



Common applications

Uninterruptible power supply (UPS)



Ranging in size from desk top units to large plant room installations, UPS's are a no-break backup power supply for essential equipment. Yuasa batteries can be sized to give the autonomy and load required for any project.

Batteries typically used:

NP	NPW	SW	ENL	SLR
NPL	RE	SWL	ENL FT	
NPH	REW	EN	Lithium	



Telecoms



Broadband, landline and mobile providers have equipment that needs battery backup power in the event of a mains failure. Whether in central systems or remote cabinets, Yuasa batteries are trusted by providers worldwide.

Batteries typically used:

NP	REW	EN	FXH
NPL	SW	ENL	SLR
RE	SWL	ENL FT	



Renewable energy



Solar, wind and wave energy is not always produced at times of maximum requirement. Yuasa batteries allow energy to be stored at times of low demand and then released into the grid when demand is high.

Batteries typically used:

NP	REC	ENL FT	SLE	Lithium
NPC	ENL	FXH	SLR	

Fire & security



Even the most advanced security systems are only as good as the backup batteries supporting them. When an emergency arises, Yuasa standby batteries can protect homes and businesses against crime and fire.

Batteries typically used:

NP	NPL	RE
----	-----	----



Golf & mobility



Golf and mobility equipment requires batteries to be charged and then used to power the equipment. Yuasa produce specialised cyclic battery types to give maximum performance for hundreds of charge/discharge cycles.

Batteries typically used:

NPC REC



Emergency lighting



Emergency lighting is required in commercial buildings. In the event of a mains failure, standby batteries provide light for safe evacuation. Yuasa NiCd, NiMH and VRLA batteries exceed common 3 hour run-time requirements.

Batteries typically used:

NiMh NPL REC
NiCd NPC ENL
NP RE ENL FT



Energy storage



Businesses are usually charged on peak power demand. Load-shedding allows large cost savings by charging batteries during low demand and injecting this stored energy back into business load at times of high demand.

Batteries typically used:

NPL REC ENL FT SLE Lithium
NPC ENL FXH SLR



Floor cleaning & aerial access



A specialist battery solution is needed for applications where deep discharges and harsh operating conditions are common. The Yuasa Pro-Spec range have excellent resilience against plate corrosion and deep discharge.

Batteries typically used:

Pro-Spec



Yuasa industrial batteries

To help with battery selection, and due to different application and operational requirements, every Yuasa industrial battery has been designated with a Eurobat classification or Yuasa cyclic life tag.

Eurobat is a European organisation that has produced a guide to VRLA batteries. Within this guide there are 4 design life categories. Yuasa has used the test methods as set out in an official standard, BS EN60896-21/21 to designate each battery range into one of the categories.

3 to
5 year
EUROBAT
classification
Standard Commercial

6 to
9 year
EUROBAT
classification
General Purpose



NP series page 8

- Guaranteed capacity
- Yuasa quality assurance
- VDS approved
- 6 & 12 Volt types
- 0.8Ah to 65Ah
- Standby & light cyclic use

RE series page 9

- Guaranteed capacity
- Yuasa quality assurance
- VDS approved
- 12 Volt
- 5Ah to 12Ah
- Standby & light cyclic use



NPL series page 10

- 6 & 12 Volt types
- 24Ah to 200Ah
- Standby use

10 to
12 year
EUROBAT
classification
Long Life



SWL series page 11

- 6 & 12 Volt types
- 24Ah to 180Ah
- Standby use

10 to
12 year
EUROBAT
classification
Long Life



EN series page 12

- 2, 4 & 6 Volt types
- 80Ah to 540Ah
- Standby use

Over
12 year
EUROBAT
classification
Very Long Life



ENL series page 13

- 2, 4 & 6 Volt types
- 80Ah to 540Ah
- Standby use

Over
12 year
EUROBAT
classification
Very Long Life

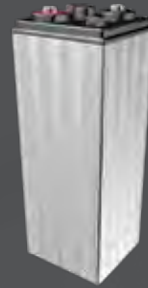




FXH series

page 14

- 12 Volt
- 45Ah to 200Ah
- Standby use



SLR series

page 15

- 2 Volt
- 500Ah & 1000Ah
- Heavy duty cyclic use



REC series

page 16

- 12 Volt
- 10Ah to 80Ah
- Cyclic use



NPC series

page 17

- 12 Volt
- 24Ah to 100Ah
- Cyclic use



Lithium series

page 19

- 3.7 to 50.4 Volt
- 5Ah to 47.5Ah
- Standby & cyclic use



NiCd & NiMH

page 20

- 1.2 Volt
- 50mAh to 13Ah
- General use



Pro-Spec

page 21

- 6, 8 & 12 Volt types
- 150Ah to 260Ah
- Deep cyclic use



Accessories

page

- Racking & site services 22
- Yu-Power chargers 23
- Hioki BT3554 tester 23
- Temperature monitoring 24

Eurobat classification or Yuasa cyclic design life assumes that the battery is operated in normal conditions at 20°C and in accordance with Yuasa recommended operating guidelines.

Yuasa cyclic design life assuming 50% depth of discharge.



