



■ Features

- Special designed for 2s~6s Li-Ion Drone's battery-packs
- Three channels, each channel output up to 26V 15A (3*300W max.)
- Smart 4 stage charging curve and build-in 1.0A cells balancer
- AC input 100~240V and DC input 7~32V, dual input source
- Programmable charging voltage & current
- Protections : Shorted /OVP /OTP /Battery reversed polarity

■ Description

TAD300 is a three channels drone programmable charger. It is special designed for 7.4~22.2V drones 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 2.4V~22.2V, recommend capacity range is 2~50Ah.

TAD300 is a AC&DC dual input sources charger, flexibility for indoor and outdoor application. AC input range is 90~264V and DC input range is 7~32V. TAD300 has three output ports, each port can be programmed drive out within 7~26V 1~15A (max. 300W).

TAD300 smart charger has 2s~6s cells 1.6A 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 TAD300 smart charger, this is useful for battery pack maintaining.

■ Applications

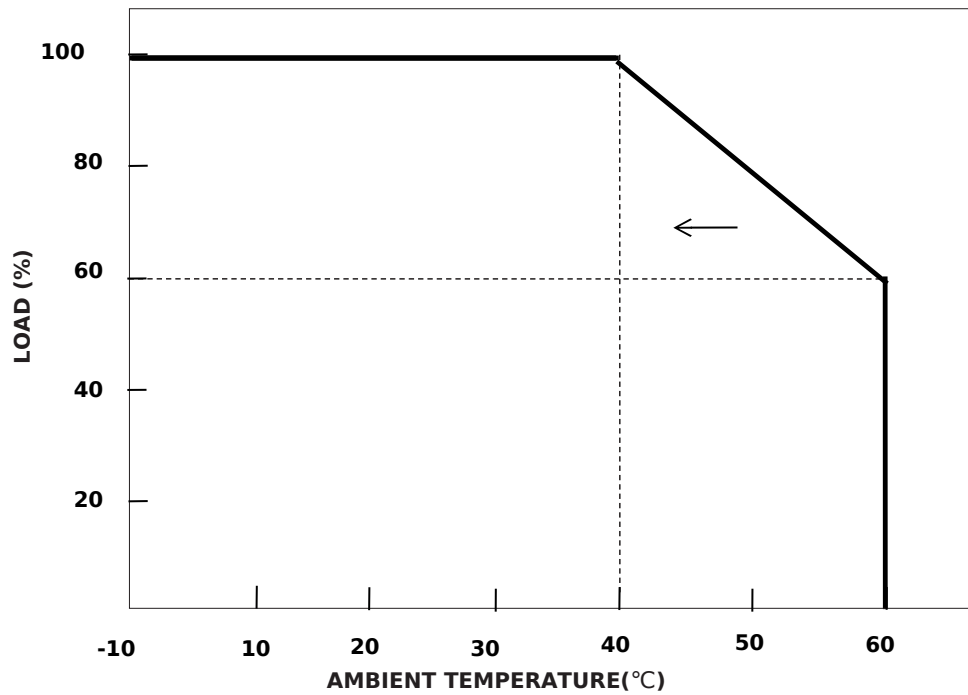
- Drone's battery-pack
- Other similar applications



