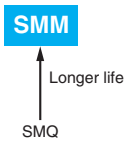
SMM Series

- Longer life from SMQ series
- Endurance with ripple current : 3,000 hours at 85℃
- Non solvent resistant type
- RoHS2 Compliant

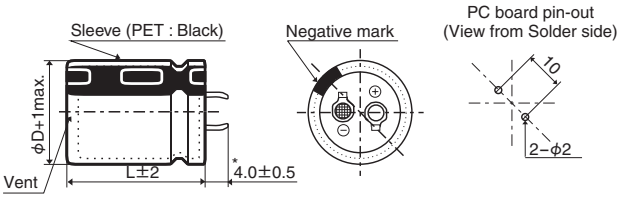


◆SPECIFICATIONS

Items	Characteristics			
Category Temperature Range	-25 to +85℃			
Rated Voltage Range	160 to 450Vdc			
Capacitance Tolerance	±20% (M)			(at 20℃, 120Hz)
Leakage Current	I≦3√CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)			(at 20℃ after 5 minutes)
Dissipation Factor (tan δ)	Rated voltage (Vdc)	160 to 400V	420 & 450V	
	tan δ (Max.)	0.15	0.20	(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	160 to 400V	420 & 450V	
	Z(-25℃)/Z(+20℃)	4	8	(at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 3,000 hours at 85℃.			
	Capacitance change	≦±20% of the initial value		
	D.F. (tan δ)	≦200% of the initial specified value		
	Leakage current	≦The initial specified value		
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 85℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.			
	Capacitance change	≦±15% of the initial value		
	D.F. (tan δ)	≦150% of the initial specified value		
	Leakage current	≦The initial specified value		

◆DIMENSIONS [mm]

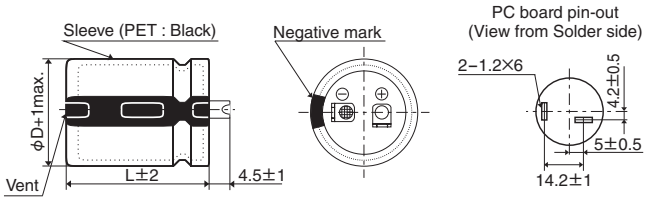
●Terminal Code : VS (φ22 to φ35) : Standard



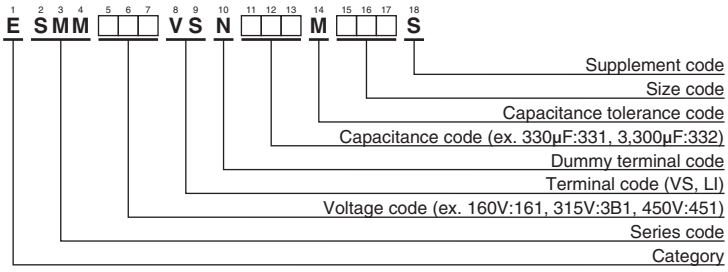
*φD=35mm : 3.5±0.5mm

The standard design has no plastic disc.

●Terminal Code : LI (φ35)



◆PART NUMBERING SYSTEM



Please refer to "Product code guide (snap-in type)"

◆RATED RIPPLE CURRENT MULTIPLIERS

- Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
160 to 250Vdc	0.81	1.00	1.17	1.32	1.45	1.50
315 to 450Vdc	0.77	1.00	1.16	1.30	1.41	1.43