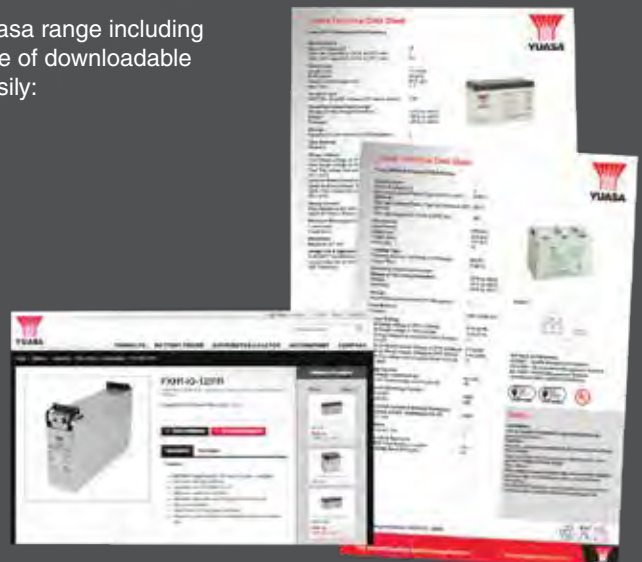
www.yuasa.com



Yuasa's innovative website is mobile-ready and features the entire Yuasa range including specifications, part numbers and photographs. It also includes a range of downloadable brochures, resources, data sheets and guides and allows users to easily:

- Find the right battery and compare products
- Search for local distributors
- Access detailed technical information and guides
- Download dynamic technical data sheets
- Calculate UPS system size requirements
- Keep up to date with the latest from Yuasa

Features every Yuasa industrial, automotive and motorcycle product with full specifications and pictures.



NP series

Valve regulated lead acid batteries



Features

- Lead calcium grids for extended life
- Superb recovery from deep discharge
- Low discharge rate for long shelf life
- Absorbed glass mat (AGM) technology assures no free electrolyte
- High gas recombination efficiency
- Multipurpose: Float or light cyclic use
- Can be used in any orientation excluding continuous inverted use
- Application specific designs

Applications

Ideal for standby & light cyclic applications including:

- Fire & security systems
- Emergency lighting
- Solar and wind
- UPS
- Toys



Model name	Nominal Voltage (Volts)	Capacity			Dimensions (mm)			Weight - typical (kg)	Impedance at 1kHz mOhms	1 Second rate (Amps)	Terminal type	Layout (see page 18)
		20-hr rate to 10.5V at 20°C (Ah)	10-hr rate to 10.8V at 20°C (Ah)	Watts per cell 10 min to 1.6VPC at 20°C (watts)	Length (±1)	Width (±1)	Overall height (±2)					
NP1-6	6	1.0	0.93	-	51.0	42.5	54.5	0.25	75.0	30.0	A	5
NP1.2-6	6	1.2	1.1	-	97.0	25.0	54.5	0.31	60.0	36.0	A	1
NP2.8-6	6	2.8	2.5	-	134	34.0	64.0	0.57	30.0	84.0	A	1
NP4-6	6	4.0	3.7	-	70.0	47.0	105.5	0.87	20.0	120	A	5
NP7-6	6	7.0	6.5	-	151	34.0	97.5	1.32	12.0	210	A	1
NP10-6	6	10.0	9.2	-	151	50.0	97.5	1.93	8.0	300	A	1
NP12-6	6	12.0	11.1	-	151	50.0	97.5	2.05	7.0	360	C	1
NP0.8-12	12	0.8	0.74	-	96.0	25.0	61.5	0.35	180	24.0	H	6
NP1.2-12	12	1.2	1.1	-	97.0	48.0	54.5	0.58	110	36.0	A	3
NP2-12	12	2.0	1.86	-	150	20.0	89.0	0.7	68.0	60.0	B	7
NP2.1-12	12	2.1	1.9	-	178	34.0	64.0	0.82	65.0	63.0	A	1
NP2.3-12	12	2.3	2.1	-	178	34.0	64.0	0.95	65.0	69.0	A	1
NP2.8-12	12	2.8	2.5	-	134	67.0	64.0	1.12	60.0	84.0	A	3
NP3.2-12	12	3.2	2.9	-	134	67.0	64.0	1.2	50.0	96.0	A	3
NP4-12	12	4.0	3.7	-	90.0	70.0	106	1.75	40.0	120	A	1
NP7-12(L)	12	7.0	6.4	-	151	65.0	97.5	2.2	23.0	210	A/C	4
NP12-12	12	12.0	11.1	-	151	98.0	97.5	4.05	16.0	360	C	4
NP17-12I	12	17.0	15.7	-	181	76.0	167	6.1	15.0	510	D	2
NP18-12B	12	17.2	16.0	-	180	76.0	167	6.2	15.0	540	G	2
NP24-12I	12	24.0	22.3	-	166	175	125	9	11.0	500	D	2
NP38-12I	12	38.0	35.3	-	197	165	170	14.2	9.0	500	D	2
NP65-12I	12	65.0	60.5	-	350	166	174	23.0	7.0	800	E	2



