

# Product Specification NP4-12FR

## Yuasa NP Series VRLA Battery, 5 Years Design Life

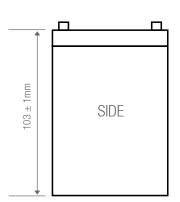
The Yuasa NP series is a high energy density Valve Regulated Lead Acid (VRLA) battery that uses advanced plate technology and sealed construction. Its unique sealing technique prevents electrolyte leakage when the battery is mounted either horizontally or vertically. Manufactured in Yuasa quality assured factories, the Yuasa NP series offers absolute reliability and minimal maintenance for end users.

- Sealed construction with pressure relief system
- Operation in any orientation (except in an inverted position)
- Heavy duty grids
- Low self discharge
- Wide operating temperature range (-15°C to +50°C)
- Recyclable materials used in battery

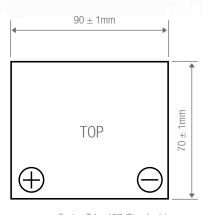
General Performance		
Battery	NP4-12FR	
Application	Floating	
Design Life	5 Years	
Nominal Capacity	4Ah	
Actual Capacity at 25°C	1 hour rate to 1.60Vpc	2.50Ah
	5 hour rate to 1.70Vpc	3.45Ah
	10 hour rate to 1.75Vpc	3.64Ah
	20 hour rate to 1.75Vpc	4Ah

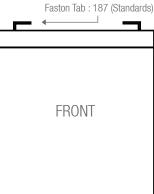
Electrolyte	
Fully charge density at 25°C	1.300
Density Range	1.290-1.310
Gelled/Absorbed	Absorbed
Mounting Orientation	Vertical/Horizontal

Platesa		
Positive Plates:		
Number/cell	2	
Туре	Flat	
Material of grid	Lead-Calcium-Tin Alloy	
Thickness	3.5mm	
Negative Plates:		
Number/cell	3	
Туре	Flat	
Material of grid	Lead-Calcium-Tin Alloy	
Thickness	2mm	









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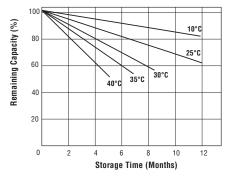
## Yuasa NP Series VRLA Battery, 5 Years Design Life

**Terminal Voltage** 

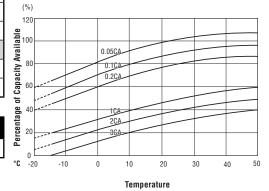
Physical Properties	
Separators	
Туре	Glass Mat
Is glass fibre included?	Yes
Container & Cover Materials	
Lid Material, Colour	Acrylonitrile Butadiene Styrene ABS / Black
Container Material, Colour	Acrylonitrile Butadiene Styrene ABS / Grey
Flame Retardant	Yes
Safety Vent Operational Pressure	20kPa
Dimensions:	
Overall Width	90mm
Depth	70mm
Height	103mm
Overall Height	106mm
Battery Weight (kg)	
Total Weight (wet)	1.7kg

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	(V)	(V)											
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	12.0-	6.0									/		
tage	11.0-	5.5	$\overline{\langle}$	$\mathbb{N}$		$\left( \right)$	$\left  \right $	$\neq$	$\left  \right\rangle$		Y		
Terminal Voltage	10.0-	5.0		$\mathcal{W}$		$\left  \right $		- 0:40	<u>0.2</u> Ca	ĆA	0.10	ća <sup>-0:0</sup>	ISCA
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	8.0 -	4.0	$\left  \right $		2GA-								
		1 :	2 4	6 8 	10 2	10 4	06	02	2 4	6   6	8 1	10 2	20
Discharge Time						-							

### Self Discharge Characteristics



#### Temperature Effects in Relation to Battery Capacity



# **CenturyYuasa**

An affiliated business of the GS Yuasa Corporation, Century Yuasa has an 80-year history of supplying a range of stored energy solutions to the Australian market. An established network of sales and distributions offices throughout Australia and New Zealand has seen the business gain the trust and respect from its customers by focusing on quality products and exceptional customer service. CenturyYuasa is Australia's enduring manufacturer of stored energy products.

Electrical Properties						
Self Discharge Rate @ 20°C	<3% per mo	<3% per month				
Normal Charge (Amperes)	0.40A	0.40A				
Max. Charge (Amperes)	1.0A	1.0A				
Internal Resistance (mOHMS)	40 mΩ	40 mΩ				
Volts End of Charge	2.260Vpc @	2.260Vpc @ 25°C				
	20°C	25°C	30°C			
Float Voltage (Vpc)	2.275Vpc	2.260Vpc	2.245Vpc			
Float Current (mA)	<4mA	<4mA	<4mA			
Initial Short circuit current (A)	270	270				
Efficiency at 10 hour rate (%):						
Ampere-Hour	>90%	>90%				
Watt-Hour	>80%	>80%				

Compliant Standard	
Battery Standard	JIS C8702

37-65 Cobalt Street Carole Park QLD 4300 P 1300 364 877 F 1300 364 329 www.centuryyuasa.com.au rU109-1650