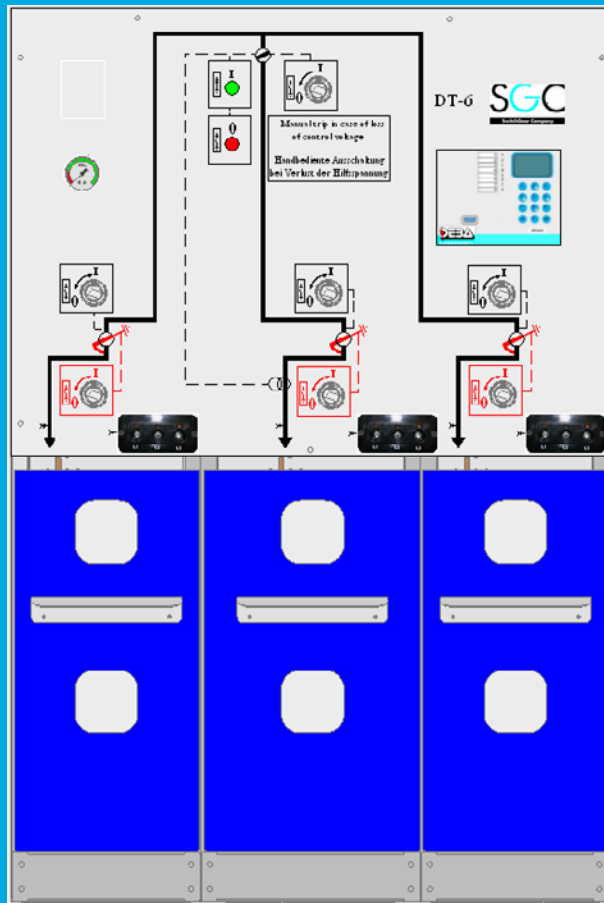


DT-6

COMPACT RING MAIN UNIT



DT-6, compact Ring Main Unit with integrated vacuum circuit breaker

SGC

SwitchGear Company

THE SPECIALIST IN MEDIUM VOLTAGE SWITCHGEAR

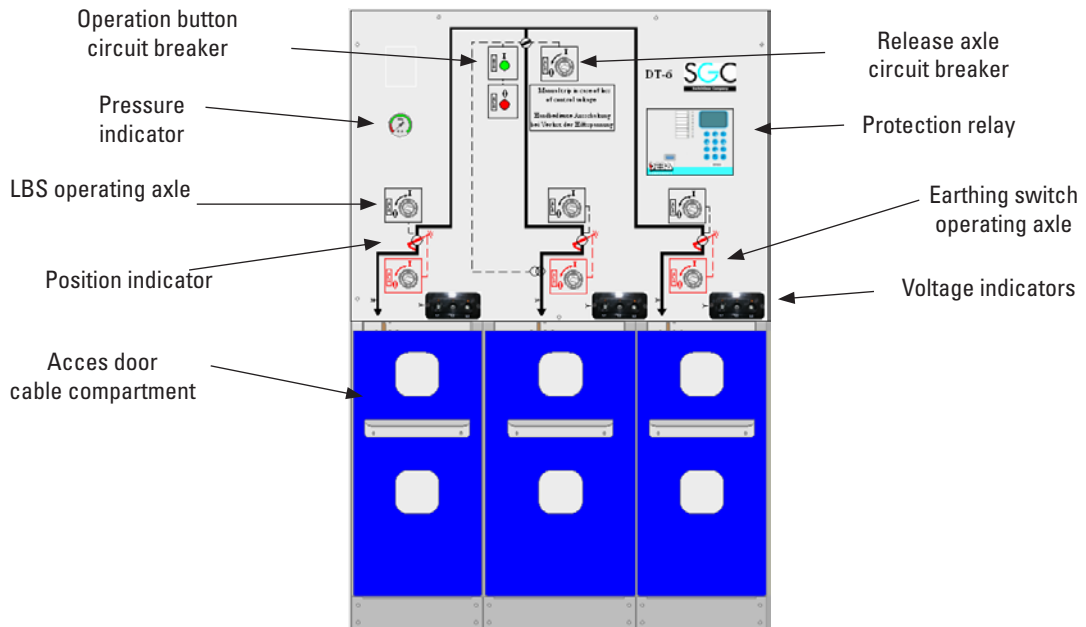
www.switchgearcompany.eu - info@switchgearcompany.eu