NPH & NPW Series High Rate NP Batteries


NPH2-12FR	12	2.1	2.0	-	68.0	51.0	88.0	0.84	66.0	60.0	A	2
NPH3.2-12	12	3.3	3.0	-	134	67.0	64.0	1.4	35.0	96.0	A	3
NPH5-12(FR)	12	5.0	4.8	34.0	90.0	70.0	106	1.85	25.0	150	C	1
NPH12-12	12	12.0	11.1	70.0	151	98.0	97.5	4.1	16.0	360	C	4
NPH18-12B	12	20.0	18.7	115.2	181	76.0	167	6.3	7.9	540	G	2
NPW45-12	12	8.5	7.42	40.0	151	65.0	97.5	2.7	24.0	105	C	4



yuasa.co.uk/NP
For more information
and technical data

RE series

Valve regulated lead acid batteries



Features


- Lead calcium grids for extended life
- Superb recovery from deep discharge
- Low discharge rate for long shelf life
- Absorbed glass mat (AGM) technology assures no free electrolyte
- High gas recombination efficiency
- Multipurpose: Float or light cyclic use
- Can be used in any orientation excluding continuous inverted use
- Application specific designs

Applications

Ideal for standby & light cyclic applications including:

- Fire & security systems
- Emergency lighting
- Solar and wind
- UPS
- Toys

6 to 9 year
EUROBAT classification
General Purpose

Model name	Nominal Voltage (Volts)	Capacity		Dimensions (mm)			Weight - typical (kg)	Impedance at 1kHz mOhms	1 Second rate (Amps)	Terminal type	Layout (see page 18)
		20-hr rate to 10.5V at 20°C (Ah)	10-hr rate to 10.8V at 20°C (Ah)	Length (±3)	Width (±3)	Overall height (±3)					
RE5-12	12	5.0	4.6	90.0	70.0	106	1.96	42.0	120	A	1
RE7-12L(FR)	12	7.0	6.2	151	65.0	97.5	2.75	35.0	105	C	4
RE12-12	12	12.0	10.56	151	98.0	97.5	4.15	15.0	180	C	4
 REW45-12	12	8.0	6.96	151	64.0	97.5	2.7	24.0	105	C	4

 yuasa.co.uk/RE
For more information and technical data

Yuasa NP series

Europe's leading standby batteries



- ✓ European market leader for over 30 years
- ✓ Proven track record of long-life performance
- ✓ The original and most reliable NP VRLA battery
- ✓ Dependable standby & light cyclic power
- ✓ Yuasa quality, reliability & performance

NPL series

Valve regulated lead acid batteries



Features

- Low discharge rate for long shelf life
- Absorbed glass mat (AGM) technology assures no free electrolyte
- High gas recombination efficiency
- Maintenance free
- Flame retardant to (UL94) HBØ
- FR option flame retardant to UL94:VØ (oxygen index 30)
- Manufactured in factories that comply with ISO 9001

- Complies with BS EN60896-21+22

Applications

- Security & Fire
- Emergency Lighting
- Telecoms
- UPS



Model name	Nominal Voltage (Volts)	Capacity			Dimensions (mm)			Weight - typical (kg)	Impedance at 1kHz mOhms	1 Second rate (Amps)	Terminal type	Layout (see page 18)	Torque (Nm)
		20-hr rate to 10.5V at 20°C (Ah)	10-hr rate to 10.8V at 20°C (Ah)	Watts per cell 10 min to 1.6VPC at 20°C (watts)	Length (±1)	Width (±1)	Overall height (±2)						
NPL24-12I	12	24.0	21.1	93.2	166	175	125	9.0	9.5	500	D	2	2.5
NPL38-12I	12	38.0	33.4	147.5	197	165	170	14.0	7.5	500	D	2	2.5
NPL65-12I	12	65.0	57.2	252.4	350	166	174	23.0	5.0	800	E	2	4.8
NPL78-12IFR	12	78.0	68.6	302.9	380	166	174	27.5	4.5	800	F	2	6.0
NPL100-12	12	100	88.0	388.4	407	172	240	39.0	4.0	1000	I	1	16.5
NPL130-6IFR	6	130	114.4	504.9	350	166	174	23.0	2.5	500	E	5	4.8
NPL200-6	6	200	176	776.8	398	176	250	39.0	1.3	1500	I	5	16.5

 yuasa.co.uk/NPL
For more information and technical data



SWL series

Valve regulated lead acid batteries



Features

- Excellent high rate discharge efficiency, typically 40% higher than equivalent standard product
- Low discharge rate for long shelf life
- Absorbed glass mat (AGM) technology assures no free electrolyte
- High gas recombination efficiency
- Maintenance free
- Standard case material is flame retardant to (UL94) HBØ

- FR option flame retardant to UL94:VØ (oxygen index 30)
- Manufactured in factories that comply with ISO9001
- Complies with BS EN60896-21+22