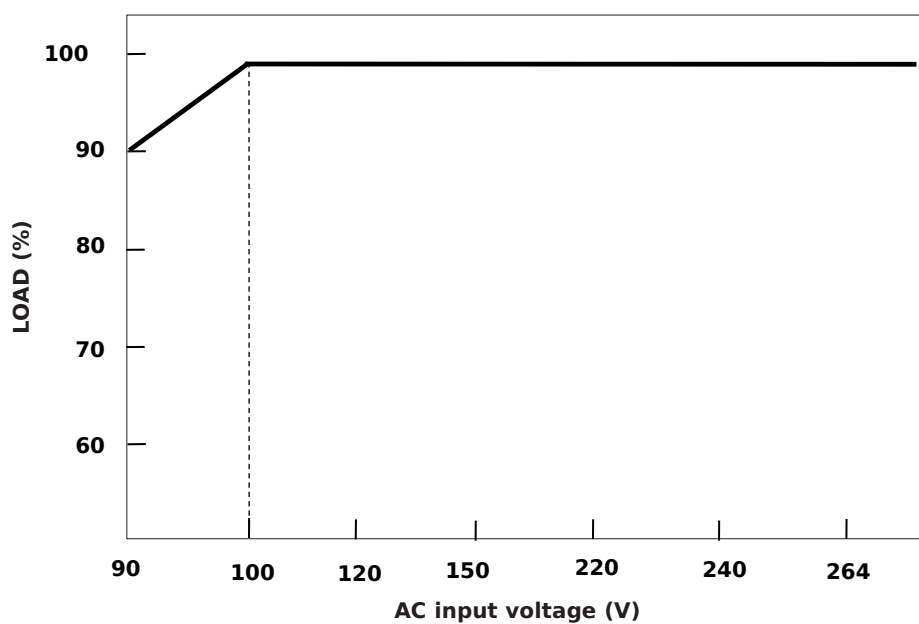
Specification

Part Number		TAD300		
OUTPUT	Charge voltage setting range	2.4V ~ 26.0V, should be set by user via LCD display panel		
	Charge voltage tolerance	±1% or 50mV (for less than 5.0V)		
	Charge current setting range	1.0A ~ 15.0A, should be set by user via LCD display panel		
	Charge current tolerance	±5% or 0.1A (for less than 2.0A)		
	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	3*15A (should less than 900W) at DC 12~28V input condition 1*15A or 3*10A (should less than 300W) at AC 100~240V input condition		
	Recommended battery capacity Note.3	2 - 50Ah, 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 & discharge	Cells balance circuits	3*2s~6S, 1.6A fixed		
	Charging function	3*0.1A~3.0A, setting by user		
INPUT	AC input voltage	Rating input: AC 100 - 240V, 50 / 60Hz, input range 90~264V.		
	DC input voltage	Rating input: DC 12 ~24V, input range 7~32V, max. input current 40.0A		
	Power factor (Typ.) @ AC input	PF>0.98@AC100V,full load		
	AC Input current (Max.)	3.8A		
	DC Input current (Max.)	40A		
	Standby input power	5W		
	Efficiency (Typ.)	% @ AC 230V input, 20.0V15A 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	0 ~ +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	50Hz,2G10min.1cycle,60min.each along X,Y,Z axes		
	Max. temperature rise	< 40°C on casing		
SAFETY&EMC (Note.6)	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		
MTBF	30000H			
OTHERS	Dimension	240*117*66mm (L*W*H)		
	Weight	800g		
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 DC24V 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

