SPECIFICATIONS FOR 2015 NiMH	3-6 cell	4-8 cell	5-10 cell	6-12 cell	10-20 cell
Available versions	x	x	x	x	x
Input voltage	190-265VAC, 50-60Hz	190-265VAC, 50-60Hz	190-265VAC, 50-60Hz	190-265VAC, 50-60Hz	190-265VAC, 50-60Hz
No-load voltage	12.8V ± 0.7V	16.5V ± 1V	21V ± 1.2V	24.7V ± 1.5V	41V ± 2V
Max. output power	40W	40W	40W	40W	45W
Min. output voltage for -ΔV detection	3.7V (min 3 cells x min 1.25V pr. cell)	5.0V (min 4 cells x min 1.25V pr. cell)	6.2V (min 5 cells x min 1.25V pr. cell)	7.5V (min 6 cells x min 1.25V pr. cell)	12.5V (min 20 cells x min 1.25V pr. cell)
Max. output voltage for -ΔV detection	10.8V (max 6 cells x max 1.8V pr. cell)	14.4V (max 8 cells x max 1.8V pr. cell)	18V (max 10 cells x max 1.8V pr. cell)	21.6V (max 12 cells x max 1.8V pr. cell)	36V (max 20 cells x max 1.8V pr. cell)
-ΔV sensitivity mV/cell	10mV/0.6% at 6 cells.	8mV / 0.5% for 4-8 cells	5-10 cells	6-12 cells	10-20 cells
Fast charge current	3.5A ± 250mA	2.8A ± 200mA	2.2A ± 150mA	1.8A ± 150mA	1.2A ± 100mA
Top off charge (duration 1h after -dV detection)	480mA ± 100mA	400mA ± 80mA	330mA ± 70mA	270mA ± 60mA	160mA ± 50mA
Trickle charge current	150mA ± 70mA (continously)	150mA ± 70mA (continously)	100mA ± 50mA (continously)	100mA ± 50mA (continously)	50mA ± 25mA (continously)
Leakage current from battery with mains switch off	< 1mA	< 1mA	< 1mA	< 1mA	< 1mA
Start timer	3 min, no -ΔV detection in this period	3 min, no -ΔV detection in this period	3 min, no -ΔV detection in this period	3 min, no -ΔV detection in this period	3 min, no -ΔV detection in this period
Top-off timer	1hour	1hour	1hour	1hour	1hour
Safety timer The charger switch to trickle charge if no ΔV is detected before the safety timer has run out.	2 h	2 h	2 h	2 h	2 h
Switch frequency	40kHz.	40kHz.	40kHz.	40kHz.	40kHz.
Temperature range	-20 to +40oC (these values are only for the charger, not for the batteries).	-20 to +40oC (these values are only for the charger, not for the batteries).	-20 to +40oC (these values are only for the charger, not for the batteries).	-20 to +40oC (these values are only for the charger, not for the batteries).	-20 to +40oC (these values are only for the charger, not for the batteries).
Charge control	-ΔV principle. Fast charging stops when the voltage has dropped 0.5% below its maximum recorded level.	-ΔV principle. Fast charging stops when the voltage has dropped 0.5% below its maximum recorded level.	-ΔV principle. Fast charging stops when the voltage has dropped 0.5% below its maximum recorded level.	-ΔV principle. Fast charging stops when the voltage has dropped 0.5% below its maximum recorded level.	-ΔV principle. Fast charging stops when the voltage has dropped 0.5% below its maximum recorded level.
Voltage changes during charging	-ΔV detection is disabled if the voltage changes quickly. This to avoid false -ΔV if an external load kicks in during charging.	-ΔV detection is disabled if the voltage changes quickly. This to avoid false -ΔV if an external load kicks in during charging.	-ΔV detection is disabled if the voltage changes quickly. This to avoid false -ΔV if an external load kicks in during charging.	-ΔV detection is disabled if the voltage changes quickly. This to avoid false -ΔV if an external load kicks in during charging.	-ΔV detection is disabled if the voltage changes quickly. This to avoid false -ΔV if an external load kicks in during charging.
Battery analyzing	Max. 20 sec after mains connection / battery connection (yellow LED).	Max. 20 sec after mains connection / battery connection (yellow LED).	Max. 20 sec after mains connection / battery connection (yellow LED).	Max. 20 sec after mains connection / battery connection (yellow LED).	Max. 20 sec after mains connection / battery connection (yellow LED).
Efficiency	Appr. 78%.	Appr. 78%.	Appr. 78%.	Appr. 78%.	Appr. 78%.
