

ECN/PCN No.: M1670

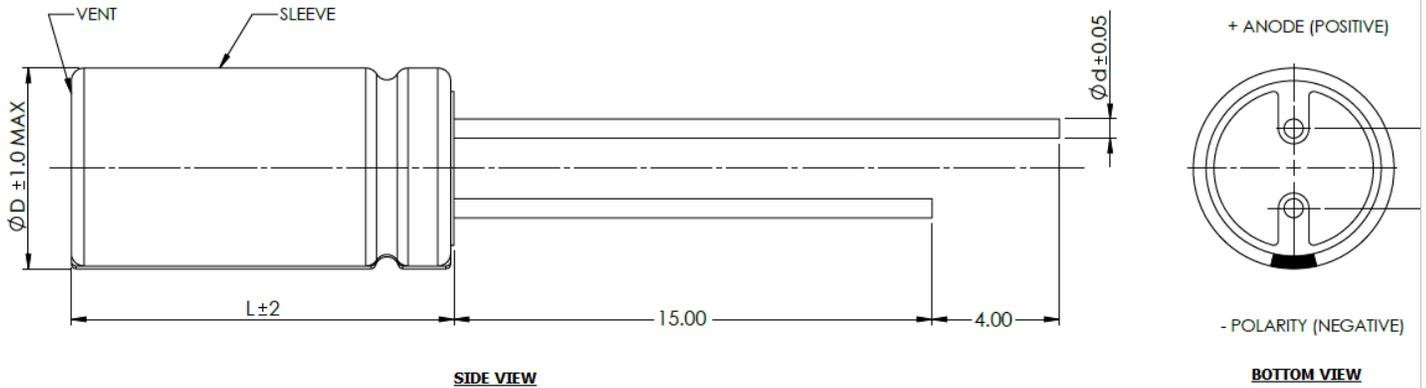
### For Manufacturer

<b>Product Description:</b> Lithium Ion Hybrid Supercapacitor	<b>Abracon Part Number / Part Series:</b>  AHCR-S04R0S	<input type="checkbox"/> Documentation only <input checked="" type="checkbox"/> Series <input checked="" type="checkbox"/> ECN <input type="checkbox"/> Part Number(s) <input type="checkbox"/> EOL
<b>Affected Revision:</b> C	<b>New Revision:</b> D	<b>Application:</b>  <input type="checkbox"/> Safety <input checked="" type="checkbox"/> Non-Safety

**Prior to Change:**

Electrical Specifications

Part Number	Operating Voltage (U <sub>R</sub> )	Capacitance	Tolerance	DC ESR (Max)	Continuous Current (Max)	Peak Current (Max)	Leakage Current	Stored Energy (Max)	Gravimetric Energy Density
AHCR-S04R0S	DC(V)	Farads	-10% / +30%	mΩ	A	A	mA	Wh	Wh/kg
AHCR-S04R0SA106Q	4.0V	10	Q	1000	0.04	0.21	0.001	0.022	22.22
AHCR-S04R0SA206Q	4.0V	20	Q	600	0.08	0.42	0.002	0.044	29.63
AHCR-S04R0SA306Q	4.0V	30	Q	500	0.13	0.63	0.003	0.067	38.10
AHCR-S04R0SA406Q	4.0V	40	Q	400	0.17	0.83	0.003	0.089	44.44
AHCR-S04R0SA506Q	4.0V	50	Q	360	0.21	1.04	0.003	0.111	44.44
AHCR-S04R0SA806Q	4.0V	80	Q	300	0.33	1.67	0.004	0.178	61.30
AHCR-S04R0SA107Q	4.0V	100	Q	240	0.42	2.08	0.004	0.222	55.56
AHCR-S04R0SA127Q	4.0V	120	Q	200	0.50	2.50	0.005	0.267	53.33
AHCR-S04R0SA187Q	4.0V	180	Q	140	0.75	3.75	0.006	0.400	64.52
AHCR-S04R0SA227Q	4.0V	220	Q	100	0.92	4.58	0.006	0.489	65.19
AHCR-S04R0SA307Q	4.0V	300	Q	90	1.25	6.25	0.007	0.667	74.07
AHCR-S04R0SA387Q	4.0V	380	Q	80	1.58	7.92	0.008	0.844	73.43
AHCR-S04R0SA457Q	4.0V	450	Q	70	1.88	9.38	0.009	1.000	71.43
AHCR-S04R0SA757Q	4.0V	750	Q	50	3.12	15.62	0.012	1.667	79.37
AHCR-S04R0SA857Q	4.0V	850	Q	40	3.54	17.71	0.013	1.889	80.38
AHCR-S04R0SA128Q	4.0V	1200	Q	35	6.00	20.00	0.015	2.667	124.03