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

SMM Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85℃, 120Hz)	Part No.
160	270	22 × 20	0.15	1.30	ESMM161VSN271MP20S
	390	22 × 25	0.15	1.63	ESMM161VSN391MP25S
	390	25.4 × 20	0.15	1.62	ESMM161VSN391MQ20S
	470	22 × 30	0.15	1.86	ESMM161VSN471MP30S
	470	25.4 × 25	0.15	1.86	ESMM161VSN471MQ25S
	560	22 × 30	0.15	2.15	ESMM161VSN561MP30S
	560	25.4 × 25	0.15	2.15	ESMM161VSN561MQ25S
	560	30 × 20	0.15	2.05	ESMM161VSN561MR20S
	680	22 × 35	0.15	2.35	ESMM161VSN681MP35S
	680	25.4 × 30	0.15	2.33	ESMM161VSN681MQ30S
	680	30 × 25	0.15	2.33	ESMM161VSN681MR25S
	680	35 × 20	0.15	2.26	ESMM161VSN681MA20S
	820	22 × 40	0.15	2.68	ESMM161VSN821MP40S
	820	25.4 × 30	0.15	2.65	ESMM161VSN821MQ30S
	820	30 × 25	0.15	2.64	ESMM161VSN821MR25S
	820	35 × 20	0.15	2.49	ESMM161VSN821MA20S
	1,000	22 × 45	0.15	3.02	ESMM161VSN102MP45S
	1,000	25.4 × 35	0.15	3.00	ESMM161VSN102MQ35S
	1,000	30 × 30	0.15	2.96	ESMM161VSN102MR30S
	1,000	35 × 25	0.15	3.13	ESMM161VSN102MA25S
	1,200	22 × 50	0.15	3.47	ESMM161VSN122MP50S
	1,200	25.4 × 40	0.15	3.43	ESMM161VSN122MQ40S
	1,200	30 × 30	0.15	3.41	ESMM161VSN122MR30S
	1,200	35 × 25	0.15	3.40	ESMM161VSN122MA25S
	1,500	25.4 × 50	0.15	3.96	ESMM161VSN152MQ50S
	1,500	30 × 35	0.15	3.96	ESMM161VSN152MR35S
	1,500	35 × 30	0.15	3.94	ESMM161VSN152MA30S
	1,800	30 × 40	0.15	4.31	ESMM161VSN182MR40S
	1,800	35 × 35	0.15	4.28	ESMM161VSN182MA35S
	2,200	30 × 50	0.15	4.96	ESMM161VSN222MR50S
	2,200	35 × 40	0.15	4.96	ESMM161VSN222MA40S
	2,700	35 × 45	0.15	5.57	ESMM161VSN272MA45S
	3,300	35 × 50	0.15	6.21	ESMM161VSN332MA50S
180	220	22 × 20	0.15	1.18	ESMM181VSN221MP20S
	330	22 × 25	0.15	1.77	ESMM181VSN331MP25S
	330	25.4 × 20	0.15	1.49	ESMM181VSN331MQ20S
	390	22 × 25	0.15	1.84	ESMM181VSN391MP25S
	470	22 × 30	0.15	1.91	ESMM181VSN471MP30S
	470	25.4 × 25	0.15	2.08	ESMM181VSN471MQ25S
	470	30 × 20	0.15	1.88	ESMM181VSN471MR20S
	560	22 × 35	0.15	2.25	ESMM181VSN561MP35S
	560	25.4 × 25	0.15	2.25	ESMM181VSN561MQ25S
	680	22 × 35	0.15	2.48	ESMM181VSN681MP35S
	680	25.4 × 30	0.15	2.50	ESMM181VSN681MQ30S
	680	30 × 25	0.15	2.46	ESMM181VSN681MR25S
	680	35 × 20	0.15	2.26	ESMM181VSN681MA20S
	820	22 × 40	0.15	2.86	ESMM181VSN821MP40S
	820	25.4 × 35	0.15	2.75	ESMM181VSN821MQ35S
	820	30 × 25	0.15	2.69	ESMM181VSN821MR25S
	1,000	22 × 50	0.15	3.10	ESMM181VSN102MP50S
	1,000	25.4 × 40	0.15	3.06	ESMM181VSN102MQ40S
	1,000	30 × 30	0.15	3.10	ESMM181VSN102MR30S
	1,000	35 × 25	0.15	2.98	ESMM181VSN102MA25S
	1,200	25.4 × 45	0.15	3.63	ESMM181VSN122MQ45S
	1,200	30 × 35	0.15	3.55	ESMM181VSN122MR35S
	1,200	35 × 30	0.15	3.49	ESMM181VSN122MA30S
	1,500	30 × 40	0.15	4.10	ESMM181VSN152MR40S
	1,500	35 × 35	0.15	4.02	ESMM181VSN152MA35S
	1,800	30 × 45	0.15	4.55	ESMM181VSN182MR45S
	1,800	35 × 35	0.15	4.54	ESMM181VSN182MA35S
	2,200	35 × 40	0.15	4.83	ESMM181VSN222MA40S
	2,700	35 × 50	0.15	5.30	ESMM181VSN272MA50S
200	220	22 × 20	0.15	1.18	ESMM201VSN221MP20S
	270	22 × 25	0.15	1.37	ESMM201VSN271MP25S
	270	25.4 × 20	0.15	1.35	ESMM201VSN271MQ20S
	330	22 × 25	0.15	1.51	ESMM201VSN331MP25S
	330	25.4 × 20	0.15	1.49	ESMM201VSN331MQ20S

