



■ Features

- Special designed for 6s~14s Li-Ion Drone battery-packs
- Two channels, each channel output up to 60V 50A (3000W max.)
- Smart 4 stage charging curve and build-in 2.0A cells balancer
- AC input 100~240V, with active PFC function.
- Programmable charging voltage & current
- Protections : Shorted /OVP /OTP /Battery reversed polarity

■ Description

TA3000 is a two channels drone programmable charger. It is special designed for 22~52V drone & UAV battery packs. It's also suitable for wide range of battery chemistries: LiPo/LiHV/LiFe/LiIon/LTO/NiMH/NiCd/AGM, battery rating voltage range is 22V ~ 52V, recommend capacity range is 10~200Ah.

TA3000 is AC&DC input flexibility for indoor and outdoor application. AC input range is 90~264V. TA3000 has two output ports, each port can be programmed drive out within 20~60V 5~50A (max. 3000W).

TA3000 charger has 6s~14s cells 2.0A balancer circuits inside, this is helpful for Li-ion battery packs easily keep at all cells balanced condition.

1.0~3.0A discharging circuits is also build-in TA3000 programmable charger, this is useful for battery pack maintaining.

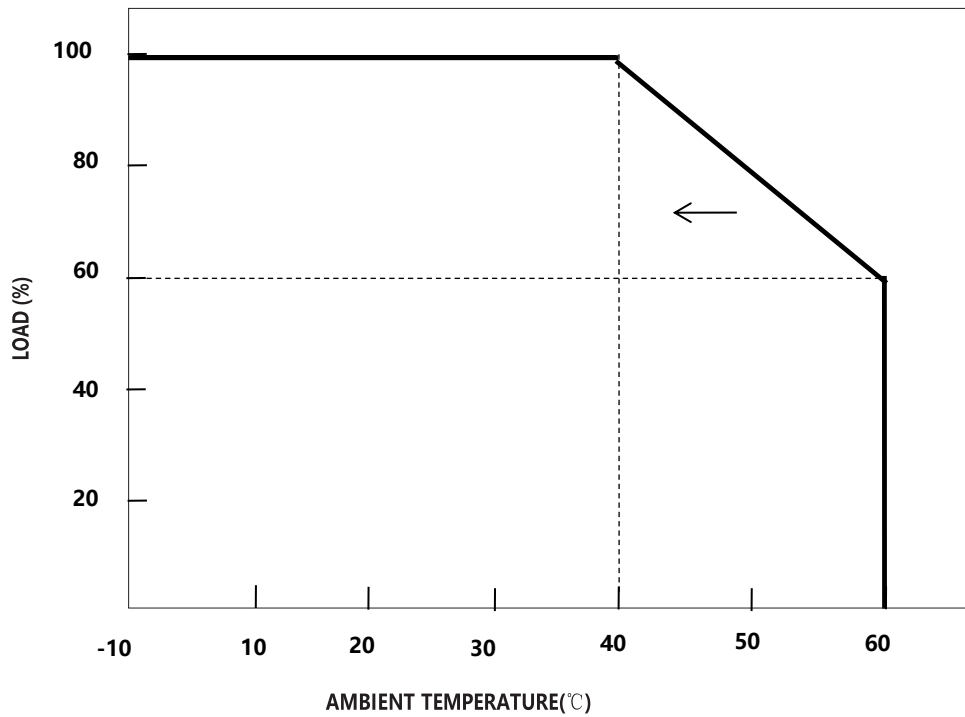
■ Applications

- Drone & UAV battery-pack
- Other similar applications

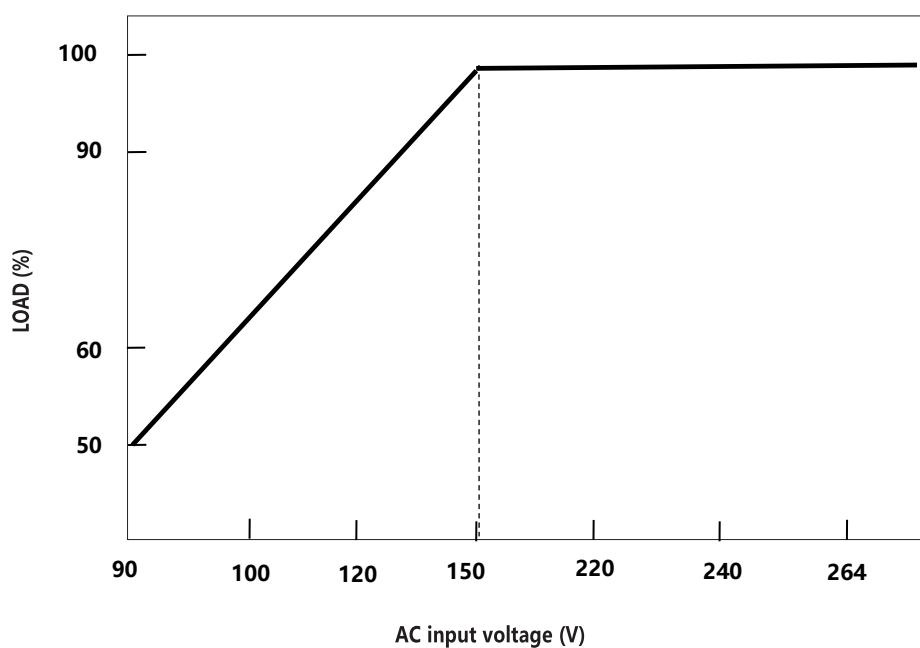
Specification

Part Number		TA3000		
OUTPUT	Charge voltage setting range	20V ~ 60V, should be set by user via LCD display panel		
	Charge voltage tolerance	+-1%		
	Charge current setting range	5.0A ~ 50.0A, should be set by user via LCD display panel		
	Charge current tolerance	+-5%		
	Charge-end condition	For LiPo/L-ION/LFP/Pb-Acid, charge-end condition is charge current ≤0.1* setting current or timer-out For NiMH/Nicd, charge-end condition is -dV > 5mv/cell or timer-out		
	Maximum output current & power	2*50A (total should less than 3000W)		
	Recommended battery capacity Note.3	5 - 200Ah, general battery type charge current is recommended at 0.2C~1.0C For drone battery, charger current can be set within 1.0C~3.0C		
	PD power port, USB-type C	PD3.0, 5V3A, 9V3A, 12V3A, 15V3A, 20V3A, PPS 3.3~21V3A		
USER INTERFACE	LCD display &	Smart 2.8" IPS LCD display		
