

Modern design and manufacturing techniques have enabled the LCR range of polystyrene capacitors to be related to the new British Standard as follows: 30, 63, 160, 400 and 630 Volts.

All capacitors except those in the 7mm size are marked with capacitance, tolerance, working voltage and manufacturing code date. The 7mm types are marked with capacitance and tolerance only.

Alternative sizes are available and capacitors with different ratios of length to diameter can be supplied on request, but users are advised that greater reliability,

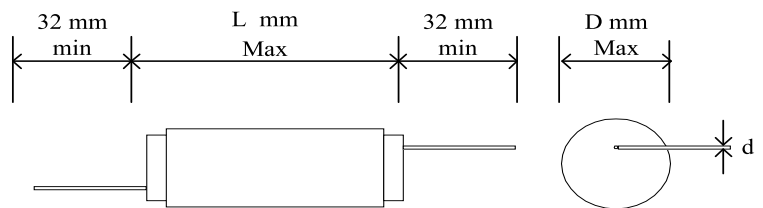
stability and resistance to humidity can be obtained by specifying the largest physical size possible. Other voltage ranges, up to 5000V are available and details of these will be available on request.

It should be noted that as the outer casing of these capacitors is formed from polystyrene it is liable to be damaged by contact with industrial solvents and cleaning agents. If in doubt please contact the LCR Sales Office. When ordering the HS type, customers are asked to adopt the following system:

HS Capacitance /Tolerance - Working Voltage e.g.
HS 150p/2.5-7/30.

SPECIFICATION

Capacitance Range	2p2 - 500n
Capacitance Tolerance	±1%, ± 2.5%, ± 5%, ± 10%, ±20% minimum of ± 1pF (±0.5pF under 10pF)
Voltage (DC working)	30, 63, 160, 400, 630V
Operating temperature range	-40°C to +70°C
Temperature Coefficient	-150 ± 60 ppm/°C
Power Factor 1KHz > 1n0	≤ 0.001 for 30 and 63 V
Power Factor 1 MHz ≤ 1n0	≤ 0.0005 for 160, 400 and 630 V
Insulation Resistance ≤ 250nF (30, 63 V.D.C)	10 ⁵ MΩ 25,000 Ohm Farads
Insulation Resistance > 250nF (160, 400, 630 V.D.C)	10 ⁶ MΩ 250,000 Ohm Farads
Environmental Class	40/70/21
Test Voltage	At least 1.5 times working voltage NOT TO BE REPEATED
Approvals	BS, EN, ISO 9001-2008



Capacitance Stability: Of the order of 0.3% over 2 years under normal conditions of usage.

Long term drift is of the order of 0.005% per month at 20°C, 0.05% per month at 70°C

HS SERIES STANDARD RANGE AND DIMENSIONS

Volts DC	Capacitance pF	Length mm Nominal	Diameter mm Nominal	Wires mm
30 V	2p2 upto 470p	7.0	3.0	0.3
	470p - 1n0	7.0	3.5	0.3
	1n0 - 2n0	7.0	4.0	0.3
	2n0 - 3n3	7.0	4.75	0.3
	3n3 - 5n0	10.0	4.75	0.3
	5n0 - 7n0	10.0	5.5	0.3
	7n0 - 10n	10.0	6.75	0.3
	10n - 20n	15.0	8.5	0.4
	20n - 30n	20.0	8.5	0.5
	30n - 40n	20.0	9.0	0.5
	40n - 50n	20.0	10.0	0.5
	50n - 100n	28.0	11.0	0.5
	100n - 150n	28.0	13.0	0.5
	150n - 200n	28.0	14.5	0.5
	200n - 300n	34.0	15.5	0.6
	300n - 400n	34.0	17.5	0.6
	400n - 500n	34.0	20.0	0.6
63 V	2p2 upto 330p	7.0	3.0	0.3
	330p - 500p	7.0	3.5	0.3
	500p - 1n0	7.0	4.5	0.3
	1n0 - 1n5	7.0	5.5	0.3
	1n5 - 2n2	10.0	5.5	0.4
	2n2 - 4n7	10.0	7.0	0.4
	4n7 - 10n	15.0	7.5	0.4
	10n - 20n	15.0	9.0	0.4
	20n - 50n	20.0	10.5	0.5
	50n - 100n	28.0	11.5	0.5
	100n - 150n	28.0	13.5	0.5
	150n - 200n	28.0	15.0	0.5
	200n - 300n	34.0	16.0	0.6
300n - 400n	34.0	18.0	0.6	
400n - 500n	34.0	20.5	0.6	

Volts DC	Capacitance pF	Length mm Nominal	Diameter mm Nominal	Wires mm
400 V	2p2 upto 100p	7.0	3.5	0.3
	100p - 250p	7.0	4.0	0.3
	250p - 330p	7.0	5.0	0.3
	2p2 - 330p	10.0	4.5	0.4
	330p - 470p	10.0	5.5	0.4
	470p - 1n0	15.0	7.0	0.5
	1n0 - 2n0	20.0	9.0	0.6
	2n0 - 6n0	20.0	12.0	0.6
	6n0 - 20n	28.0	15.0	0.6
	20n - 50n	28.0	23.0	0.6*
	50n - 100n	28.0	30.0	0.6*
630 V	2p2 upto 50p	7.0	3.5	0.3
	50p - 120p	7.0	4.5	0.3
	120p - 200p	7.0	5.0	0.3
	2p2 - 150p	10.0	5.0	0.4
	150p - 250p	10.0	6.0	0.4
	250p - 500p	15.0	7.0	0.5
	500p - 1n0	20.0	8.0	0.6
	1n0 - 2n5	20.0	10.0	0.6
	2n5 - 10n	28.0	14.0	0.6
	10n - 20n	28.0	18.0	0.6*
20n - 50n	28.0	28.0	0.6*	
50n - 100n	28.0	35.0	0.6*	

