

S-Box



**Proven in Thousands of
Commercial EVs & HEVs**

- **Battery Management System**
- **HV Isolation Detection**
- **Contactor Status Validation**
- **12V or 24V Operation**
- **Dual Input Dual Output**
- **Battery Heater Control**
- **Battery Chiller Control**
- **HVIL Loop**
- **2 MSDs with fuses**
- **Designed for long working life**

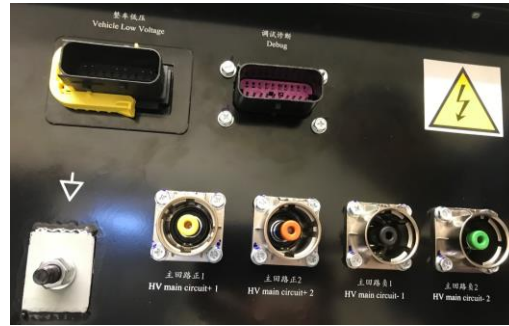
GENERAL SPECIFICATIONS

Model #:	SBox 2StrBC3
Controls:	500K bps CAN
HV Input Voltage:	Max 750VDC
HV Input/Output Current Rating:	250A/String Cont., 450A/String for 60s
Control Voltage:	9-16V (12V version) 18-32V (24V version)
Low Voltage Current:	6A Max
Working Temperature:	-30°C to +65°C
Isolation Detection, HVIL Loop	Included
Environmental Protection:	IP67
Weight:	55 lbs (25 kg)
Dimensions (L×W×H):	16.1"×14.6"×8.9" (410×372×225mm)

CATL S-Box

Vehicle LV interface

Type	Pin No.	Pin Name
	1	12V+
	2	12V+
	3	N/A
	4	ACANH
	5	ACANL
	6	N/A
Tyco : 1-1564526-1 is on S-Box Mating Connector is 1-1563759-1	7	CHCAN_H
	8	CHCAN_L
	9	N/A
	10	GND
	11	GND
	12	N/A
	13	Keyon
	14	Charge-WP
	15	N/A
	16	N/A
	17	HSD
	18	LSD



CONNECTORS

On S-Box	Socket P/N	Plug P/N
BAT 1+	Amphenol PL00W-301-10D10	Amphenol PL18W-301-50
BAT 1-	Amphenol PL00T-301-10D10	Amphenol PL18T-301-50
BAT 2+	Amphenol PL00W-301-10D10	Amphenol PL18W-301-50
BAT 2-	Amphenol PL00T-301-10D10	Amphenol PL18T-301-50
Main circuit 1+	Amphenol PL00U-301-10D10	Amphenol PL18U-301-50
Main circuit 1-	Amphenol PL00Y-301-10D10	Amphenol PL18Y-301-50
Main circuit 2+	Amphenol PL00X-301-10D10	Amphenol PL18X-301-50
Main circuit 2-	Amphenol PL00V-301-10D10	Amphenol PL18V-301-50
Vehicle LV Connector	TE 1-1564526-1	TE 1-1563759-1
Heating Input	Jonhon 21E2-474-2870_001-B1	Jonhon 21E5-904-14849_001-P79-A
Heating Output	Jonhon 21E2-474-2870_001-B1	Jonhon 21E5-904-14849_002-P79-B
LV Input	Recodeal 3.663.601004R	Recodeal 3.653.601002R
LV Output	Recodeal 3.663.601003R	Recodeal 3.653.601002R

SAFETY INFORMATION

- The S-Box includes 2 MSDs with internal 630A fuses, one for each HV string input. Both MSDs should be pulled to fully deactivate high voltage.
- S-Box HV connectors have an internal HVIL loop and status is broadcast on the CAN bus
- The S-Box performs contactor position monitoring. Improper operation will be reported on CAN.