概述 General description

本产品用于谐波污染特别严重的电网中，有针对性地消除谐波，并进行无功功率补偿。在这种场合，滤波电容器与滤波电抗器串联连接，组成带通式谐波滤波器。该滤波器对一种或多种谐波电流形成低阻抗旁路电路，使谐波电流分量的绝大部分被该滤波器吸收，从而有效消除了电网中的谐波畸变。而滤波电容器在基波频率下产生无功功率，起到了补偿作用。

用于谐波污染特别严重的电网中，作无功功率的集中补偿或分散功补偿。在这种场合，滤波电容器与滤波电抗器串联连接，组成固定式带调谐滤波器。该滤波器的谐振频率调谐到低于电网中存在的最低次干扰谐波的频率。在基波频率下，带调谐滤波器呈电容性，而产生无功功率，起到了补偿作用。在谐波频率下，带调谐滤波器呈电感性，而不会造成谐波放大。

用于无谐波或低谐波污染的电网中，作无功功率的集中补偿或分散补偿。在这种场合，滤波电容器可通过投切控制或直接接入电网作无功补偿用。由于滤波电容器的设计裕度要比并联电容器大许多，因此它的使用可靠性更高，使用寿命更长。

Is used for targeted harmonic elimination and reactive power compensation in the power grid where suffers specially terrible harmonic pollution. In such situation, the filter capacitor and the filter reactor connected in series form a band-pass harmonic filter. The filter produces a low-impedance bypass circuit to one or more harmonic currents, and makes most parts of the components of the harmonic current adsorbed by the filter, so as to eliminate effectively the harmonic distortion in the power grid, while the reactive power produced by filter capcitor at the fundamental frequency acts compensation.

It’s used for centralized compensation or single-phase compensation for reactive power in the power grid where suffers specially terrible harmonic pollution. In such situation, the filter capacitor and the filter reactor connected in series form a fixed filter with tuning. The resonant frequency of the filter is tuned less than the frequency of the minimum interfering harmonic in the power grid. At the fundamental frequency, the filter with tuning is capacitive and produces the reactive power for the compensation. At the harmonic frequency, the capacitor with tuning is inductive without causing harmonic enlargement.

When it’s used for centralized compensation or single-phase compensation for reactive power in the power grid where suffers no harmonic or low harmonic pollution, the filter capacitor can be used for reactive compensation through switching control or through direct access into the power grid. The design margin of the filter capacitor is much larger than that of the shunt capacitor, so it has a higher operational reliability and a longer service life.

AGMJ 系列低压滤波电力电容器

AGMJ Low-Voltage Filter Power Capacitor

结构特点 Structure features

充足的绝缘裕度设计电容器元件采用低场强全金属化聚丙烯薄膜卷绕式结构。充足的绝缘裕度使电容器的过电压承受能力提高了25%，同时产品具有体积小、损耗低等优点。

有效的散热结构设计：

元件采用铜排连接，经低电流密度导线压焊后，引出至接线端子，确保了导电连接部位低接触电阻、低损耗、低热量。电容器外壳采用金属全密封油浸式结构，散热性能优良。可靠的安全保护设计采用内置式放电电阻和过压力保护装置，能可靠地保证操作人员的人身安全和电气设备的运行安全。

The capacitor elements adopt a fully metalized polypropylene film winding structure with a low field intensity. The adequate insulation margin improves the over-voltage withstanding capacity of the capacitor by 25%, and the capacitor has a small size and a low loss.

Effective heat dissipation structure design:

The components are connected with copper bar, after pressure welding through the wire with a low current density, thee components are led out to the terminal, which guarantees low contact resistance, low loss and low heat of the conductive connecting parts. The capacitor case adopts a metallic fully-sealed oil-immersed structure with good heat dissipation performance. Reliable security design adopts built-in discharge resistance and over-pressure protection device, which can guarantee the safety of the operators and the operational security of the electrical equipments.

主要技术参数 Main technical parameters

- 额定电压（V）：0.45 ~ 1kV
- 额定输出（Q）：5 ~ 100kvar
- 容量偏差：-3 ~ + 5%
- 损耗角正切值（tan6）：< 0.1%（V50H20℃）
- 最高运行电压：< 1.5V8H / 天，< 1.37V 连续 192H
- 最大运行电流：< 2.5I5 分钟 / H，< 1.37I 连续 192H
- 自放电特性：电容器断开电源 3 分钟后剩余电压 < 75V

3、产品使用条件：

- 无有害气体和蒸汽、无导电性或爆炸尘埃及无剧烈振动的户内。
- 海拔高度：< 2000M；
- 环境温度：-25 / 55℃。
- 温度：< 85% RH.