Applications

- UPS
- All other high rate discharge applications



Model name	Nominal Voltage (Volts)	Capacity			Dimensions (mm)			Weight - typical (kg)	Impedance at 1kHz mOhms	1 Second rate (Amps)	Terminal type	Layout (see page 18)	Torque (Nm)
		20-hr rate to 10.5V at 20°C (Ah)	10-hr rate to 10.8V at 20°C (Ah)	Watts per cell 10 min to 1.6VPC at 20°C (watts)	Length (±2)	Width (±2)	Overall height (±2)						
SW200	12	6.2	5.8	33.0	151	51.0	97.5	2.5	18.0	100	A+C	4	-
SW280	12	7.8	7.0	47.0	151	65.0	97.5	2.6	14.0	150	C	4	-
SWL750(FR)	12	25.0	22.9	128	166	175	125	9.8	8.5	500	D	2	2.5
SWL780V(FR)	12	28.8	27.1	130	166	125	175	10.1	8.5	500	D	2	2.5
SWL1100(FR)	12	40.6	39.6	200	197	165	170	14.5	7.5	500	D	2	2.5
SWL1800(FR)	12	57.6	55.0	329	216	168	223	23.0	6.0	800	E	1	4.8
SWL1850(FR)	12	74.0	66.0	319	350	166	174	23.8	4.4	800	E	2	4.8
SWL1850-6(FR)	6	148	132	-	350	166	174	23.8	1.8	500	E	5	4.8
SWL2250(FR)	12	86.0	76.0	375	380	166	174	28.0	3.6	800	F	2	6.0
SWL2300E(FR)	12	80.0	78.0	400	261	168	225	28.0	5.0	800	E	1	4.8
SWL2500E(FR)	12	93.6	90.0	490	305	168	225	32.0	4.0	1000	E	1	4.8
SWL2500TFR	12	93.6	90.0	490	305	173	223	32.0	4.0	1000	E	1	4.8
SWL2500-6(FR)	6	184	180	922	297	168	231.5	32.5	1.7	1500	F	5	6.0
SWL3300(FR)	12	110.2	105	550	350	168	225	37.5	3.5	1100	F	1	6.0
SWL3800(FR)	12	135	124	701	350	173	272	48.0	3.0	1200	F	1	6.0
SWL4250FR	12	150	140	411	341	173	281	49.0	2.7	1200	F	1	6.0

 yuasa.co.uk/SWL
For more information and technical data



EN series

Valve regulated lead acid batteries



Features

- Unique mix and match parallel assembly allows extensive variations to network capacity
- Low discharge rate for long shelf life
- Absorbed glass mat (AGM) technology assures no free electrolyte
- High gas recombination efficiency

- Maintenance free
- Fully compliant with BS EN60896-21+22
- Case material ABS flame retardant UL94:V0

Applications

- UPS
- Telecoms
- Emergency lighting



Model name	Nominal Voltage (Volts)	Capacity			Dimensions (mm)			Weight - typical (kg)	Impedance at 1kHz mOhms	1 Second rate (Amps)	Terminal type	Layout (see page 18)	Torque (Nm)
		20-hr rate to 10.5V at 20°C (Ah)	10-hr rate to 10.8V at 20°C (Ah)	Watts per cell 10 min to 1.6VPC at 20°C (watts)	Length (±2)	Width (±2)	Overall height (±2)						
EN80-6	6	86.4	81.6	336.1	200	208	238	23.0	2.0	1000	F	8	6.0
EN100-4	4	108	102	420.1	200	208	238	17.5	1.5	1000	F	8	6.0
EN100-6	6	108	102	420.1	200	208	238	23.0	2.0	1000	F	8	6.0
EN160-4	4	172.8	163.2	672.2	206	210	240	24.0	1.0	1500	F	10	6.0
EN160-6	6	172.8	163.2	672.2	305	210	240	35.0	1.5	1500	F	9	6.0
EN180-6	6	193	181.4	767.7	305	210	240	38.0	0.5 (single cell)	1500	F	9	6.0
EN320-2	2	345.6	326.4	1344.4	206	210	240	24.0	0.5 (single cell)	3000	F	10	6.0
EN480-2	2	518.4	489.6	2016.7	305	210	240	35.0	0.5 (single cell)	4500	F	11	6.0
EN540-2	2	579	544.2	2303.1	305	210	240	38.0	0.5 (single cell)	4500	F	11	6.0



ENL series

Valve regulated lead acid batteries



Features

- 15 year design life version of the EN series
- Unique mix and match parallel assembly allows extensive variations to network capacity
- Low discharge rate for long shelf life
- Absorbed glass mat (AGM) technology assures no free electrolyte
- High gas recombination efficiency

- Maintenance free
- Fully compliant with BS EN60896-21+22
- Case material ABS flame retardant UL94:V0

Applications

- UPS
- Telecoms
- Emergency lighting
- Renewable Energy



Model name	Nominal Voltage (Volts)	Capacity			Dimensions (mm)			Weight - typical (kg)	Impedance at 1kHz mOhms	1 Second rate (Amps)	Terminal type	Layout (see page 18)	Torque (Nm)
		20-hr rate to 10.5V at 20°C (Ah)	10-hr rate to 10.8V at 20°C (Ah)	Watts per cell 10 min to 1.6VPC at 20°C (watts)	Length (±1)	Width (±1)	Overall height (±2)						
ENL100-6	6	108	102	399.1	200	208	238	23.0	2.0	1000	F	8	6.0
ENL160-6	6	172.8	163.2	638.6	305	210	240	35.0	1.5	1500	F	9	6.0
ENL320-2	2	345.6	326.4	1277.2	206	210	240	24.0	0.5 (single cell)	3000	F	10	6.0
ENL480-2	2	518.4	489.6	1915.8	305	210	240	35.0	0.5 (single cell)	4500	F	11	6.0
ENL100-12FT	12	108	102	N/A	558	125	235	41.0	7.5	500	F	3	6.0



yuasa.co.uk/ENL

For more information and technical data



FXH series

Valve regulated lead acid batteries



Features

- Front terminal connection for ease of installation & maintenance
- Low discharge rate for long shelf life
- Absorbed glass mat (AGM) technology assures no free electrolyte
- High gas recombination efficiency
- Maintenance free