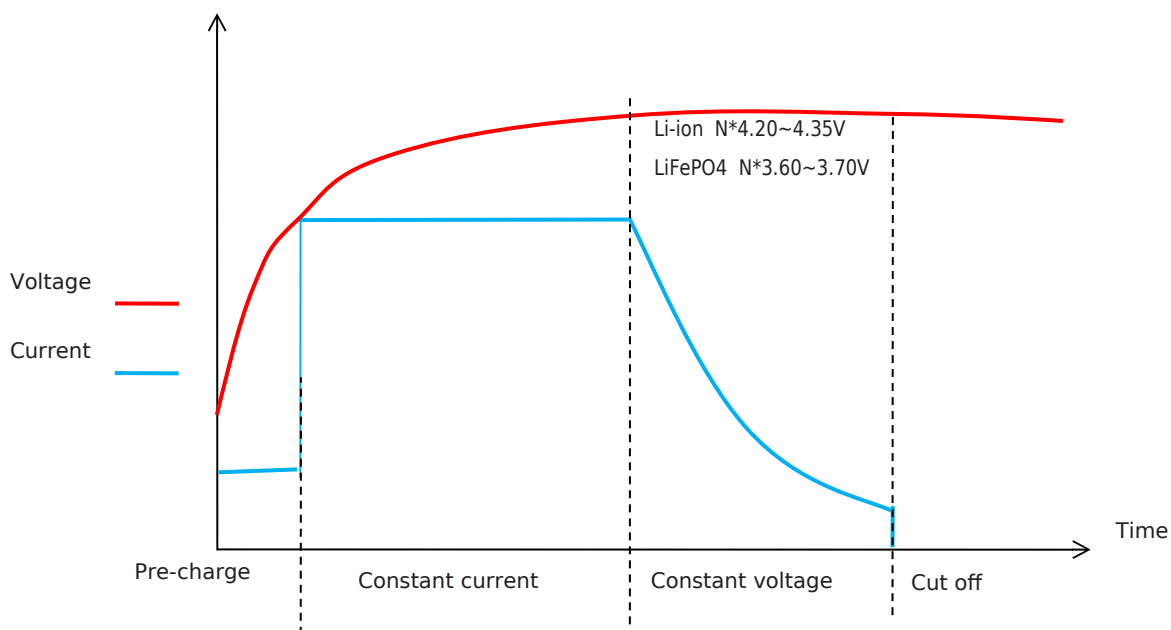


■ Derating Curve for AC input voltage

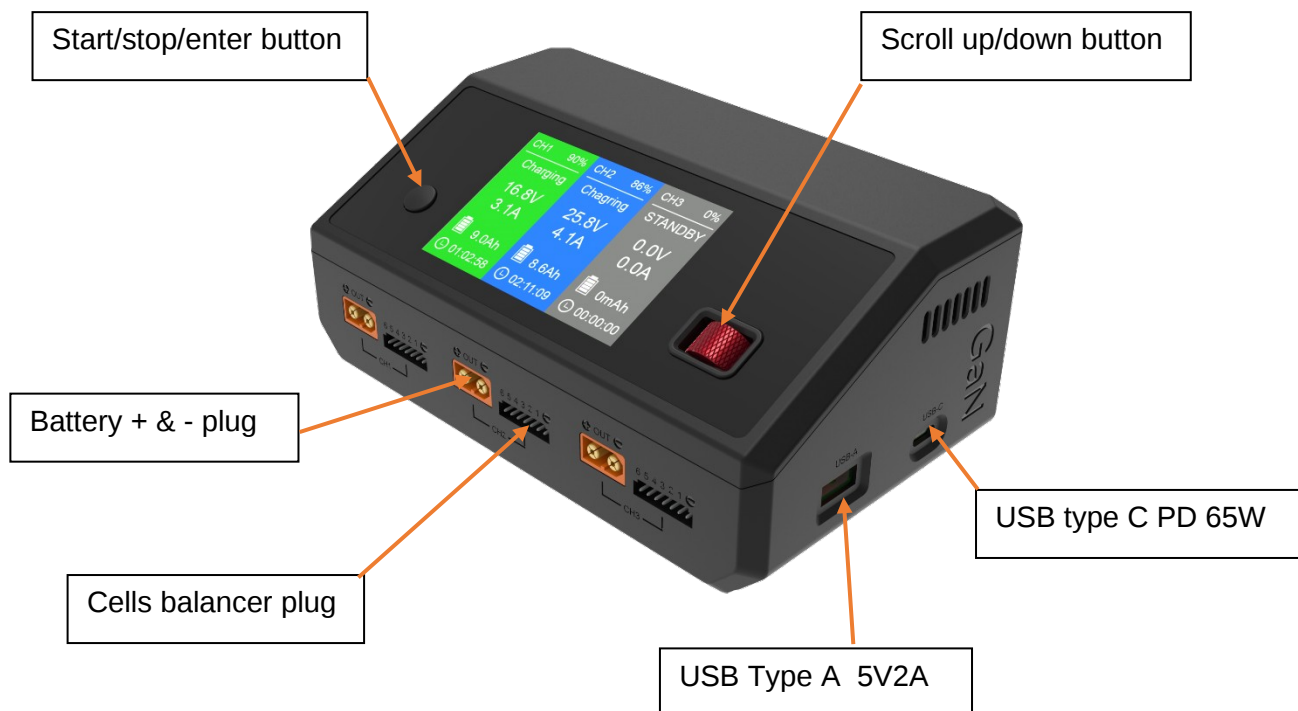


■ Default Charging Curve

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



■ Connectors and UI interface



■ Mechanical specification

