

# LS Ultracapacitor Cells

## Specifications\_2.7V

Series	Part No.	Capacitance	Rated Voltage	Max. ESR (DC)	Max. Current Non-repeated (Calculated value)	Leakage Current	Max. Stored Energy	Weight	Operating Temperature Range	Type	Dimension
Radial Type	LSUC 002R7R 0003F EA	3F	2.7V	80mΩ	3A	<0.007mA	0.003Wh	0.0014kg	-40~65°C	Radial	Φ08 X L20mm
	LSUC 002R7R 0005F EA	5F	2.7V	60mΩ	5A	<0.010mA	0.005Wh	0.0021kg	-40~65°C	Radial	Φ10 X L20mm
	LSUC 002R7R 0010F EA	10F	2.7V	45mΩ	9A	<0.023mA	0.010Wh	0.0029kg	-40~65°C	Radial	Φ10 X L30mm
	LSUC 002R7R 0025F EA	25F	2.7V	25mΩ	20A	<0.045mA	0.025Wh	0.007kg	-40~65°C	Radial	Φ16 X L25mm
	LSUC 002R7R 0033F EA	33F	2.7V	20mΩ	26A	<0.060mA	0.033Wh	0.010kg	-40~65°C	Radial	Φ18 X L31mm
	LSUC 002R7R 0050F EA	50F	2.7V	15mΩ	38A	<0.075mA	0.051Wh	0.012kg	-40~65°C	Radial	Φ18 X L40mm

• Projected life time or cycle life time are varied based on cell type. Data sheet for each product can be downloaded on [www.ultracapacitor.co.kr](http://www.ultracapacitor.co.kr)

## Specifications\_2.8V

Series	Part No.	Capacitance	Rated Voltage	Max. ESR (DC)	Max. Current Non-repeated (Calculated value)	Leakage Current	Max. Stored Energy	Weight	Operating Temperature Range	Type	Dimension
Snap-in & Lug Type	LSUC 002R8S 0100F EA	100F	2.8V	9mΩ	74A	<0.3mA	0.10Wh	0.023kg	-40~65°C	Snap-in	Φ22 X L46mm
	LSUC 002R8S 0120F EA	120F	2.8V	9mΩ	81A	<0.4mA	0.13Wh	0.023kg	-40~65°C	Snap-in	Φ22 X L46mm
	LSUC 002R8L 0320F EM	320F	2.8V	2mΩ	273A	<1mA	0.34Wh	0.078kg	-40~65°C	Lug	Φ35 X L61mm
	LSUC 002R8L 0350F EA	350F	2.8V	3.2mΩ	231A	<1mA	0.38Wh	0.072kg	-40~65°C	Lug/Snap-in	Φ35 X L61mm
	LSUC 002R8L 0400F EA	400F	2.8V	3mΩ	255A	<1mA	0.43Wh	0.080kg	-40~65°C	Lug/Snap-in	Φ35 X L66mm
	LSUC 002R8L 0450F EA	450F	2.8V	3mΩ	268A	<1mA	0.49Wh	0.088kg	-40~65°C	Lug/Snap-in	Φ35 X L71mm
Prismatic Type	LSUC 002R8P 3000F EA	3000F	2.8V	0.36mΩ	2019A	<5mA	3.26Wh	0.650kg	-40~65°C	Prismatic	W55 X D55 X L155mm

• Projected life time or cycle life time are varied based on cell type. Data sheet for each product can be downloaded on [www.ultracapacitor.co.kr](http://www.ultracapacitor.co.kr)

## Specifications\_3.0V

Series	Part No.	Capacitance	Rated Voltage	Max. ESR (DC)	Max. Current Non-repeated (Calculated value)	Leakage Current	Max. Stored Energy	Weight	Operating Temperature Range	Type	Dimension
Snap-in & Lug Type	LSUC 003R0S 0100F EA	100F	3.0V	9mΩ	79A	<0.3mA	0.12Wh	0.023kg	-40~65°C	Snap-in	Φ22 X L46mm
	LSUC 003R0L 0380F EA	380F	3.0V	3.2mΩ	257A	<1mA	0.47Wh	0.072kg	-40~65°C	Lug/Snap-in	Φ35 X L61mm
	LSUC 003R0L 0430F EA	430F	3.0V	3mΩ	282A	<1mA	0.53Wh	0.080kg	-40~65°C	Lug/Snap-in	Φ35 X L66mm
	LSUC 003R0L 0480F EA	480F	3.0V	3mΩ	295A	<1.2mA	0.60Wh	0.088kg	-40~65°C	Lug/Snap-in	Φ35 X L71mm

• Projected life time or cycle life time are varied based on cell type. Data sheet for each product can be downloaded on [www.ultracapacitor.co.kr](http://www.ultracapacitor.co.kr)

