ABOUT AUTOMATIC POWER FACTOR CORRECTION

Electricity consumers in the industry use electrical devices like: asynchronous motors, collective motors of rotation current, transformers, chokes, induction heating stoves, fluorescent lamps, welding devices and many others. These devices need not only working power but also reactive power for their own activity. That results not only in additional cost for energy supply but also in additional loads on transmissible lines and other contact elements:

- Financial burden on the consumer's account
- Increased load on feeder lines (power cables, copper profiles, ..)
- Additional load on the transformer
- Reducing the value of the power factor cosφ, which according to the rules of distribution networks in the Republic of Macedonia should have a value of at least 0.95.

Devices for automatic power factor correction, solves this problem very effectively. In parallel with the consumers, capacitors are connected that compensate reactive power required for the operation of electrical devices in industrial facilities. The value and number of involved capacitors expressed in kVAr, is determined from the regulator for power factor cosφ, which is an integral part of these devices.

The ultimate benefits:

- During the calculation of consumed electrical energy, the amount of reactive power will be reduced to zero
- Feeder lines (power cables, copper profiles, ..) will be less burdened with increased reliability for providing power for energy consumers
- Less load for the transformer
- Value of the power factor cosφ will be at least: 0.95

APFC 2 up to 240kVAr

■ DEVICE FOR AUTOMATIC POWER FACTOR CORRECTION UP TO 600kVAr

Type	Order numbers	Power (kVAr)	Number and power of stages (kVAr)	Current max. (A)	Connection fuses (A)	Supply cable (mm2)
APFC 1-30	701991667	30	5+5+10+10	43.3	80	3x25/16
APFC 1-50	701992667	50	10+10+15+15	72.2	125	3x50/25
APFC 1-80	701993667	80	10+10+20+20+20	115.5	200	3x70/35
APFC 1-100	701994667	100	10+10+20+20+20+20	144.3	250	3x95/50
APFC 1-120	701995667	120	10+20+20+20+20+30	173.2	250	3x120/70
APFC 1-135	701996667	135	15+20+20+20+30+30	195.0	315	2x3x70/35
APFC 2-120	701997667	120	8x15	173.2	250	3x120/70
APFC 2-150	701998667	150	15+15+6x20	216.5	315	3x150/70
APFC 2-175	701999667	175	7x25	253	400	2x3x95/50
APFC 2-200	702000667	200	8x25	289	400	2x3x95/50
APFC 2-225	702001667	225	15+7x30	325	500	2x3x120/70
APFC 2-240	702002667	240	8x30	346	630	2x3x120/70
APFC 3-180	702003667	180	12x15	260	400	2x3x95/50
APFC 3-200	702004667	200	10x20	289	630	2x3x95/50
APFC 3-225	702005667	225	10x20+25	325	500	2x3x120/70
APFC 3-250	702006667	250	10x25	361	630	2x3x120/70
APFC 3-300	702007667	300	12x25	433	400+400	2x3x185/70
APFC 4-360	702008667	360	12x(15+15)	520	400+400	4x3x95/50
APFC 4-480	702009667	480	12x(20+20)	693	630+630	4x3x120/70
APFC 4-600	702010667	600	12x(25+25)	866	630+400+400	6x3x120/70

