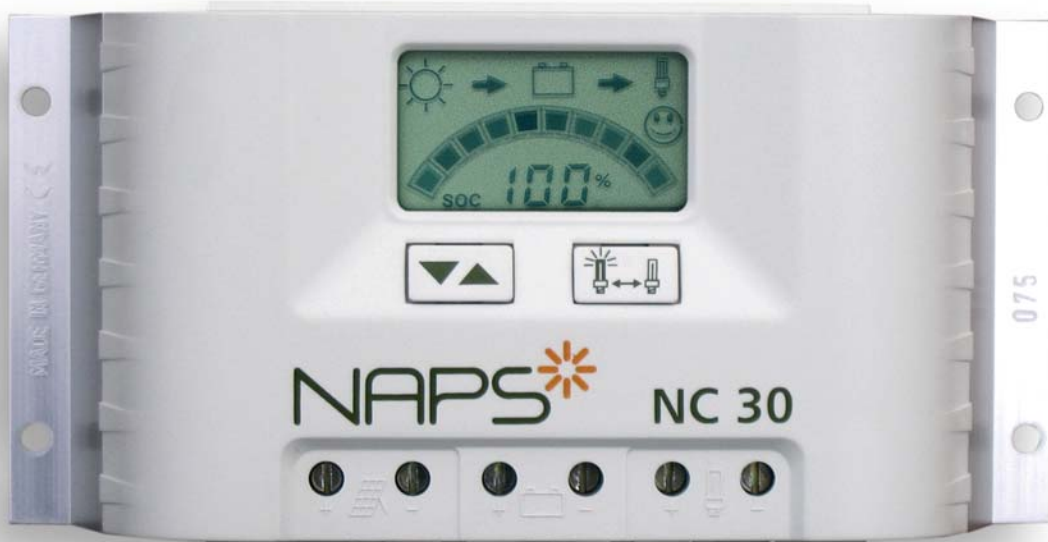


## Naps NC 10 / NC15 / NC 30



### Features

- For either 10, 15 or 30A current (NC10/15/NC30)
- Automatic selection of system voltage (12/24V)
- Electronic fuses and protection
- Charging procedure based on either battery state of charge or on battery voltage
- Four phase charging
- PWM (pulse width modulation) charging
- Temperature compensation of charging voltage
- Compensation of voltage loss in cables
- Coated circuit board to protect from moisture
- Battery type setting (gel/liquid)
- Three years warranty

### Display

- Clear symbolic display
- Battery state of charge (%)
- Battery voltage (V)
- Module current (A)
- Charging current (A)
- Load current (A)
- Battery recharging meter (Ah)
- Battery discharging meter (Ah)
- Deep discharge warning



## Technical data

### Electrical data

• System voltage	12 V or 24 V; automatic selection
• Bat. voltage range for 12 V	6,9 V – 17,2 V
• Bat. voltage range for 24 V	17,3 V – 43,0 V
• Operating temperature range	-10 °C - +50 °C
• Storage temperature range	-20 °C - +80 °C
• Current consumption	12 V: ca. 12,5 mA, 24 V: ca. 15,8 mA
• PWM-frequency	30 Hz
• Maximum input voltage	45 V
• Minimum battery voltage	6,9 V

### Current ratings

• Max continuous panel current	10A (NC10), 15 A (NC 15), 30 A (NC 30)
• Max continuous load current	10A (NC10), 15 A (NC 15), 30 A (NC 30)

### Charge voltage settings

	<b>Gel battery (GEL)</b>	<b>Flooded (open) battery (Li)</b>
• Float charge voltage	14,1 V / 28,2 V	13,9 V / 27,8 V
• Boost charging, 2 hours	14,4 V / 28,8 V	14,4 V / 28,8 V
• Equalization charging, 2 hours		14,7 V / 29,4 V
• Temperature compensation	+/- 4 mV / °K / cell (built-in sensor)	

### Activation of charge modes

	<b>SOC-control</b>	<b>Voltage control</b>
• Float charge regime	SOC: >= 70 %	>= 12,7 V or >= 25,4 V
• Boost charge	SOC: 40 % - 69 %	11,7–12,4V or 23,4–24,8V
• Equalization charge	SOC: < 40 %	< 11,7 V or 23,4 V
30 day equalization charge	If boost or equalization charge has not been activated during past 30 days.	

### Low voltage disconnect

	<b>SOC-control</b>	<b>Voltage control</b>
• Warning	SOC < 40 %	< 11,7 V / 23,4 V
• Disconnect	SOC < 30 %	< 11,1 V / 22,2 V
• Automatic reconnect	SOC > 50 %	> 12,6 V / 25,2 V

### Overtemperature protection

- Load disconnect > 85 °C
- Load reconnect < 75 °C

### Mechanical data

• Protection class	IP 22
• Installation	Vertical
• Weight	350 g
• Material	Recycleable plastic
• Dimensions (W x H x D)	187 mm x 96 mm x 44 mm
• Connectors (stranded/solid)	16 mm <sup>2</sup> / 25 mm <sup>2</sup>