**Mechanical Specifications**


Dimensions	D	L	P	d
AHCR-S04R0SA106Q	6.3±1.0	12.0	2.5±0.5	0.6±0.05
AHCR-S04R0SA206Q	8.0±1.0	12.0	3.5±0.5	0.6±0.05
AHCR-S04R0SA306Q	8.0±1.0	16.0	3.5±0.5	0.6±0.05
AHCR-S04R0SA406Q	8.0±1.0	20.0	3.5±0.5	0.6±0.05
AHCR-S04R0SA506Q	8.0±1.0	25.0	3.5±0.5	0.6±0.05
AHCR-S04R0SA806Q	10.0±1.0	20.0	5.0±0.5	0.7±0.05
AHCR-S04R0SA107Q	10.0±1.0	25.0	5.0±0.5	0.7±0.05
AHCR-S04R0SA127Q	12.5±1.0	20.0	5.0±0.5	0.7±0.05
AHCR-S04R0SA187Q	12.5±1.0	25.0	5.0±0.5	0.7±0.05
AHCR-S04R0SA227Q	12.5±1.0	30.0	5.0±0.5	0.7±0.05
AHCR-S04R0SA307Q	16.0±1.0	25.0	7.5±0.5	0.8±0.05
AHCR-S04R0SA387Q	16.0±1.0	30.0	7.5±0.5	0.8±0.05
AHCR-S04R0SA457Q	16.0±1.0	35.0	7.5±0.5	0.8±0.05
AHCR-S04R0SA757Q	18.0±1.0	40.0	7.5±0.5	0.8±0.05
AHCR-S04R0SA857Q	18.0±1.0	45.0	7.5±0.5	0.8±0.05
AHCR-S04R0SA128Q	18.0±1.0	40.0	7.5±0.5	0.8±0.05

**Packaging**

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The product is packaged in a carton containing multiple inner boxes, each containing several trays.

<b>Part Number</b>	<b>SPQ</b>	<b>Pcs/Carton</b>
AHCR-S04R0SA106Q	1050	4200
AHCR-S04R0SA206Q	600	2400
AHCR-S04R0SA306Q	600	2400
AHCR-S04R0SA406Q	600	2400
AHCR-S04R0SA506Q	720	2880
AHCR-S04R0SA806Q	700	2800
AHCR-S04R0SA107Q	520	2080
AHCR-S04R0SA127Q	520	2080
AHCR-S04R0SA187Q	440	1760
AHCR-S04R0SA227Q	440	1760
AHCR-S04R0SA307Q	320	1280
AHCR-S04R0SA387Q	320	1280
AHCR-S04R0SA457Q	320	1280
AHCR-S04R0SA757Q	280	1120
AHCR-S04R0SA857Q	210	840
AHCR-S04R0SA128Q	210	840

