



*Efficient • Economical • Robust*



ADVANCED CHARGING SOLUTIONS

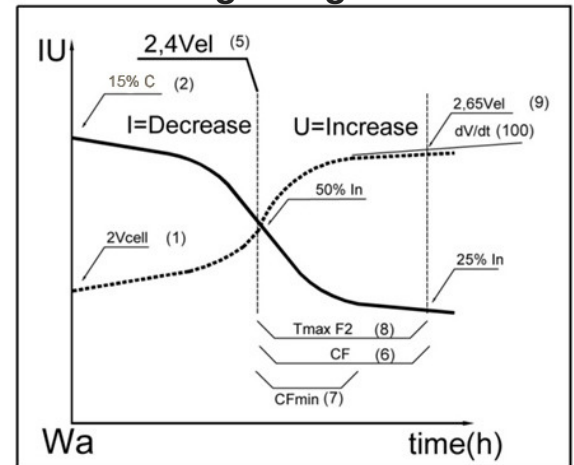
Available  
in 1PH  
208V-240V

## X3 SERIES

### CONTROLLED FLUX TECHNOLOGY

The X3 Series Charger by ForzaTek brings European technology, without the high cost "bells & whistles" of many chargers available today. The X3 is a fully automatic charger with the "WA" charge profile, and automatic equalization. With an LED state of charge gauge, the charger allows you to simply see your batteries state through the charging process. This workhorse is ideal for light - medium duty applications.

### Charger Algorithm



### TECHNOLOGY

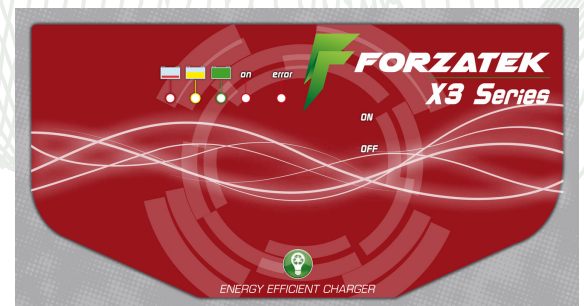
- Wa charging profile suitable for single shift operation
- Automatic equalizing
- Flux disperse power transformer class F
- Charging profile controlled by microprocessor
- Input voltages available: Single Phase 208-240Vac  $\pm$  5% 60Hz
- Cabinet protection degree: IP20

### STANDARD EQUIPMENT / INTERFACES

- Automatic start, charging process and shut off
- Final charging stage: Temporal , Capacitive (Charging factor % and Ah accumulated),
- Derivative dV/dt. Adjustable in respect of battery usage
- Advanced visualisation by 5 leds /Date storage memory

### SAFETY FEATURES

- Reverse polarity protection: fuse
- Flux dispersion power transformer provided with thermal probes
- Double security timer: gassing point / max charging duration.
- Additional thermal protection based on algorithm managed by the electronic board

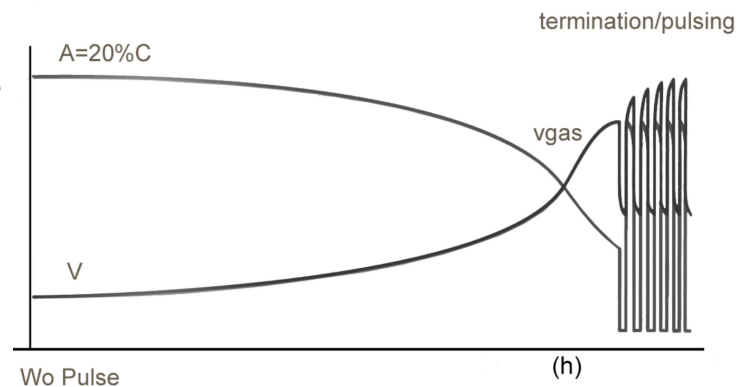


Available  
in 3PH  
208V, 240V,  
480V or  
600V

## X5 SERIES PULSE TECHNOLOGY

The X5 Series Charger by ForzaTek brings everything the X3 series offer, with some additional features. The X5 Charger utilizes "Pulse Technology" for the final stage of charging, which not only fully charges the battery more efficiently, it also fully mixes the electrolyte to prevent sulfating and stratification. The X5 series charger also offers a digital display, with the ability to customize the charger to your application.

