



**TECHNICAL SPECIFICATIONS FOR DC POWER SUPPLY
(BATTERY CHARGER 110VDC, 60A, TYPE TACH3-110/60)**

Item	Description	Unit	Technical Particulars
1	Manufacturer		Tavaan Azmayan Co.
2	Applicable standards		IEC
3	Manufacturer's Ref. No.		TACH3 -110/60
4	Type of rectifier		Thyristor controlled
5	Input AC supply		
	- Voltage	Vac	400/230, +10%, -15%
	- No.of phases		3
	- Frequency	Hz	50, ±5%
6	Rated output voltage	Vdc	110
7	Rated output current	Adc	60
8	Output current limiting (adjustable)		1.1 In
9	Float charge voltage (*)		
	- Battery	Vdc	121
	- Load	Vdc	112 -114
10	Range of float charge voltage adjustment (*)	Vdc	110 -125
11	Boost (Equalize) charge voltage (*)		
	- Battery	Vdc	128
	- Load	Vdc	112 -115
12	Range of boost charge voltage adjustment (*)	Vdc	120 -140
13	Manual charge voltage (*)	Vdc	148
14	Range of manual charge voltage adjustment (*)	Vdc	130 - 150
15	Range of manual charge current adjustment	%In	10 - 70
16	Means of adjusting output		Potentiometer
17	Means of adjusting load voltage at float & boost mode of operation		Dropper Diodes
18	Recharge time (adjustable)	Hrs	1~10
19	Output voltage regulation from no-load to full load	%	±0.5
20	Maximum voltage ripple (rms)	%	1
21	Input AC power consumption	KVA	10



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22	Input AC power factor (Full Load)		> 0.8
23	Efficiency (Full Load)	%	> 85
24	Charging modes:		
	Float		Yes
	Boost		Yes
	Manual		Yes
25	Adjustable timer for boost (Equalize) charge (1-10 hours)		Yes
26	Protection		
	- AC power supply failure (AC Under /Over voltage , phase sequence , phase disconnection protection)		Yes
	- DC output High/Low voltage		Yes
	- Battery reverse connection		Yes
	- DC output short circuit protection (MCB)		Yes
	- DC current over load protection (current limit)		Yes
	- Input breaker (MCB), 20A		Yes
	- Earth fault (Pos. / Neg.)		Yes
27	Metering Instruments		
	- Input AC volt meter, CL.1.5	220Vac	0 - 500
	- Output DC voltmeter, CL.1.5 , (battery & load)	Vdc	0 - 150
	- Output DC ammeter, CL.1.5, (battery)	Adc	50 - 0 - 50
	- Output DC ammeter, CL.1.5, (load)	Adc	0 - 50
28	Indicators		
	- Input AC supply (R, S, T) (220Vac)	LED	Red, Yellow, Blue
	- Charger power on	LED	Green
	- Float charging	LED	Green
	- Boost charging	LED	Yellow
	- Manual charging	LED	Red
	- Current limit	LED	Yellow
	- AC power failure	LED	Red
	- Negative earth fault	LED	Red
	- Positive earth fault	LED	Red
	- DC output Low voltage	LED	Red
	- DC output High voltage	LED	Red
	- Charger Fail	LED	Red
	- Battery reverse connection	LED	Red
	- Battery discharge	LED	Red
	- Over temperature	LED	Red



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Item	Description	Unit	Technical Particulars
29	Audible alarm		Yes
30	Alarm Contacts : - Charger fail - DC under / over voltage - Earth Fault		Free Contact Free Contact Free Contact
31	Enclosure construction		Steel Sheet 2 mm, Thickness
32	Class (indoor/outdoor)		Indoor
33	Ingress protection		IP42
34	Type of cooling		Natural air
35	Cable entry		bottom of cubicle
36	Access to inside panel		front & rear door
37	Type panel		Free stand
38	Connection blocks (terminal size)	mm ²	2.5 - 50
39	Panel dimensions (HxWxD), approx	mm	2100x600x600
40	Total weight, approx	Kg	320
41	Color of panel (inside & outside)		Ral 7035

(*) Note : The Float, Boost & Initial charging voltages are considered for the battery set
Consisting 55 Pcs of 2V lead acid stationary batteries according to technical
specifications.

Other values can be adjusted as required.

Factory adjustment :	Float :	2.20 V/Cell
	Boost (Equalize):	2.33 V/Cell
	Manual (Initial):	2.70 V/Cell