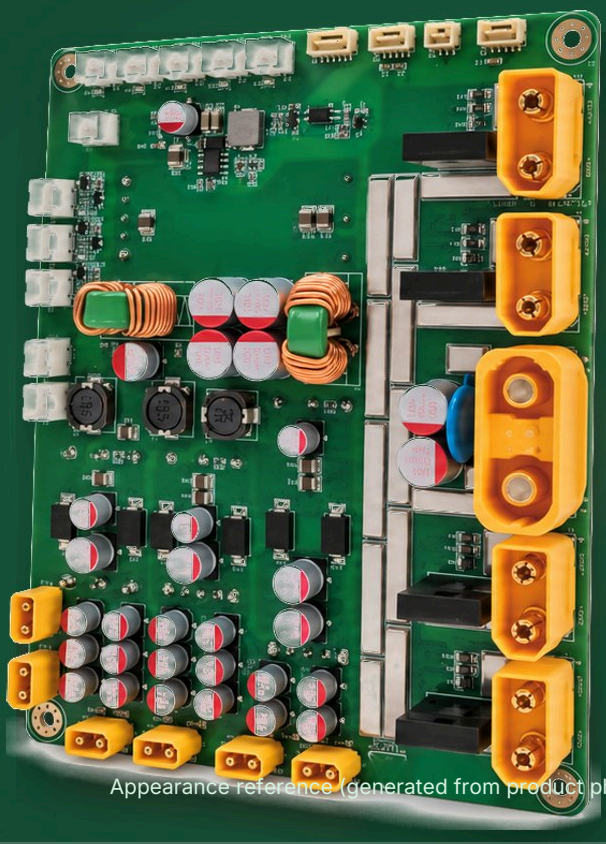
EQIO

PSU-0011-RB

PRODUCT MANUAL

72 V Multi-Channel Power-Management Board

Power-management board · Robot power dis...



Appearance reference (generated from product photos); shipped units may differ.

Measurement and control, made easy.

EQIO.COM

Easy · Quick · Input · Output

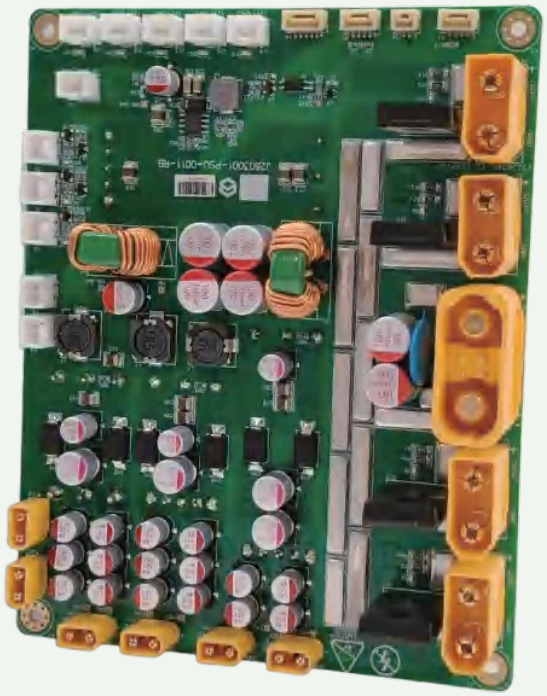
01 OVERVIEW

72 V Multi-Channel Power-Management Board

Power-management board · Robot power distribution · Powertrain power management · Payload power

PSU-0011-RB supports 72V DC input and 72V, 24V, 12V multi etc.grade output, configured with 19-ch power channel, provides classified on electrical control, e-stop I/O, status indicator and test point, used for robot powertrain and auxiliary equipment power distribution.

4-ch powertrain power and multi-channel auxiliary power separate organize, controlled circuit on electrical when keep off, can via control signal arrangement power sequence. Each channel input output settings test point and status indicator, suited to robot powertrain, sensing and control equipment classified power integrates.



