SPECIFICATIONS FOR 3546 LI

	1-cell	2-cell	3-cell	4-cell
Available versions	x			
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz			
Max output power	10.5W	21W	27.7W	26.9W
Step 0 < 10min Yellow	CC 100mA ± 25mA, when battery voltage < 3V.	CC 100mA ± 25mA, when battery voltage < 6V.	CC 100mA ± 25mA, when battery voltage < 9V.	CC 100mA ± 25mA, when batt voltage < 12V.
Step 0 > 10min Red (4 blinks)	0A / 0V			
Step 1 (Constant Current) Yellow	CC 2.5A ± 0.3A, when 3V < Vbat < 4.2V.	CC 2.5A ± 0.3A, when 6V < Vbat < 8.4V.	CC 2.2A ± 0.2A, when 9V < Vbat < 12.6V.	CC 1.6A ± 0.15A, when 12V < Vbat < 16.8V.
Step 2 (Constant Voltage) Flashing Yellow	CV 4.2V ± 0.05V, until I charge < 100mA or max. 1h.	CV 8.4V ± 0.1V, until I charge < 100mA or max. 1h.	CV 12.6V ± 0.1V, until I charge < 100mA or max. 1h.	CV 16.8V ± 0.1V, until I charge < 100mA or max. 1h.
Charge timer (step2, CV)	1h			
Safety timer (all steps) Red (5 blinks)	72h			
Step 3 (Charge Completed) Green	0A			
Restart voltage	4.1V	8.2V	12.3V	16.4V
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.			
Wake-up of deeply discharged battery.	Yes, will apply voltage which deactivates deep discharge protection in battery pack.			
Indication when “Battery not connected”	Flashing Green (1s/1s)			
NTC input, on request (std is 10kohm, B-value approx. 4000)	0 – 45 °C: Normal charge. Battery temperature < 0 °C (too cold) or > 45°C (too hot): No charge, wait until temp. is OK.			
Ripple	< 100mV p-p			
Efficiency (at 100% load) approx.	0.7	0.85	0.85	0.85
Switch frequency approx.	35kHz			
Leakage current from battery with mains switched off	< 300 µA at nominal battery voltage (< 0.22 Ah/month)			
Protection	Protected against reversed polarity. Error Indication: Red (2 blinks) Short circuit proof. Error Indication: Red (3 blinks) Charging of wrong lower voltage battery pack will be limited to 100mA and terminated after 10min. Indication: Red (4 blinks) Safety timer. Error Indication: Red (5 blinks) No charge (or charge terminated) if connecting wrong battery pack with higher voltage. Indication: LED is OFF.			
Temperature range	Operating: ÷25 to +40oC. Storage: ÷25 to +85oC			
Safety	Medical EN 60601-1 / Home Healthcare EN 60601-1-11 (VNOM≥110VAC) / Battery Charger EN 60335-2-29			
Insulation class	Class II			
Insulation voltage: Primary – secondary	4000VAC / 5700VDC			
EMC standards	EN 55014-1 and –2, EN 61000-6-3, EN 61000-6-1, EN 60601-1-2			
Input terminal	2-pins IEC 320 connector for exchangeable mains plug (EU, US, UK and AUS) or mains cord with C7 connector.			
Output terminals	Cord with/without plug. Exchangeable plugs available.			
IP-Grade	IP41			
Rec. battery capacity	2.5 Ah (1C) to 10Ah (<100mA charge current as EoC detection) or up to 100Ah (utilizing the 1h CV timer as EoC detection)	2.2Ah (1C) to 10Ah (<100mA charge current as EoC detection) or up to 88Ah (utilizing the 1h CV timer as EoC detection)	1.6 Ah (1C) to 10Ah (<100mA charge current as EoC detection) or up to 64Ah (utilizing the 1h CV timer as EoC detection)	1.35 Ah (1C) to 10Ah (<100mA charge current as EoC detection) or up to 54Ah (utilizing the 1h CV timer as EoC detection)
Dimensions	123.5 × 49.5 × 37 mm			
Weight	220g			

