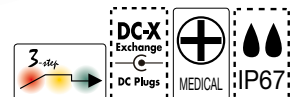


Charger for lead acid batteries

- 3-step charge control with microprocessor
- Low current start up of deeply discharged batteries (step 0)
- Unaffected by fluctuations in mains voltage
- Protected against reverse polarity and short circuit proof
- Custom design on request: timer, charge current, other
- Temperature compensated charge voltage w. external temp sensor
- Approvals:
 - Medically certified EN 60601-1 3ed
 - Home Healthcare EN 60601-1-11
 - For updates: see www.mascot.no
- 3-trinns ladekontroll med mikroprosessor
- Lavstrømsmodus ved oppstart av meget utladde batterier (trinn 0)
- Uavhengig av nettspenningsvariasjoner
- Polvendings- og kortslutningssikker
- Tilpasninger lev. på forespørsel: timer, ladestrøm m.m.
- Temperaturkompensert ladespenning m. ekstern temp føler
- Godkjenninger:
 - Medisinsk sertifisert 60601-1 3ed
 - Med. hjemmebruk EN 60601-1-11
 - For oppdat.: se www.mascot.no

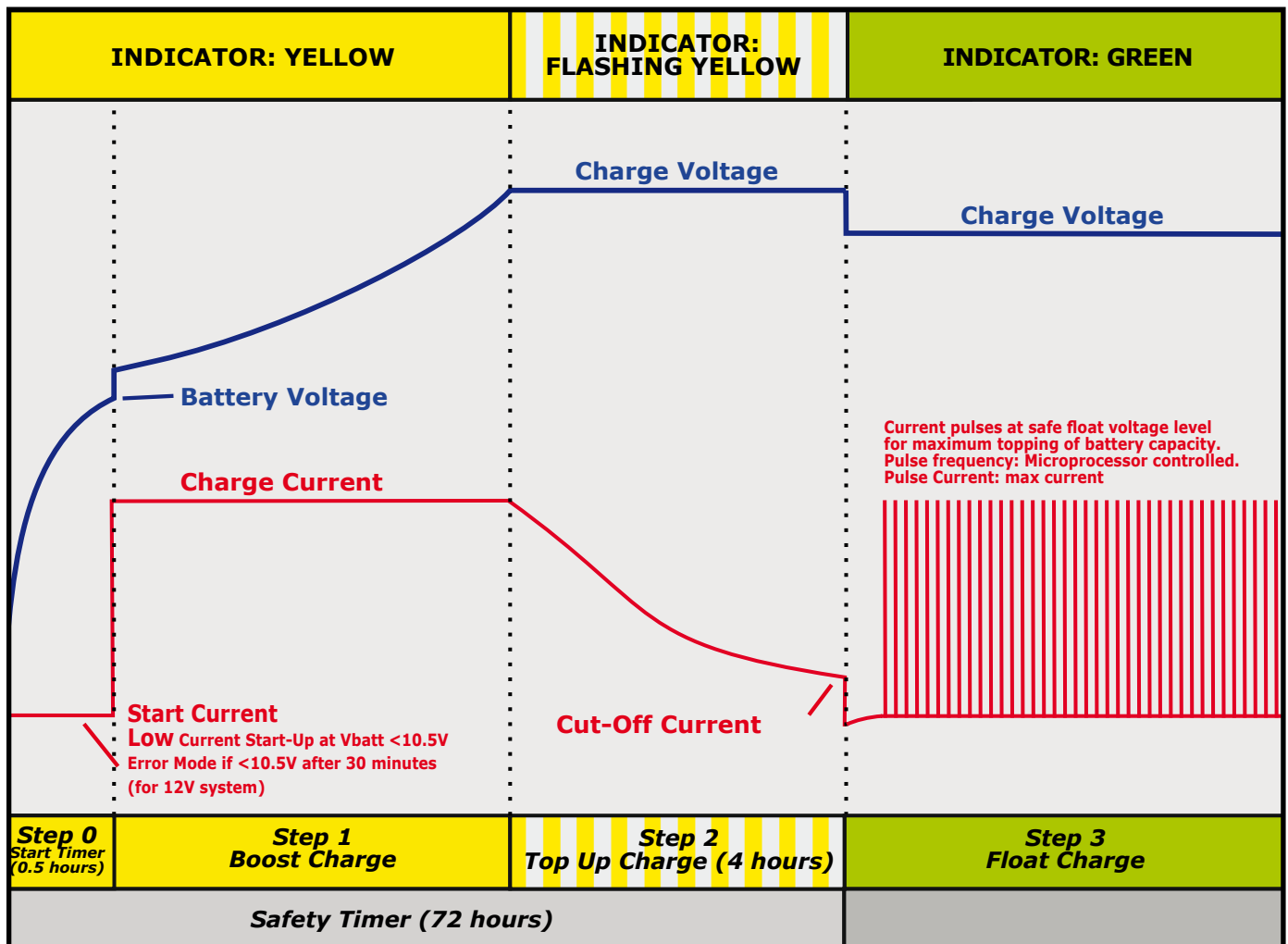


Technical specifications	Tekniske data	12V
Input voltage:	Inngangsspenning:	90 - 264 VAC
Line frequency:	Frekvensområde:	47 - 63 Hz
Max output power:	Maks. utgangseffekt:	58W (24V: 74W)
Charge timer (step 2):	Ladetimer (step 2):	4 h
Safety timer:	Sikkerhetstimer:	72 h
Restart charge current:	Restart ladestrøm:	4 A
Indication "batt. not connected":	Indikasjon når batt. ikke tilkoblet:	flashing green / blinkende grønn
Ripple:	Rippel:	< 100 mV p-p
Efficiency (at 100% load):	Virkningsgrad (v. 100% last):	> 85%
Switch frequency approx.:	Svitsjefrekvens ca.:	40 kHz
Leakage current with mains disconnected:	Strømtrekk når nett er frakoblet:	<200uA (0,15Ah/month)
Temperature range	Temperaturområde	
• Operating:	• Drift:	-25 to +40 °C
• Storage:	• Lagring:	-25 to +85 °C
Protection	Beskyttelse	
- Safety timer	- Sikkerhetstimer	Charging of lower voltage batt (e.g. 6V/12V) will be limit. to 1,2A/0,6A and term. after 30 min.
- against reversed polarity and short circuit proof.	- Polvendings- og kortslutningssikker	
Electrical safety standard:	Elektrisk sikkerhetsstandard:	EN/IEC 60335-2-29, EN/IEC/ANSI 60601-1 (3rd Ed) & EN/IEC 60601-1-11
Insulation class:	Isolasjonsklasse:	Class II (Class I on request)
Insulation voltage	Isolasjonsspenning	
• Primary-secondary:	• Primær - sekundær:	4000VAC / 5700 VDC
EMC standards:	EMC standarder:	EN 55014-1 and -2, EN/IEC 61000-6-3, EN/IEC 61000-6-1, EN/IEC 60601-1-2
