



Yuasa NPL Range VRLA Batteries



- Typical 7-10 year service life
- Suitable for use in any orientation (excluding continuous use inverted)
- Standard case material is flame retardant to (UL94) HBO
- Manufactured within ISO9000 Quality Assurance Standard

Description

AN ENHANCED NP DESIGN FOR A LONGER SERVICE LIFE (7-10 YEARS)

The Yuasa NPL range provide an extremely reliable and versatile valve regulated lead acid battery. Their unique construction and sealing techniques ensures that no electrolyte leakage can occur, and provides safe and effective operation in any orientation, and meets all requirements of the International Air Transport Association (I.A.T.A Dangerous Goods Regulations) to allow transportation by air.

They require low maintenance i.e. there is no need to check specific gravity or add water etc. All Yuasa NP batteries conform to BS EN61056-1 and IEC1056-1 regulations.

They are equipped with a safe, low pressure venting system which is designed to release excess gas and reseal automatically in the event the internal gas pressure rises to an unacceptable level, making the Yuasa NP range one of the safest valve regulated batteries available.

The Yuasa NPL range is typically suited for stand-by power applications, examples of which are:

- Alarm Systems
- Communications Equipment
- Control Equipment
- Emergency Lighting Systems
- Fire & Security Systems
- Medical Equipment
- Solar Powered Systems
- Uninterruptible Power Supplies

Product Specification

Voltage Range:

nominal voltages	6V and 12V ranges
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Capacity Range:

nominal capacity	
6V range	130Ah - 200Ah
12V range	24Ah - 100Ah

Charging

charging methods (recommended)	constant voltage charging Two stage constant voltage charging
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recommended float charge	2.275 Volts per cell \pm 0.005V (at 20°C)
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NOTE: High ripple current will greatly reduce the service life of a battery

General:

operating temperature range	
charge	-15 to +50°C
discharge	-20 to +60°C
storage	-20 to +50°C (fully charged condition)

Conforms to	BS EN61056-1 / IEC1056-1
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Battery Selection Chart

TABLE 1 CONSTANT CURRENT DISCHARGE PERFORMANCE DATA

20Hr Capacity	TOTAL AH DISCHARGE AT 20 DEG C						
	MINUTES		HOURS				
	10	30	1	3	5	10	20
24	7.37	11.42	14.40	18.48	20.40	22.32	24.00
38	11.67	18.09	22.80	29.26	32.30	35.34	38.00
65	19.96	30.94	39.00	50.05	55.25	60.45	65.00
78	23.95	37.13	46.80	60.06	66.30	72.54	78.00
100	30.70	47.60	60.00	77.00	85.00	93.00	100.00
130	39.91	61.88	78.00	100.10	110.50	120.90	130.00
200	61.40	95.20	120.00	154.00	170.00	186.00	200.00

Table 1, above, will allow battery selection to be made for Constant Current load conditions. It should be used by mapping the required load time to the batteries 20 hour capacity rate. The figure obtained is the total AH output available for that battery in the indicated time.

Example: Load condition 30A constant current
Load time 30 minutes
Load voltage, nominal 24V

1. Calculate total capacity required by multiplying load in hours by constant current load condition value, i.e $0.5 \times 30 = 15\text{AH}$
2. Using table 1, load time column for "30 minutes", locate minimum battery capacity required i.e. 38AH
3. From table 2, below, select battery model and quantity, i.e. NPL38-12i times 2pcs.

TABLE 2 GENERAL SPECIFICATION

Model	Nominal Voltage	Nominal Capacity (Ah)		Dimensions			
	(V)	(20Hr)	(10Hr)	L (mm)	W (mm)	Height over Terminals (mm)	Weight Approx (Kg)
NPL130-6i	6	130	120	350	166	174	23
NPL200-6	6	200	186	398	176	250	39
NPL24-12i	12	24	22.3	166	175	125	9
NPL38-12i	12	38	35.3	197	165	170	14.2
NPL65-12i	12	65	60.5	350	166	174	23
NPL78-12i	12	78	72.6	380	166	174	27.5
NPL100-12	12	100	93	407	172	240	39

CAUTION

Follow these precautions when using and charging these batteries:



- Avoid short-circuit
- Do not charge in a sealed container
- Service life and operational characteristics will be affected by temperature
- AC Ripple reduces service life

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