



## 1. Capacitor

### > Application

The capacitors are designed for power factor correction and harmonics filtration in power network. They are all-film dielectric and impregnated with an environmentally friendly, Non-PCB biodegradable insulating oil.

In addition each capacitor is provided with an internal discharge resistor.

All SAMWHA capacitors comply with most national and international capacitor standards.

Capacitor benefits to

- Improve Power Factor
- Reduce Line Losses
- Decrease Voltage Drop

Through that it helps greater **Energy Efficiency**

### > Product Scope

- **Power Range**      Single Phase 25kvar to 1000kvar  
                              Three Phase 50kvar to 500kvar
- **Voltage Range**    Single Phase 1000V to 22000V  
                              Three Phase 1000V to 11000V
- **Frequency**         50Hz / 60Hz
- **Applicable Standards**    IEC, ANSI / IEEE, NEMA



### > Technical Data

Capacitor Loss [Under Stabilized Condition]	0.2W/kvar or Less with Internal fuse 0.15W/kvar or Less without Internal fuse	
Ambient Temperature	-40°C / A [+40°C], B [+45°C], C [+50°C], D [+55°C]	
Max overvoltage	U <sub>max</sub>	U <sub>N</sub> + 10% [up to 8 hours daily] U <sub>N</sub> + 15% [up to 30 minutes daily] U <sub>N</sub> + 20% [up to 5 minutes] U <sub>N</sub> + 30% [up to 1 minute]
Max overcurrent		I <sub>s</sub> 1.3 × I <sub>N</sub>
Painting Color		Munsell No. 5Y 7/1
Reference Standard		IEC 60871

### > Bushings Characteristics

BIL [kV]	Creepage Distance [mm]	Strike Distance [mm]	Total Height [mm]	60Hz Withstand		Weight [kg]
				Dry Test [kV]	Wet Test [kV]	
60	191	109.2	188.1	60	45	0.87
75	191	109.2	188.1	60	45	0.87
95	318	162.6	235.6	70	55	1.23
150	438	193.0	266.8	80	60	1.75
175	635	223.5	287.9	90	70	2.14
200	720	302.4	388.9	100	80	2.79

\* The standard terminal size is M12, but M16 could be applied according to rated voltage.

\* Same Bushing is used on 60 and 75kV BIL of capacitor units.

\* Bird Cap and Parallel-groove connector with all bushings is supplied, and it is applicable to Copper or Aluminum conductor [14~100mm<sup>2</sup> 2line]

\* Applied bushing could be changed by special requirements



## 1-2 Low Voltage Power Capacitor

### ② Dry Type

#### > Application

Capacitors are intended for the improvement of Power Factor in low voltage power networks. Used advanced technology consists of metallized PP film with extremely low loss factor. The dielectric system is self-healing and has no liquid impregnant. Capacitor enclosed in cylindrical aluminium cases. The capacitors have overpressure protection to disconnect it from the supply in the event of internal failure and at the end of its operational life. The construction described above and the use of high quality materials ensure reliability and longevity.

#### > Product Scope

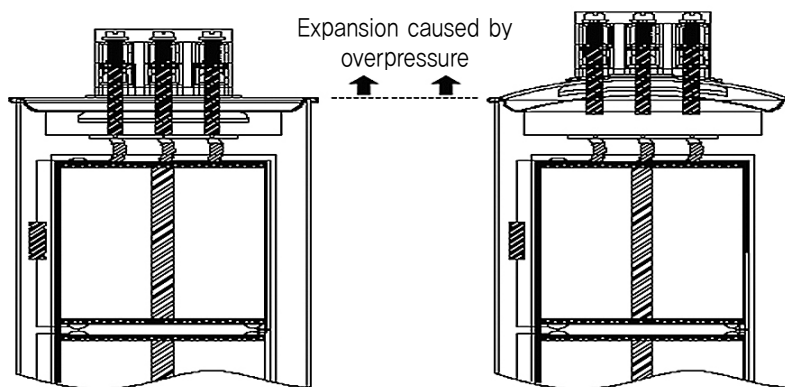
- **Power Range**            0.2kvar to 50kvar
- **Voltage Range**        220V to 1000V
- **Frequency**             50Hz / 60Hz
- **Applicable Standards**    IEC, ANSI / IEEE, NEMA



#### > Technical Data

Location	Indoor	
Capacitor Loss [Under Stabilized Condition]	1.5W/kvar	
Ambient Temperature	-25°C / A [+40°C], B [+45°C], C [+50°C], D [+55°C]	
Max overvoltage	$U_{max}$	$U_N + 10%$ [up to 8 hours daily]
		$U_N + 15%$ [up to 30 minutes daily]
		$U_N + 20%$ [up to 5 minutes]
		$U_N + 30%$ [up to 1 minute]
Max overcurrent	$I_s$	$1.3 \times I_N$
Reference Standard	IEC 60831-1	

#### > Disconnecter Function





## 1-2 Low Voltage Power Capacitor

### > 220V 50Hz Three Phase Capacitor

#### • Raitngs and Dimesnions

Type	Capacity		Current [A]	Dimension [mm]		Remark
	[ $\mu$ F]	[kvar]		D	H	
RMC-225010KT	65.8	1	2.6	63	135	M12
RMC-225015KT	98.6	1.5	3.9	63	135	M12
RMC-225025KT	164.4	2.5	6.6	63	165	M12
RMC-225050KT	328.8	5	13.1	86	170	M12
RMC-225075KT	493.2	7.5	19.7	86	230	M12
RMC-225100KT	657.7	10	26.2	86	275	M12
RMC-225125KT	822.1	12.5	32.8	86	350	M12
RMC-225150KT	986.5	15	39.4	86	350	M12

