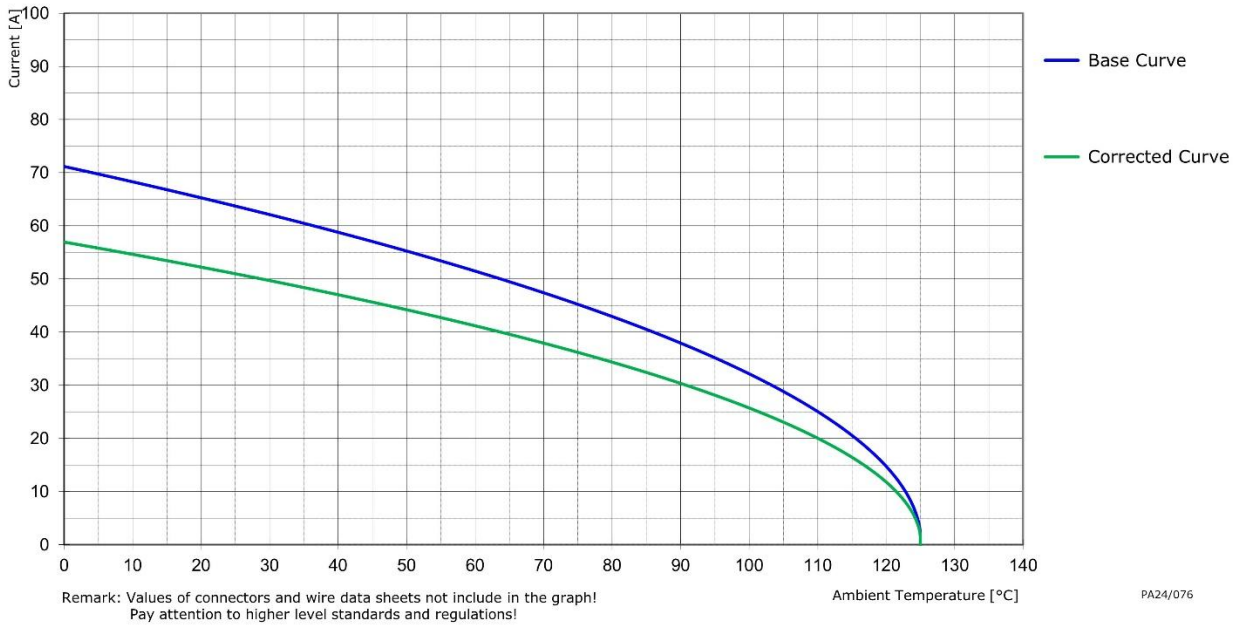
High Current Contact 4580 01 SP T0,8
PCB: FR4, 35 µm Cu double-sided, Track width 6mm
Wire size 6 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

1.4. 4580 01 SP T0,8 assembled on PCB FR4, 70 µm Cu double-sided

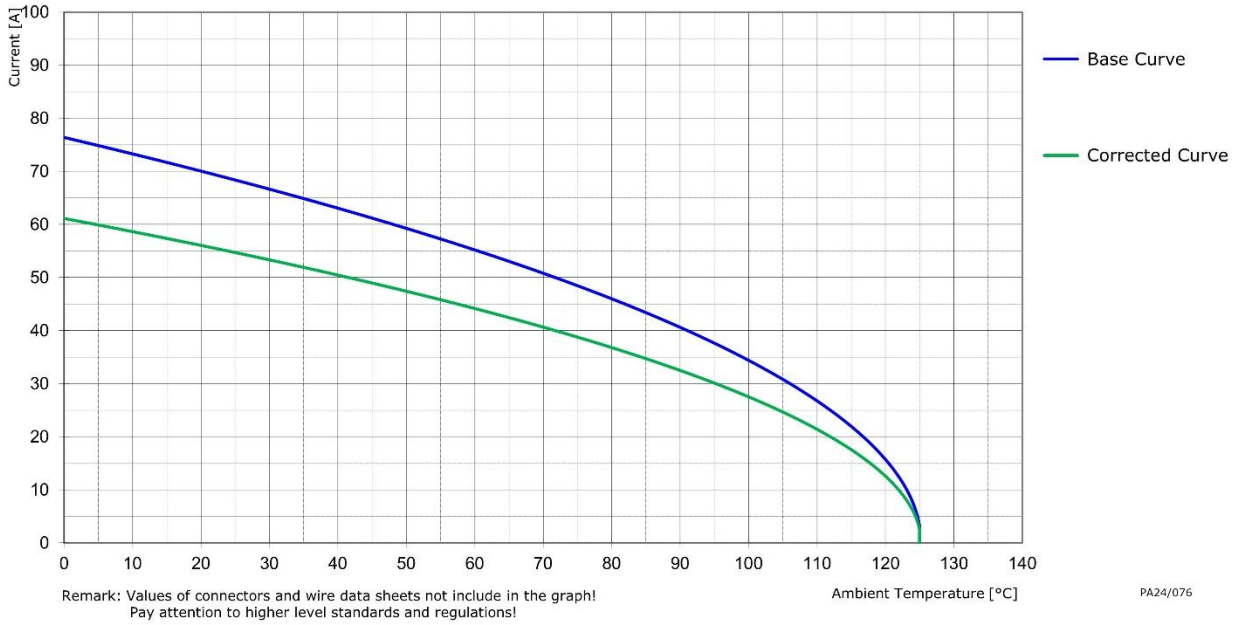
High Current Contact 4580 01 SP T0,8
PCB: FR4, 70 µm Cu double-sided, Track width 6mm
Wire size 6 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