4、安装运行导则：

- 额定电压的选择：由于产品的设计场强较小，可以根据实际运行电压确定电容器的额定电压。在装有串联电抗器的电容器回路中，应适当增加电容器的额定电压。
- 设置两台以上电容器时，电容器的间距尽量 > 30mm，以利散热。
- 电容器在退出运行后再次投入时，为防止电压叠加在电容器上，建议 3 分钟后再次投入运行。
- 电容器出线端子的连接采用软连接为宜。

- Rated voltage(V): 0.45 ~ 1kV
- Rated output(Q): 5 ~ 100kvar
- Capacitance tolerance: -3 ~ + 5%
- Loss angle tangent（tan6）：< 0.1%（V50H20℃）
- Max operating volage: < 1.5V8H / 天，< 1.37V 连续 192H
- Max operating current: < 2.5I5 分钟 / H，< 1.37I 连续 192H
- Self-discharge property: the residual voltage will dischasrge within three minutes after the capacitor is cut off.

3. Operation condition:

- Indoors where there is no harmful gas and vapor, no conductive or explosive dust, and no violent vibration.

4. Installation and Operation Guidance

- Selection of rated voltage: as the designed field intensity is small, the rated voltage of the capacitor can be determined according to the actual operating voltage. In the circuit of the capacitor equipped with the series reactor, the rated voltage of the capacitor shall be increased properly.
- When there are more than two capacitors, the distance between them shall be made possibly good for heat dissipation.
- To prevent the voltage being superimposed in the capacitor, it’s suggested that the capacitor restarts to work three minutes later after it stops working.
- The outgoing terminals are better to be connected by flexible connection.

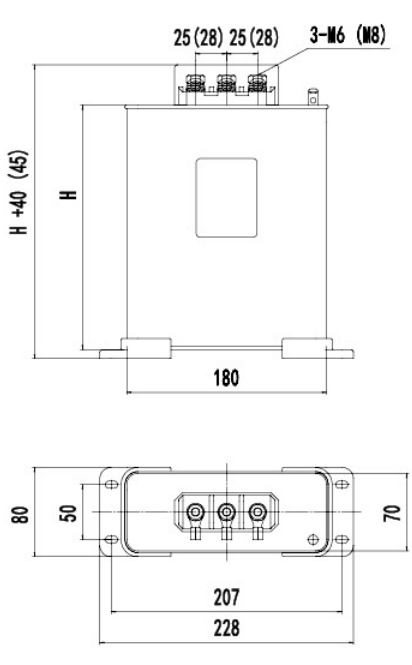
AGMJ0.4(0.45)KV 系列 Series

型号 Type	额定电压（KV) Rated voltage	额定容量 (Kvar) Rated capacitance	额定频率 (HZ) Rated Frequency	额定电容 (UF) Rated capacitance	额定电流 (A) Rated current	印铁型 (图 A) Iron Printing (Fig. A)	烤漆型 (图 B) Baking varnish (Fig. B)
0.45–10–3	0.45	10	50	157	12.8	180 × 70 × 200	180 × 62 × 250
0.45–12–3	0.45	12	50	189	15.4	180 × 70 × 200	180 × 62 × 250
0.45–15–3	0.45	15	50	236	19.2	180 × 70 × 220	180 × 95 × 230
0.45–16–3	0.45	16	50	252	20.5	180 × 70 × 220	180 × 95 × 230
0.45–20–3	0.45	20	50	314	25.7	180 × 70 × 270	180 × 95 × 270
0.45–25–3	0.45	25	50	393	32.1	240 × 120 × 210	180 × 95 × 330
0.45–30–3	0.45	30	50	471	38.5	240 × 120 × 230	270 × 120 × 230
0.45–40–3	0.45	40	50	624	51.3	240 × 120 × 270	270 × 120 × 270
0.45–50–3	0.45	50	50	786	64.2	300 × 140 × 300	大铁壳型（图 C) Large Iron Shell (Fig. C)
0.45–60–3	0.45	60	50	943	77	300 × 140 × 340	大铁壳型（图 C) Large Iron Shell (Fig. C)

※ 注：0.4、0.45 三相、单相外形尺寸一致，可制定其它容量或其它电压等级的（1KV 以下）滤波电容器。
※ Note: for 0.4 and 0.45, the overall dimensions of three–phase and single–phase are the same, and the filter capacitor with other capacitances or other voltage levels (below 1KV) can be customized.

