

Type HES 105 °C High Energy Screw Terminal Aluminum Electrolytic

High Power Input Filtering, Screw Terminal Capacitors



Type HES screw terminal, aluminum electrolytic capacitors have excellent reliability and are ideal for high power input and charge-discharge applications for welders and strobe lights. The HES can be operated at 105 °C at full rated voltage

Highlights

- High reliability - 1000 hours at 105 °C
- Great for charge-discharge applications
- Ideal for high power input filter applications
- Operates at 105 °C at full rated voltage

Specifications

Capacitance Range:	300 to 5,600 µF
Voltage Range:	350 to 450 WVdc
Capacitance Tolerance:	-0% +50%
Operating Temperature:	-40 °C to +105 °C
Ripple Current Multipliers:	Ambient Temperature

+25 °C	+35 °C	+45 °C	+55 °C	+65 °C	+85 °C
2.00	1.88	1.72	1.58	1.42	1.00

Rated Voltage	Frequency / Ripple Multiplier				
	120 Hz	400 Hz	1000 Hz	2500 Hz	10 kHz
350 to 450	1.000	1.080	1.113	1.175	1.230

DC Leakage Current: $I \leq 3 \sqrt{CV}$ after 5 minutes
Not to exceed 4.0 mA
C = Capacitance in µF
V = Rated Voltage
I = Leakage current in mA

QA Stability Test: Life test:
1000 h @ +105 °C
Ripple Test:
2000 h, full load @ +85 °C
Shelf test:
500 h @ +105 °C

[Click here to see: Hardware & Mounting Options](#)

[Click here to see: Mechanical Details](#)

Type HES 105 °C High Energy Screw Terminal Aluminum Electrolytic

Ratings

Cap (μ F)	Catalog Part Number	Typical	Max Ripple	Dia. (Inches)	Length (Inches)
		Max ESR 120 Hz (Ω)	120 Hz +85 °C (A) RMS		
350 WVdc (400 Vdc Surge)					
600	HES601G350V2C	0.173	2.6	2.00	2.125
900	HES901G350V5C	0.110	4.6	2.00	5.125
1,100	HES112G350V3C	0.099	4.0	2.00	3.125
1,400	HES142G350W5C	0.080	6.2	2.50	5.125
1,600	HES162G350V4C	0.062	5.6	2.00	4.125
1,900	HES192G350V4L	0.053	6.4	2.00	4.625
2,500	HES252G350W4C	0.045	7.4	2.50	4.125
3,100	HES312G350X3L	0.040	8.6	3.00	3.625
3,400	HES342G350W5C	0.034	9.4	2.50	5.125
3,700	HES372G350X4C	0.034	9.8	3.00	4.125
4,400	HES442G350X4L	0.029	11.0	3.00	4.625
5,000	HES502G350X5C	0.026	12.1	3.00	5.125
5,600	HES562G350X5L	0.024	13.2	3.00	5.625
400 WVdc (450 Vdc Surge)					
300	HES301G400U3C	0.275	2.2	1.75	3.125
500	HES501G400V2C	0.180	2.6	2.00	2.125
1,300	HES132G400V4C	0.066	5.4	2.00	4.125
2,000	HES202G400V5L	0.044	7.3	2.00	5.625
2,000	HES202G400W4C	0.048	7.3	2.50	4.125
2,100	HES212G400X5L	0.045	9.5	3.00	5.625
3,000	HES302G400W5L	0.033	9.9	2.50	5.625
3,500	HES352G400X4L	0.031	10.7	3.00	4.625
4,100	HES412G400X5C	0.027	11.9	3.00	5.125
4,600	HES462G400X5L	0.025	13.0	3.00	5.625

Cap (μ F)	Catalog Part Number	Typical	Max Ripple	Dia. (Inches)	Length (Inches)
		ESR 120 Hz (Ω)	120 Hz +85 °C (A) RMS		
450 WVdc (525 Vdc Surge)					
300	HES301G450V3C	0.268	2.4	2.00	3.125
400	HES401G450V3L	0.203	2.9	2.00	3.625
550	HES551G450V4C	0.150	3.6	2.00	4.125
700	HES701G450V3C	0.125	3.5	2.00	3.125
1,200	HES122G450X4L	0.069	7.1	3.00	4.625
1,500	HES152G450X5L	0.056	8.5	3.00	5.625
1,600	HES162G450V5L	0.053	6.9	2.00	5.625
1,700	HES172G450W4C	0.051	7.1	2.50	4.125
2,000	HES202G450X5L	0.041	9.7	3.00	5.625
2,200	HES222G450X5L	0.040	10.1	3.00	5.625
2,400	HES242G450W5C	0.038	9.0	2.50	5.125
2,700	HES272G450W5L	0.034	9.9	2.50	5.625
3,600	HES362G450X5C	0.028	11.7	3.00	5.125
4,000	HES402G450X5L	0.025	12.7	3.00	5.625

Notice and Disclaimer: All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.