DC CONTROLLER
UPC4-MASTER

Battery voltages:
24/48/60/110/125/220V$_{DC}$

Preliminary

KEY FEATURES

· **Extensive battery management**

· **DIN Rail Mounting**

· **Easy in use and programming**

· **Freely programmable signalling concept**

· **CAN-Bus interface**

· **Remote control and monitoring**

APPLICATIONS

DC power supply systems with battery backup in all areas of industry, telecommunication, power generation and power distribution.

PRODUCT DESCRIPTION

DC Controllers of the new UPC4 series are integrated units for control, monitoring and signalling of DC-power supply systems with battery backup. The units are easy to use and programmable via the display unit panel or RS232/Ethernet interface in combination with PC software. On the basis of a freely programmable signal matrix, the customer is able to configure several alarms to groups and which of all the signalling outputs are to be used.

The unit is equipped with control outputs for LVD and PLD relays. The control of the rectifier modules is realised via a CAN communications bus. For remote monitoring the use of a direct PC link, modem SNMP, ModBus or Profibus is possible. A special software for remote monitoring and parameter adjustment is available. Due to the system wide CAN communication concept each of our modular power supplies such as rectifiers, DC/DC converters, inverters and static bypass switches can be monitored and controlled by the UPC4.

The functionality of the master unit can be extended with external CAN modules. For all measuring inputs the basic unit is used, this means that the basic unit can be placed close to the connection point and all values are transferred over the CAN connection.

Type	UPC4-Master
Article code	xxx.xxxx.xxxx
Supply voltage	3 x redundant power supply inputs 24V ±10% with external power supply DC or AC
Voltage measuring range	0-320VDC
Current measuring range	±0-60mV (shunt value programmable)
Power consumption	Max. 25W
LED indications	5 LEDs
Relay outputs	3 (isolated; max. 0.5A @ 60VDC)
Interfaces:	
Ethernet	RJ45 10/100Mbit
CAN interface	2xRJ12 and 2xRJ45, proprietary CAN protocol
Modem connection	9-pole SUB-D male RS232 (modem optional, analogue, ISDN or GPRS/GSM)
ModBus connection	4-pole MSTB 5mm RS485
Profibus connection	9-pole SUB-D female RS485
Data	SD card max 4GB
Controller functions	Temperature compensated float charge, boost charge, battery test; boost charge automatic (power, voltage and time related), LVD control, PLD control; time controlled battery test; charge current limitation; dropping diode control (double-stage)
Monitoring functions	Battery voltage, battery tap voltage, battery charge current, battery operation; isolation fault, battery voltage low, battery voltage high, CAN-Bus status, CAN connected module status; external alarm loops, internally switchable isolation measurement
Event history function	Text message of active faults; stored on SD card of last 250 faults/events with time stamp
Battery test memory	Storage of the last three battery test results; storage of the last battery test curve
RTC with time and date	Yes
Control buttons	2; 1x Eject of SD card, 1x not decided
Languages	German, English, Swedish; other versions loadable on demand
Ambient temperature	Operation: -20°C to +55°C; non condensing; storage: -40°C to +85°C
Cooling	Convection cooling
Max. installation altitude	≤ 1500m
Audible noise	<30dBA
Type of construction	DIN Rail mounting
Dimensions (W/H/D)	45/104/110mm
Weight	approx. 0.8kg
Type of enclosure / Protection class	IP20 / 1
Colour	RAL 7035, neutral, black print RAL 9005
CE conformity	yes
Compliance to safety standards	EN60950-1; EN50178; EN60146
Compliance to EMC standards	EN55011/22 class "B"; EN61000-4 T2-5

OPTIONS

DIMENSIONS

Article code	Designation
xxxxxxxxxx	UPC4 Basic unit
302-UP3-MMT.00	Configuration software "Multi Management Tool" (MMT)
302-003-RDD.00	Remote display for door mounting; connection via CAN interface
302-003-RDMD.00	Remote display for door mounting with mimic diagram; connection via CAN interface
xxxxxxxxxxx	Remote display for 1HU for 19" Mounting; connection via CAN interface
302-DCC-0MM.00	Mains monitoring board 1/3 phase; DIN rail module; connection via CAN interface
302-DCC-0BM.00	Battery monitoring board DCC-BMB (for one additional battery string; U, U/2, I, T); DIN rail module; max. six modules DCC-BMB applicable
302-DCC-DI8.00	Signalling board with 8 digital alarm inputs; DIN rail module; connected via CAN interface
302-DCC-0RB.00	Relay board with 6 isolated signalling outputs; DIN rail module; connected via CAN interface
302-DCC-0FM.00	Fuse monitoring board (20 fuses, 24-60VDC, 1-pole); open frame
302-UP3-SMP.00 302-UP3-0SW.02	SNMP adapter ; plug-in board; connection via Ethernet 10Base-T; SNMP monitoring software (Win)
302-UP3-0AM.00 302-UP3-0SW.01	Analog modem; Remote software for analog modem
302-TMP-KTY.04	Temperature sensor KTY81-220 T092 incl. connecting cable 4m in length; 2 wires à 0,34 mm²