1.5. 4580 01 SP T0,8 assembled on PCB FR4, 105 µm Cu double-sided

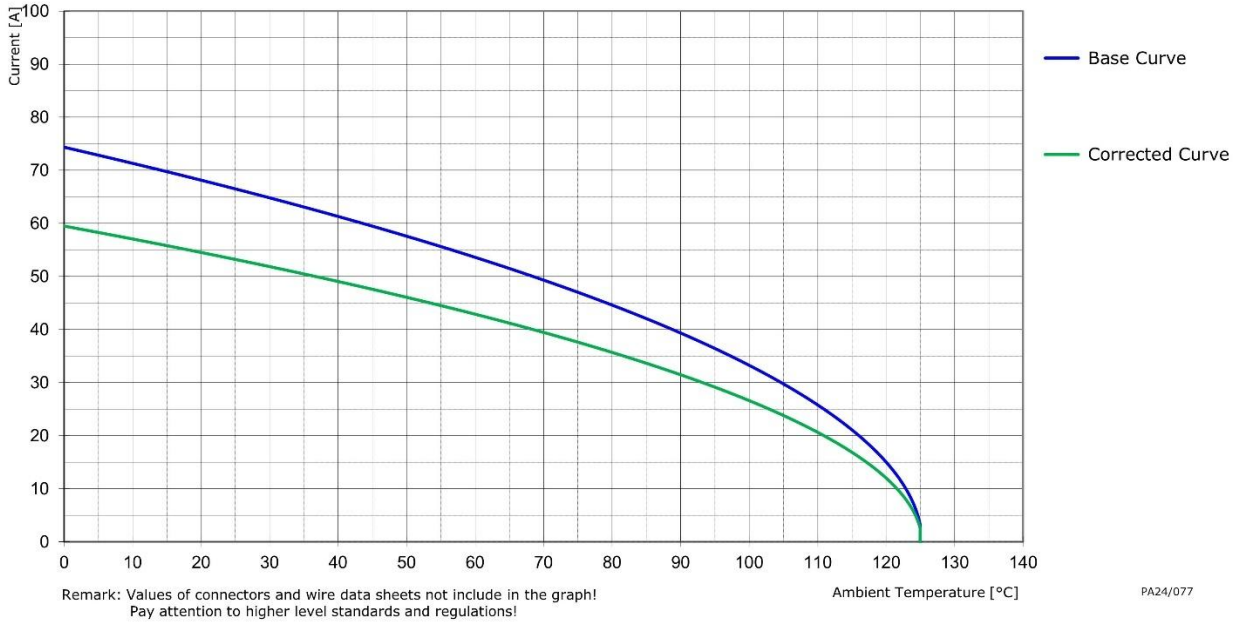
High Current Contact 4580 01 SP T0,8
PCB: FR4, 105µm Cu double-sided, Track width 6mm
Wire size 6 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

1.6. 4580 01 OP/MP T0,8 assembled on PCB FR4, 105 µm Cu double-sided

High Current Contact 4580 01 OP/MP T0,8
PCB: FR4, 105µm Cu double-sided, Track width 6mm
Wire size 6 mm²