- Case material ABS flame retardant UL94:V0
- BS EN60896-2 compliant

Applications

- UPS
- Telecoms
- Emergency lighting



Model name	Nominal Voltage (Volts)	Capacity			Dimensions (mm)			Weight - typical (kg)	Impedance at 1kHz mOhms	1 Second rate (Amps)	Terminal type	Layout (see page 18)	Torque (Nm) terminal / adaptor
		20-hr rate to 10.5V at 20°C (Ah)	10-hr rate to 10.8V at 20°C (Ah)	Watts per cell 15 min to 1.6VPC at 20°C (watts)	Length (±3)	Width (±3)	Overall Height (±3)						
FXH45-12IFR	12	46.4	44.6	180.8	278	103	197	15.0	4.7	400	E/D	3	5.4/3
FXH90-12IFR	12	96.8	89.8	441	395	105	255	30.0	3.4	540	F/E	3	11.9/5.4
FXH100-12IFR	12	101.2	98.4	404	508	106	236	34.9	3.5	540	E/E	3	5.4/5.4
FXH100S-12IFR	12	110.4	100	396	395	106	290	34.0	3.5	600	F/E	3	11.9/5.4
FXH140-12IFR	12	164.6	154	606	556	123	295	51.0	2.7	540	F/E	3	11.9/5.4
FXH155-12IFR	12	165.6	155	498.7	415	174	258	50.5	2.8	930	E	3	5.4/N/A
FXH165-12IFR	12	197	177	604	556	125	317	56.0	2.8	990	F/E	3	11.9/5.4
FXH185-12IFR	12	196	187	647.3	556	125	317	60.7	2.5	1000	F/E	3	11.9/5.4
FXH190-12IFR	12	210	200	766.4	604	123	320	67.0	2.5	1000	F/E	3	11.9/5.4
FXH200-12IFR	12	234.8	229	846	520	243	203	70.6	2.1	1000	F	3	11.9/N/A

90° FXH terminal adaptors

for telecoms use


	Battery terminal	90° adaptor
FXH45-12IFR	M6	M5
FXH90-12IFR	M8	M6
FXH100-12IFR	M6	M6
FXH100S-12IFR	M8	M6
FXH140-12IFR	M8	M6
FXH155-12IFR	M6	N/A
FXH165-12IFR	M8	M6
FXH185-12IFR	M8	M6
FXH190-12IFR	M8	M6
FXH200-12IFR	M8	N/A

yuasa.co.uk/FXH
For more information and technical data



SLR series

Larger cyclic batteries





Features
 Easy installation and smaller footprint due to modular unit design

- Horizontal orientation
- Higher gas recombination facility due to silica gel/AGM construction
- Nano-Carbon negative plate for more efficient charging & less sulphation risk
- Higher capacity retention throughout service life

Applications

- Large scale utility & commercial
- Renewable energy storage
- Load shedding
- Off grid
- UPS
- Telecoms
- Emergency lighting

Model Name	Nominal Capacity 10-hr rate (Ah)	Nominal Voltage (Volts)	Cycle Life at Depth of Discharge (DoD)	
			50%	70%
SLR500	500	2	5500	5000
SLR1000	1000	2	5500	5000

Model Name	Length (mm)	Width (mm)	Total Height (mm)	Weight (kg)
SLR500	156	171	492	34.0
SLR1000	287	165	493	67.0

 yuasa.co.uk/SLR
 For more information and technical data



REC series

Premium VRLA cyclic batteries



Features

- Double cycle life when compared to standard VRLA
- Durability for deep discharge
- Modern construction to considerably prolong service life
- Low discharge rate for long shelf life
- Maintenance free
- Absorbed glass mat (AGM) technology assures no free electrolyte
- High gas recombination efficiency

Applications

- Golf & Mobility
- Solar & wind
- Renewable energy
- Professional tools
- Automatic guided vehicles
- Emergency lighting
- Measuring instruments



Model name	Nominal Voltage (Volts)	Capacity			Dimensions (mm)			Weight - typical (kg)	Impedance at 1kHz mOhms	1 Second rate (Amps)	Terminal type	Layout (see page 18)	Torque (Nm)
		20-hr rate to 10.5V at 20°C (Ah)	10-hr rate to 10.8V at 20°C (Ah)	Watts per cell 10 min to 1.6VPC at 20°C (watts)	Length (±3)	Width (±3)	Overall height (±3)						
REC10-12	12	10.0	9.3	51.8	151	65.0	115.5	3.2	17.6	150	C	4	N/A
REC12-12	12	12.0	11.2	68.0	151	98.0	97.5	4.2	11.8	180	C	4	N/A
REC14-12	12	13.0	11.9	78.3	151	98.0	97.5	4.2	10.1	195	C	4	N/A
REC22-12B / I	12	22.0	19.7	120.8	181	76.2	167	6.2	8.2	330	G / D	2	2.0-3.0
REC26-12I	12	26.0	23.5	145	166	175	125	9.0	8.8	330	D	2	2.0-3.0
REC36-12I	12	36.0	32.0	166.7	196	130	169	11.2	8.7	360	D	1	2.0-3.0
REC50-12I	12	50.0	40.0	233	197	165	175	15.3	5.7	400	D	2	2.0-3.0
REC80-12I	12	80.0	74.0	404	259	168	212.5	27.0	4.7	480	E	1	3.9-5.4