### Charger Algorithm



### TECHNOLOGY

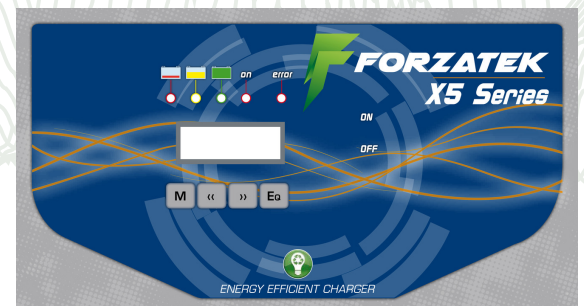
- W0 Pulse charging profile suitable for multiple shift operation
- Automatic equalizing
- Flux disperse power transformer class H
- Profile controlled by microprocessor
- Input voltages available: Threephase 208-240-480  $\pm 5\%$  60Hz / 600Vac  $\pm 5\%$ .
- Cabinet protection degree: IP20

### STANDARD EQUIPMENT / INTERFACES

- Automatic start, charging process and shut off
- Final charging stage: Pulse
- Advanced visualisation by 5 leds + DISPLAY for programming and diagnostic / Equalizing setting / Date storage memory / Timer
- Delayed start to avoid sparks

### SAFETY FEATURES

- Reverse polarity protection: fuse
- Flux dispersion power transformer provided with thermal probes
- Double security timer: gassing point / max charging duration.
- Additional thermal protection based on algorithm managed by the electronic board



## X3 (1 PHASE) CHARGER SPECS

BATTERY VOLTAGE	DC AMP OUT	PART NUMBER	VAC	BATTERY AH		AC INPUT AMPS	
				8-9 HR	12 HR	208V	240V
24V	80	3NAS2 24/80	208/240	396	533	20	17.5
	100	3NAS2 24/100	208/240	495	667	25	20
	120	3NAS2 24/120	208/240	594	800	30	25
	140	3NAS2 24/140	208/240	693	933	35	30
	160	3NAS2 24/160	208/240	792	1067	40	35
36V	80	3NAS2 36/80	208/240	396	533	30	25
	100	3NAS2 36/100	208/240	495	667	35	30
	120	3NAS2 36/120	208/240	594	800	40	35
	140	3NAS2 36/140	208/240	693	933	50	40
48V	80	3NAS2 48/80	208/240	396	533	40	35
	100	3NAS2 48/100	208/240	495	667	50	40
	120	3NAS2 48/120	208/240	594	800	60	50

## X5 (3 PHASE) CHARGER SPECS

BATTERY VOLTAGE	DC AMP OUT	PART NUMBER	VAC	BATTERY AH RANGE (8HR)	AC INPUT AMPS		
					208	240	480
24V	80	5NPT4 24/80	208/240/480	350-410	10	8	4
	100	5NPT4 24/100	208/240/480	430-520	12	10	5
	120	5NPT4 24/120	208/240/480	520-620	15	12	6
	140	5NPT4 24/140	208/240/480	610-730	17.5	15	7
	160	5NPT4 24/160	208/240/480	700-830	17.5	15	8
	180	5NPT4 24/180	208/240/480	770-930	20	17.5	10
	200	5NPT4 24/200	208/240/480	840-1020	25	20	10
36V	80	5NPT4 36/80	208/240/480	350-410	15	12	6
	100	5NPT4 36/100	208/240/480	430-520	17.5	15	7
	120	5NPT4 36/120	208/240/480	520-620	20	17.5	10
	140	5NPT4 36/140	208/240/480	610-730	25	20	10
	160	5NPT4 36/160	208/240/480	700-830	30	25	12
	180	5NPT4 36/180	208/240/480	770-930	30	30	15
	200	5NPT4 36/200	208/240/480	840-1020	35	30	15
48V	80	5NPT4 48/80	208/240/480	350-410	17.5	15	8
	100	5NPT4 48/100	208/240/480	430-520	25	20	10
	120	5NPT4 48/120	208/240/480	520-620	30	25	12
	140	5NPT4 48/140	208/240/480	610-730	35	30	15
	160	5NPT4 48/160	208/240/480	700-830	35	30	15
80V	120	5NPT4 80/120	208/240/480	520-620	50	40	20