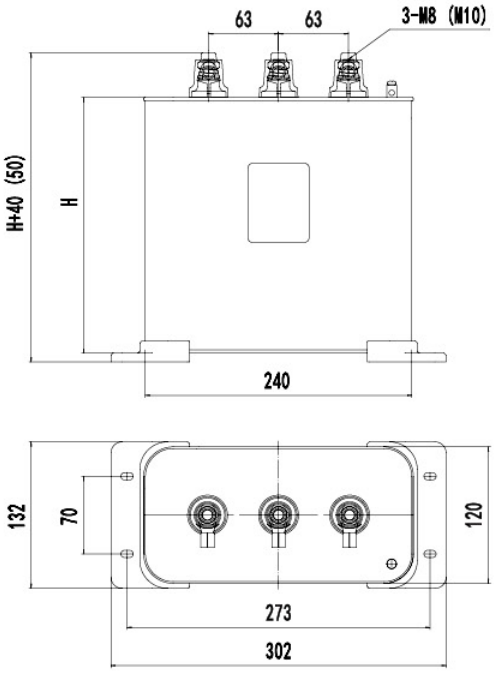
外形尺寸 Overall dimension

◎外形及安装尺寸 Appearance and installation dimensions (印铁型) (Iron stamp) (mm) (图 Figure A)



注：（）内尺寸适用于 AGMJ 系列 15~20kvar 产品
Note: ( ) Internal dimension is suitable for AGMJ series 15~20 kvar products.

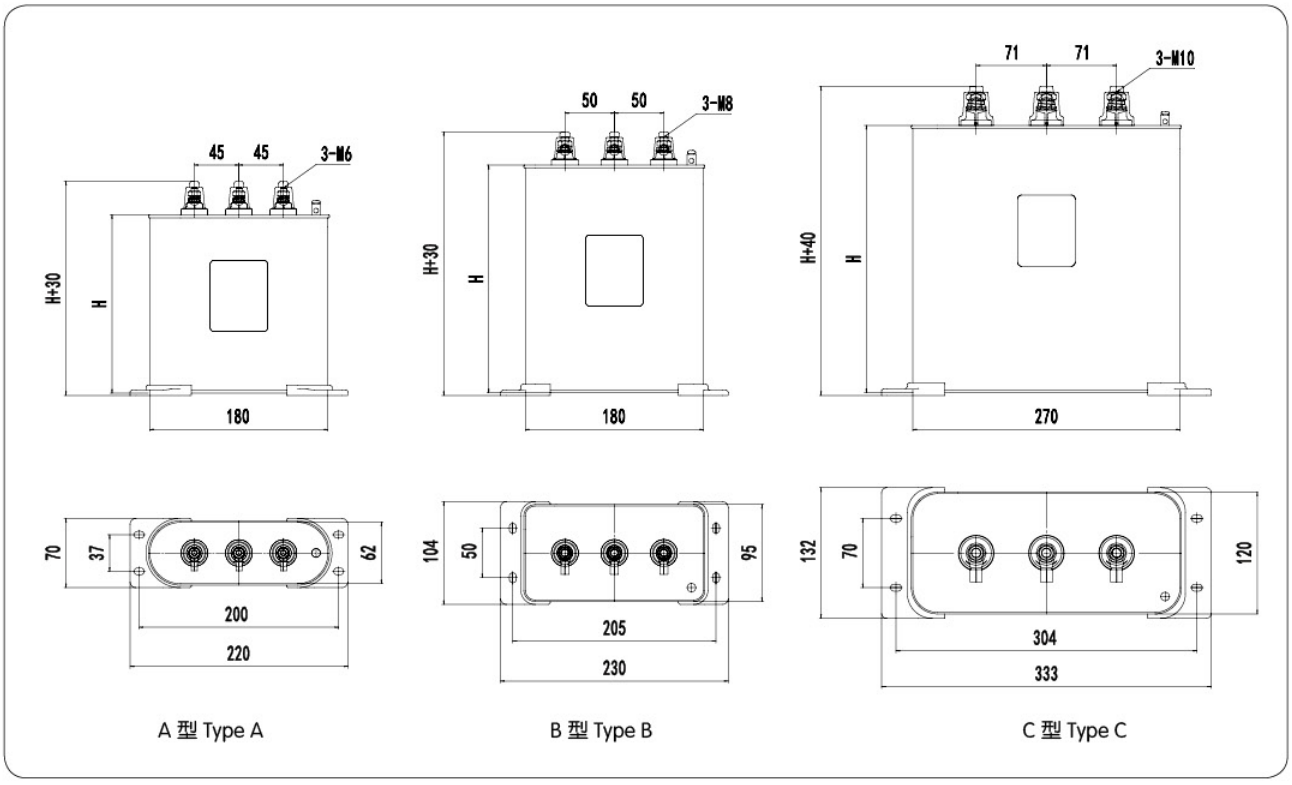
A 型 Type A



注：（）内尺寸适用于 AGMJ 系列 30~40kvar 产品
Note: ( ) Internal dimension is suitable for AGMJ series 30~40 kvar products.

B 型 Type B

◎外形及安装尺寸 Appearance and installation dimensions （烤漆型） (Paint type) (mm) （图 Figure B）



A 型 Type A　　B 型 Type B　　C 型 Type C

◎外形及安装尺寸 Appearance and installation dimensions（大铁壳型） (large iron shell type) (mm) （图 Figure C）