REC & NPC Carrying Cases

Model	Description
GB 12210	Carrying case for REC22-12B / I
GB 12260	Carrying case for REC26-12 & NPC24-12I
GB 12360	Carrying case for REC36




yuasa.co.uk/REC
 For more information and technical data



NPC series

VRLA cyclic batteries



Features

- Double cycle life when compared to standard VRLA
- Durability for deep discharge
- Modern construction to considerably prolong service life
- Low discharge rate for long shelf life
- Maintenance free
- Absorbed glass mat (AGM) technology assures no free electrolyte
- High gas recombination efficiency

Applications

- Golf & Mobility
- Solar & wind
- Renewable energy
- Professional tools
- Automatic guided vehicles
- Emergency lighting
- Measuring instruments



Model name	Nominal Voltage (Volts)	Capacity		Dimensions (mm)			Weight - typical (kg)	Impedance at 1kHz mOhms	1 Second rate (Amps)	Terminal type	Layout (see page 18)
		20-hr rate to 10.5V at 20°C (Ah)	10-hr rate to 10.8V at 20°C (Ah)	Length (±3)	Width (±3)	Overall height (±3)					
NPC24-12I	12	24.0	21.1	166	175	125	9.0	9.5	500	D	2
NPC38-12I	12	38.0	33.4	197	165	170	14.2	7.5	500	D	2
NPC65-12I	12	65.0	57.2	350	166	174	23.0	5.0	800	E	2
NPC100-12	12	100	92.3	350	168	225	38.8	4.0	1100	F	1

REC & NPC Powakaddy Adaptors

Model	Description
PK22	For REC22-12B
PK22I	For REC22-12I
PK26	For REC26-12 & NPC24-12I
PK36	For REC36