Product appearance reference; shipped units may differ.

Key features

- 72V DC input
- 19-ch powertrain and auxiliary output
- 72V, 24V and 12V voltage etc.grade
- Delay on electrical and controlled circuit management
- E-stop I/O, independent test point and indicator

02 FUNCTIONS

Functions and engineering value

Powertrain and auxiliary classified power

PSU-0011-RB accept 72V DC input, organize 4-ch controlled 72V powertrain output, 13-ch 12V auxiliary output and 2-ch 24V auxiliary output. Different voltage and control group facilitates respectively connect powertrain, compute and sensing equipment, specific single channel load capability must follow actual configured with confirm.

Controlled circuit on electrical sequence

Board supports delay on electrical, can control module self-test completes rear on powertrain power; uncontrolled I/O on electrical automatic on, controlled I/O default off. System can around these default status design boot procedure, and stated control signal, etc.pending conditions and fault when power keep or off.

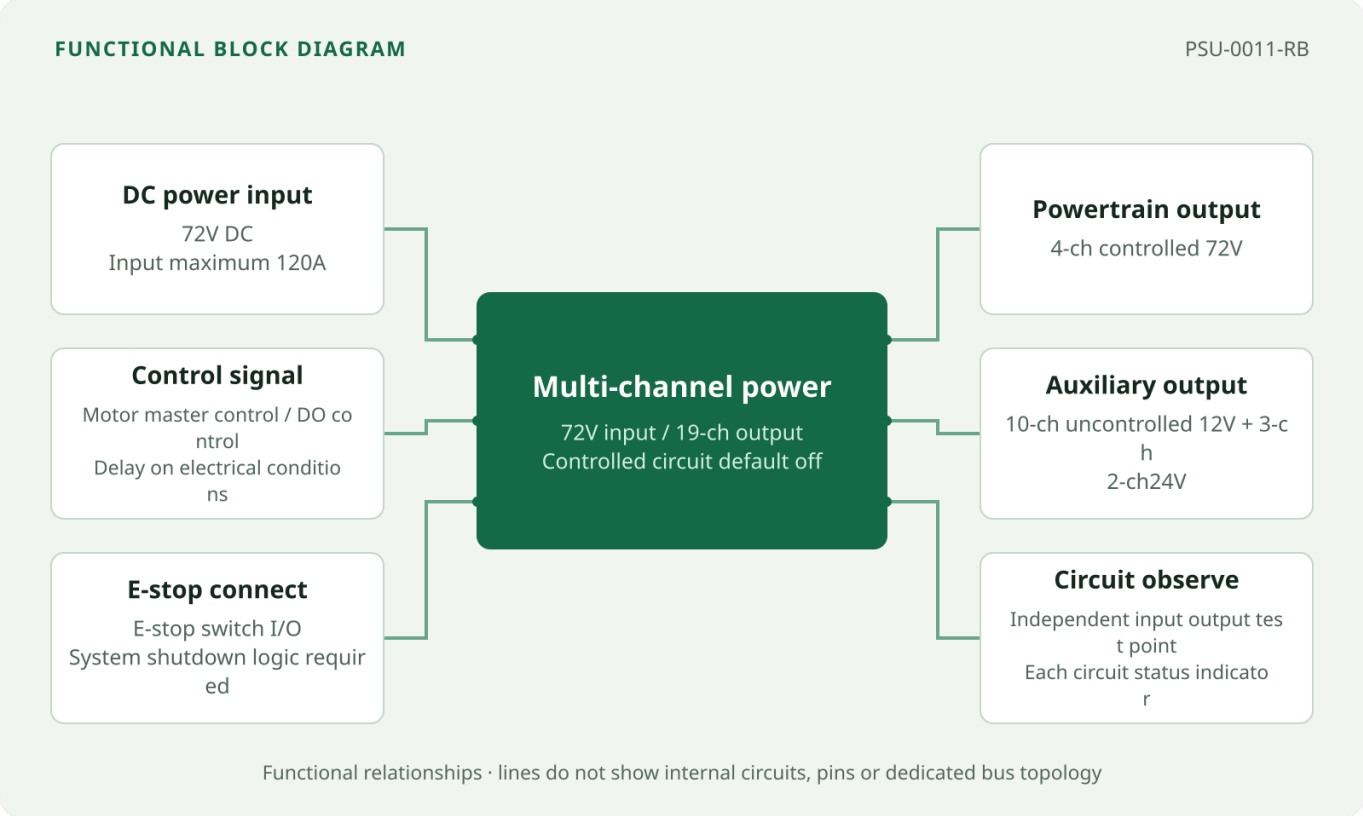
Status observe and e-stop attach

Each channel power input output all settings independent test point and status indicator, facilitates bring-up when observe circuit status. Motor master control, e-stop and DO control I/O used for connect external control signal, complete set system shutdown logic and status diagnostics should combined with load, routing and control program item by item verification.

The functional notes explain the product’s role from published configuration. Optional functions, software and peripherals follow the project definition. Chip capability is not the same as implemented I/O.

03 ARCHITECTURE

Functional blocks and system connections



Function relationship illustration, based on website I/O and configured with compiled; not indicates actual on-board circuit, independent bandwidth or not published chip interconnect implements.

Platform and I/O

The product is multi voltage, multi-channel power-management board, website not published processor or MCU model, data should around power distribution group, controlled circuit and status observe expand. Input maximum current and output channel quantity is different metrics, not can calculate each channel all can hosts same large current, also not cannot from e-stop I/O claim safety etc.grade.

