

## EDU01 DC Distribution Monitoring Unit

### Product Features

- Using high reliable DSP controlled produced by TI, USA
- Detecting DC voltage of 3 routes, DC current of 2 routes and insulation resistance of one section bus. All measuring channels are isolated from each other by high resistance
- Detecting insulation of feeder branch circuit breaker when serving as the master of insulation monitor and working with EGU01
- Control a 5/7-voltage step diode chain automatically to smoothly drop the output voltage(or control bus voltage). Identifying open circuit and serious short-circuit and entering protection mode automatically to avoid control bus failure
- Meeting the immunity standard in industrial environment; complying with the EU RoHS directives; safe and environmentally friendly
- Compact structure, convenient for installation

### Description

EDU01, as the DC distribution monitoring unit, provides functions such as DC signal acquisition, diode chain control, bus insulation monitoring and protocol conversion. It is one of distribution monitoring units working with the main monitoring unit EMU10. When serving as the protocol converter, it can convert the CAN protocol of ER series 3 phase charging modules to MODBUS RTU protocol, and provides functions such as bus voltage and current detection, insulation detection and diode chain control after being connected to the monitoring system of the cooperator.



## Technical Specifications

HMI port	
LED indicators	4
Communication port	
CAN communication port	1
RS485 communication port	1
Power input	
Operating power supply	80Vdc ~ 320Vdc, rated input 220Vdc
Maximum power consumption	15W
Integrated signal acquisition port	
DC bus voltage acquisition channel numbers	3(voltage measurement accuracy: $\pm 1V$ )
DC current acquisition channel numbers	2(current measurement accuracy: $\pm 2\%$ )
Output port	
Unit self-fault alarm dry contact number	1
Unit self-fault alarm dry contact capacity	3A/30Vdc
Diode chain control contacts numbers	3 (supporting 5 and 7 voltage step diode chain control)
Diode chain control contacts numbers	50mA/220Vdc
Operating environment	
Operating temperature	Normal: -10°C +55°C, limited: 65°C
Cooling mode	Free cooling
Relative humidity	95%
Mechanical dimensions	
Front panel (W×H×D)(mm)	117×88(2U)×119.5
Installation hole (W×H) (mm)	117×57
Function	
Basic function	Closing bus voltage acquisition, control bus voltage acquisition, communication port acquisition, battery voltage acquisition, load current acquisition, battery current acquisition, bus insulation detection (detect feeder branch circuit breaker insulation with EGU01), embedded diode chain control, CAN-RS485 protocol conversion
Alarm function	Bus insulation failure alarm, insulation abnormal pre-alarm, feeder branch circuit breaker insulation failure alarm (located to feeder branch circuit breaker route with EGU01), system bus voltage abnormal alarm, self-failure alarm
Protection function	Mistake-proof protection for key parameters, 12V output short protection
Safety	
Standard	EN 60950-1(CE marked)
EMC	
Standard	EN 61000-6-2 EN 61000-6-4(CE marked)
Reliability	
MTBF	>120,000 h (Bellcore TR332)
Design life	>10 years (35°C operating conditions)
RoHS	R10