

Outdoor load disconnectors for Pařát (Claw) power lines Fla 15/60 P, Fla 15/97 P DRIBO F1b and DRIBO F1c

three-pole design
rated voltage 25 kV
rated current 400 and 630 A



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ISO 9001
BUREAU VERITAS
Certification



Outdoor load disconnectors for Pařát (Claw) power lines

The PAŘÁT power line is a new generation line, which has been developed in order to protect big birds of prey and other kind of rare species. It is up the level with other well-known products, both from the engineering and financial point of view, and also that of the environment preservation. The configuration of the Fla „Parat“ type load disconnector eliminates the risk of injury by electric current for big predators and also for other birds having the habit to take seat on the power lines.

The Fla 15/60-P, Fla 15/97-P and DRIBO F1b 15/60-P load disconnectors complete the new generation triangle power line project with a highly reliable switching element that provides for preservation of the protective profile of the line along its whole length, i.e. also at the switching point. The load disconnector is composed of three single-pole and in the operation well proven switching units Fla 15/60, Fla 15/97 or DRIBO F1b 15/60, mounted at the end of the line consoles and operated by one manual or electrically operated drive mechanism. These drives have proven their operation reliability during long periods of load disconnector handling.

Load disconnectors satisfy standards EN 62271-1, EN 62271-102, EN 60265-1. Used insulators satisfy the fourth grade of contamination area.

Simple load disconnectors of a sturdy structure proved themselves in an excellent way under very different climatic conditions.

The basic welded frame is made of open steel profiles that guarantee perfect surface protection from corrosion caused by heat zinc coating that can be controlled on all places. Heat zinc coating protects the shafts of the load disconnectors mounted in bronze bearings as well as all other steel components.

Fla 15/60 switching takes place in a tightly closed extinguishing chamber, filled either with Shell Diala D transformer oil or biologically degradable Shell Fluid 4600 transformer oil.

The **Fla 15/97** load disconnectors are equipped with vacuum quenching chambers.

Under normal operating conditions it is not necessary for the load disconnectors to undergo a preventive maintenance during the period of twenty years for hand operated devices and ten years for motor operated devices (remote control).

The design of the Pařát type power line has been sanctioned by a consent issued by the Ministry of Environment of the Czech and Slovak republics.

In order to ensure a safe and reliable disconnection of electric path the **DRIBO F1b** load disconnectors are equipped with arc quenching horns.

The **DRIBO F1c** load disconnectors are equipped with spring-based arc quenching mechanism.

No combustion gases are released into the air. Therefore, the load disconnectors meet the most severe environmental requirements.

All current-carrying parts of the load disconnectors are made of galvanically silver coated electrolytical copper. The cross-section of current-carrying parts is dimensioned in an adequate way. The favourable level of contact pressure of stainless steel springs is one of the prerequisites for a defect-free switching, even after many years of operation of the disconnector in the most severe operating conditions and also in ice-accretion conditions. The load disconnectors are supplied with insulators made of cyclo-aliphatic resin.

The load disconnectors can be provided with encased auxiliary switches (IP 44 protection) installed directly on the frame of the device ensuring thus reliable switching-on and switching-off signalling. Through this arrangement the high reliability of indication of making and breaking operations is guaranteed, giving the operator the possibility of remote control.

The short-circuit resistance performance is met with a high margin. The well-proven design of the load disconnectors, the quality of material used and the elaborate production provides for low operation and maintenance costs.

The arrangement of the drive mechanism and the accessories used are identical with the Fla 15/60 and DRIBO F1b 15/60 load disconnectors. The sleeves used to secure the load disconnector to the pole are supplied by the company ENERGETIKA servis, s.r.o., České Budějovice, CZ.

Under normal operating conditions the disconnectors are maintenance free over a period of 10 years.

Technical data

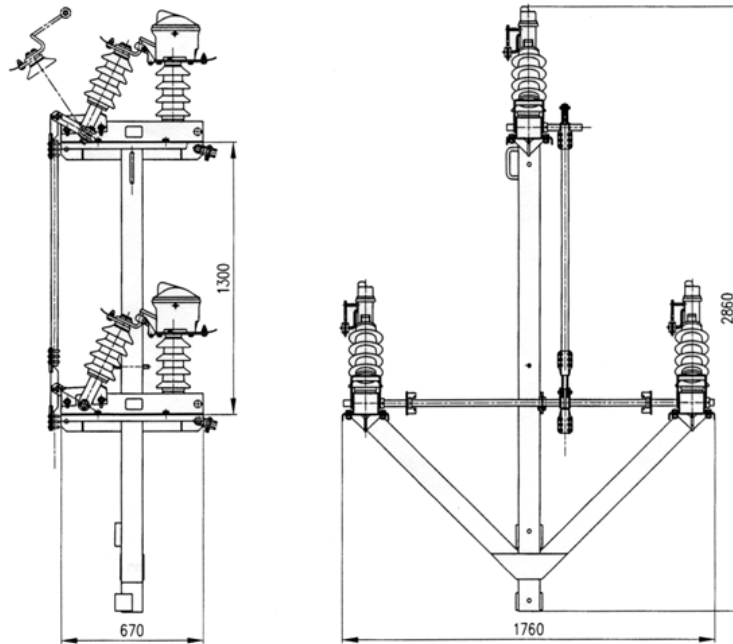
			Fla 15/60 P	Fla 15/97 P	DRIBO F1b P	DRIBO F1c P
rated voltage	U_r	kV	25	25	25	25
rated current	I_r	A	400 / 630	400 / 630	400 / 630	400 / 630
rated short-time current	I_k	kA	20	16	20	20
rated peak withstand current	I_p	kA	50	40	50	50
rated making current	I_{ma}	kA ¹⁾	18	25	16	10
rated breaking current – $\cos \phi 0,7$	I_l	A	630	630	31,5	35
rated breaking current of closed loop	I_{2a}	A	400	630	31,5	20
rated breaking current of unloaded transformer	I_3	A	53		4	8
rated breaking current of no-load cable and power line	I_{4a}	A	20	25	16	16
rated breaking current of the earth fault	I_{6a}	A	56	200	40	50

¹⁾ At a sufficiently quick hand control.

Withstand voltages

rated voltage	kV	25
rated short-time withstand power frequency voltage / 1min. to be applied in both dry and wet environmental conditions		
against the earth, across the poles and between disconnected contacts	kV	50
across the isolating distance	kV	60
rated lightning pulse withstand voltage		
against the earth, across the poles and between disconnected contacts	kV	125
across the isolating distance	kV	145

Type Fla 15/60 P



Type DRIBO Flb 15/60 P

