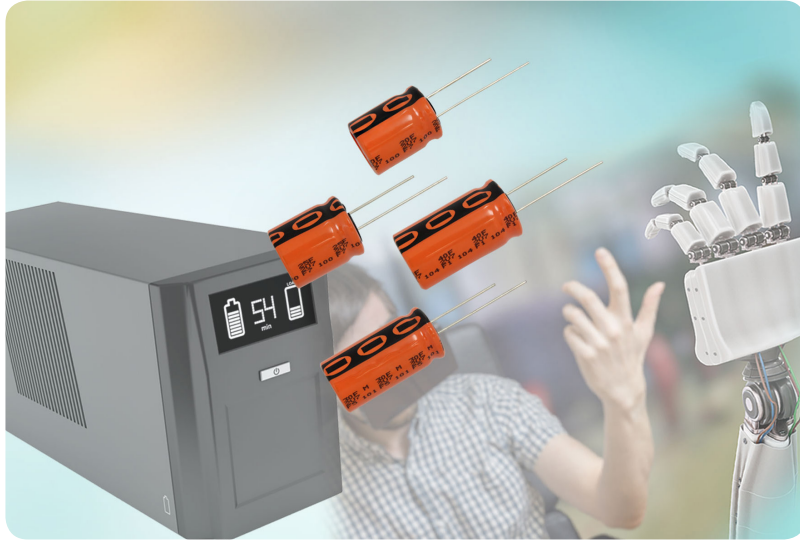


## Electrical Double Layer Energy Storage Capacitors Up to 3 V Operating Voltage



### KEY BENEFITS

- Polarized energy storage capacitor with high capacity and high energy density
- High lifetime up to 2000 h at 85 °C
- Rated voltage: 3 V
- Rapid charge and discharge
- Available in through-hole (radial) version
- RoHS-compliant

### APPLICATIONS

- Power backup
- Burst power support
- Storage device for energy harvesting
- Micro UPS power source
- Energy recovery
- Smart metering
- Fault indicator

### RESOURCES

- Datasheet: 230 EDLC-HV - [www.vishay.com/doc?28450](http://www.vishay.com/doc?28450)
- For technical questions contact [energystorage@vishay.com](mailto:energystorage@vishay.com)
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT

**A WORLD OF  
SOLUTIONS™**



## ELECTRICAL DOUBLE LAYER ENERGY STORAGE CAPACITORS

## 230 EDLC-HV ENYCAP™

## Electrical Double Layer Energy Storage Capacitors Up to 3 V Operating Voltage

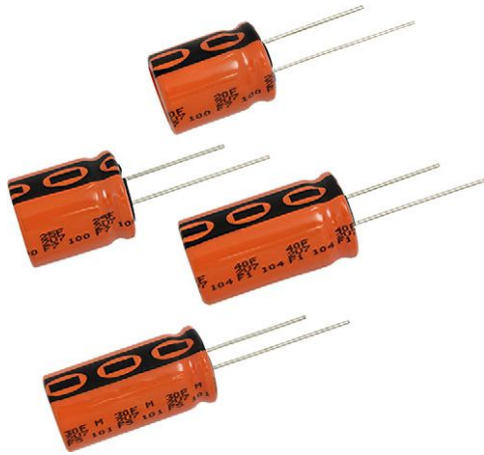


Image is not to scale

**FEATURES**

- Polarized energy storage capacitor with high capacity and energy density
- Rated voltage: 3.0 V
- Available in through-hole (radial) version
- Useful life: up to 2000 h at 85 °C
- Rapid charge and discharge
- Maintenance-free, no service necessary
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

RoHS  
COMPLIANT**APPLICATIONS**

- Power backup
- Burst power support
- Storage device for energy harvesting
- Micro UPS power source
- Energy recovery

**MARKING**

The capacitors are marked (where possible) with the following information:

- Rated capacitance (in F)
- Rated voltage (in V)
- Date code, in accordance with IEC 60062
- Code indicating factory of origin
- Logo of manufacturer
- Negative terminal identification
- Series number (230)

**PACKAGING**

Supplied in ESD trays.

**QUICK REFERENCE DATA**

| DESCRIPTION  | VALUE  |
|--|--|
| Nominal case sizes<br>( $\varnothing$ D x L in mm) | 16 x 20; 18 x 20; 18 x 25;<br>16 x 31; <b>18 x 31</b> , 18 x 35, 18 x 40 |
| Rated capacitance range, $C_R$                     | 20 F to 60 F   |
| Rated voltage, $U_R$<br>(65 °C / 85 °C)            | 3.0 V / 2.6 V  |
| Category temperature range                         | -40 °C to +85 °C   |
| Endurance test at 85 °C                            | Up to 1500 h   |
| Useful life at 85 °C                               | Up to 2000 h   |
| Useful life at 20 °C                               | > 10 years   |
| Shelf life at 20 °C                                | 2 years  |
| Cycle life   | > 500 000 cycles   |

**SELECTION CHART FOR  $C_R$ ,  $U_R$ , AND RELEVANT NOMINAL CASE SIZES**

| $C_R$ (F) | $\varnothing$ D x L (mm)      |
|-----------|-------------------------------|
| 20        | 16 x 20                       |
| 25        | 18 x 20                       |
| 30        | 18 x 25                       |
| 35        | 16 x 31                       |
| 40        | <b>18 x 31</b> <sup>(1)</sup> |
| 50        | 18 x 35                       |
| 60        | 18 x 40                       |

**Note**

(1) Preferred case size

Revision 22-Mar-18