

EMU10 Monitoring Unit

Product Features

- Full-graphic color with high definition LCD display, touch screen operation
- Use 32-bit high-performance CPU, which provides robust communication and data processing capability
- Employ Linux OS which ensures openness and reliability
- Supporting special port requirements of power system (IRIG-B hard calibration time port)
- Meeting the immunity standard in industrial environment; complying with the EU RoHS directives; safe and environmentally friendly
- Compact structure, convenient for installation

Description

EMU10 is an intelligent monitoring unit launched by Vertiv, and is applicable to 80 ~ 320Vdc small and medium AC/DC power system. It is widely used in power grid, power plant, petroleum and pre-chemical, steel metallurgy, and mineral industries. It features flexible configuration, compact structure and high intelligence. Combined with general distribution units (EAU, EDU, EGU, EBU), it can satisfy the monitoring demand of 10kV ~ 1000kV substations for low-voltage AC/DC power system. EMU10 monitoring unit can meet the monitoring demand of different scenarios, and supports the management functions such as human-machine interaction, battery management, equipment access, information display and remote communication.



Technical Specifications

HMI port	
	EMU10
LCD screen	7 inches
LED indicators	3
Touch-screen	4-line resistance panel
Auxiliary keypads	6
USB ports	2
Communication port	
RS485 communication ports of acquisition device	2
CAN communication ports of acquisition device	2
RS485 communication ports of remote communication	1
RS232 communication port of remote communication	1
Ethernet port	1(10/100M)
Remote communication protocol type	CDT, MODBUS, IEC61850
Operating power supply	
Operating voltage	80Vdc ~ 320Vdc, rated input 220Vdc
Maximum power consumption	20W
Integrated signal acquisition port	
Digital data acquisition channels	<ul style="list-style-type: none"> • AC circuit breaker trip signal • AC contactor operating status signal • AC SPD fault signal • Feeder branch circuit breaker status • Bus switch status • Charger output fuse status • Insulation relay status • Battery fuse status
Output port	
Driving ability of external 12V audible/visual alarm indicator	<80mA
Dry contact output numbers	7(User-defined)
Unit self-fault alarm dry contact number	1
Dry contact capacity	3A/30Vdc
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)	176(4U)×176(4U)×70.5
Installation hole (WXH) (mm)	151.5×159
Function	

Battery management functions	Perform automatic equalizing / float charging management, charging current limiting management, temperature compensation and battery capacity verification test according to the equalizing and float charging parameters set by the users; The system will transfer to float charging automatically from equalizing charging when it is in abnormal status; Support maintenance free battery and vented battery management
Data acquisition function (direct acquisition or acquisition through communication)	
AC data acquisition	AC input voltage and current acquisition, AC input device status acquisition, and AC input power and power factor acquisition
DC bus data acquisition	DC bus voltage and current acquisition, DC feeder branch circuit breaker status/trip contact acquisition, and feeder branch circuit breaker insulation detection
Battery data acquisition	Battery cell/block voltage acquisition, battery current acquisition, and battery temperature acquisition
Insulation data acquisition	Voltage to ground and resistance acquisition for DC bus, ground resistance acquisition for DC feeder branch circuit breaker circuit, and operating status acquisition for insulation detecting device
Charging module data acquisition	Charger output voltage and current acquisition, charger output fuse status acquisition, and rectifier module output voltage/current/operating status acquisition
Inverter module data acquisition	Inverter module output voltage/current/ operating status acquisition
DC-DC module data acquisition	DC/DC converter module output voltage/current/ operating status acquisition
Alarm function	Feeder branch circuit breaker trip alarm; battery fuse broken, charger output fuse broken and insulation relay alarm; bus insulation deteriorated alarm, feeder branch circuit breaker insulation deteriorated alarm; communication failure of distribution monitoring unit (EAU01/EDU/EGU/EBU) , rectifier, DC/DC module, and DC/AC module; AC over/under voltage, phase failure, power failure, AC circuit breaker trip, and AC SPD alarms; bus and battery over/under-voltage alarms, float charging over-voltage alarms; battery charging over-current alarm, battery temperature abnormal alarm; battery cell/block over/under-voltage alarm
Protection function	Battery equalizing charging protection, charging over-current protection, battery discharging test protection, key parameter error-proof protection, patrol perception function
Other functions	Software time calibration and IRIG-B hardware time calibration
Safety	
Standard	EN 60950-1
Reliability	
MTBF	>120,000h (Bellcore TR332)
Design life	>10 years (35°C operating conditions)
RoHS	R10