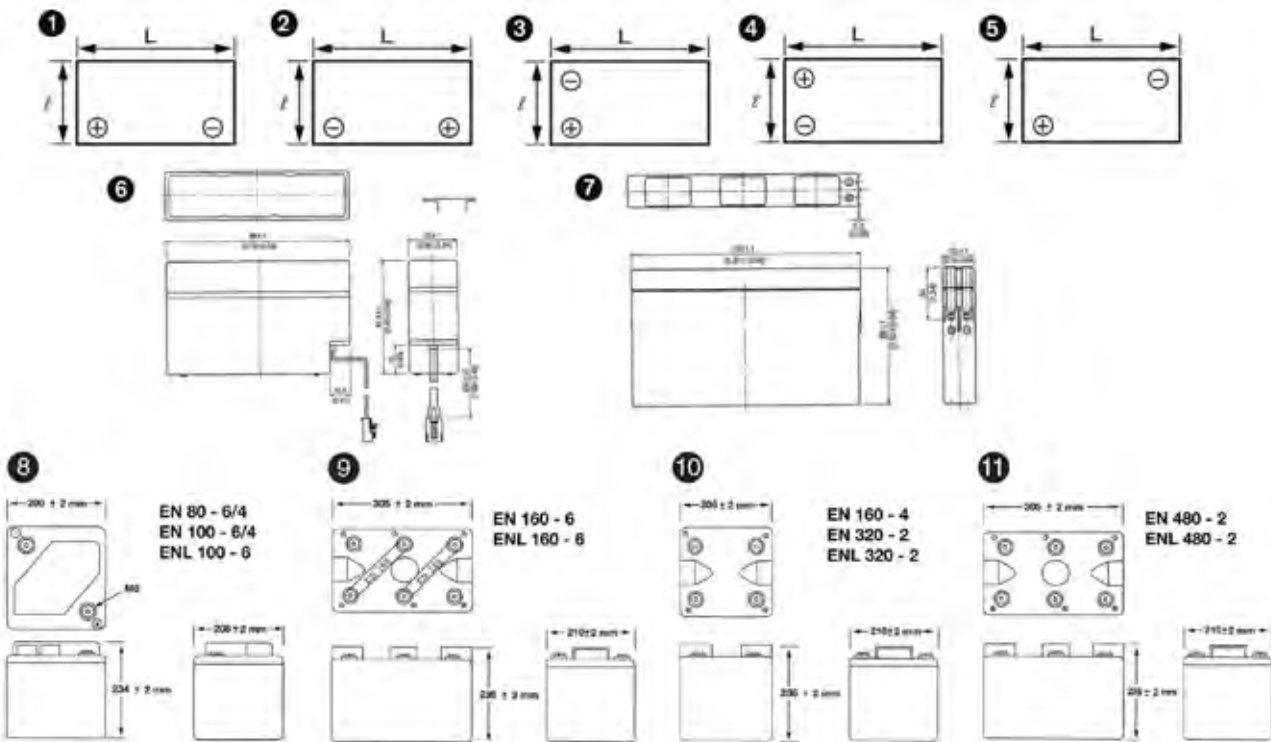


 yuasa.co.uk/NPC
For more information and technical data

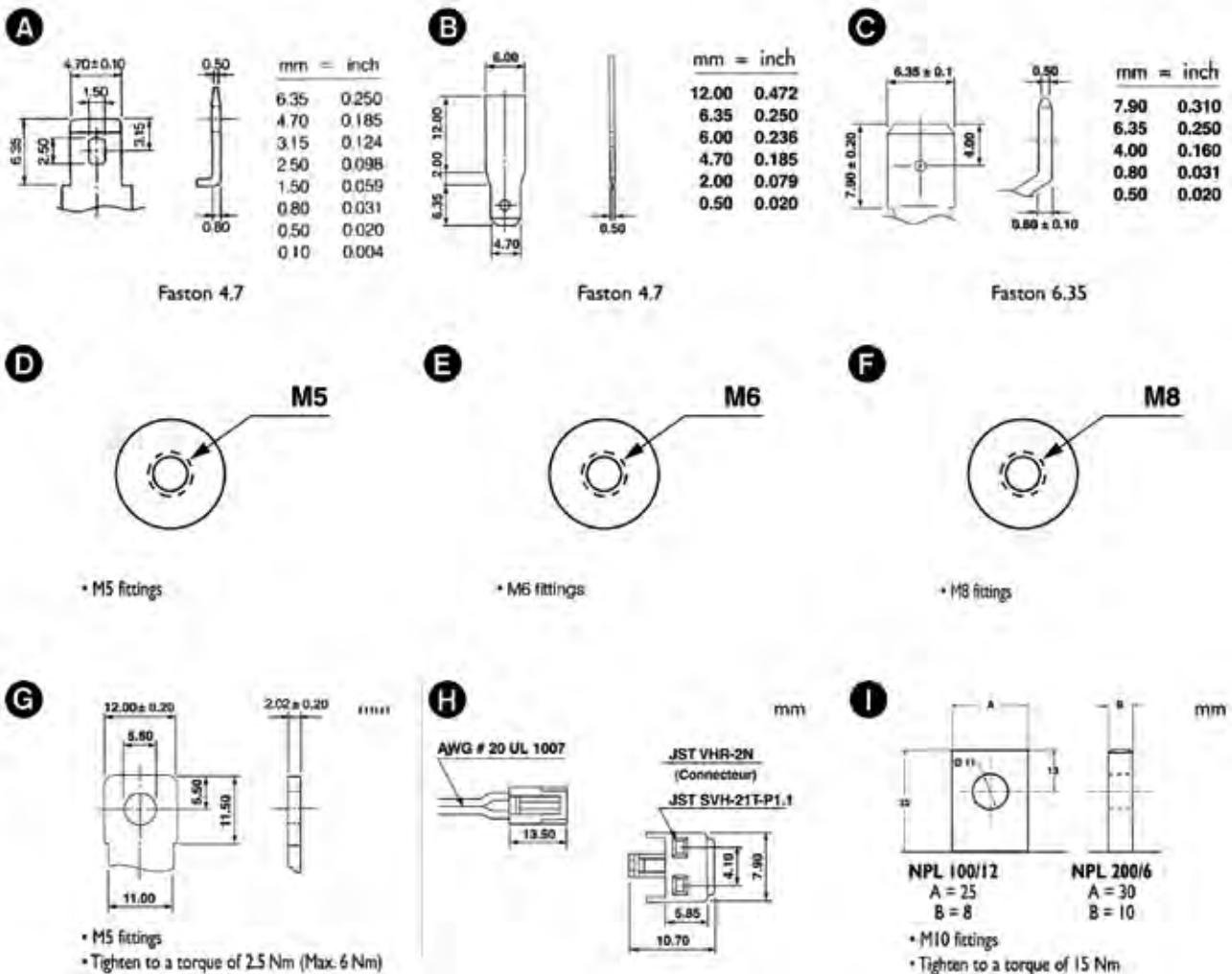


Layout & terminal diagrams

Layout



Terminals



Lithium series

GS Yuasa LIM Li-ion batteries



Features

- Advanced maximum reliability system design
- Built in battery monitoring unit (ACS) constantly monitors the condition of each cell
- Outstanding cycle life of up to 3,000 cycles at 100% discharge
- High Charge-Discharge density capable of currents up to 600A
- Maintenance free
- Safe materials used in design & production

Applications

- High energy industrial systems
- UPS
- Energy storage
- Smart Grid
- AGV traction power