> **Reading the diagram**
>
> Solid lines show published functional relationships, not on-board buses, bridge chips or connector pins. Optional controllers, radios, storage and software follow the configuration and interface files.

04 SPECIFICATIONS

Technical specifications

Compiled from published product data. Batch, I/O and environmental ratings follow the order confirmation.

Core system

Input voltage/current	72V DC, input maximum current 120A
Output voltage etc.grade	72V、12V、24V
On electrical timing	Supports delay on electrical, pending control module self-test completes rear on powertrain power
Test configured with	Each channel power input, output all settings independent test point
Status indicator	Has input output circuit all equipped with independent operation status LED
On electrical default status	Uncontrolled I/O on electrical automatic on, controlled I/O on electrical default off

I/O and expansion

Power output	72V controlled powertrain output I/O 4-ch, 12V uncontrolled auxiliary output I/O 10-ch 12V controlled auxiliary output I/O 3-ch, 24V auxiliary output I/O 2-ch
Power input	72V power input I/O 1-ch
Control and signal	Motor master control I/O 1-ch, e-stop switch I/O 1-ch, DO control I/O 1-ch

Environmental conditions

Operating temperature	Operating temperature: -20°C ~ 50°C, storage temperature: -20°C ~ 60°C
Humidity	Relative humidity (RH) 20%–80%

05 APPLICATIONS

From product capability to applications

Robot powertrain power distribution

Can powertrain load and compute, communications, sensing equipment respectively arrangement to controlled 72V and auxiliary power group, via control signal organize on electrical order. System design should stated each 1-ch load and boot current, check wire, connector and input capability, not should 120A input upper limit treat as each channel output capability.

Stage boot system

Suited to requires first boot control module, completes self-test rear again to powertrain equipment power system. Can uses controlled circuit default off and delay on electrical conditions arrangement procedure, again via test point and status indicator observe result; specific delay time, control polarity and feedback mechanism requires per delivery configured with confirm.

