

LDD Controller Hardware

1 General Terms

This document summarizes all LDD Controller hardware changes. For additional information, please contact Meerstetter Engineering GmbH

Notations:

- All Dates have the Format "Day.Month.Year".
- **DS** means Datasheet
- **Release Date** is the first date where this version has been or will be delivered.

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2 Hardware Changes Overview

2.1 Changes May 2029 – January 2022

Change	LDD-1124-SV HW Version Release Date Corresponding DS	LDD-1121-SV HW Version Release Date Corresponding DS	LDD-1125-HV HW Version Release Date Corresponding DS	Detail
Main current measurement shunt replaced with part with worse temperature coefficient specification. <u>Problem:</u> The original part is discontinued and the replacement is not deliverable. <u>Solution:</u> Compatible alternative used with worse temperature coefficient specification. <u>Impact for the Customer:</u> Potentially worse temperature coefficient of the LDD as a whole. To be tested.	HW v1.61 2022 5169H	Not affected	Not affected	

2.2 Changes March 2018 – April 2019

Change	LDD-1124-SV HW Version Release Date Corresponding DS	LDD-1121-SV HW Version Release Date Corresponding DS	LDD-1125-HV HW Version Release Date Corresponding DS	Detail
Power supply for 1.2V: Inductor replaced by an equivalent successor <u>Problem:</u> The original part is discontinued <u>Solution:</u> Compatible alternative used. <u>Impact for the Customer:</u> None	HW v1.60 2019 5169G	HW v1.60 2019 5142L	HW v1.70 2019 5146J	

2.3 Changes June 2017 – March 2018

Change	LDD-1124-SV HW Version Release Date Corresponding DS	LDD-1121-SV HW Version Release Date Corresponding DS	LDD-1125-HV HW Version Release Date Corresponding DS	Detail
Main coil alternative added. <u>Problem:</u> The 3 phase coils are currently not available. <u>Solution:</u> Compatible alternative used. <u>Impact for the Customer:</u> None	HW v1.60 2017 5169G	Not affected	Not affected	
Flash memory replaced <u>Problem:</u> The current flash memory has been discontinued <u>Solution:</u> Replaced by a compatible successor. <u>Impact for the Customer:</u> None	HW v1.60 2017 5169G	HW v1.50 First quarter 2018 5142K	HW v1.50 First quarter 2018 5146J	
Digital signal isolator changed <u>Problem:</u> A digital signal isolator IC which was used for the current measurement is not available anymore and the successor is not directly working. <u>Cause:</u> The successor has a much smaller propagation delay. <u>Solution:</u> Modifying the FPGA code to handle both propagation delays, depending on the hardware version. <u>Impact for the Customer:</u> None, if the firmware v2.32 and FPGA v1.90 is used. Older firmware and FPGA versions are not compatible anymore!	HW v1.50 16.06.17 5169G	HW v1.50 First quarter 2018 5142K	HW v1.50 First quarter 2018 5146J	

Phase shunt alternative added. <u>Problem:</u> The 3 shunts used to measure 3 phase currents have long delivery times. <u>Solution:</u> Alternative added: One smaller shunt and two 00hm resistors <u>Impact for the Customer:</u> None, because these shunts are only used for symmetry corrections and not for the effective output current measurement.	HW v1.50 16.06.17 5169G	HW v1.60 First quarter 2018 5142K	Not affected	
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3 Additional Detailed Descriptions

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