

DC-DC Converter DCDC1600-85-54

Voltage stabilizer for operation of 48V devices in 60V or 72V battery supply systems

Specification



Picture may differ from actual device

Electrical data

Input

Voltage range -40 to -85 V_{DC}

Output

DC voltage nominal -48 V_{DC}-system

-54 V_{DC} for U_{IN} -56V to -85V
 U_{IN} - 1,5V (typ) for U_{IN} -40V to -56V
 U_{IN} - 4,5V (max) for U_{IN} -40V to -56V

Positive pole is connected to chassis / protective earth.

Output current I_{NOM} 30A (15A each module)
 modules redundant decoupled, parallel
 operating function for several devices

Overvoltage protection of the connected load electronic
 crowbar, at controller failure >58V

Optional:
 Output distribution max. 5x hydro magnetic fuses (16A)

Environmental conditions

Conditions:
 During operation -5°C to +50°C, non-condensing
 During transport/stocking -40°C to +85°C (in original packing)
 Relative air humidity 0% to 95% relative humidity
 Max. operation altitude 3000 meters

EMC

Emission EN 50081-1/2, EN 55022 B
 Immunity EN 55024, EN 61000-6-2
 (Industrial areas)

Signaling

Alarm contact potential-free, each 15A module
 Visual each 15A module: LED (green) power supply o.k.

Mechanical data

Case material sheet steel, zinc-plated
 Construction for mounting into 19"-racks
 (flanges can be exchanged),
 can be provided for mounting into
 ETSI-racks

Dimension:
 Sub-rack 19", 1U, depth = 244 mm
 15A module 130 x 40 x 160 mm
 Weight:
 Module carrier approx. 4,3 kg (full rack)
 15A module approx. 1,5 kg
 Protection class IP 20
 Cable access rear side
 Cooling temperature controlled fan

Connection terminals

Input DC screw clamps, type
 Phoenix Front 4-H-7,62
 Output DC screw clamps, type
 Phoenix Front 4-H-7,62
 Alarm contact connector, type Phoenix
 MC 1,5/8-GF-3,81 – 1,5 mm²
 (Optional) 5x fuse protected outputs, 16A
 circuit breakers, screw clamps, type
 Phoenix HDFK 4 – 4 mm², the
 standard output remains connected!!

Warranty 24 months

Order code

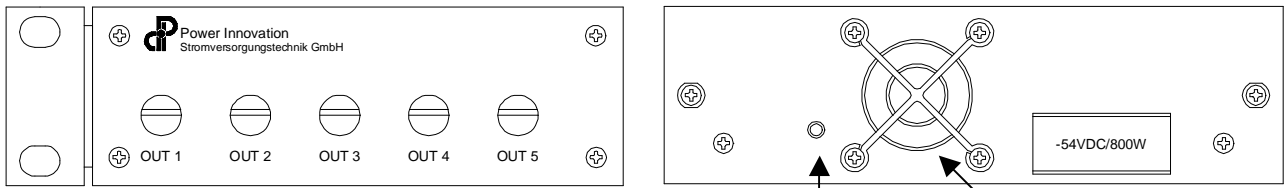
Standard DCDC1600-85-54
 Optional DCDC1600-85-54-K1
 (with output fuses)
 Optional DCDC800-58-54
 (module rack + one power module)

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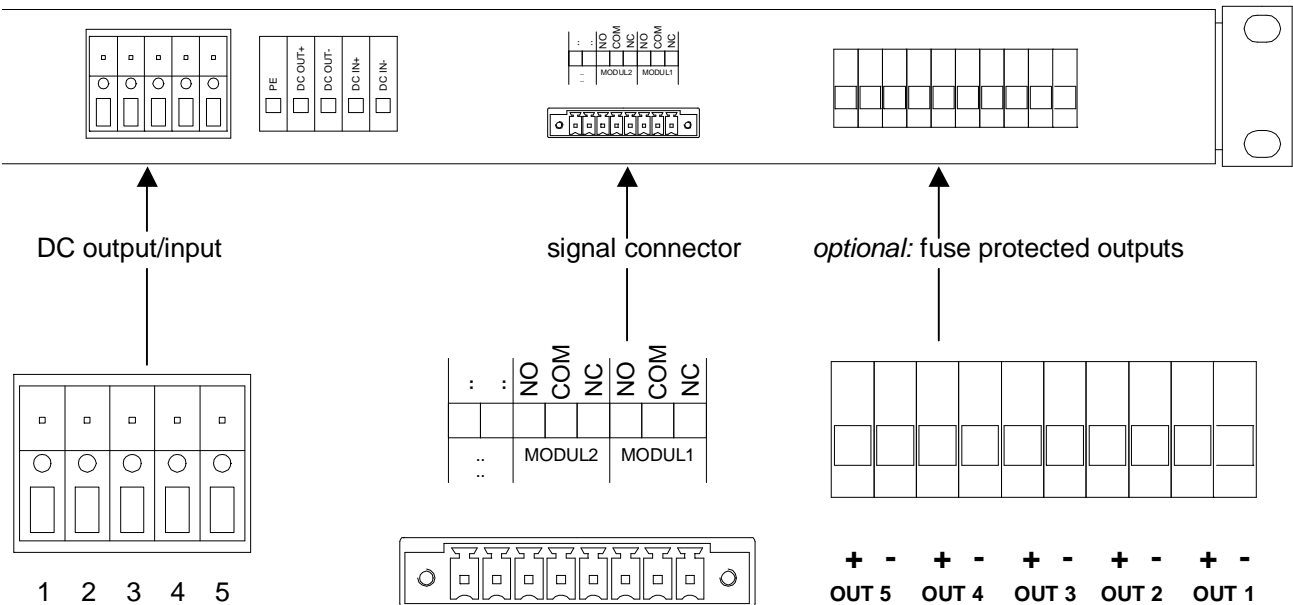
Control elements (front panel)



optional: Fuse panel, 16A circuit breakers

operating status LED fan

Connector description (rear side)



Pin	Function	Abbreviation
1	Ground wire	PE
2	Output voltage reference	+U _{OUT}
3	Output voltage negative	-U _{OUT}
4	Input voltage reference	+U _{IN}
5	Input voltage negative	-U _{IN}