## Specifications\_Cylindrical

Series	Part No.	Capacitance	Rated Voltage	Max. ESR (DC)	Max. Current Non-repeated (Calculated value)	Leakage Current	Max. Stored Energy	Weight	Operating Temperature Range	Type	Dimension
Cylindrical Type	LSUC 002R7C 0650F EA	650F	2.7V	0.57mΩ	640A	<1.5mA	0.65Wh	0.200kg	-40~65°C	Cylindrical	Ø60 X L51.5mm
	LSUC 002R7C 1200F EA	1200F	2.7V	0.33mΩ	1160A	<2.7mA	1.21Wh	0.280kg	-40~65°C	Cylindrical	Ø60 X L74mm
	LSUC 002R7C 1500F EA	1500F	2.7V	0.28mΩ	1426A	<3.0mA	1.51Wh	0.320kg	-40~65°C	Cylindrical	Ø60 X L85mm
	LSUC 002R7C 2000F EA	2000F	2.7V	0.27mΩ	1753A	<4.0mA	2.02Wh	0.380kg	-40~65°C	Cylindrical	Ø60 X L102mm
	LSUC 002R7C 3000F EA	3000F	2.7V	0.23mΩ	2396A	<5.0mA	3.03Wh	0.515kg	-40~65°C	Cylindrical	Ø60 X L138mm
	LSUC 02R85C 3400F EA	3400F	2.85V	0.23mΩ	2719A	<8.0mA	3.83Wh	0.515kg	-40~65°C	Cylindrical	Ø60 X L138mm
	LSUC 003R0C 3000F EA	3000F	3.0V	0.23mΩ	2663A	<5.0mA	3.75Wh	0.515kg	-40~65°C	Cylindrical	Ø60 X L138mm
	LSUC 003R0C 3400F EA	3400F	3.0V	0.23mΩ	2800A	<8.0mA	4.25Wh	0.515kg	-40~65°C	Cylindrical	Ø60 X L138mm

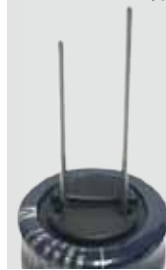
• Projected life time or cycle life time are varied based on cell type. Data sheet for each product can be downloaded on [www.ultracapacitor.co.kr](http://www.ultracapacitor.co.kr)

## Products



• 2.8/3.0V Lug & Snap-in Type Cell

### Radial Terminal Type



• Radial (3F ~ 50F)

### Lug & Snap-in Terminal Type



• Snap-in (100F/ 120F)

• Lug (320F ~ 600F)

• Snap-in (4pin, 350F ~ 600F)



• Cylindrical Type Cell

### Cylindrical Terminal Type



• Short Screw (ST01)



• Weldable (WT01)



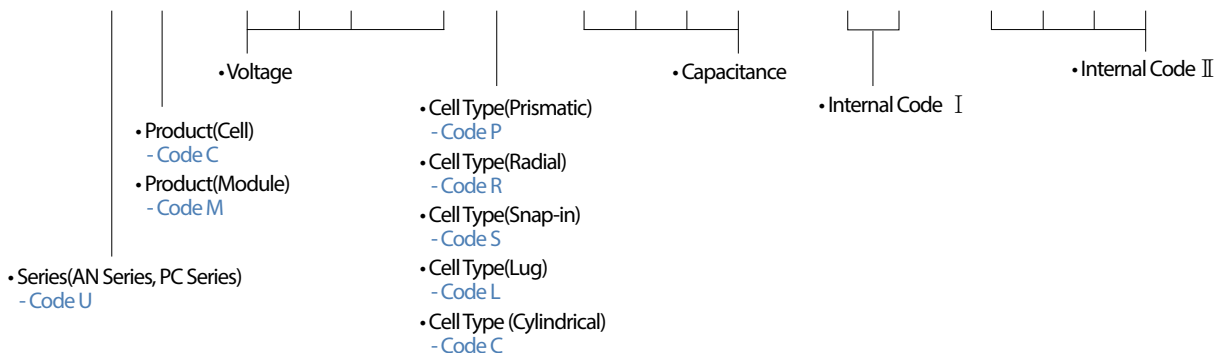
• Long Screw (LT01)  
※M16 Terminal



• Long Screw (LT02)  
※M12 Terminal

## Cell/Module Part No. Rule

LS □ □ □ □ R □ □ □ □ F □ □ ( □ □ □ □ )



# LS Ultracapacitor Modules

LS Ultracapacitor Modules provide the optimal solution for high voltage and current requirements by connecting Ultracapacitor unit cells in series. Higher voltage and capacitance modules can be built simply by connecting the modules.

Low internal resistance and high working voltage features of LS Mtron modules maximize the available energy while keeping maintenance free, high reliability and wide operating temperature features of LS Ultracapacitor unit cell.

## Features

- Low Internal Resistance
- Balancing and Overvoltage Protection
- Easy Build-up Design for High Voltage Module
- Efficient Heat Transfer to Outside
- Pressure / Moisture Control

LS Ultracapacitor modules are suitable energy storage systems for a wide variety of applications.

