APPLICATION OF SOFT LAUNCHER DEVICE WITH LINTER DEVICE ELECTRODVIGATE

Obidov Avazbek Azamatovich
Professor of Namangan Institute of Engineering and Technology
Vasliddinov Fazliddin Badriddinivich
Student at Namangan Institute of Engineering and Technology

Annotation: *This article discusses cotton fiber, obtaining secondary products from chickens, ageing the plumbing industry, machine electrodvigates used in the cotton industry, and their use. It also mentions the experience of European countries and the use of soft launchers in the lintering technologies used in plumbing companies.*

Keywords*: electrodvigatel; lintering; cluster enterprises; mechanisms; technology; technology; plumbing companies; recipe; filter; catton seed; frequency; rotation speed: soft launcher*

The loading of the power supply system is determined by full power. it is useful that its active builder is consumed, and the supply does not return to the source. The reagent composer is for the establishment of magnetic and electrical fields in electrical grid elements. It is practically not consumed, but the supply flows from the source (generator) to the electricity consumer and inversely. That said:

$$S = \sqrt{P^2 + Q^2}$$

The transfer of large amounts of reactive power through power supply network transformers and lines is not beneficial for the following reasons.

1. In all elements of the power supply system, additional active power waste occurs, provided that they are loaded with reactive power. On my power supply knee, active power waste occurs when transmitting active and reactive power to consumers:

$$\Delta P = 3I^2R = 3\left(\frac{S}{\sqrt{3}\cdot U}\right)^2 R = \frac{S^2}{U^2}R = \frac{P^2+Q^2}{U^2}R = \frac{P^2R}{U^2} + \frac{Q^2R}{U^2} = \Delta P_A + \Delta P_Q\ ,$$

The first part here is the waste of active power at the expense of the transfer of active power through the electrical chain, and the second is the waste of active power at the expense of the transfer of reactive power through the chain. Thereby, additional asset wasted, uncompensated reactive power is associated with its propriety to the square:

$$\Delta P_Q = \frac{Q^2R}{U^2}$$

In addition, ΔPQ waste conductors are proprietary to their active resistance:

$$R = \rho\frac{l}{S}$$

Here ρ is the comparative resistance of conductive materials, l va S is their length and cross-section, respectively.

Reactive power compensation is more relevant when the load is connected to a long aluminum cable with a thin wire. If the load is connected to non-uniform modifiers, that said, consisting of different shears, the chain has switching and protective equipment, then the active resistance is even higher than wasted.

The power coefficient plays a major role in transmitting electricity from supply source to consumer. The coefficient has the following power:

$$\cos = \frac{P}{S} = \frac{P^2}{\sqrt{P^2 + Q^2}},$$

from this it seems,

$$P^2 + Q^2 = \frac{P^2}{\cos^2 \varphi},$$

or power waste

$$\Delta P = P^2 = \frac{R}{U^2 \cdot \cos^2 \varphi}.$$

When changing the power (R) parameters transmitted, the amount of active power waste in the network (U) and network resistance (R), the reverse proprietary to the power coefficient transmitted to the loads, or ΔR = α(1/cos2 φ). Supporting this dependency, the table presents the useful asset power account in the consumer of irreversible active power when transmitted across the network. In different cos φ and conditions, the active power waste when the network is cos φ =1 at such an amount of power transmission is ΔR = 10%.

Active waste on the network with variations of unchanged active power and cos φ transmitted across the network

the table

cos φ	tg φ	Power %		Active losses ΔP%=10%/cos2 φ	Useful power P in consumers From: % to (P-ΔP)
		Reactive Q = Ptg φ	Full S = P/cos φ		
1	0	0	100	10	90
0,9	0,484	48,4	111,1	12,3	87,7
0,8	0,75	75	125	15,6	84,4
0,7	1,02	102	142,9	20,4	79,6
0,5	1,732	173,2	200	40	60
0,316	3,016	301,6	316,5	100	0

Table calculations show that the waste of active power in power plants increases rapidly as the cosf decreases. When cos φ = 0.5 they rise to 40% and cos φ = 0.316, while all the active power transmitted across the network, which costs waste. In this case, the amount of reactive power is more than three times the active capacity.

Additional waste of active power is associated with the transition of a reactive extreme token, which makes the intersection of conductors increase in all wires subject to heating. As the cuts increase, the wire mass increases, which requires the use of high-weight bases.

Because the full token I interacts with the ratio of the active creator: $I_a = I \cos \varphi$, then the total asset waste will be equal depending on the power coefficient:

$$\Delta P = 3I^2 R = \frac{3I_a^2 R}{\cos^2 \varphi} = \frac{\Delta P_r}{\cos^2 \varphi}.$$

If the same active power is transmitted, it increases the active waste by 1/0.82 = 1.56 times when the active forming token I a power coefficient decreases from 1 to 0.8, which requires an increase in the mass of symbols $\sqrt{1,56} = 1.25$, or 25%.

1. An additional waste of reactive power appears.

To consumers reagent power forward Its additional waste is observed with ΔQ:

- on the line $DQ = 3 \times I^2 \times x_0 \times l$,

Here I – loads until; xo – line length induced resistance, Om/km; l- the length of the line;

- in the transformer $\Delta Q = \frac{S_n}{100}(i_{s.i}\ \ u_{q.t}\ \beta^2)$,

Here $i_{s.i}$ – the transformer's salt performance so that %; u_{qt} - the power of the qt-transformer short circuit, %; S_n is the nominal power of the transformer; β is the power coefficient of the transfomator.

Loads of compensating devices should be increased by these amounts.

2. An additional waste of tension occurs.

The most pressing problems of long networks, when done on a small segment. When R and Q power are transmitted from active R and reactive X resistance network elements, the voltage waste consists of:

$$\Delta U = \frac{P \cdot R + Q \cdot X}{U} = \frac{P \cdot R}{U} + \frac{Q \cdot X}{U} = \Delta U_a + \Delta U_Q,$$

here ΔUa is a waste of power associated with active power transmission.

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