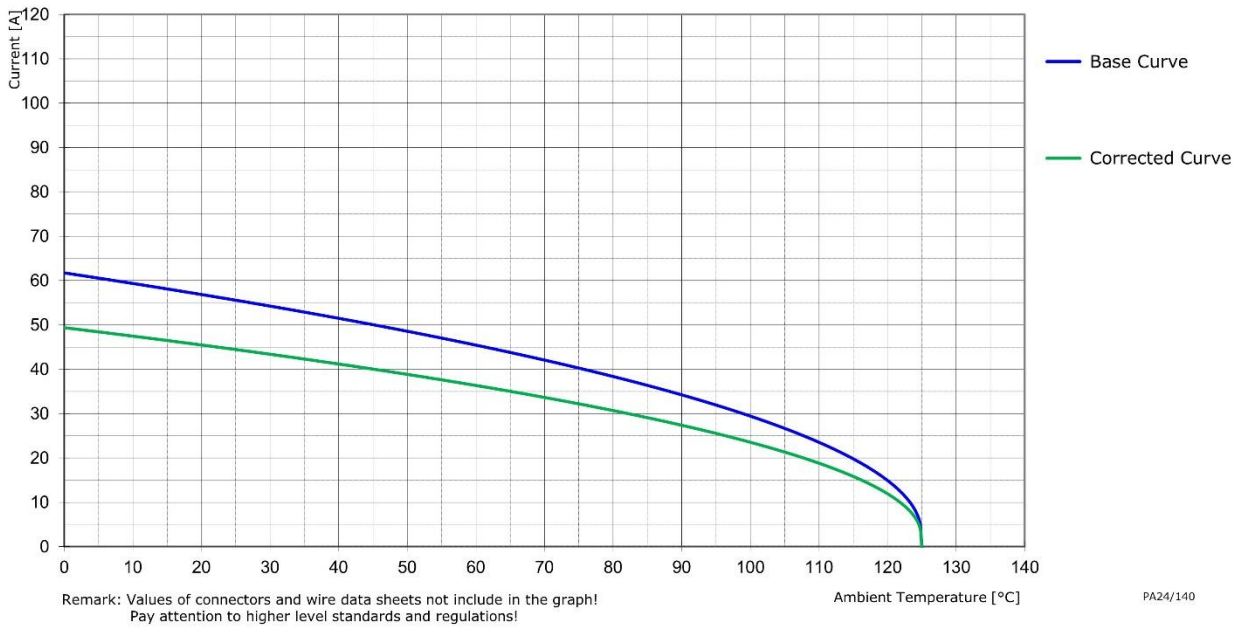


Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

2. High Current Contact 4580 03

2.1. 4580 03 OP/MP T0,8 assembled on PCB FR4, 35 µm Cu double-sided

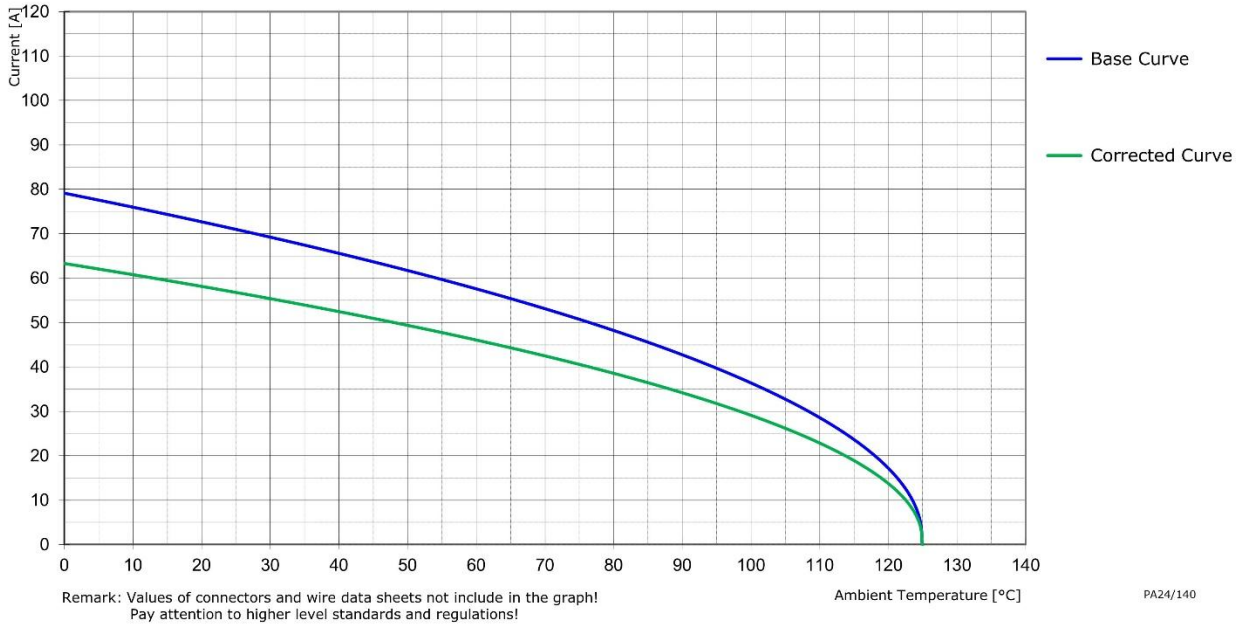
High Current Contact 4580 03 0P/MP T0,8
PCB: FR4, 35 µm Cu double-sided, Track width 6mm
Wire size 2x 6 mm² = 12 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