Model name	Nominal Voltage (Volts)	Operating Voltage range (Volts)	Capacity 1-hr rate to 22.0V @ 25° C (Ah)	Charge current continuous (Amps)	Maximum current continuous (Amps)	Discharge current continuous (Amps)	Maximum discharge current (Amps)	Dimensions (mm)			Weight (kg)	Cycles
								Length (±3)	Width (±3)	Height (±3)		
LIM25H-8S1-F1	28.8	22.0 - 33.6	25.0	100	600 (14s)	100	600 (14s)	440	219	128	17.5	20000
LIM25H-8S2-F2	28.8	22.0 - 33.6	25.0	100	600 (14s)	100	600 (14s)	440	219	128	17.5	20000
LIM25H-12S1-F1	43.2	33.0 - 50.4	25.0	100	600 (14s)	100	600 (14s)	620	219	128	28.0	20000
LIM25H-12S1-F2	43.2	33.0 - 50.4	25.0	100	600 (14s)	100	600 (14s)	617	219	128	27.5	20000
LIM40E-13T1	48.8	35.8 - 53.3	38.0	40.0	100 (60s)	40	600 (60s)	385	450	130	28.0	11000
LIM50EN-8S2-F2	29.6	22.0 - 32.8	47.5	50.0	125 (60s)	200	300 (60s)	440	219	128	17.0	11000
LIM50EN-12S2-F2	44.4	33.0 - 49.2	47.5	50.0	125 (60s)	200	300 (60s)	617	219	128	27.0	11000
LIM50E-7G-C1	25.9	19.3 - 28.7	47.5	50.0	125 (60s)	200	300 (60s)	412	180	135	15.0	7500



For more information and technical data



Li-ion battery control modules (LiBM)

- Monitors & controls the operation of up to 26 lithium ion modules
- Multiple LiBMs can be networked for larger system integration
- Provides full access to all cell data via RS485 and CANbus 2.0b ports
- 16 cell & monitoring system functions are checked continuously
- Status thresholds are configurable for all monitored parameters
- Warning & alarm outputs configurable via relay and opto-isolated NO and NC contacts
- State of Charge measured by voltage & current analysis
- On-board data logging capability
- Low power consumption at 24Vdc

Pro-Spec

Multiple purpose deep cycle batteries



Features

- Deep cycle performance
- Resistant to vibration
- Low maintenance with easy access vent caps for topping up
- Glass Mat/porous rubber separator construction to resist corrosion & reduce electrical resistance
- Special case & lid designed to prevent short circuit
- Two terminal types available

Applications

- Electric vehicles including:
 - Golf carts
 - Mobility vehicles
 - Warehouse equipment
 - Fork lifts
 - Access platforms
 - Floor cleaners



Type	Model name	Capacity				Dimensions (mm)				Weight (kg)
		@25A (Mins)	@75A (Mins)	5HR (Ah)	20HR (Ah)	Length	Width	Height	Terminal height	
Deep Cycle 6V	DCB605-6(DT)*	383	105	175	210	259	179	245	273	27.0
	DCB105-6(DT)*	447	115	185	225	259	179	245	273	28.6
	DCB125-6(DT)*	488	132	195	240	259	179	245	273	30.7
	DCB145-6(DT)*	530	145	215	260	259	179	264	292	33.0
Deep Cycle 8V	DCB875-8(DT)*	295	75	145	170	262	181	245	273	29.0
	DCB890-8(DT)*	340	90	155	190	262	181	245	273	31.6
	DCB8125-8(DT)*	425	110	190	240	262	181	283	311	37.6
Deep Cycle	DCB1275-12(ET)	290	70	125	150	329	181	245	276	37.5

*ET available on request

DT - Dual Terminal

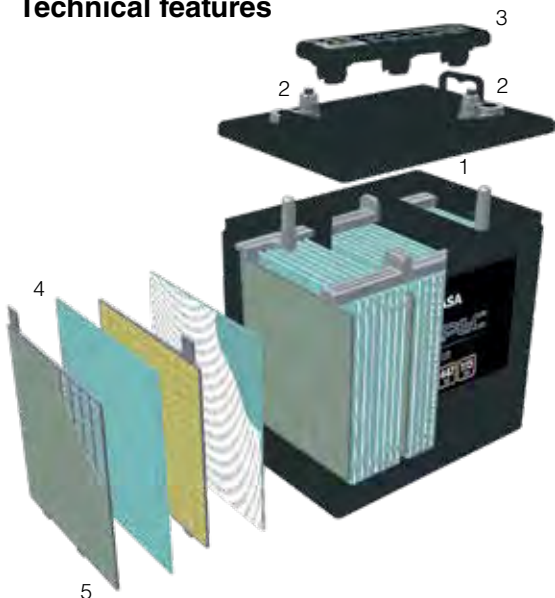


ET - Embedded Terminal



yuasa.co.uk/prospec
For more information and technical data

Technical features



- Case/Lid:
 - a. Less weight, shock resistant & acid resistant thanks to PP Resin construction
 - b. Specially designed structure to prevent short circuit from active material shedding in the bottom
- Terminal:
 - a. Cast with special lead alloy
 - b. Special plating to minimize heat generation electric resistance
 - c. Designed to be vibration resistance
 - d. Easily detachable with standard & bolt/nut structure
- Cap:
 - a. Designed & engineered to allow gas venting
 - b. Easy to refill & maintain
- Separator:
 - a. Porous rubber material protects against acid corrosion
 - b. Excellent physical characteristics & lower electric resistance
 - c. Uses micro-fibre glass mat to minimise active material shedding
- Plates:
 - a. Negative – 99.9% pure lead with hard paste feature, specific additives for excellent deep cycle ability
 - b. Positive - corrosion resistant grid with hard paste feature, specific additives for deep cycle purpose



* Suggested cyclic life based on 0.25C₃ 3 hour discharge - 0.18C₃ hour charge