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85℃, 120Hz)	Part No.
200	390	22 × 30	0.15	1.73	ESMM201VSN391MP30S
	390	25.4 × 25	0.15	1.71	ESMM201VSN391MQ25S
	390	30 × 20	0.15	1.71	ESMM201VSN391MR20S
	470	22 × 30	0.15	1.97	ESMM201VSN471MP30S
	470	25.4 × 25	0.15	1.95	ESMM201VSN471MQ25S
	470	30 × 20	0.15	1.88	ESMM201VSN471MR20S
	560	22 × 35	0.15	2.18	ESMM201VSN561MP35S
	560	25.4 × 30	0.15	2.15	ESMM201VSN561MQ30S
	560	30 × 25	0.15	2.15	ESMM201VSN561MR25S
	560	35 × 20	0.15	2.05	ESMM201VSN561MA20S
	680	22 × 40	0.15	2.48	ESMM201VSN681MP40S
	680	25.4 × 30	0.15	2.48	ESMM201VSN681MQ30S
	680	30 × 25	0.15	2.48	ESMM201VSN681MR25S
	680	35 × 20	0.15	2.36	ESMM201VSN681MA20S
	820	22 × 45	0.15	2.81	ESMM201VSN821MP45S
	820	25.4 × 35	0.15	2.79	ESMM201VSN821MQ35S
	820	30 × 30	0.15	2.80	ESMM201VSN821MR30S
	820	35 × 25	0.15	2.83	ESMM201VSN821MA25S
	1,000	22 × 50	0.15	3.28	ESMM201VSN102MP50S
	1,000	25.4 × 40	0.15	3.28	ESMM201VSN102MQ40S
	1,000	30 × 35	0.15	3.15	ESMM201VSN102MR35S
	1,000	35 × 30	0.15	3.26	ESMM201VSN102MA30S
	1,200	25.4 × 45	0.15	3.61	ESMM201VSN122MQ45S
	1,200	30 × 35	0.15	3.61	ESMM201VSN122MR35S
	1,200	35 × 30	0.15	3.57	ESMM201VSN122MA30S
	1,500	30 × 45	0.15	4.13	ESMM201VSN152MR45S
	1,500	35 × 35	0.15	4.06	ESMM201VSN152MA35S
	1,800	30 × 50	0.15	4.60	ESMM201VSN182MR50S
	1,800	35 × 40	0.15	4.59	ESMM201VSN182MA40S
	2,200	35 × 45	0.15	5.25	ESMM201VSN222MA45S
220	180	22 × 20	0.15	1.06	ESMM221VSN181MP20S
	270	22 × 25	0.15	1.47	ESMM221VSN271MP25S
	270	25.4 × 20	0.15	1.35	ESMM221VSN271MQ20S
	330	22 × 30	0.15	1.70	ESMM221VSN331MP30S
	330	25.4 × 25	0.15	1.69	ESMM221VSN331MQ25S
	330	30 × 20	0.15	1.58	ESMM221VSN331MR20S
	390	22 × 30	0.15	1.89	ESMM221VSN391MP30S
	390	25.4 × 25	0.15	1.84	ESMM221VSN391MQ25S
	390	30 × 20	0.15	1.71	ESMM221VSN391MR20S
	470	22 × 35	0.15	2.08	ESMM221VSN471MP35S
	470	25.4 × 30	0.15	2.08	ESMM221VSN471MQ30S
	470	30 × 25	0.15	2.12	ESMM221VSN471MR25S
	470	35 × 20	0.15	1.88	ESMM221VSN471MA20S
	560	22 × 40	0.15	2.33	ESMM221VSN561MP40S
	560	25.4 × 35	0.15	2.38	ESMM221VSN561MQ35S
	560	30 × 25	0.15	2.31	ESMM221VSN561MR25S
	560	35 × 20	0.15	2.14	ESMM221VSN561MA20S
	680	22 × 45	0.15	2.63	ESMM221VSN681MP45S
	680	25.4 × 35	0.15	2.68	ESMM221VSN681MQ35S
	680	30 × 30	0.15	2.62	ESMM221VSN681MR30S
	680	35 × 25	0.15	2.58	ESMM221VSN681MA25S
	820	25.4 × 45	0.15	3.01	ESMM221VSN821MQ45S
	820	30 × 35	0.15	2.99	ESMM221VSN821MR35S
	820	35 × 30	0.15	2.79	ESMM221VSN821MA30S
	1,000	25.4 × 50	0.15	3.40	ESMM221VSN102MQ50S
	1,000	30 × 35	0.15	3.42	ESMM221VSN102MR35S
	1,000	35 × 30	0.15	3.29	ESMM221VSN102MA30S
	1,200	30 × 40	0.15	3.88	ESMM221VSN122MR40S
	1,200	35 × 35	0.15	3.68	ESMM221VSN122MA35S
	1,500	30 × 50	0.15	4.44	ESMM221VSN152MR50S
	1,500	35 × 40	0.15	4.10	ESMM221VSN152MA40S
	1,800	35 × 45	0.15	4.52	ESMM221VSN182MA45S
250	150	22 × 20	0.15	0.97	ESMM251VSN151MP20S
	180	22 × 20	0.15	1.06	ESMM251VSN181MP20S
	220	22 × 25	0.15	1.24	ESMM251VSN221MP25S
	220	25.4 × 20	0.15	1.22	ESMM251VSN221MQ20S
	270	22 × 25	0.15	1.50	ESMM251VSN271MP25S

