



# INVL Series-Long Standby Life

## INVL12-40 (12V 40Ah)

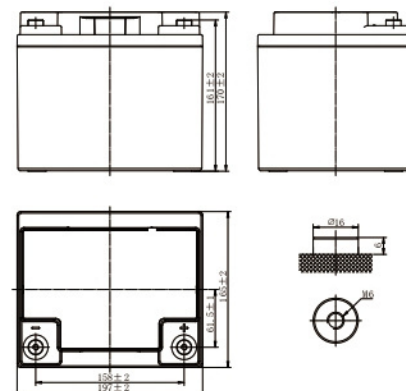
# INVERMEXA

### Specifications

Rated Voltage	12V	
Nominal Capacity	38.0Ah	(C <sub>10</sub> , 1.80V/cell)
Dimension	Length	197±2mm (7.76 inches)
	Width	165±2mm (6.50 inches)
	Container Height	170±2mm (6.69 inches)
	Total Height	170±2mm (6.69 inches)
Approx Weight	12.7 Kg (28.0 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25°C)	40.0 Ah	(20hr, 2.00A, 1.80V/cell)
	38.0 Ah	(10hr, 3.80A, 1.80V/cell)
	34.6Ah	(5hr, 6.92A, 1.75V/cell)
	31.5 Ah	(3hr, 10.5A, 1.75V/cell)
	24.2 Ah	(1hr, 24.2A, 1.60V/cell)
Max. Discharge Current	380A (5s)	
Internal Resistance (25°C)	Approx 10.0mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	-20 ~ 40°C (-4 ~ 104°F)
	Storage	-15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 11.4A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 11.4A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40° C (104°F)	103%
	25° C (77°F)	100%
	0° C (32°F)	86%
Self Discharge	LPL series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Layout



### Constant Current Discharge (Amperes) at 25 C (77F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	56.2	48.7	38.3	34.3	25.1	21.2	12.9	9.49	7.44	6.46	5.69	4.38	3.63	1.93
1.80V/cell	63.8	55.2	43.3	37.3	26.6	22.0	13.4	10.3	7.95	6.79	6.12	4.61	3.80	2.00
1.75V/cell	69.2	59.8	46.8	38.1	27.5	23.1	14.1	10.5	8.09	6.92	6.17	4.63	3.84	2.01
1.70V/cell	73.8	63.5	49.6	38.8	28.1	23.5	14.3	10.7	8.24	7.03	6.20	4.70	3.88	2.03
1.65V/cell	76.1	65.4	51.0	39.4	28.5	23.9	14.6	10.8	8.36	7.17	6.23	4.77	3.93	2.06
1.60V/cell	78.7	67.4	52.3	40.0	28.9	24.2	14.8	10.9	8.46	7.27	6.27	4.83	3.97	2.08

### Constant Power Discharge (Watts/cell) at 25 C (77F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	105.8	92.3	72.9	65.5	48.2	41.1	25.2	18.5	14.6	12.7	11.3	8.69	7.22	3.83
1.80V/cell	118.3	103.2	81.6	70.7	50.7	42.3	25.9	20.0	15.5	13.3	12.0	9.12	7.55	3.97
1.75V/cell	126.3	110.2	87.0	71.6	52.2	44.2	27.1	20.4	15.8	13.5	12.1	9.14	7.61	4.00
1.70V/cell	132.7	115.8	91.5	72.5	52.9	44.8	27.5	20.7	16.0	13.7	12.1	9.27	7.68	4.04
1.65V/cell	134.9	117.7	93.0	73.0	53.4	45.2	27.8	20.8	16.2	13.9	12.2	9.38	7.77	4.08
1.60V/cell	136.8	119.4	94.3	73.3	53.7	45.6	28.0	20.9	16.3	14.1	12.2	9.48	7.85	4.13



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# INVERMEXA

### Applications

- UPS and EPS
- Emergency light
- Railway signal and aircraft signal system
- Marine and power stations
- Alarm and security system
- Electronic apparatus and equipment
- Communication power supply, DC power supply

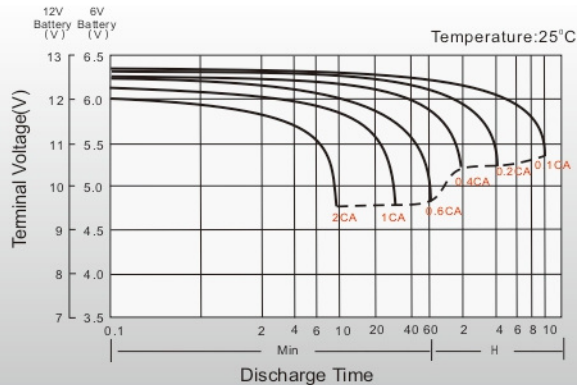
### General features

- 12 years design life (25°C)
- Grid refining technology and the thicker plates are used to extend the battery standby life and reduce the plate grid corrosion speed
- Using oxygen recombination technology: maintenance-free
- Unique vent valve design: control water losing, prevent air and spark going inside

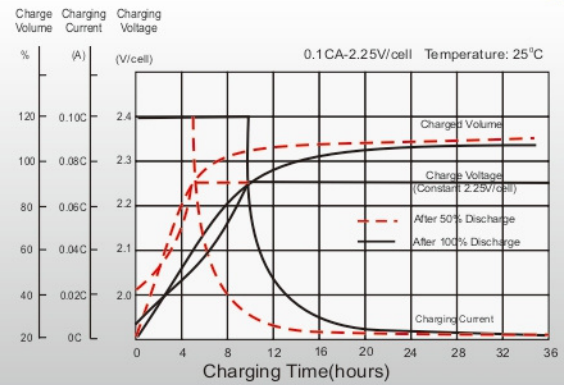
### Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch@IATF16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

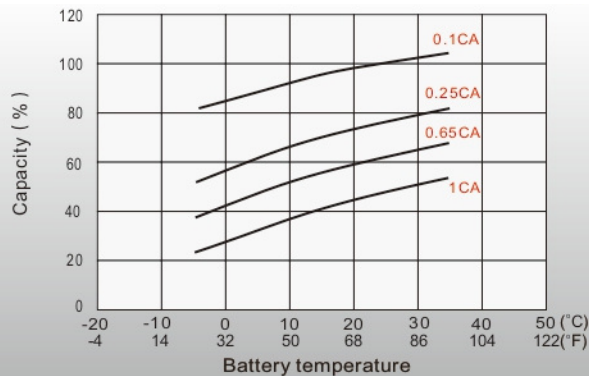
### Discharge Characteristics



### Float Charging Characteristics



### Cycle Life in Relation to Depth of Discharge



### Temperature Effects in Relation to Battery Capacity

