

PRODUCT DATA SHEET

for

Ni-MH Battery Pack 1148-11

12.0V; 700 mAh

Cadmium-free
Mercury-free
Lead-free

Specifications and data Sheets are subject to be changed without prior notice due to product/technology development

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1. General:

Electrochemical System:	Nickel-Metal-Hydride	
Nominal voltage:	12.0 V	
Capacity: (20°C; 0,2C discharge current down to 5.0V)	nominal:	700 mAh
	typical:	7000 mAh (0.2C down to 1.0V at 20°C)
Average weight	approx. 150 g	
Heavy metal content:	Mercury free, Cadmium free, Lead free	
Dimension:	Diameter max:	35.5 mm
	Height max:	103.5 mm
Average Internal resistance: (1kHz, fully charged)	450 mOhm	
Discharge current: Recommended (continuous)	70 - 700 mA	
Max. Charge voltage:	15.0V at 70mA charge current	
Charge conditions (20°C): (*dT/dt (<1°C/min) -deltaU (≤5mV/cell) TCO: 45-50°C Timer: 110% nominal input)	Standard:	70 mA (14h - 16h)
	Accelerate*:	140 mA (7h - 8h)
	Fast*:	700 mA (1.5h)
Max. overcharge current: (continuous)	70 mA for 1 year	
Trickle charge current:	20mA - 35mA	
Operation temperature:	Storage:	-20°C - +35°C
	Discharge:	-20°C - +60°C
	Standard Charge:	0°C - +45°C
	Fast Charge:	+10°C - +40°C
	Trickle Charge:	-10°C - + 35°C
Cycle life:	>500 cycles (IEC Standard)	

2. Look

Batteries should be without discoloration, leakage or deformation

3. CAUTION

- Do not dispose battery into fire or dismantle
- Do not mix different batteries or cells and capacities in the same application
- Charge and discharge the battery under specified conditions
- Short circuit of the battery must be avoided
- Do not solder onto the battery directly
- Reversal of battery should be avoided
- Battery use in extreme conditions like extreme temperature, deep discharge or overcharge may decrease battery performance; for instance cycle life
- Battery shall be stored dry and at ambient temperature (20°C). Cold storage at 8°C preferred.
- Avoid storage higher than 35°C and lower than -20°C or high humidity. This could create deterioration or damage of the cells such as:
 - irreversible capacity loss
 - loss of electrolyte due to expansion or shrinkage of battery components
 - rust on metal components

4. REMARK

Up to three full cycles (discharge/charge) may be needed after long term storage (> 1a) to recover the full electrical performance of the battery.

5. DESIGN



Dimensions (Diameter/Height) of:
1148-11-LF (blue/blue)

6. AVAILABLE TERMINALS

Art.-No.: 1148-11-LF Nickel plated solder tags at positive and negative pole side