Fuses	Fusible resistor at input. Polyswitch fuse at the output protects the unit against wrong polarity.	Fusible resistor at input. Polyswitch fuse at the output protects the unit against wrong polarity.	Fusible resistor at input. Polyswitch fuse at the output protects the unit against wrong polarity.	Fusible resistor at input. Polyswitch fuse at the output protects the unit against wrong polarity.	Fusible resistor at input. Polyswitch fuse at the output protects the unit against wrong polarity.
Insulation class	Class II.	Class II.	Class II.	Class II.	Class II.
Electrical safety	EN 60601-1, EN 60950, EN 60335-2-29.	EN 60601-1, EN 60950, EN 60335-2-29.	EN 60601-1, EN 60950, EN 60335-2-29.	EN 60601-1, EN 60950, EN 60335-2-29.	EN 60601-1, EN 60950, EN 60335-2-29.
EMC-standards	EN 61000-6-3, EN 50081-1, EN 61000-6-1, EN 50082-1, EN 60601-1-2.	EN 61000-6-3, EN 50081-1, EN 61000-6-1, EN 50082-1, EN 60601-1-2.	EN 61000-6-3, EN 50081-1, EN 61000-6-1, EN 50082-1, EN 60601-1-2.	EN 61000-6-3, EN 50081-1, EN 61000-6-1, EN 50082-1, EN 60601-1-2.	EN 61000-6-3, EN 50081-1, EN 61000-6-1, EN 50082-1, EN 60601-1-2.
Insulation voltage (prim-sec)	4000V AC / 5700V DC.	4000V AC / 5700V DC.	4000V AC / 5700V DC.	4000V AC / 5700V DC.	4000V AC / 5700V DC.
Mains connection	Plug-in europlug (UK, AU and US-plug also availible)	Plug-in europlug (UK, AU and US-plug also availible)	Plug-in europlug (UK, AU and US-plug also availible)	Plug-in europlug (UK, AU and US-plug also availible)	Plug-in europlug (UK, AU and US-plug also availible)
Output terminals	Secondary cable with exchangeable plugs.	Secondary cable with exchangeable plugs.	Secondary cable with exchangeable plugs.	Secondary cable with exchangeable plugs.	Secondary cable with exchangeable plugs.
LED-indication	Yellow: Initialization/no batt. Orange: Fast charge Green with short yellow flashes: Top off charge: Green: Trickle charge Red-Green flashing (error mode): Battery voltage low	Yellow: Initialization/no batt. Orange: Fast charge Green with short yellow flashes: Top off charge: Green: Trickle charge Red-Green flashing (error mode): Battery voltage low	Yellow: Initialization/no batt. Orange: Fast charge Green with short yellow flashes: Top off charge: Green: Trickle charge Red-Green flashing (error mode): Battery voltage low	Yellow: Initialization/no batt. Orange: Fast charge Green with short yellow flashes: Top off charge: Green: Trickle charge Red-Green flashing (error mode): Battery voltage low	Yellow: Initialization/no batt. Orange: Fast charge Green with short yellow flashes: Top off charge: Green: Trickle charge Red-Green flashing (error mode): Battery voltage low

Resetting	A new charging cycle starts by reconnecting a battery at the output, or by disconnecting and connecting the mains voltage.	A new charging cycle starts by reconnecting a battery at the output, or by disconnecting and connecting the mains voltage.	A new charging cycle starts by reconnecting a battery at the output, or by disconnecting and connecting the mains voltage.	A new charging cycle starts by reconnecting a battery at the output, or by disconnecting and connecting the mains voltage.	A new charging cycle starts by reconnecting a battery at the output, or by disconnecting and connecting the mains voltage.
IP-grade	IP 20.	IP 20.	IP 20.	IP 20.	IP 20.
Dimensions	L100 × W63 × H47 (without plug).	L100 × W63 × H47 (without plug).	L100 × W63 × H47 (without plug).	L100 × W63 × H47 (without plug).	L100 × W63 × H47 (without plug).
Weight	220g.	220g.	220g.	220g.	220g.
Other	Possible options on request: +dT/dt, 0dV and timer charge. The charger may be both software and hardware programmable.	Possible options on request: +dT/dt, 0dV and timer charge. The charger may be both software and hardware programmable.	Possible options on request: +dT/dt, 0dV and timer charge. The charger may be both software and hardware programmable.	Possible options on request: +dT/dt, 0dV and timer charge. The charger may be both software and hardware programmable.	Possible options on request: +dT/dt, 0dV and timer charge. The charger may be both software and hardware programmable.