SMM Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85℃, 120Hz)	Part No.
250	330	22 × 30	0.15	1.66	ESMM251VSN331MP30S
	330	25.4 × 25	0.15	1.61	ESMM251VSN331MQ25S
	330	30 × 20	0.15	1.58	ESMM251VSN331MR20S
	390	22 × 35	0.15	1.88	ESMM251VSN391MP35S
	390	25.4 × 30	0.15	1.88	ESMM251VSN391MQ30S
	390	30 × 25	0.15	1.86	ESMM251VSN391MR25S
	390	35 × 20	0.15	1.71	ESMM251VSN391MA20S
	470	22 × 35	0.15	2.15	ESMM251VSN471MP35S
	470	25.4 × 35	0.15	2.15	ESMM251VSN471MQ35S
	470	30 × 25	0.15	2.05	ESMM251VSN471MR25S
	470	35 × 20	0.15	1.88	ESMM251VSN471MA20S
	560	22 × 40	0.15	2.48	ESMM251VSN561MP40S
	560	25.4 × 35	0.15	2.35	ESMM251VSN561MQ35S
	560	30 × 25	0.15	2.35	ESMM251VSN561MR25S
	680	22 × 50	0.15	2.61	ESMM251VSN681MP50S
	680	25.4 × 40	0.15	2.67	ESMM251VSN681MQ40S
	680	30 × 30	0.15	2.71	ESMM251VSN681MR30S
	680	35 × 25	0.15	2.58	ESMM251VSN681MA25S
	820	25.4 × 45	0.15	3.01	ESMM251VSN821MQ45S
	820	30 × 35	0.15	2.98	ESMM251VSN821MR35S
	820	35 × 30	0.15	2.96	ESMM251VSN821MA30S
	1,000	30 × 40	0.15	3.56	ESMM251VSN102MR40S
	1,000	35 × 35	0.15	3.48	ESMM251VSN102MA35S
	1,200	30 × 45	0.15	3.99	ESMM251VSN122MR45S
	1,200	35 × 35	0.15	3.84	ESMM251VSN122MA35S
	1,500	35 × 40	0.15	4.33	ESMM251VSN152MA40S
	1,800	35 × 50	0.15	4.54	ESMM251VSN182MA50S
315	100	22 × 20	0.15	0.79	ESMM3B1VSN101MP20S
	120	25.4 × 20	0.15	0.90	ESMM3B1VSN121MQ20S
	150	22 × 25	0.15	1.06	ESMM3B1VSN151MP25S
	150	25.4 × 20	0.15	1.00	ESMM3B1VSN151MQ20S
	180	22 × 30	0.15	1.29	ESMM3B1VSN181MP30S
	180	25.4 × 25	0.15	1.38	ESMM3B1VSN181MQ25S
	180	30 × 20	0.15	1.16	ESMM3B1VSN181MR20S
	220	22 × 30	0.15	1.41	ESMM3B1VSN221MP30S
	220	25.4 × 25	0.15	1.47	ESMM3B1VSN221MQ25S
	220	30 × 20	0.15	1.28	ESMM3B1VSN221MR20S
	270	22 × 35	0.15	1.68	ESMM3B1VSN271MP35S
	270	25.4 × 30	0.15	1.70	ESMM3B1VSN271MQ30S
	270	30 × 25	0.15	1.55	ESMM3B1VSN271MR25S
	270	35 × 20	0.15	1.43	ESMM3B1VSN271MA20S
	330	22 × 40	0.15	1.91	ESMM3B1VSN331MP40S
	330	25.4 × 35	0.15	1.94	ESMM3B1VSN331MQ35S
	330	30 × 25	0.15	1.98	ESMM3B1VSN331MR25S
	390	22 × 45	0.15	2.07	ESMM3B1VSN391MP45S
	390	25.4 × 40	0.15	2.11	ESMM3B1VSN391MQ40S
	390	30 × 30	0.15	2.15	ESMM3B1VSN391MR30S
	390	35 × 25	0.15	1.95	ESMM3B1VSN391MA25S
	470	25.4 × 45	0.15	2.31	ESMM3B1VSN471MQ45S
	470	30 × 35	0.15	2.38	ESMM3B1VSN471MR35S
	470	35 × 30	0.15	2.46	ESMM3B1VSN471MA30S
	560	25.4 × 50	0.15	2.46	ESMM3B1VSN561MQ50S
	560	30 × 35	0.15	2.63	ESMM3B1VSN561MR35S
	560	35 × 30	0.15	2.69	ESMM3B1VSN561MA30S
	680	30 × 45	0.15	2.82	ESMM3B1VSN681MR45S
	680	35 × 35	0.15	3.05	ESMM3B1VSN681MA35S
	820	30 × 50	0.15	3.28	ESMM3B1VSN821MR50S
	820	35 × 40	0.15	3.45	ESMM3B1VSN821MA40S
	1,000	35 × 45	0.15	3.59	ESMM3B1VSN102MA45S
350	82	22 × 20	0.15	0.72	ESMM351VSN820MP20S
	120	22 × 25	0.15	1.04	ESMM351VSN121MP25S
	120	25.4 × 20	0.15	0.90	ESMM351VSN121MQ20S
	150	22 × 30	0.15	1.20	ESMM351VSN151MP30S
	150	25.4 × 25	0.15	1.22	ESMM351VSN151MQ25S
	150	30 × 20	0.15	1.06	ESMM351VSN151MR20S
	180	22 × 30	0.15	1.34	ESMM351VSN181MP30S
	180	25.4 × 25	0.15	1.37	ESMM351VSN181MQ25S