2.2. 4580 03 OP/MP T0,8 assembled on PCB FR4, 70 µm Cu double-sided

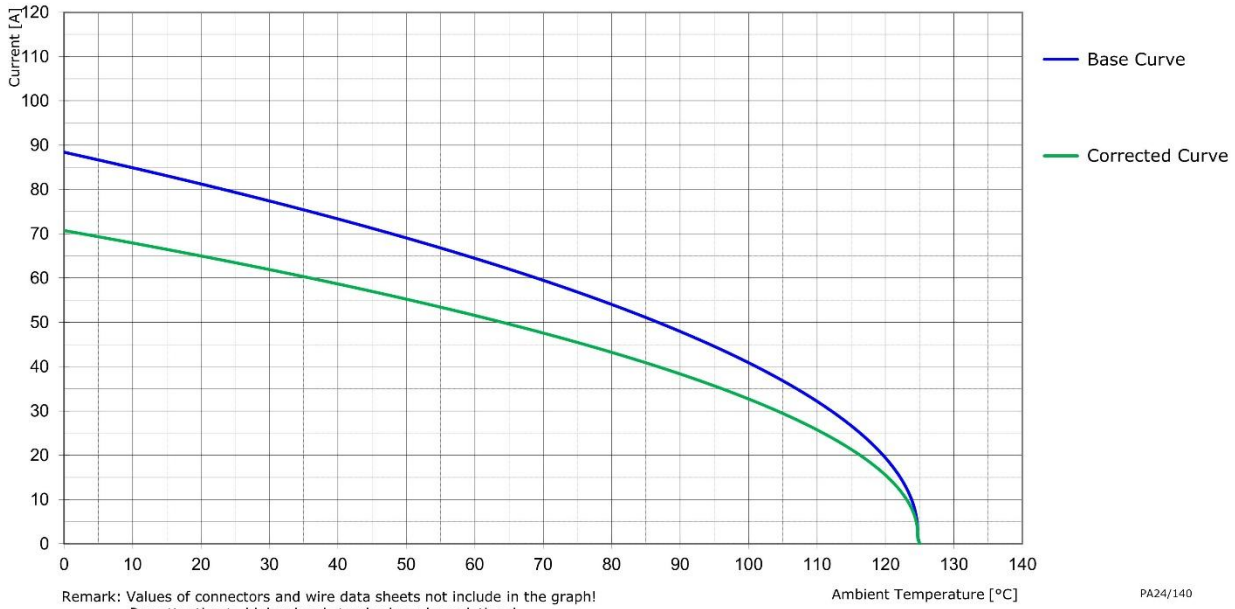
High Current Contact 4580 03 0P/MP T0,8
PCB: FR4, 70 µm Cu double-sided, Track width 6mm
Wire size 2x 6 mm² = 12 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

