

3.3 High Voltage Snubber Capacitors :

STP-01RNM, STP-01RBM series

This series of capacitors have been specially developed for medium frequency range, with higher RMS Current, higher dv/dt and higher peak current carrying capability.

Applications :

High Voltage SCR Snubber and Commutation, Thyristor controlled rectifier circuits, High Current Snubber circuit, Reduce or eliminate voltage or current spikes, Limit dv/dt & di/dt, Motor Speed Control & Static Drive, Harmonic Filter, Inverter, Converter and high RMS ripple Current application

Properties :

Low ESR, Excellent Frequency Response, High r.m.s. Current Rating, High Pulse Current Ratings (dv/dt), High Voltage Capabilities, High Temperature, High Insulation Resistance, Non inductive, Flame Retardant Construction, Easy Installation

Electrical Connections :

STP-01RBM – with M6 / M8 / M10 Screw Threads

STP-01RNM – with M6 / M8 / M10 Screw Nuts

Electrical Characteristics : (can be customized)

Rated Voltage : 900Vndc – 5,300Vndc / 280Vrms – 1,600Vrms

Capacitance range : 0.25 - 60uF

Capacitance Tolerance : +/-5%; +/-10%

Ripple RMS Current : up to 80A

Equivalent Series Resistance (ESR) : at 23C 100kHz

Testing Voltage Terminal to Terminal : Vsurge 10 sec

Testing Voltage Terminal to Case : 4500Vac at 105C 1min.

Insulation Resistance :250Vdc +25C >= 300,000Mohm

250Vdc +85C >= 50,000Mohm

250Vdc +105C >= 5,000Mohm

Reference Standard : IEC61071

Operate Temperature : +70C / +85C / +105C

Expected Service Life : 30,000 hours at rated Vac +70C /+85C / +105C

60,000 hours at rated Vdc +70C / +85C / +105C

Accelerated Life : 1.25 x rated AC voltage at +85C / +105C 2,000 hours

Ultra-Low Leakage version is available on request

Specifications and Size :

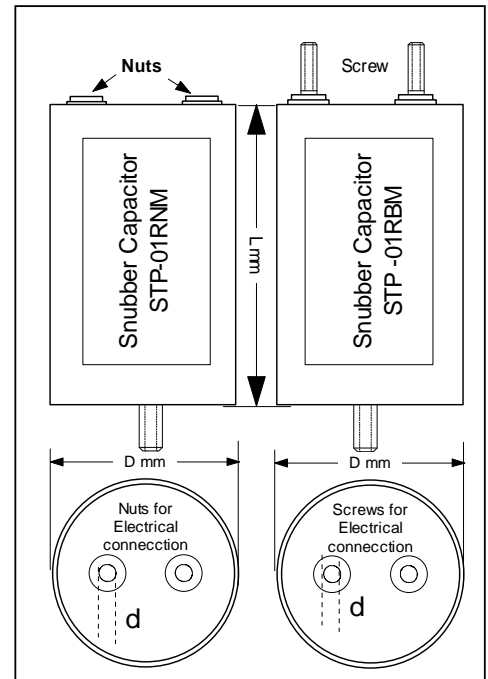
STP-01RNM Vndc = 900V / Vrms = 280Vac / Vpeak = 400V 10s / Vsurge = 1440V 10s/day

P/N :	Cn uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM225J900D	2.2	65	91	2.2	20	720	1500	35	11	7	M6
STP-01RNM335J900D	3.3	65	87	2.4	20	400	1300	30	9	6	M6
STP-01RNM475J900D	4.7	65	92	2.3	20	400	1800	35	11	7	M6
STP-01RNM685J900D	6.8	90	94	2.0	20	300	2000	40	12	8	M6
STP-01RNM106J900D	10	90	104	1.9	20	300	3000	45	14	9	M6
STP-01RNM156J900D	15	90	102	1.7	20	250	3700	50	15	10	M8
STP-01RNM226J900D	22	90	150	2.0	35	250	5500	60	24	15	M8
STP-01RNM336J900D	33	90	205	2.0	23	250	8200	80	32	20	M8
STP-01RNM406J900D	40	90	220	1.7	23	250	10000	80	32	20	M8
STP-01RNM506J900D	50	90	278	1.9	18	250	12500	80	32	20	M8
STP-01RNM606J900D	60	90	278	1.7	18	250	15000	80	32	20	M8

STP-01RNM Vndc = 1000V / Vrms = 300Vac / Vpeak = 450V 10s / Vsurge = 1600V 10s/day