## Specifications – PCB Type

Part No.	Capacitance	Rated Voltage	ESR (DC)	Max. Continuous Current ( $\Delta T = 40^{\circ}\text{C}$ )	Leakage Current <sup>(1)</sup>	Energy Density	Weight	Balancing	Monitoring	Operating Temperature Range	Dimension
LSUM016R8L0058FEA	58F	16.8V	22m $\Omega$	20A	<11mA	3.2Wh/kg	0.7kg	Active or Passive	-	-40 ~ 65°C	L245 x W47 x H76.6mm
LSUM162R4L0015FEA	15.5F	162.4V	110m $\Omega$	12A	<32mA	3.0Wh/kg	18.5kg	Passive	Temperature (PTC) / Over Voltage	-40 ~ 65°C	L684 x W202 x H183.5mm
LSUM168R0L0005FEA	5.8F	168V	240m $\Omega$	12A	<25mA	3.5Wh/kg	6.5kg	Passive	Temperature (NTC) / Half Voltage Terminal	-40 ~ 65°C	L235 x W367 x H79mm
LSUM0380R8L0002FEA	2.5F	380.8V	650m $\Omega$	12A	<12mA	2.7Wh/kg	18.4kg	Passive	Temperature (PTC) / Over Voltage	-40 ~ 65°C	L750 x W191 x H163mm

- Leakage Current<sup>(1)</sup> can be changed by Balancing method
- NTC Thermistor & Group voltage monitoring via CAN2.0B
- Customized module can be supplied under the customer's requirement

## Specifications – Busbar Type

Part No.	Capacitance	Rated Voltage	ESR (DC)	Max. Continuous Current ( $\Delta T = 40^{\circ}\text{C}$ )	Leakage Current <sup>(1)</sup>	Energy Density	Weight	Balancing	Monitoring	Operating Temperature Range	Dimension
LSUM016R2C0250FEA AG	250F	16.2V	2m $\Omega$	150A	<3mA	2.3Wh/kg	3.9kg	Active or Passive	Temperature (NTC)	-40 ~ 65°C	L311 x W166 x H70mm
LSUM016R2C0500FEA	500F	16.2V	1.7m $\Omega$	200A	<5mA	3.3Wh/kg	5.6kg	Active or Passive	Temperature (NTC)	-40 ~ 65°C	L672 x W416.2 x H175.9mm
LSUM016R2C0500FEA AG	500F	16.2V	1.7m $\Omega$	200A	<5mA	3.1Wh/kg	5.9kg	Active or Passive	Temperature (NTC)	-40 ~ 65°C	L470 x W166 x H70mm
LSUM032R4C0250FEA	250F	32.4V	3.3m $\Omega$	150A	<11mA	3.6Wh/kg	10kg	Passive	-	-40 ~ 65°C	L137.1 x W426.6 x H184mm
LSUM048R6C0166FEA DC	166F	48.6V	5m $\Omega$	130A	<5mA	3.9Wh/kg	14kg	Active or Passive	Temperature (NTC) / Over Voltage	-40 ~ 65°C	L194.5 x W419.5 x H177mm
LSUM048R6C0166FEA YJ	166F	48.6V	5m $\Omega$	200A	<5mA	3.2Wh/kg	17.2kg	Active or Passive	Temperature (NTC) / Over Voltage	-40 ~ 65°C	L471 x W418 x H71mm
LSUM051R3C0166FEA	166F	51.3V	5m $\Omega$	100A	<28.5mA	5.1Wh/kg	12kg	Active & Passive	Temperature (PTC) / Over Voltage	-40 ~ 65°C	L590.4 x W136 x H171mm
LSUM086R4C0093FEA	93F	86.4V	11.3m $\Omega$	80A	<120mA	3.6Wh/kg	27kg	Passive	Temperature (PT100)	-40 ~ 65°C	L517 x W265 x H210.5mm
LSUM129R6C0062FEA	62F	129.6V	13.2m $\Omega$	260A	<5mA	2.6Wh/kg	55kg	Active or Passive	Temperature & Voltage (CAN2.0B)	-40 ~ 65°C	L720 x W405 x H226mm

- Leakage Current<sup>(1)</sup> can be changed by Balancing method
- NTC Thermistor & Group voltage monitoring via CAN2.0B
- Customized module can be supplied under the customer's requirement

*Busbar Type*



•LSUM 016R2C 0500F EA AG



*Busbar Type*



•LSUM 048R6C 0166F EA YJ



Size Scalable (Up or Down)

*PCB Type*



•LSUM 016R8L 0058F EA



*PCB Type*



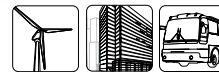
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*Busbar Type*



•LSUM 016R2C 0500F EA



*Busbar Type*



•LSUM 048R6C 0166F EA DC



*Busbar Type*



•LSUM 086R4C 0093F EA



*Busbar Type*



•LSUM 129R6C 0062F EA

