

Yuasa Technical Data Sheet

Yuasa NPL78-12IFR 12V 78Ah - Yuasa NPL series general purpose AGM VRLA battery

Specifications

Nominal Voltage (V)	12 V
10m rate Constant Power (Typ) to 9.6V at 20°C (/Block)	1681.38
10m rate Constant Power (Typ) to 1.6V/cell at 20°C (/Cell)	280.23
20-hr rate Capacity to 1.75V /Cell at 20°C (Ah)	78
10-hr rate Capacity to 1.8V /Cell at 20°C (Ah)	72.1

Dimensions

Length (mm)	380 (±2)
Width (mm)	166 (±1)
Height (mm)	174 (±0.5)
Weight (kg)	27.5

Terminal Type

Terminal Type	M8 (F)
Torque (Nm)	6

Operating Temperature Range

Storage (in fully charged condition)	-20°C to +60°C
Charge	-15°C to +50°C
Discharge	-20°C to +60°C

Storage

Capacity loss per month at 20°C (% approx.)	3
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Case Material

Case Material	ABS (UL94:V0)
Standard or FR Case	FR

Charge Voltage

Float charge voltage at 20°C /Block (±1%)	13.65
Float charge voltage at 20°C /Cell (±1%)	2.275
Float Chg voltage tmp correction factor from std 20°C (mV)	-3
Cyclic (or Boost) charge Voltage at 20°C (V) /Block (±3%)	14.5
Cyclic (or Boost) charge Voltage at 20°C (V) /Cell (±3%)	2.42
Cyclic Chg voltage tmp correction factor from std 20°C (mV)	-4

Charge Current

Float charge current limit (A)	19.5
Cyclic (or Boost) charge current limit (A)	19.5

Maximum Discharge Current

Maximum discharge current 1s (A)	800
Maximum discharge current 1m (A)	500

Short-Circuit Current & Internal Resistance

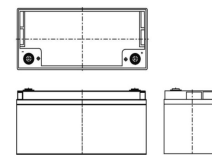
Short-Circuit current - according to EN IEC 60896-21 (A)	800
Internal resistance (mΩ) measured at 1 kHz	5

Design Life & Approvals

EUROBAT Classification	Long life: 10 to 12 years
Eurobat Life	10 to 12 years
Yuasa design life at 20°C (yrs)	Up to 10 years



Layout



Certifications

ISO9001 Quality Management Systems
ISO14001 Environmental Management System
ISO45001 OHSAS Management Systems
UNDERWRITERS LABORATORIES Inc.



Safety

Installation

Can be installed and operated in orientations up to 90° from the upright position.

Handles

Batteries must not be suspended by their handles (where fitted).

Vent valves

Each cell is fitted with a low pressure release valve to allow gasses to escape and then reseal.

Gas release

VRLA batteries release hydrogen gas which can form explosive mixtures in the air. Do not place inside a sealed container.

Recycling

YUASA's VRLA batteries must be recycled at the end of life in accordance with local and national laws and regulations.



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