P/N :	Cn uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM225J1000D	2.2	65	91	2.2	20	880	1900	35	11	7	M6
STP-01RNM335J1000D	3.3	65	87	2.4	20	490	1600	30	9	6	M6
STP-01RNM475J1000D	4.7	65	96	2.0	20	490	2300	40	12	8	M6
STP-01RNM685J1000D	6.8	90	98	2.0	20	400	2720	40	12	8	M6
STP-01RNM755J1000D	7.5	90	100	1.7	20	400	3000	45	14	9	M6
STP-01RNM106J1000D	10	90	100	1.7	20	300	3000	45	14	9	M6
STP-01RNM126J1000D	12	90	144	1.9	29	300	3600	50	20	13	M8
STP-01RNM156J1000D	15	90	146	1.9	29	300	4500	60	24	15	M8
STP-01RNM226J1000D	22	90	162	1.7	35	300	6600	70	28	18	M8
STP-01RNM256J1000D	25	90	196	1.9	23	300	7500	80	32	20	M8
STP-01RNM306J1000D	30	90	211	1.7	23	300	9000	80	32	20	M8
STP-01RNM336J1000D	33	90	220	1.7	23	300	9900	80	32	20	M8
STP-01RNM356J1000D	35	90	254	1.9	18	300	10500	80	32	20	M8
STP-01RNM406J1000D	40	90	266	1.7	18	300	12000	80	32	20	M8

For other Capacitance, Voltage, dv/dt, Peak Current and RMS Current not listed, please contact us for a suggestion.



STP-01RNM V_{ndc} = 1300V / V_{rms} = 400Vac / V_{peak} = 580V 10s / V_{surge} = 2100V 10s/day

P/N :	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM225J1300D	2.2	65	88	2.3	20	680	1500	30	9	6	M6
STP-01RNM335J1300D	3.3	90	102	1.7	20	520	1700	40	12	8	M6
STP-01RNM475J1300D	4.7	90	101	1.8	20	520	2400	45	14	9	M6
STP-01RNM685J1300D	6.8	90	140	2.2	25	520	3500	50	20	13	M8
STP-01RNM755J1300D	7.5	90	146	1.9	29	520	3900	50	20	13	M8
STP-01RNM106J1300D	10	90	146	1.9	35	400	4000	55	22	14	M8
STP-01RNM126J1300D	12	90	156	1.7	35	400	4800	60	24	15	M8
STP-01RNM156J1300D	15	90	196	1.9	23	400	6000	70	28	18	M8
STP-01RNM206J1300D	20	90	246	1.9	18	400	8000	80	32	20	M8
STP-01RNM226J1300D	22	90	258	1.7	18	400	8800	80	32	20	M8
STP-01RNM256J1300D	25	90	274	1.7	18	400	10000	80	32	20	M8

STP-01RNM V_{ndc} = 1500V / V_{rms} = 450Vac / V_{peak} = 640V 10s / V_{surge} = 2400V 10s/day

P/N :	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM225J1500D	2.2	90	100	1.9	20	660	1400	35	11	7	M6
STP-01RNM335J1500D	3.3	90	102	1.7	20	660	2100	40	12	8	M6
STP-01RNM405J1500D	4	90	101	1.7	20	500	2000	40	12	8	M6
STP-01RNM455J1500D	4.5	90	104	1.7	20	500	2250	45	14	9	M6
STP-01RNM685J1500D	6.8	90	160	1.7	29	500	3400	55	22	14	M8
STP-01RNM755J1500D	7.5	90	154	1.8	35	500	3700	55	22	14	M8
STP-01RNM106J1500D	10	90	214	1.8	19	500	5000	70	28	18	M8
STP-01RNM126J1500D	12	90	211	1.7	23	500	6000	70	28	18	M8
STP-01RNM156J1500D	15	90	262	1.8	18	500	7500	80	32	20	M8
STP-01RNM186J1500D	18	90	278	1.7	18	500	9000	80	32	20	M8

STP-01RNM V_{ndc} = 1700V / V_{rms} = 530Vac / V_{peak} = 750V 10s / V_{surge} = 2720V 30s/day

P/N :	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM225K1700D	2.2	65	105	1.8	25	1200	2600	50	37	25	M6
STP-01RNM255K1700D	2.5	65	125	2.0	35	680	1700	45	33	22	M6
STP-01RNM305K1700D	3	65	125	2.3	35	680	2000	45	33	22	M6
STP-01RNM405K1700D	4	65	145	2.2	40	520	2100	45	33	22	M6
STP-01RNM505K1700D	5	65	165	2.3	50	400	2000	45	33	22	M6
STP-01RNM605K1700D	6	65	165	1.9	50	400	2400	55	40	26	M8