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85℃, 120Hz)	Part No.
350	180	30 × 20	0.15	1.16	ESMM351VSN181MR20S
	220	22 × 35	0.15	1.47	ESMM351VSN221MP35S
	220	25.4 × 30	0.15	1.53	ESMM351VSN221MQ30S
	220	30 × 25	0.15	1.54	ESMM351VSN221MR25S
	220	35 × 20	0.15	1.29	ESMM351VSN221MA20S
	270	22 × 40	0.15	1.70	ESMM351VSN271MP40S
	270	25.4 × 35	0.15	1.73	ESMM351VSN271MQ35S
	270	30 × 25	0.15	1.80	ESMM351VSN271MR25S
	270	35 × 20	0.15	1.49	ESMM351VSN271MA20S
	330	22 × 45	0.15	1.87	ESMM351VSN331MP45S
	330	25.4 × 35	0.15	1.97	ESMM351VSN331MQ35S
	330	30 × 30	0.15	2.03	ESMM351VSN331MR30S
	330	35 × 25	0.15	1.80	ESMM351VSN331MA25S
	390	25.4 × 40	0.15	2.14	ESMM351VSN391MQ40S
	390	30 × 35	0.15	2.23	ESMM351VSN391MR35S
	390	35 × 30	0.15	2.30	ESMM351VSN391MA30S
	470	25.4 × 50	0.15	2.55	ESMM351VSN471MQ50S
	470	30 × 35	0.15	2.53	ESMM351VSN471MR35S
	470	35 × 30	0.15	2.55	ESMM351VSN471MA30S
	560	30 × 40	0.15	2.73	ESMM351VSN561MR40S
	560	35 × 35	0.15	2.75	ESMM351VSN561MA35S
	680	30 × 50	0.15	3.15	ESMM351VSN681MR50S
	680	35 × 40	0.15	3.15	ESMM351VSN681MA40S
	820	35 × 45	0.15	3.47	ESMM351VSN821MA45S
	1,000	35 × 50	0.15	3.60	ESMM351VSN102MA50S
400	68	22 × 20	0.15	0.65	ESMM401VSN680MP20S
	82	22 × 25	0.15	0.84	ESMM401VSN820MP25S
	82	25.4 × 20	0.15	0.74	ESMM401VSN820MQ20S
	100	22 × 25	0.15	0.99	ESMM401VSN101MP25S
	100	25.4 × 20	0.15	0.82	ESMM401VSN101MQ20S
	120	22 × 30	0.15	1.09	ESMM401VSN121MP30S
	120	25.4 × 25	0.15	1.13	ESMM401VSN121MQ25S
	120	30 × 20	0.15	0.95	ESMM401VSN121MR20S
	150	22 × 35	0.15	1.24	ESMM401VSN151MP35S
	150	25.4 × 30	0.15	1.27	ESMM401VSN151MQ30S
	150	30 × 25	0.15	1.20	ESMM401VSN151MR25S
	180	22 × 40	0.15	1.41	ESMM401VSN181MP40S
	180	25.4 × 30	0.15	1.44	ESMM401VSN181MQ30S
	180	30 × 25	0.15	1.52	ESMM401VSN181MR25S
	180	35 × 20	0.15	1.16	ESMM401VSN181MA20S
	220	22 × 45	0.15	1.58	ESMM401VSN221MP45S
	220	25.4 × 35	0.15	1.64	ESMM401VSN221MQ35S
	220	30 × 30	0.15	1.66	ESMM401VSN221MR30S
	220	35 × 25	0.15	1.47	ESMM401VSN221MA25S
	270	22 × 50	0.15	1.65	ESMM401VSN271MP50S
	270	25.4 × 40	0.15	1.79	ESMM401VSN271MQ40S
	270	30 × 30	0.15	1.82	ESMM401VSN271MR30S
	270	35 × 25	0.15	1.63	ESMM401VSN271MA25S
	330	25.4 × 45	0.15	2.00	ESMM401VSN331MQ45S
	330	30 × 35	0.15	2.05	ESMM401VSN331MR35S
	330	35 × 30	0.15	2.05	ESMM401VSN331MA30S
	390	25.4 × 50	0.15	2.12	ESMM401VSN391MQ50S
	390	30 × 40	0.15	2.26	ESMM401VSN391MR40S
	390	35 × 35	0.15	2.28	ESMM401VSN391MA35S
	470	30 × 45	0.15	2.51	ESMM401VSN471MR45S
	470	35 × 35	0.15	2.54	ESMM401VSN471MA35S
	560	30 × 50	0.15	2.85	ESMM401VSN561MR50S
	560	35 × 40	0.15	2.85	ESMM401VSN561MA40S
	680	35 × 50	0.15	3.10	ESMM401VSN681MA50S
420	47	22 × 20	0.20	0.54	ESMM421VSN470MP20S
	56	22 × 20	0.20	0.59	ESMM421VSN560MP20S
	68	25.4 × 20	0.20	0.68	ESMM421VSN680MQ20S
	82	22 × 25	0.20	0.85	ESMM421VSN820MP25S
	82	25.4 × 20	0.20	0.74	ESMM421VSN820MQ20S
	100	22 × 30	0.20	0.97	ESMM421VSN101MP30S
	100	25.4 × 25	0.20	0.98	ESMM421VSN101MQ25S
	100	30 × 20	0.20	0.87	ESMM421VSN101MR20S