### > 380V 50Hz Three Phase Capacitor

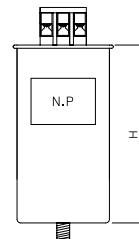
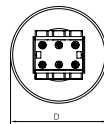
#### • Raitngs and Dimesnions

Type	Capacity		Current [A]	Dimension [mm]		Remark
	[ $\mu$ F]	[kvar]		D	H	
RMC-385025KT	55.1	2.5	3.8	63	135	M12
RMC-385050KT	110.2	5	7.6	86	140	M12
RMC-385075KT	165.3	7.5	11.4	86	170	M12
RMC-385100KT	220.4	10	15.2	86	230	M12
RMC-385125KT	275.5	12.5	19.0	86	230	M12
RMC-385150KT	330.7	15	22.8	86	275	M12
RMC-385200KT	440.9	20	30.4	86	350	M12
RMC-385250KT	551.1	25	38.0	96	350	M16

### > 400V 50Hz Three Phase Capacitor

#### • Raitngs and Dimesnions

Type	Capacity		Current [A]	Dimension [mm]		Remark
	[ $\mu$ F]	[kvar]		D	H	
RMC-405025KT	49.7	2.5	3.6	63	135	M12
RMC-405050KT	99.5	5	7.2	86	140	M12
RMC-405075KT	149.2	7.5	10.8	86	170	M12
RMC-405100KT	198.9	10	14.4	86	230	M12
RMC-405125KT	248.7	12.5	18.0	86	230	M12
RMC-405150KT	298.4	15	21.7	86	275	M12
RMC-405200KT	397.9	20	28.9	86	350	M12
RMC-405250KT	497.4	25	36.1	96	350	M16



M12(FOR 63 $\phi$ , 85 $\phi$ )  
M15(FOR 96 $\phi$ )

\* Approximate dimensions and weights are given above.  
Please contact to factory for exact dimensions of a particular unit before order.



## 1-2 Low Voltage Power Capacitor

### > 415V 50Hz Three Phase Capacitor

#### • Raitngs and Dimesnsions

Type	Capacity		Current [A]	Dimension [mm]		Remark
	[ $\mu$ F]	[kvar]		D	H	
RMC-415025KT	46.2	2.5	3.5	63	135	M12
RMC-415050KT	92.4	5	7.0	63	165	M12
RMC-415075KT	138.6	7.5	10.4	86	170	M12
RMC-415100KT	184.8	10	13.9	86	230	M12
RMC-415125KT	231.0	12.5	17.4	86	230	M12
RMC-415150KT	277.2	15	20.9	86	275	M12
RMC-415200KT	369.6	20	27.8	86	350	M12
RMC-415250KT	462.1	25	34.8	86	350	M12

### > 440V 50Hz Three Phase Capacitor

#### • Raitngs and Dimesnsions

Type	Capacity		Current [A]	Dimension [mm]		Remark
	[ $\mu$ F]	[kvar]		D	H	
RMC-445025KT	41.1	2.5	3.3	63	135	M12
RMC-445050KT	82.2	5	6.6	63	165	M12
RMC-445075KT	123.3	7.5	9.8	86	170	M12
RMC-445100KT	164.4	10	13.1	86	170	M12
RMC-445125KT	205.5	12.5	16.4	86	230	M12
RMC-445150KT	246.6	15	19.7	86	230	M12
RMC-445200KT	328.8	20	26.2	86	275	M12
RMC-445250KT	411.0	25	32.8	86	350	M12
RMC-445300KT	493.2	30	39.4	96	350	M16

### > 460V 50Hz Three Phase Capacitor

#### • Raitngs and Dimesnsions

Type	Capacity		Current [A]	Dimension [mm]		Remark
	[ $\mu$ F]	[kvar]		D	H	
RMC-465025KT	37.6	2.5	3.1	63	135	M12
RMC-465050KT	75.2	5	6.3	86	140	M12
RMC-465075KT	112.8	7.5	9.4	86	170	M12
RMC-465100KT	150.4	10	12.6	86	230	M12
RMC-465125KT	188.0	12.5	15.7	86	230	M12
RMC-465150KT	225.6	15	18.8	86	275	M12
RMC-465200KT	300.9	20	25.1	86	350	M12

### > 480V 50Hz Three Phase Capacitor

#### • Raitngs and Dimesnsions

Type	Capacity		Current [A]	Dimension [mm]		Remark
	[ $\mu$ F]	[kvar]		D	H	
RMC-485025KT	34.5	2.5	3.0	63	135	M12
RMC-485050KT	69.1	5	6.0	86	140	M12
RMC-485075KT	103.6	7.5	9.0	86	170	M12
RMC-485100KT	138.2	10	12.0	86	230	M12
RMC-485125KT	172.7	12.5	15.0	86	230	M12
RMC-485150KT	207.2	15	18.0	86	275	M12
RMC-485200KT	276.3	20	24.1	86	350	M12

### > 525V 50Hz Three Phase Capacitor

#### • Raitngs and Dimesnsions

Type	Capacity		Current [A]	Dimension [mm]		Remark
	[ $\mu$ F]	[kvar]		D	H	
RMC-525025KT	28.9	2.5	2.7	63	135	M12
RMC-525050KT	57.7	5	5.5	86	140	M12
RMC-525075KT	86.6	7.5	8.2	86	170	M12
RMC-525100KT	115.5	10	11.0	86	230	M12
RMC-525125KT	144.4	12.5	13.7	86	230	M12
RMC-525150KT	173.2	15	16.5	86	275	M12
RMC-525200KT	231.0	20	22.0	86	350	M12

\* Approximate dimensions and weights are given above. Please contact to factory for exact dimensions of a particular unit before order.