Cells balance & discharging	Li-ion cells balance circuits Discharging function	2*6s~14S, 2.0A fixed 2*0.1A~3.0A, setting by user		
INPUT	Rating Input voltage	AC 100 - 240V, 50 / 60Hz		
	Input voltage range	AC 90 ~264V, output power will be derated for AC <150V, see derating curve		
	Power factor (Typ.) @ AC input	PF>0.95@AC100V,full load		
	Rating AC Input current	16.0A		
	AC Input connector	ICE C14		
	Standby input power	< 5W		
	Efficiency (Typ.)	92% @ AC 230V input, 60.0V50A output		
PROTECTION	Shorted circuit protection	Protection type : Shut down output		
	Over voltage	>110%*SETTING CHARGE VOLTAGE		
	Reverse polarity protection	By mechanical connector		
	Over temperature	Shut down output, recovers automatically after temperature goes down		
ENVIRONMENT	Working temperature	-10 - +40°C (Refer to " Derating Curve")		
	Working humidity	0 - 90% RH		
	Storage temperature, humidity	-40 - +70°C, 0- 95% RH		
	Cooling	Fan convection		
	Vibration resistance	10~50Hz,2G10min.1cycle,60min.eachalongX,Y,Zaxes		
SAFETY&EMC (Note.6)	Max. temperature rise	< 40°C on casing		
	Hi-Pot Insulation	i/p to o/p: 3000V (1 min)		
	Safety standards	IEC62368-1		
	EMC Emission	Parameter	Standard	Test Level I Note
		Conducted	EN55032 FCC PART15	Class B
		Radiated	EN55032 FCC PART15	Class B
		Harmonic Current	EN61000-3-2	
		Voltage Flicker	EN61000-3-3	
EMC IMMUNITY	EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11			
OTHERS	MTBF	30000H		
	Dimension	300*236*148mm (L*W*H)		
	Weight	3000g		
NOTE	1. Modification for charger specification may be required for different battery specification. Please contact battery vendor and Green digital power for details. 2. All parameters NOT specially mentioned are measured at AC230 input, rated load and 25°C of ambient temperature. 3. This is Green suggested range. Please consult your battery manufacturer for their suggestions about maximum charging current limitation. 4. Derating may be needed under low input voltages. Please check the derating curve for more details. 5. This protection mechanism is specified for the case the short circuit occurs after the charger is turned on. 6. The battery charger is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EM I testing of component power supplies."			

