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PRODUCT  
NOTE

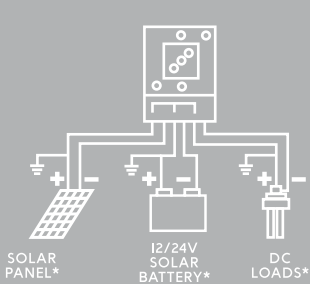
applied Solar and Wind Energy™

# iSCC-L™ Series – XUNZEL Solar Charge and Discharge Controller 12/24V Automatic Detection

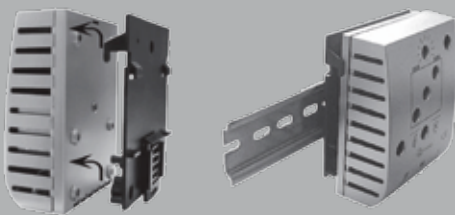


Solar Charge and Discharge Controller  
iSCC-L™ Series of XUNZEL

SOLAR CHARGE AND DISCHARGE CONTROLLER



Remote Digital  
Display iSCC-DL™ of  
XUNZEL (OPTIONAL)



DIN Rail Adapter iSCC-DIN™ of XUNZEL  
(OPTIONAL)



SOLAR PANEL\*      CHARGE CONTROLLER      SOLAR BATTERY\*  
\*Not included

## iSCC-L™ Series – XUNZEL Solar Charge and Discharge Controller 12/24V Automatic Detection

### Product Overview

This solar charge and discharge controller protects the battery from being overcharged by the solar panels and from being over-discharged by the DC loads. The iSCC-L™ Series of XUNZEL are sophisticated solar charge and discharge controllers for small solar systems where charge and discharge control are required. They are equipped with a microprocessor and provide high efficiency displaying the normal operation, alarm messages, etc. in a simple way with acoustic signals and display. The solar charge and discharge controllers iSCC-L™ of XUNZEL are programmable and provided with positive grounding. In addition to a perfect PWM regulation with integrated temperature compensation, the controllers provide fully electronic safety functions.

Their multi-stage (3-stage) PWM charging method (Boost - Float - Equalization) is adjustable for different types of batteries: GEL/AGM or Flooded (Factory setting). These solar charge and discharge controllers also come with three deep discharge functions: Low Voltage Warning (LVW), Low Voltage Disconnect (LVD) adjustable by State of Charge (SOC) or battery voltage, and automatic Low Voltage Reconnect (LVR).

The iSCC-L™ Series of XUNZEL are equipped with 5 LEDs in order to display clearly the charging status, the state of charge of the battery and the loads status. Furthermore, these controllers are one of few controllers in their class that have an acoustic alarm before low voltage disconnection.

Thanks to their DC load output there is no need of any inverter to power DC loads such as ultra-efficient low-voltage 12VDC or 24VDC LED NATURE™ Series lamps of XUNZEL. Consequently, savings and efficiency of the solar system are increased considerably.

### Available Models

iSCC-L 05 5A/5A – 12/24V 60W@12V & 120W@24V

iSCC-L 15 15A/15A – 12/24V 180W@12V & 360W@24V

iSCC-L 20 20A/20A – 12/24V 240W@12V & 480W@24V

#### OPTIONAL ACCESSORIES:

- REMOTE DIGITAL DISPLAY iSCC-DL™ of XUNZEL
- DIN RAIL ADAPTER iSCC-DIN™ of XUNZEL

### iSCC-L™ Features and Benefits

- **Battery state-of-charge** indication by means of 3 LEDs.
- Load disconnect prewarning by **acoustic signal**.
- **Three-stage** (Boost, float and equalization) **PWM charging method** for lead-acid batteries (GEL/AGM and Flooded).
- **Automatic 12/24V detection**.
- **Temperature compensation**.
- **SOC- and voltage-controlled LVD**.
- **Fully electronically protected**.
- **Large terminals: up to 16mm²**.
- **Positive grounding**.
- **Remote Digital Display iSCC-DL™ of XUNZEL available (optional)**.
- **DIN Rail Adapter iSCC-DIN™ of XUNZEL available (optional)**.

