

# MES 100 9020 Internal battery for owa5X

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## 1 TECHNICAL SPECIFICATIONS: INTERNAL BATTERY FOR OWA5X:

### 1.1 MES 100 9020 (3350MAH)



Item	Specification
Time to recharge	3.5 hours
Charging temperature range	0 °C to 45 °C
Cell type	Lithium Ion 3350mAh
Discharging temperature range	-20 °C to +60 °C

Battery Backup 3350mAh

**Note:** To know how to insert the battery properly and to know the duration of the battery in different modes on its owasys model, please refer to the corresponding integrator's manual.

## 2 INTERNAL BATTERY CHARACTERISTICS:

Optional Internal Li-ion batteries are available for OWASYS devices. 3350mAh and 13400mAh high-capacity battery back-up can be installed, which allows continuous operation when the main power is lost. This enables the owa4x to e.g. make a final call before going into low power mode, or a similar procedure, as defined by the customer application software.

Both batteries have internal Protection Circuit Module in order to prevent overcharge, over discharge and overcurrent, and also temperature sensor.

The parameters of Protection Circuit Module as follows (@25°C):

- overcharge protection voltage  $4.280 \pm 0.025V$
- over discharge protection voltage  $2.30 \pm 0.050V$
- overcurrent protection  $\leq 4.0A$

The owa4x and owa5x Li-Ion charger IC checks the temperature-sensor of the battery pack to control that the battery is only charged within the charging temperature range 0 to +45°C. A TTL-level charge-enable input (CE) used to disable or enable the charge process (also available by user with owasys libraries), and two status outputs that indicate charging status.

CHARGE STATE	STAT1	STAT2
Precharge in progress	ON	ON
Fast charge in progress	ON	OFF
Charge done	OFF	ON
Charge suspend (temperature)	OFF	OFF
Timer fault	OFF	OFF
Sleep mode	OFF	OFF

\*OFF means the open-drain output transistor on the STAT1 and STAT2 pins is in an off state

External battery main features - 3.350Ah		Value
Nominal Voltage		2.5V - 4.2V
Nominal capacity		3.35Ah
Internal resistance		120mΩ
Charge Voltage		4.2V
Charge current	standard	0.67A
	rapid	1.6A
Discharge	standard	3A
	max peak	5A
NTC		10KΩ
Watt-hour rating		12Wh
over voltage (per cell)	cut off	4215mV
	release	4100mV
under voltage (per cell)	cut off	2300mV
	release	2400mV
Current limit 1 by SU		$\leq 4A$
Current limit 2 by SU		$\geq 17.9A$
short circuit protection		$\geq 42.9A$
Power consumption	active	15uA
	power down	8uA

## 3 PACKAGING INFORMATION

### 3.1 PACKAGING FOR PART NUMBERS: MES 100 9003 AND MES 100 9020

**Capacity per unit:** 3350mAh

**Battery weight:** 0,061 Kgs/units

**60 units per box:** 3,660 kgs/box

**Dimensions:** 28.0 x 21.0 x 11.0 cm



3350mAh package