**After Change:**

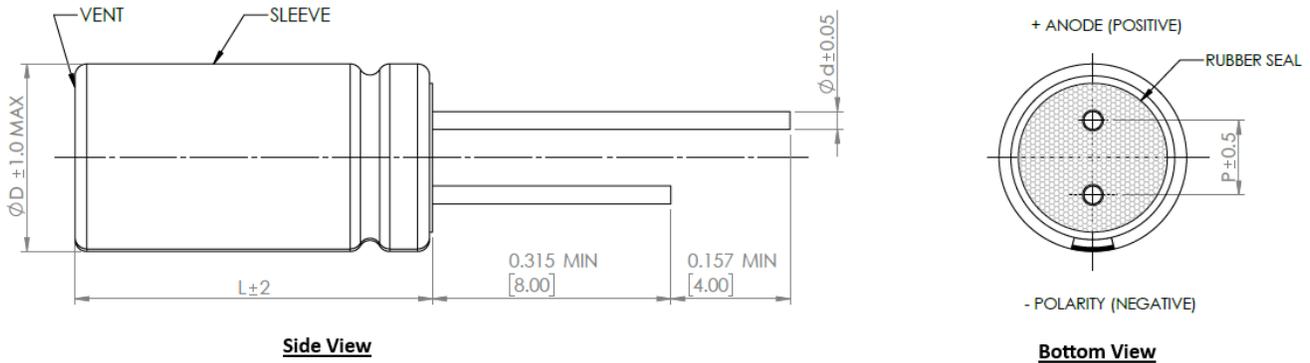
RED part numbers have been discontinued

BLUE part numbers have been added to the series.

Yellow parameters have changed

### Electrical Specifications

Part Number	Operating Voltage (U <sub>R</sub> )	Capacitance	Tolerance	DC ESR (Max)	Continuous Current (Max)	Peak Current (Max)	Leakage Current	Stored Energy (Max)	Gravimetric Energy Density
AHCR-S04R0S	DC(V)	Farads	-10% / +30%	mΩ	A	A	mA	Wh	Wh/kg
AHCR-S04R0SA106Q	4.0V	10	Q	1000	0.04	0.21	0.001	0.022	22.22
AHCR-S04R0SA206Q	4.0V	20	Q	600	0.08	0.42	0.002	0.044	29.63
AHCR-S04R0SA306Q	4.0V	30	Q	500	0.13	0.63	0.003	0.067	38.10
AHCR-S04R0SA406Q	4.0V	40	Q	400	0.17	0.83	0.003	0.089	44.44
AHCR-S04R0SA506Q	4.0V	50	Q	360	0.21	1.04	0.003	0.111	44.44
AHCR-S04R0SA806Q	4.0V	80	Q	300	0.33	1.67	0.004	0.178	61.30
AHCR-S04R0SA107Q	4.0V	100	Q	400	0.42	2.08	0.005	0.222	69.38
AHCR-S04R0SA127Q	4.0V	120	Q	200	0.50	2.50	0.005	0.267	53.33
<del>AHCR-S04R0SA187Q</del>	<del>4.0V</del>	<del>180</del>	<del>Q</del>	<del>140</del>	<del>0.75</del>	<del>3.75</del>	<del>0.006</del>	<del>0.400</del>	<del>64.52</del>
AHCR-S04R0SA207Q	4.0V	200	Q	160	0.80	4.0	0.006	0.444	63.49
<del>AHCR-S04R0SA227Q</del>	<del>4.0V</del>	<del>220</del>	<del>Q</del>	<del>100</del>	<del>0.92</del>	<del>4.58</del>	<del>0.006</del>	<del>0.489</del>	<del>65.19</del>
AHCR-S04R0SA307Q	4.0V	300	Q	90	1.25	6.25	0.007	0.667	74.07
AHCR-S04R0SA387Q	4.0V	380	Q	80	1.58	7.92	0.008	0.844	73.43
<del>AHCR-S04R0SA457Q</del>	<del>4.0V</del>	<del>450</del>	<del>Q</del>	<del>70</del>	<del>1.88</del>	<del>9.38</del>	<del>0.009</del>	<del>1.000</del>	<del>71.43</del>
AHCR-S04R0SA507Q	4.0V	500	Q	80	2.0	10.0	0.010	1.111	69.38
AHCR-S04R0SA757Q	4.0V	750	Q	50	3.12	15.62	0.012	1.667	79.37
AHCR-S04R0SA857Q	4.0V	850	Q	40	3.54	17.71	0.013	1.889	80.38
AHCR-S04R0SA128Q	4.0V	1200	Q	35	6.00	20.00	0.015	2.667	124.03