Industry Leading Technology for Off-Grid, Off-Shore and Backup Power Applications



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# iSCC-L™ Series – XUNZEL Solar Charge and Discharge Controller 12/24V Automatic Detection

## iSCC-L™ Specifications

Solar Charge and Discharge Controller iSCC-L™ Series of XUNZEL



MODEL	iSCC-L 05	iSCC-L 15	iSCC-L 20
Nominal System Voltage		12/24 V automatic detection	
Max. Charge Current / Power (Max. PV Array Power)	5A / 60W@12V 5A / 120W@24V	15A / 180W@12V 15A / 360W@24V	20A / 240W@12V 20A / 480W@24V
Max. Discharge Current / Power	5A / 60W@12V 5A / 120W@24V	15A / 180W@12V 15A / 360W@24V	20A / 240W@12V 20A / 480W@24V
Max. Panel Voltage		30V @ 12V / 50V @ 24V	
Float Charge		13.7V @ 12V / 27.4V @ 24V (25°C)	
Main Charge		14.4V @ 12V / 28.8V @ 24V (25°C), 30min (daily)	
Boost charge		14.4V @ 12V / 28.8V @ 24V (25°C), 2h Activation: 12.3V @ 12V / 24.6V @ 24V	
Equalization		14.8V @ 12V / 29.6V @ 24V (25°C), 2h Activation: 12.1V @ 12V / 24.2V @ 24V	
Battery Type		AGM/GEL and Flooded Lead-Acid	
Deep Discharge Protection (LVD):			
- SOC dependent		11.4V – 11.9V @ 12V / 22.8V – 23.8V @ 24V	
- Voltage dependent		11.0V @ 12V / 22.0V @ 24V	
Low Voltage Reconnection (LVR) Level		12.8V @ 12V / 25.6V @ 24V	
Overvoltage Protection		15.5V @ 12V / 31.0V @ 24V	
Undervoltage Protection		10.5V @ 12V / 21.0V @ 24V	
Temperature compensation		-25mV/K @ 12V / -50mV @ 24V / (-4.2mV/K per cell)	
Own consumption		<4mA	
Terminals - Max. Wire Size		16 mm <sup>2</sup>	
Ambient Temperature		-40 to + 50°C	
Max. Altitude		4,000 m above sea level	
Weight		160g	
Dimensions		80 x 100 x 35 mm	
Type of protection		IP22	
Standards		Conforms to the relevant European CE standards	

### OPTIONAL ACCESSORY

## iSCC-DL™ – XUNZEL

Remote Digital Display iSCC-DL of ISLANDERS (OPTIONAL)

### Product Overview

Remote Digital Display iSCC-DL™ of XUNZEL can be used in combination with the solar charge and discharge controllers iSCC-L™ Series of XUNZEL. It is designed to measure and display panel current, charging current, load current and battery voltage in order to offer more detailed information of your photovoltaic system.

### iSCC-DL™ Features and Benefits

- **Measures and displays** the panel current, charging current, load current and battery voltage.
- **Clear and accurate**, data shown 3 digits.
- **3 keys** to switch the values we want to see.
- **3 LEDs** indicate the value that is shown in the display.
- **Prepared for DIN rail mounting**



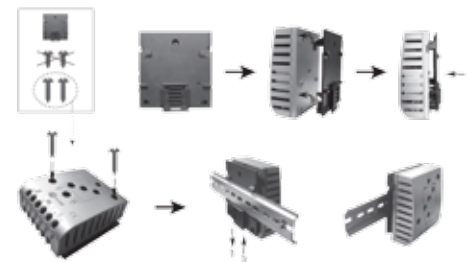
Remote Digital Display iSCC-DL™ of XUNZEL (OPTIONAL)

L-II06214-MA

MODEL	iSCC-DL
Voltage Range	0V to 35 V
Current Range	0A to 25 A
Temperature Range	-25 to +50°C
Connection cable length	2 m
Dimensions of measurement part	84 x 44 x 32 mm
Dimensions of display	72 x 68 x 29 mm
Weight	195 g (cable included)
Type of protection	IP22

## iSCC-DIN™ – XUNZEL

DIN Rail Adapter iSCC-DIN of XUNZEL (OPTIONAL)



Industry Leading Technology for Off-Grid, Off-Shore and Backup Power Applications



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