Multi payload auxiliary power

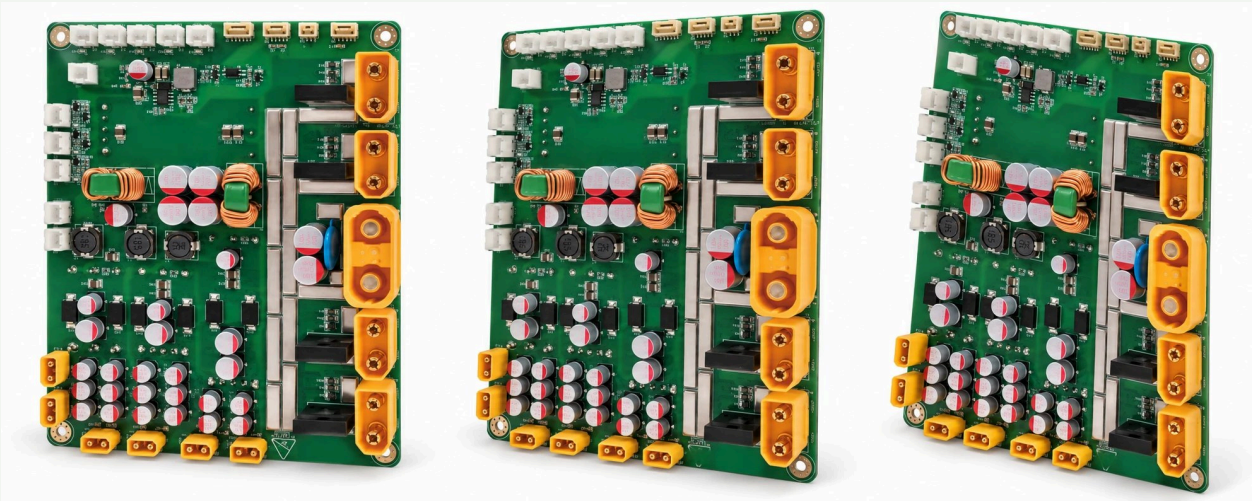
Face at the same time used 12V, 24V and 72V load equipment, can per voltage etc.grade and control requirement group layout, reduce spread power module management complexity. Bring-up when default on electrical status, load start-stop sequence and fault recovery procedure log clear, and check each group at the same time operation conditions.

Integration checks

Channel group	4-ch controlled 72V; 10-ch uncontrolled 12V, 3-ch controlled 12V; 2-ch24V, total 19-ch.
Input and load	72V DC input maximum 120A; not published each channel rated current and at the same time full load capability, not by itself calculate.
Boot and e-stop	Controlled circuit default off, uncontrolled default on; confirm delay, control signal and e-stop as used circuit.
Installation environment	Operation−20–50°C, storage−20–60°C, humidity 20%–80%; combined with load inspection temperature rise and routing.

06 CONFIGURATION

Appearance, configuration and selection



Multi-angle reference (generated from product photos); shipped units may differ.

Configuration

Input maximum current 120A, output divided into 4-ch controlled 72V, 13-ch 12V and 2-ch 24V I/O.

Selection guide

Order confirmation	Batch, I/O and environmental ratings follow the order confirmation
Published data	Compiled from published product data; EQIO provides selection and system integration
Configuration talk	Share the application, I/O count, environment and software so a configuration can be proposed

Request a quotation and selection support

Email lyping@eqio.com Phone +86 182 8191 2988
Web eqio.com

EQIO

Easy · Quick · Input · Output

BRAND

Measurement and control, made easy.



EQIO product family · concept rendering

Brand story

EQIO builds measurement and control products and systems. The name stands for Easy Quick Input Output: Easy is a clear structure that is quick to learn, Quick is a direct path to efficient delivery, and Input / Output is every link between the device under test and the control system.
The soft single-cycle wave inside the Q links the brand to signals, acquisition and I/O. “Measurement and control, made easy” is our promise for every selection, integration and delivery.

What we do

Products

Data acquisition, test instruments, control and I/O, modular platforms, software, cables

Systems

Configured to the measurand, channels, accuracy and software, from design to commissioning

Support

Selection advice, training, maintenance and calibration

How we deliver

01
Requirements

02
Solution design

03
Build & integration

04
Factory test

05
Delivery & training

06
Ongoing support

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