**Mechanical Specifications**


Dimensions	D	L	P	d
AHCR-S04R0SA106Q	6.3±1.0	12.0	2.5±0.5	0.6±0.05
AHCR-S04R0SA206Q	8.0±1.0	12.0	3.5±0.5	0.6±0.05
AHCR-S04R0SA306Q	8.0±1.0	16.0	3.5±0.5	0.6±0.05
AHCR-S04R0SA406Q	8.0±1.0	20.0	3.5±0.5	0.6±0.05
AHCR-S04R0SA506Q	8.0±1.0	25.0	3.5±0.5	0.6±0.05
AHCR-S04R0SA806Q	10.0±1.0	20.0	5.0±0.5	0.7±0.05
AHCR-S04R0SA107Q	8.0±1.0	30.0	3.5±0.5	0.6±0.05
AHCR-S04R0SA127Q	12.5±1.0	20.0	5.0±0.5	0.7±0.05
<del>AHCR-S04R0SA187Q</del>	<del>12.5±1.0</del>	<del>25.0</del>	<del>5.0±0.5</del>	<del>0.7±0.05</del>
AHCR-S04R0SA207Q	12.5±1.0	30.0	5.0±0.5	0.6±0.05
<del>AHCR-S04R0SA227Q</del>	<del>12.5±1.0</del>	<del>30.0</del>	<del>5.0±0.5</del>	<del>0.7±0.05</del>
AHCR-S04R0SA307Q	16.0±1.0	25.0	7.5±0.5	0.8±0.05
AHCR-S04R0SA387Q	16.0±1.0	30.0	7.5±0.5	0.8±0.05
<del>AHCR-S04R0SA457Q</del>	<del>16.0±1.0</del>	<del>35.0</del>	<del>7.5±0.5</del>	<del>0.8±0.05</del>
AHCR-S04R0SA507Q	16.0±1.0	40.0	7.5±0.5	0.8±0.05
AHCR-S04R0SA757Q	18.0±1.0	40.0	7.5±0.5	0.8±0.05
AHCR-S04R0SA857Q	18.0±1.0	45.0	7.5±0.5	0.8±0.05
AHCR-S04R0SA128Q	18.0±1.0	40.0	7.5±0.5	0.8±0.05

**Packaging**

The product is packaged in a carton containing multiple inner boxes, each containing several trays.

Part Number	SPQ	Pcs/Carton
AHCR-S04R0SA106Q	600	2400
AHCR-S04R0SA206Q	600	2400
AHCR-S04R0SA306Q	600	2400
AHCR-S04R0SA406Q	600	2400
AHCR-S04R0SA506Q	600	2400
AHCR-S04R0SA806Q	600	2400
AHCR-S04R0SA107Q	600	2400
AHCR-S04R0SA127Q	600	2400
AHCR-S04R0SA207Q	600	2400
<del>AHCR-S04R0SA187Q</del>	<del>440</del>	<del>1760</del>
<del>AHCR-S04R0SA227Q</del>	<del>440</del>	<del>1760</del>
AHCR-S04R0SA307Q	320	1280
AHCR-S04R0SA387Q	320	1280
AHCR-S04R0SA507Q	320	1280
<del>AHCR-S04R0SA457Q</del>	<del>320</del>	<del>1280</del>
AHCR-S04R0SA757Q	280	1120
AHCR-S04R0SA857Q	280	1120
AHCR-S04R0SA128Q	210	840

**Cause/Reason for Change:**

New rubber seal design for more robust performance at elevated humidity levels. Adding new parts and discontinuing redundancy.

**Change Plan**
**Effective Date:**

11/7/2025

**Additional Remarks:**
**Change Declaration:**

The mechanical changes to AHCR-S04R0SA107Q described in this document must be carefully reviewed. Body length, body diameter and pin pitch have changed.

The 100F part has been replaced with a smaller sized body increasing the energy density. As a result, the ESR has increased and must be carefully reviewed.

All other changes do not affect the products form, fit or function.

**Issued Date:**

11/7/2025

**Issued By:**
**Issued Department:**
**Approval:**
**Approval:**
**Approval:**

**For Abracon EOL only**

Last Time Buy (if applicable):		Alternate Part Number / Part Series:	
Additional Approval:	Additional Approval:	Additional Approval:	
<b>Customer Approval (If Applicable)</b>			
Qualification Status: <input type="checkbox"/> Approved <input type="checkbox"/> Not accepted <i>Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.</i>			
Customer Part Number:		Customer Project:	
Company Name:	Company Representative:	Representative Signature:	
Customer Remarks:			