



PULS CHARGER

Banner

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Banner's PULS charger family, which has been in operation for many years, is characterised by robustness, high levels of reliability and optimum cost-efficiency. The chargers use proven pulse charging on the basis of a Wa-characteristic as a standard process.

Banner's PULS chargers stand out due to a reduced water requirement and less gas development in the recharging phase, in combination with smaller correlations as compared to conventional Wa or Wsa charging. Therefore, they represent an economic system for traction battery charging.

Areas of application

- Stackers
- Sweeping machines
- Lifting platforms
- Special applications
- Haulers
- Etc.

Features

- Modern pulse charging system for wet batteries
- Charging times of 6.5 – 14 h possible
- Reduced battery water consumption and thus low maintenance
- Less gas development in the recharging phase, calculation according to the ZVEI instruction sheet "Ventilation of battery spaces for traction batteries"
- Automatic charging and equalisation charging
- Energy-saving and battery-protective through variable recharging time (longer battery service life)
- Simple operation, as due to the automatic charging start, switching on cannot be forgotten
- Charging status light system

Options

- Electrolyte circulation
- Aquamatic



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Initial voltage	Battery capacity [Ah]			Output current (A)	Mains current (A)	Box	Weight/kg	Banner Puls charger type	Art.No.
	Charging time 7,5 - 8,5 h (with EC, charge time appr. 3/4 h shorter)	Charging time 9 - 11 h	Charging time 12 - 14 h						
24 V	70 - 84	90 - 110	10	2,0	FWT 1	11	E 230 G 24/ 10	0434030100	
	85 - 105	110 - 130	145 - 180	16	3,0	FWT 1	E 230 G 24/ 16	0434030200	
	110 - 130	140 - 168	180 - 220	20	3,5	FWT 1	E 230 G 24/ 20	0434030300	
	140 - 165	180 - 210	220 - 275	25	4,5	FWT 1	E 230 G 24/ 25	0434030400	
	160 - 180	210 - 250	275 - 330	30	5,5	FWT 1	E 230 G 24/ 30	0434030500	
	220 - 260	290 - 330	350 - 440	40	7,0	FWT 2	E 230 G 24/ 40	0434030600	
	275 - 330	360 - 420	450 - 550	50	9,0	FWT 2	E 230 G 24/ 50	0434030700	
	330 - 400	430 - 500	540 - 660	60	10,5	FWT 2	E 230 G 24/ 60	0434030800	
	384 - 465	500 - 575	630 - 775	70	12,5	FWT 2	E 230 G 24/ 70	0434030900	
	440 - 530	575 - 660	720 - 880	80	14,0	FWT 2	E 230 G 24/ 80	0434031000	
	500 - 600	650 - 750	810 - 1000	90	16,0	FWT 2	E 230 G 24/ 90	0434031100	
	550 - 660	720 - 825	900 - 1100	100	10,0	FWT 2	D 400 G 24/100	0434031200	
	675 - 825	860 - 1035	1120 - 1350	125	12,5	FST 1	D 400 G 24/125	0434031300	
	825 - 1000	1050 - 1250	1360 - 1600	150	15,0	FST 1	D 400 G 24/150	0434031400	
930 - 1125	1250 - 1400		170	10,0	FST 1	D 400 G 24/170	0434031500		
1050 - 1260	1400 - 1550		190	11,0	FST 1	D 400 G 24/190	0434031600		
48 V	85 - 105	110 - 130	145 - 180	16	5,5	FWT 1	E 230 G 48/ 16	0434033100	
	110 - 130	140 - 168	180 - 220	20	7,0	FWT 2	E 230 G 48/ 20	0434033200	
	140 - 165	180 - 210	220 - 275	25	9,0	FWT 2	E 230 G 48/ 25	0434033300	
	160 - 180	210 - 250	275 - 330	30	10,5	FWT 2	E 230 G 48/ 30	0434033400	
	220 - 260	290 - 330	350 - 440	40	14,0	FWT 2	E 230 G 48/ 40	0434033500	
	275 - 330	360 - 420	450 - 550	50	10,0	FWT 2	D 400 G 48/ 50	0434033600	
	330 - 400	430 - 500	540 - 660	60	12,0	FST 1	D 400 G 48/ 60	0434033700	
	384 - 465	500 - 575	630 - 775	70	14,0	FST 1	D 400 G 48/ 70	0434033800	
	440 - 530	575 - 660	720 - 880	80	9,0	FST 1	D 400 G 48/ 80	0434033900	
	500 - 600	650 - 750	810 - 1000	90	10,5	FST 1	D 400 G 48/ 90	0434034000	
	550 - 660	720 - 825	900 - 1100	100	11,5	FST 1	D 400 G 48/100	0434034100	
	675 - 825	860 - 1035	1120 - 1350	125	14,5	FST 1	D 400 G 48/125	0434034200	
	825 - 1000	1050 - 1250	1360 - 1600	150	17,0	FST 1	D 400 G 48/150	0434034300	
	930 - 1125	1250 - 1400		170	19,5	FST 1	D 400 G 48/170	0434034400	
80 V	110 - 130	140 - 168	180 - 220	20	11,5	FWT 2	E 230 G 80/ 20	0434034500	
	140 - 165	180 - 210	220 - 275	25	14,5	FWT 2	E 230 G 80/ 25	0434034600	
	160 - 180	210 - 250	275 - 330	30	10,0	FWT 2	D 400 G 80/ 30	0434034700	
	220 - 260	290 - 330	350 - 440	40	13,5	FST 1	D 400 G 80/ 40	0434034800	
	275 - 330	360 - 420	450 - 550	50	9,5	FST 1	D 400 G 80/ 50	0434034900	
	330 - 400	430 - 500	540 - 660	60	11,5	FST 1	D 400 G 80/ 60	0434035000	
	384 - 465	500 - 575	630 - 775	70	13,5	FST 1	D 400 G 80/ 70	0434035100	
	440 - 530	575 - 660	720 - 880	80	15,5	FST 1	D 400 G 80/ 80	0434035200	
	500 - 600	650 - 750	810 - 1000	90	17,0	FST 1	D 400 G 80/ 90	0434035300	
	550 - 660	720 - 825	900 - 1100	100	19,0	FST 1	D 400 G 80/100	0434035400	
	675 - 825	860 - 1035	1120 - 1350	125	24,0	FST 1	D 400 G 80/125	0434035500	
	825 - 1000	1050 - 1250	1360 - 1600	150	28,5	FST 1	D 400 G 80/150	0434035600	
	930 - 1125	1250 - 1400		170	32,5	FST 1	D 400 G 80/170	0434035700	

Charging times

The charging time is dependent upon the discharge status of the battery to be charged and the correlation of the device current to battery capacity. The current correlations relate to 80% discharged batteries.

Box dimensions [mm]			
Type	Height	Width	Depth
FWT 1	230	360	260
FWT 2	260	500	300
FST 1	690	500	490

Presented by:

A: Banner GmbH, A-4021 Linz, Banner Straße 1,
Tel. 0732/3888-0, Fax 0732/3888-21598, e-mail: office@bannerbatterien.com