■ Derating Curve for Ambient temperature

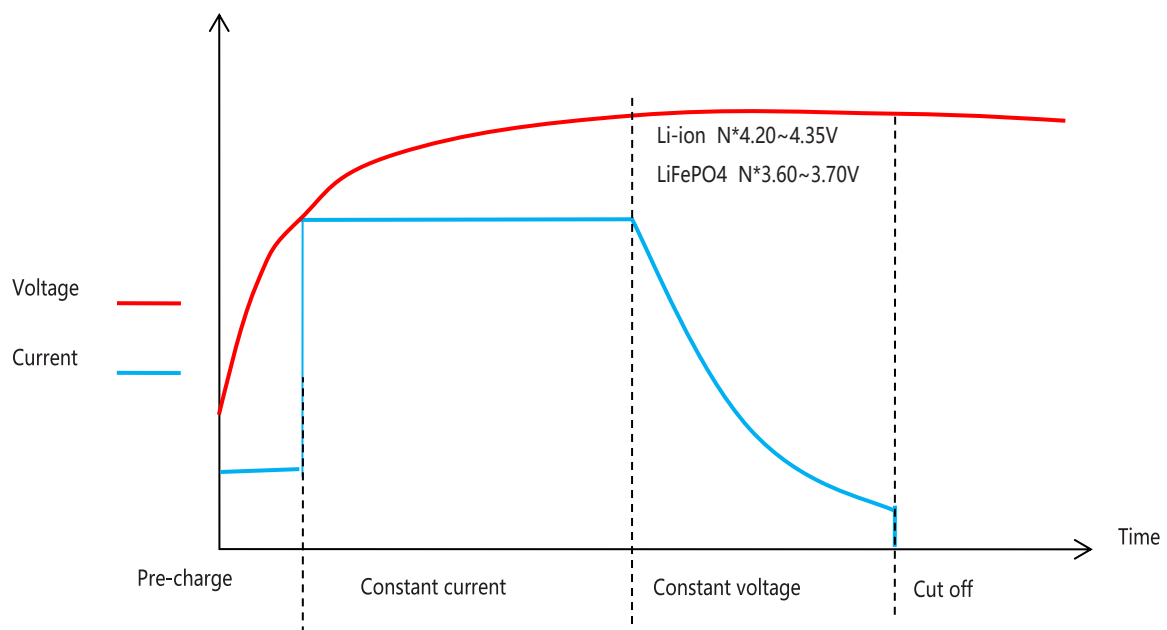


■ Derating Curve for AC input voltage



■ Default Charging Curve

4stage charging curve(Li-ion/LFP battery charger)



■ Connectors and UI interface



■ Mechanical specification