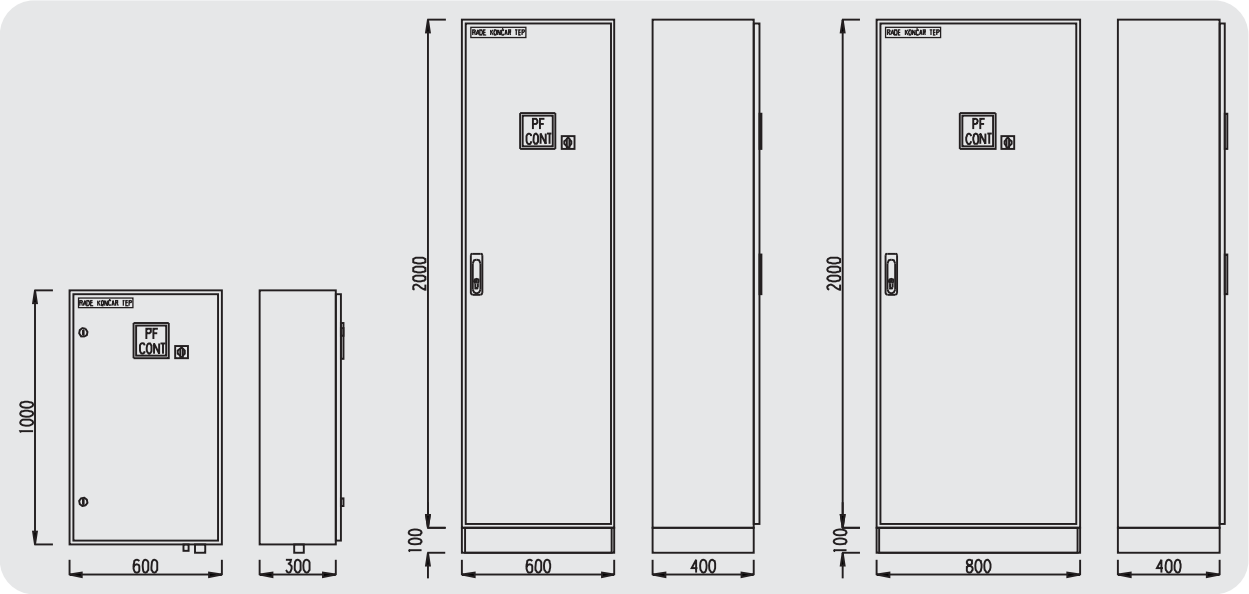
The devices for automatic power factor corrections are equipped with PF Controller with 6 degrees of correction for APFC 1, and for APFC 2, APFC 3 and APFC 4 is used PF Controller with 12-18 degrees of correction.
On your demand, we make devices with other values, which different from the values for the standardized types in the table above.

APFC 4 to 660kVAr

■ DEVICE FOR AUTOMATIC POWER FACTOR CORRECTION UP TO 600kVAr

To determine the correct size of the reactive power compensation device, an analysis is made, a calculation between the consumed active and reactive power in a period of time, or technical analysis during the design of the electrical energy plant.

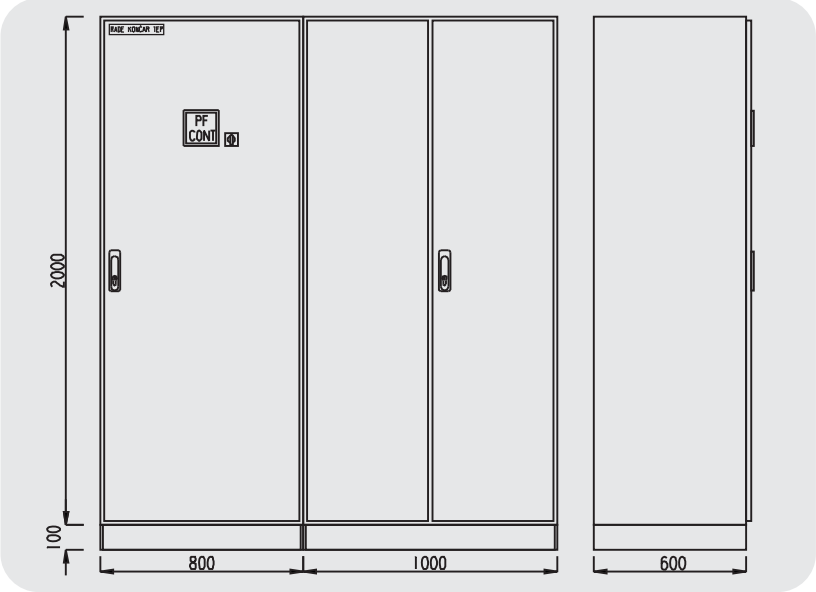
The investment for such a reactive power compensation device returns in an average of one to one and a half year. For any kind of information regarding the right choice, calculation of size, construction and installation of such a device in your company, please contact our sales and technical sector.



APFC 1 up to 135kVAr

APFC 2 up to 240kVAr

APFC 3 up to 300kVAr



APFC 4 up to 600kVAr