SPECIFICATIONS FOR 3546 LI

	5-cell	6-cell	7-cell	8-cell
Available versions	x			
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz			
Max output power	28.4W	29W	29.4W	28.6W
Step 0 < 10min Yellow	CC 100mA ± 25mA, when battery voltage < 15V.	CC 100mA ± 25mA, when batt voltage < 18V.	CC 100mA ± 25mA, when batt voltage < 21V.	CC 100mA ± 25mA, when batt voltage < 24V.
Step 0 > 10min Red (4 blinks)	0A / 0V			
Step 1 (Constant Current) Yellow	CC 1.35A ± 0.2A, when 15V < Vbat < 21.0V.	CC 1.15A ± 0.1A, when 18V < Vbat < 25.2V.	CC 1.0A ± 0.1A, when 21V < Vbat < 29.4V.	CC 0.85A ± 0.1A, when 24V < Vbat < 33.6V.
Step 2 (Constant Voltage) Flashing Yellow	CV 21.0V ± 0.1V, until I charge < 100mA or max. 1h.	CV 25.2V ± 0.2V, until I charge < 100mA or max. 1h.	CV 29.4V ± 0.2V, until I charge < 100mA or max. 1h.	CV 33.6V ± 0.2V, until I charge < 100mA or max. 1h.
Charge timer (step2, CV)	1h			
Safety timer (all steps) Red (5 blinks)	72h			
Step 3 (Charge Completed) Green	0A			
Restart voltage	20.5V	24.6V	28.7V	32.8V
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.			
Wake-up of deeply discharged battery.	Yes, will apply voltage which deactivates deep discharge protection in battery pack.			
Indication when “Battery not connected”	Flashing Green (1s/1s)			
NTC input, on request (std is 10kohm, B-value approx. 4000)	0 – 45 °C: Normal charge. Battery temperature < 0 °C (too cold) or > 45°C (too hot): No charge, wait until temp. is OK.			
Ripple	< 100mV p-p			
Efficiency (at 100% load) approx.	0.85			
Switch frequency approx.	35kHz			
Leakage current from battery with mains switched off	< 300 µA at nominal battery voltage (< 0.22 Ah/month)			
Protection	Protected against reversed polarity. Error Indication: Red (2 blinks) Short circuit proof. Error Indication: Red (3 blinks) Charging of wrong lower voltage battery pack will be limited to 100mA and terminated after 10min. Indication: Red (4 blinks) Safety timer. Error Indication: Red (5 blinks) No charge (or charge terminated) if connecting wrong battery pack with higher voltage. Indication: LED is OFF.			
Temperature range	Operating: ÷25 to +40oC. Storage: ÷25 to +85oC			
Safety	Medical EN 60601-1 / Home Healthcare EN 60601-1-11 (VNOM≥110VAC) / Battery Charger EN 60335-2-29			
Insulation class	Class II			
Insulation voltage: Primary – secondary	4000VAC / 5700VDC			
EMC standards	EN 55014-1 and –2, EN 61000-6-3, EN 61000-6-1, EN 60601-1-2			
Input terminal	2-pins IEC 320 connector for exchangeable mains plug (EU, US, UK and AUS) or mains cord with C7 connector.			
Output terminals	Cord with/without plug. Exchangeable plugs available.			
IP-Grade	IP41			
Rec. battery capacity	1.15 Ah (1C) to 10Ah (<100mA charge current as EoC detection) or up to 46Ah (utilizing the 1h CV timer as EoC detection)	1Ah (1C) to 10Ah (<100mA charge current as EoC detection) or up to 40Ah (utilizing the 1h CV timer as EoC detection)	0.85Ah (1C) to 10Ah (<100mA charge current as EoC detection) or up to 34Ah (utilizing the 1h CV timer as EoC detection)	0.7Ah (1C) to 10Ah (<100mA charge current as EoC detection) or up to 28Ah (utilizing the 1h CV timer as EoC detection)
Dimensions	123.5 × 49.5 × 37 mm			
Weight	220g			

SPECIFICATIONS FOR 3546 LI

	10-cell	14-cell
Available versions	x	
Input voltage: / Line frequency	90 - 264VAC / 47 - 63Hz	
Max output power	29.4W	
Step 0 < 10min Yellow	CC 100mA ± 25mA, when batt voltage < 30V.	CC 60mA ± 15mA, when batt voltage < 42V.
Step 0 > 10min Red (4 blinks)	0A / 0V	
Step 1 (Constant Current) Yellow	CC 0.7A ± 0.07A, when 30V < Vbat < 42V.	CC 0.5A ± 0.05A, when 42V < Vbat < 58.8V.
Step 2 (Constant Voltage) Flashing Yellow	CV 42V ± 0.3V, until I charge < 100mA or max. 1h.	CV 58.8V ± 0.5V, until I charge < 75mA or max. 1h.
Charge timer (step2, CV)	1h	
Safety timer (all steps) Red (5 blinks)	72h	
Step 3 (Charge Completed) Green	0A	
Restart voltage	41V	57.4V
Formation Charge (Step 0)	Low current start-up of deeply discharged battery.	
Wake-up of deeply discharged battery.	Yes, will apply voltage which deactivates deep discharge protection in battery pack.	
Indication when “Battery not connected”	Flashing Green (1s/1s)	
NTC input, on request (std is 10kohm, B-value approx. 4000)	0 – 45 °C: Normal charge. Battery temperature < 0 °C (too cold) or > 45°C (too hot): No charge, wait until temp. is OK.	
Ripple	< 100mV p-p	
Efficiency (at 100% load) approx.	0.85	
Switch frequency approx.	35kHz	
Leakage current from battery with mains switched off	< 300 µA at nominal battery voltage (< 0.22 Ah/month)	
Protection	Protected against reversed polarity. Error Indication: Red (2 blinks) Short circuit proof. Error Indication: Red (3 blinks) Charging of wrong lower voltage battery pack will be limited to 100mA and terminated after 10min. Indication: Red (4 blinks) Safety timer. Error Indication: Red (5 blinks) No charge (or charge terminated) if connecting wrong battery pack with higher voltage. Indication: LED is OFF.	
Temperature range	Operating: ÷25 to +40oC. Storage: ÷25 to +85oC	
Safety	Medical EN 60601-1 / Home Healthcare EN 60601-1-11 (VNOM≥110VAC) / Battery Charger EN 60335-2-29	
Insulation class	Class II	
Insulation voltage: Primary – secondary	4000VAC / 5700VDC	
EMC standards	EN 55014-1 and –2, EN 61000-6-3, EN 61000-6-1, EN 60601-1-2	
Input terminal	2-pins IEC 320 connector for exchangeable mains plug (EU, US, UK and AUS) or mains cord with C7 connector.	
Output terminals	Cord with/without plug. Exchangeable plugs available.	
IP-Grade	IP41	
Rec. battery capacity	0.5 Ah (1C) to 7.5Ah (<75mA charge current as EoC detection) or up to 20Ah (utilizing the 1h CV timer as EoC detection)	0,3Ah (1C) to 5,6Ah (cut off current as EoC)
Dimensions	123.5 × 49.5 × 37 mm	
Weight	220g	