LiBAL Fast Charge Interface™

100616 CHAdeMO

LiTHIUM BALANCE
BATTERY MANAGEMENT SYSTEMS

Vehicle side interface to CHAdeMO Fast Charger

CHAdeMO

INTRODUCTION

The LiBAL Fast Charge Interface™ by Lithium Balance A/S enables vehicle side implementation to interface with CHAdeMO based fast charging system. The product has been designed to enable fast adaptation and integration to any battery pack.

The LiBAL Fast Charge Interface™ fully implements the physical and protocol level of the CHAdeMO standard v1.0.1. This includes all CAN frames required for the CHAdeMO fast charging as well as I/O ports for controlling high voltage contactors in full compliance with the CHAdeMO standard for DC fast charging. The LiBAL Fast Charge Interface™ communicates with the on board Battery Management System (BMS) using a separate isolated CAN bus interface in order to conduct the DC fast charging in full compliance with the operational limits set by the BMS.

The LiBAL Fast Charge Interface™ is designed as an accessory to the Lithium Balance BMS product line, allowing fast, safe and simple addition of DC fast charging capabilities to any vehicle powered by a Lithium Balance BMS. This modular approach offers the capability to deploy DC fast charging simply and flexibly in a vehicle.

The functionality of the LiBAL Fast Charge Interface™ can be fully configured using Lithium Balance PC configuration tool via CAN Bus.

BENEFITS OF LiBAL FAST CHARGE INTERFACE™

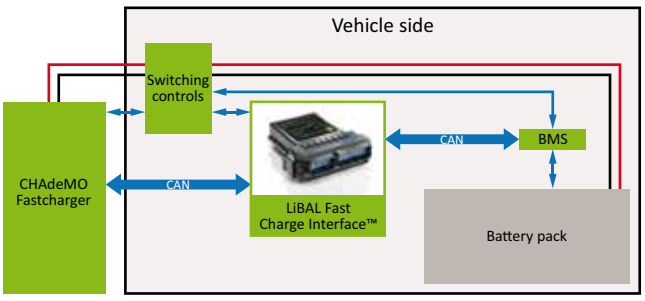
- Cost efficient and easy implementation of CHAdeMO fast charging
- Compact & installation friendly design
- Safety rated (ASIL D) microcontroller
- Real time operating system (optional ASIL D)

BENEFITS OF FAST CHARGING

- Reduction in battery size (kWh) & weight
- Reduction on Battery cost
- Increased uptime of electric vehicles / applications
- Elimination of battery swap operations
- Improved total cost of ownership

FUNCTIONALITY

- CHAdeMO control logic
- Configurable relay drivers
- Configurable IOs
- Data logging



Increased and improved duty cycle time with Fast Charging in the following applications

Industrial EV's

Automotive

Marine

Material handling

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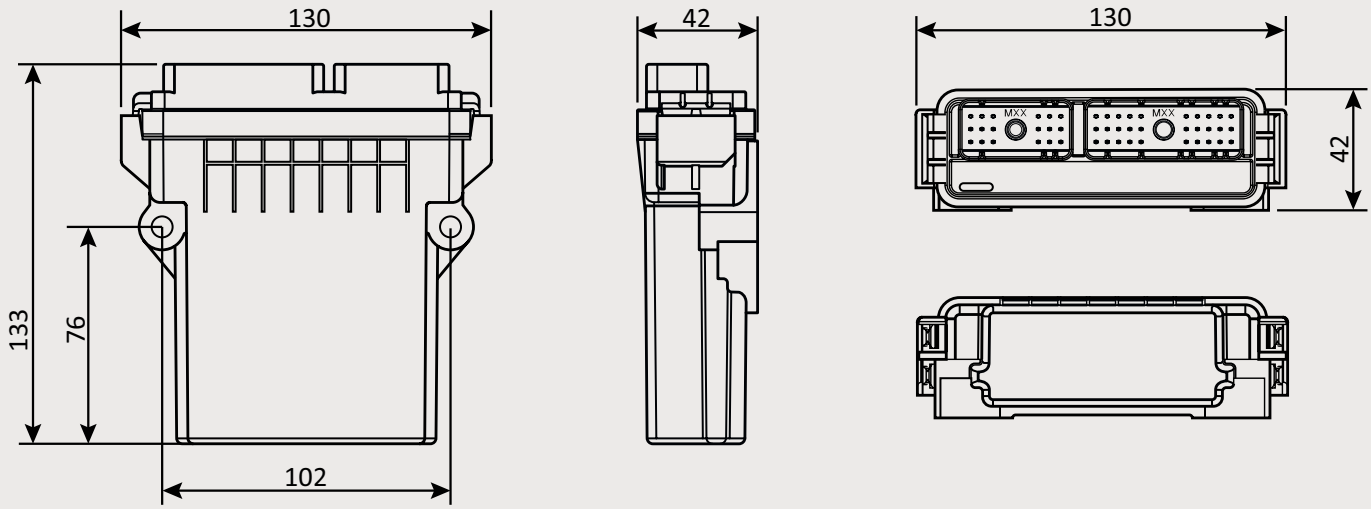
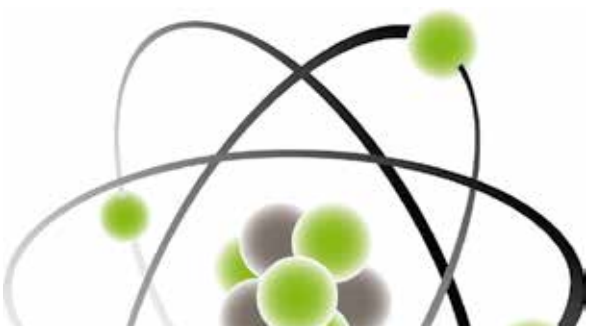


LIBAL FAST CHARGE INTERFACE™

PARAMETERS	SPECIFICATIONS
Mechanical	
Dimensions	103.5 mm X 101.6 mm X 42.3 mm
IP rating	IP67
Operating Temperatures	-40 Deg C to + 85 Deg C
Weight	300 g
Installation	2 X M6 Bolts
Electrical	
Supply	6VDC to 16VDC (12V optimal)
Consumption	80 – 100 mA @ 12VDC
Hardware	
Controller	Automotive grade ASIL D
Controller Speed	80 MHz
CAN 1	CAN2.0 A/B - Galvanic Isolation - 125Kbps to 1Mbps
CAN 2	CAN2.0 A/B - Galvanic Isolation - 125Kbps to 1Mbps
IOs	ChadeMO standard compliant 2 X Relay Drivers
RTC	Yes
Data Logging	SD card, high-end industrial grade; Suitable for automotive use
PC Software	
	Interface - USB Dongle
	OS : Windows Vista , 7 , 8
	Pro Version - Calibration Development capability
	Service Version - Field Service & troubleshooting
	Via CAN BUS
Fast Charging Standard	CHAdeMO standard v1.0.1
EMC Immunity	Tested as per EN61000-4-3 (80MHz – 3000MHz) at 200 V/m, EN61000-4-4 (4kV)
Temperature Specifications	Operational -40° to 85°C
Vibration Tolerance	Tested as per EN60068-2-6 random vibration (10 – 1000Hz)
Certifications	CE marking



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