2.3. 4580 03 OP/MP T0,8 assembled on PCB FR4, 105 µm Cu double-sided

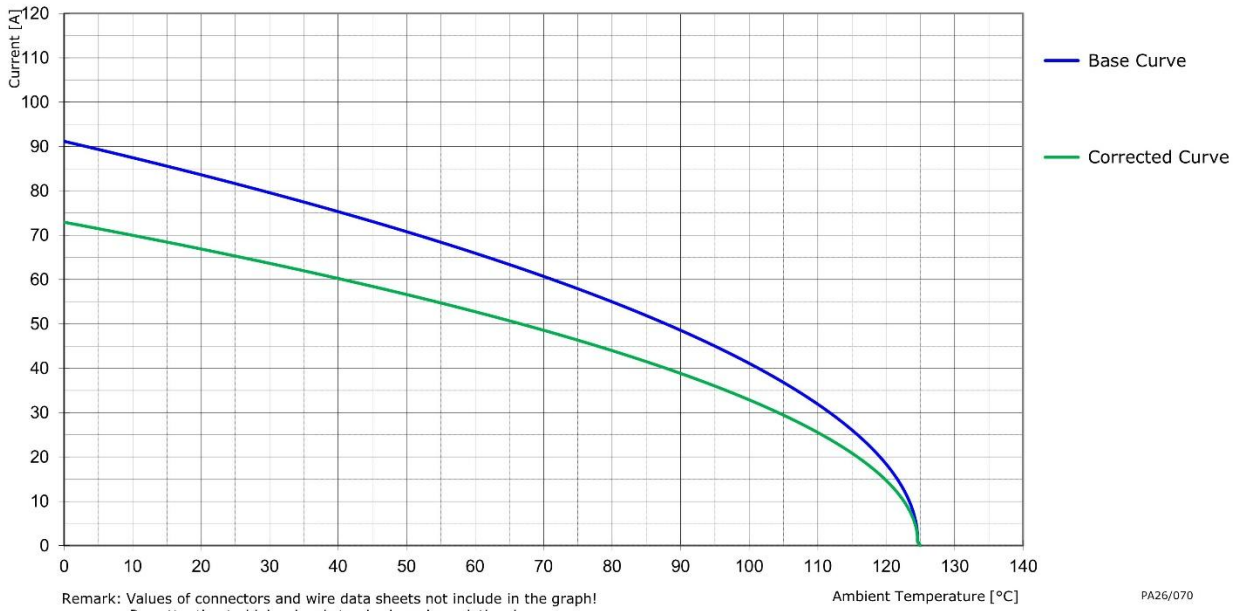
High Current Contact 4580 03 OP/MP T0,8
PCB: FR4, 105 µm Cu double-sided, Track width 6mm
Wire size 2x 6 mm² = 12 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

2.4. 4580 03 SP T0,8 assembled on PCB FR4, 105 µm Cu double-sided

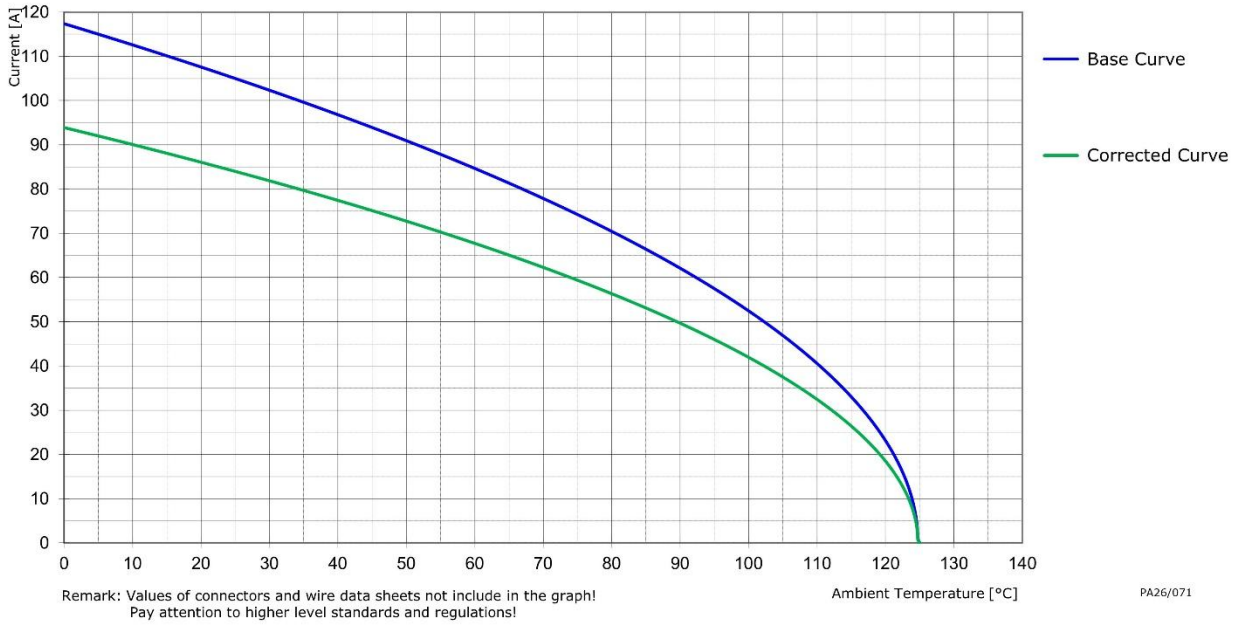
High Current Contact 4580 03 SP T0,8
PCB: FR4, 105 µm Cu double-sided, Track width 6mm
Wire size 2x 6 mm² = 12 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!

2.5. 4580 03 SP T0,8 assembled on PCB FR4, 6-layer

High Current Contact 4580 03 SP T0,8
PCB: FR4, 6-layer, 2x 105 µm Cu + 4x 70µm Cu, Track width 6mm
Wire size 2x 6 mm² = 12 mm²



Remark: Values of connectors and wire data sheets not include in the graph!
Pay attention to higher level standards and regulations!