STP-01RNM V_{ndc} = 1800V / V_{rms} = 540Vac / V_{peak} = 760V 10s / V_{surge} = 2900V 10s/day

P/N :	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM225J1800D	2.2	90	100	1.9	20	800	1700	35	30	15	M6
STP-01RNM335J1800D	3.3	90	140	2.5	29	800	2600	45	30	17	M6
STP-01RNM475J1800D	4.7	90	146	2.0	35	620	2900	45	30	17	M6
STP-01RNM685J1800D	6.8	90	196	2.0	23	620	4200	55	35	20	M8
STP-01RNM805J1800D	8	90	205	1.8	23	620	4900	55	40	25	M8
STP-01RNM106J1800D	10	90	250	1.8	18	620	6200	60	45	30	M8
STP-01RNM126J1800D	12	90	270	1.7	18	620	7400	70	60	35	M8

STP-01RNM V_{ndc} = 2700V / V_{rms} = 770Vac / V_{peak} = 1100V 10s / V_{surge} = 4350V 30s/day

P/N :	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM205K2700D	2	65	165	2.4	50	1000	2000	35	26	17	M6
STP-01RNM255K2700D	2.5	65	185	2.4	60	800	2000	35	26	17	M6
STP-01RNM335K2700D	3.3	65	225	2.3	75	600	1980	35	26	17	M6
STP-01RNM405K2700D	4	65	225	1.9	75	600	2400	40	30	20	M6

STP-01RNM V_{ndc} = 3100V / V_{rms} = 900Vac / V_{peak} = 1300V 10s / V_{surge} = 5000V 30s/day

P/N :	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM155K3100D	1.5	65	165	2.4	50	1320	1900	30	22	15	M6
STP-01RNM205K3100D	2	65	185	2.2	60	1000	2000	30	22	15	M6
STP-01RNM225K3100D	2.2	65	185	2.0	60	1000	2200	30	22	15	M6
STP-01RNM255K3100D	2.5	65	185	1.8	60	1000	2500	35	26	17	M6
STP-01RNM305K3100D	3	65	225	1.9	75	800	2400	35	26	17	M6
STP-01RNM335K3100D	3.3	90	225	1.8	75	800	2600	35	26	17	M6
STP-01RNM355K3100D	3.5	90	225	1.7	75	800	2800	40	30	20	M6

For other Capacitance, Voltage, dv/dt, Peak Current and RMS Current not listed, please contact us for a suggestion.

STP-01RNM V_{ndc} = 3600V / V_{rms} = 1100Vac / V_{peak} = 1600V 10s / V_{surge} = 5760V 30s/day

P/N :	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM155K3600D	1.5	65	205	2.4	70	1355	2000	35	24	16	M6
STP-01RNM205K3600D	2	65	245	2.5	85	1000	2000	35	25	17	M6
STP-01RNM255K3600D	2.5	65	285	2.4	100	800	2000	35	24	16	M6
STP-01RNM305K3600D	3	65	285	1.9	100	800	2400	40	30	20	M6

STP-01RNM V_{ndc} = 4500V / V_{rms} = 1350Vac / V_{peak} = 1950V 10s / V_{surge} = 7200V 30s/day

P/N :	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM254K4500D	0.25	65	135	3.2	35	5000	1200	15	12	8	M6
STP-01RNM504K4500D	0.5	65	165	2.7	50	2900	1400	15	13	8	M6
STP-01RNM754K4500D	0.75	65	165	1.9	50	2900	2100	25	19	12	M6
STP-01RNM105K4500D	1	65	185	1.8	60	2200	2200	25	20	13	M6
STP-01RNM125K4500D	1.2	65	225	1.9	75	1700	2000	25	19	12	M6
STP-01RNM155K4500D	1.5	90	225	1.6	75	1700	2500	30	23	15	M6

STP-01RNM V_{ndc} = 5300V / V_{rms} = 1600Vac / V_{peak} = 2300V 10s / V_{surge} = 8500V 30s/day

P/N :	C _n uF	Diameter D mm	Length L mm	ESR mohm 100khz	ESL nH	dv/dt v/us	Peak Current I _{peak} A	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C	d (mm)
STP-01RNM254K5300D	0.25	65	135	2.4	35	7000	1700	19	14	9	M6
STP-01RNM504K5300D	0.5	65	165	2.0	50	3900	1900	21	16	10	M6
STP-01RNM754K5300D	0.75	65	225	2.4	75	2300	1700	19	14	9	M6
STP-01RNM105K5300D	1	90	225	1.8	75	2300	2300	25	19	12	M6

For other Capacitance, Voltage, dv/dt, Peak Current and RMS Current not listed, please contact us for a suggestion.