SMM Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85℃, 120Hz)	Part No.
420	120	22 × 30	0.20	1.07	ESMM421VSN121MP30S
	120	25.4 × 25	0.20	1.08	ESMM421VSN121MQ25S
	120	30 × 20	0.20	0.95	ESMM421VSN121MR20S
	150	22 × 35	0.20	1.21	ESMM421VSN151MP35S
	150	25.4 × 30	0.20	1.26	ESMM421VSN151MQ30S
	150	30 × 25	0.20	1.30	ESMM421VSN151MR25S
	150	35 × 20	0.20	1.11	ESMM421VSN151MA20S
	180	22 × 40	0.20	1.33	ESMM421VSN181MP40S
	180	25.4 × 35	0.20	1.42	ESMM421VSN181MQ35S
	180	30 × 25	0.20	1.48	ESMM421VSN181MR25S
	180	35 × 20	0.20	1.16	ESMM421VSN181MA20S
	220	22 × 45	0.20	1.55	ESMM421VSN221MP45S
	220	25.4 × 35	0.20	1.58	ESMM421VSN221MQ35S
	220	30 × 30	0.20	1.65	ESMM421VSN221MR30S
	220	35 × 25	0.20	1.47	ESMM421VSN221MA25S
	270	25.4 × 40	0.20	1.74	ESMM421VSN271MQ40S
	270	30 × 35	0.20	1.90	ESMM421VSN271MR35S
	270	35 × 30	0.20	1.94	ESMM421VSN271MA30S
	330	25.4 × 50	0.20	2.20	ESMM421VSN331MQ50S
	330	30 × 35	0.20	1.98	ESMM421VSN331MR35S
	330	35 × 35	0.20	2.17	ESMM421VSN331MA35S
	390	30 × 40	0.20	2.22	ESMM421VSN391MR40S
	390	35 × 35	0.20	2.27	ESMM421VSN391MA35S
	470	30 × 45	0.20	2.50	ESMM421VSN471MR45S
	470	35 × 40	0.20	2.61	ESMM421VSN471MA40S
	560	35 × 45	0.20	2.95	ESMM421VSN561MA45S
	680	35 × 50	0.20	3.15	ESMM421VSN681MA50S
450	47	22 × 20	0.20	0.54	ESMM451VSN470MP20S
	56	22 × 20	0.20	0.59	ESMM451VSN560MP20S
	68	22 × 25	0.20	0.71	ESMM451VSN680MP25S
	68	25.4 × 20	0.20	0.68	ESMM451VSN680MQ20S
	82	22 × 25	0.20	0.86	ESMM451VSN820MP25S