Input terminal:	Inngangsterminal:	2-pin IEC-320, 2-pin IEC60320/C8 (3-pin IEC 60320/C14 or fixed cord on request)
Output terminals:	Utgangsterminaler:	Battery clips, push-on terminals or DC conn Battery clips on picture: art.no 2440012000
IP-grade:	IP-grad:	41
Rec. battery capacity:	Anbefalt batterikapasitet:	20 - 200 Ah
Dimensions (LxWxH):	Ytre mål (LxBxH):	135 x 80 x 44 mm
Weight:	Vekt:	390 g (890 g IP67)

Voltage versions – see next page
Spenningsversjoner – se neste side

Charge control - Ladekontroll (LED indication)

	Step / Trinn 0 < 30 min	Step / Trinn 0 > 30 min	Step / Trinn 1	Step / Trinn 2	Step / Trinn 3	Float charge
	(Yellow/Gul)	(Red=error / Rød=feil)	(Yellow / Gul)	(Blink Gul/Flash Yellow)	(Green / Grønn)	Vedl. lading
6V	1.2A ± 0.2A (batt volt < 5.25V)	< 0.2A	4.0A ± 0.2A (batt volt > 5.25V) (until Vbat = 7.35V)	7.35V ± 0.1V (until I charge < 1.2A or > 4hr) tapering charge current	6.85V ± 0.1V (until I charge > 4.0A) supply current up to max 4.0A for possible parallel load	4.0A Pulsing current at safe float volt. level for max topp. of batt.
12V	1.2A ± 0.2A (batt volt < 10.5V)	< 0.2A	4A ± 0.2A (batt volt > 10.5V) (til Vbat = 14.7V)	14.7V ± 0.1V (until I charge < 1.2A or > 4hr) tapering charge current	13.7V ± 0.2V (until I charge > 4.0A) supply current up to max. 4.0A for possible parallel load	4.0A Pulsing current at safe float volt. level for max topp. of batt.
24V	0.6A ± 0.2A (batt volt < 21V)	< 0.2A	2.5A ± 0.2A (batt volt < 21V) (until Vbat = 29.4V)	29.4V ± 0.1V (until I charge < 0.6A or > 4hr) tapering charge current	27.4V ± 0.2V (until I charge > 2.5A) supply current up to max 2.5A for possible parallel load	2.5A Pulsing current at safe float volt. level for max topp. of batt.
36V	0.4A ± 0.1A (batt volt < 31.5V)	< 0.2A	1.6A ± 0.1A (batt volt > 31.5V) (until Vbat = 44.1V)	44.1V ± 0.2V (until I charge < 0.4A or > 4hr) tapering charge current	41.1V ± 0.2V (until I charge > 1.6A) supply current up to max 1.6A for possible parallel load	1.6A Pulsing current at safe float volt. level for max topp. of batt.
48V	0.3A ± 0.1A (batt volt < 42V)	< 0.2A	1.3A ± 0.1A (batt volt > 42V) (until Vbat = 58.8V)	58.8V ± 0.3V (until I charge < 0.3A or > 4hr) tapering charge current	54.8V ± 0.3V (until I charge > 1.2A) supply current up to max 1.2A for possible parallel load	1.2A Pulsing current at safe float volt. level for max topp. of batt.



Charging characteristics and LED indication / Ladekarakteristikk og lysdiode (LED) indikasjon (data for 12V version)