ELECTRICAL CHARACTERISTICS

GENERAL SPECIFICATIONS			
Rated voltage	kV	12 / 17.5	24
Rated current	A	630	400 / 630
Rated frequency	Hz	50 / 60	
Breaking capacity (IEC 60265.1)		Class E3	
Rated current	A	630	400 / 630
Closed loop	A	630	400 / 630
No load cable	A	30	
Earth leakage fault	A	100	
Impulse withstand voltage 1.2/50µs.			
To earth and between phases	kV	75 / 95	125
Over the insulation distance	kV	85 / 110	145
Power frequency voltage test 1 min.			
To earth and between phases	kV	28 / 38 / 42*	50
Over the insulation distance	kV	32 / 50	60
Degree of protection			
HV-compartment		IP6X	
LV- and cable compartment		IP4X	
Rated gas pressure at 20°C (Overpressure)	bar	0.3	
LINE FEEDER			
Rated short circuit current	kA	25 / 20	12.5 / 16 / 20
Rated short circuit making current (peak)	kÂ	63 / 50	31.5 / 40 / 50
Rated duration of short circuit	s	1 / 3	
TRANSFORMER FEEDER			
Rated current	A	630	400 / 630
CIRCUIT BREAKER			
Short circuit breaking capacity 1s.	kA	20	16
Making capacity	kÂ	50	40
Number of makings		5	

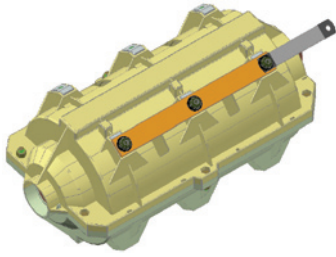
* for applications in Russia and China

DT-6 DIMENSIONS AND DESCRIPTIONS



DESCRIPTION OF THE MAIN COMPONENTS OF THE DT-6

Load break switch



The three position switch is in accordance with the IEC requirements. The concept insures a natural interlock of the primary functions of the cubicle. The arc extinction is insured by the SF₆ gas, associated to a short arcing time due to an optimised opening speed of the mechanical drive and a proprietary arc blowing principle that combines optimal revolution of the gas with perfect electrical contacts. SGC's experience in the load break switch RV-44 of the DF-2 range finds here a perfect application. The load break switch is of the class E3/M1 following IEC 62271 – 200.

Circuit breaker



The SGC ISM-086 vacuum circuit breaker (VCB) uses the latest vacuum interrupter technology. The VCB can only be closed electrically, mechanical closing is not possible. The VCB can be opened manually as electrically. The circuit breaker operates through a control module and a self powered digital protection relay RP600, together with the three CT's allowing the detection of over-current and earth faults failures.

Mechanical drives



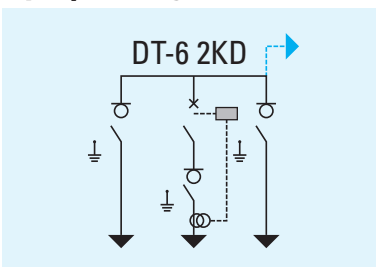
The steel used for the drives has been chosen because of its high tensile force, toughness and resistance to bending. The mechanical drive accommodates both the operating axles (LBS and earth) and the interlocks. The spring type drive is operating independently of the operator and does not allow any function violation. The switch position indicator shows at any time the real status of the switch. The forces needed to control the mechanism are low which results in a high user-friendliness. The drive can be motorized and can receive a number of options, allowing remote control, remote position indication and integration into a SCADA operated network.

Protection relay



The digital protection relay has a wide range of protection functions, is equipped with 4 outgoing contact points and 2 free programmable outgoing points. The relay functions are easy accessible and programmable with the help of a laptop or with the support of the menu oriented interface.

Synoptic diagram and functional scheme



A clear, logic and well understandable synoptic diagram is placed in front of the DT-6. This diagram also supports the voltage indicator of the type HR-3, showing the presence of the voltage on the cables and allowing the use of phase concordance units. The protection relay is also integrated in the synoptic diagram.



SGC, the name of permanent safety in medium voltage

SGC supplies, since 30 years, reliable products for the distribution of electricity. Innovative thinking and environment sensibility are at SGC the most important drive. The use of a minimum of components is targeting in the development of efficient complete solutions having all an exceptional life expectancy.

The SGC organisation stands for high valuable quality and customer orientated strategy, whereby the customer specificities and his targets are our main concerns.

With the use of an exclusive machine park and production lines with a high automation degree, we are developing "state of the art" systems of which the DF-2, DR-6 and DF-3 are answering the highest quality standards.

We are making true what we are promising in the field of delivery times, prices and quality of products.

SGC

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