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85℃, 120Hz)	Part No.
450	82	25.4 × 20	0.20	0.74	ESMM451VSN820MQ20S
	82	30 × 20	0.20	0.79	ESMM451VSN820MR20S
	100	22 × 30	0.20	0.95	ESMM451VSN101MP30S
	100	25.4 × 25	0.20	0.97	ESMM451VSN101MQ25S
	100	30 × 20	0.20	0.87	ESMM451VSN101MR20S
	120	22 × 35	0.20	1.07	ESMM451VSN121MP35S
	120	25.4 × 30	0.20	1.09	ESMM451VSN121MQ30S
	120	30 × 25	0.20	1.12	ESMM451VSN121MR25S
	120	35 × 20	0.20	0.99	ESMM451VSN121MA20S
	150	22 × 40	0.20	1.18	ESMM451VSN151MP40S
	150	25.4 × 30	0.20	1.25	ESMM451VSN151MQ30S
	150	30 × 25	0.20	1.29	ESMM451VSN151MR25S
	150	35 × 20	0.20	1.06	ESMM451VSN151MA20S
	180	22 × 45	0.20	1.32	ESMM451VSN181MP45S
	180	25.4 × 35	0.20	1.40	ESMM451VSN181MQ35S
	180	30 × 30	0.20	1.45	ESMM451VSN181MR30S
	180	35 × 25	0.20	1.33	ESMM451VSN181MA25S
	220	22 × 50	0.20	1.48	ESMM451VSN221MP50S
	220	25.4 × 40	0.20	1.59	ESMM451VSN221MQ40S
	220	30 × 30	0.20	1.64	ESMM451VSN221MR30S
	220	35 × 25	0.20	1.66	ESMM451VSN221MA25S
	270	25.4 × 45	0.20	1.73	ESMM451VSN271MQ45S
	270	30 × 35	0.20	1.89	ESMM451VSN271MR35S
	270	35 × 30	0.20	1.90	ESMM451VSN271MA30S
	330	25.4 × 50	0.20	2.12	ESMM451VSN331MQ50S
	330	30 × 40	0.20	2.12	ESMM451VSN331MR40S
	330	35 × 35	0.20	2.15	ESMM451VSN331MA35S
	390	30 × 45	0.20	2.35	ESMM451VSN391MR45S
	390	35 × 40	0.20	2.38	ESMM451VSN391MA40S
	470	30 × 50	0.20	2.65	ESMM451VSN471MR50S
	470	35 × 45	0.20	2.68	ESMM451VSN471MA45S
	560	35 × 50	0.20	2.88	ESMM451VSN561MA50S

■ Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.

■ Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.

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