

CATALOGUE

TRACTION OUTDOOR DISCONNECTORS

TYP QAD 3

3 kV DC; 2500; 3000; 4000; 4500 A

Unsere Handelsvertretung in Deutschland



ISO 9001:2009
ISO 14001:2005

ivep[®]

APPLICATION

The outdoor traction disconnectors are intended to be mounted in powering centres and other points of a DC 3 kV electrical traction, and to serve there as section switches and section disconnectors/earthing switches.

STANDARDS AND REGULATIONS

The disconnectors comply with the ČSN EN 60129 eqv IEC 129, ČSN 34 1500 standard and related regulations.

OPERATING CONDITIONS

The disconnector design complies with requirements on outdoor operating environment.

Highest ambient temperature	+ 50 °C
Lowest ambient temperature	- 50 °C
Relative air humidity	100 %
Altitude up to	1000 m
Degree of contamination according to ČSN 33 0405	IV

DESCRIPTION

- current carrying path with two interruption points in disconnected state
- knife-type contacts
- arcing horn contacts that protect the main contacts against damage in case of emergency making or breaking of circuit under load
- connecting plate (connecting flag) with clamps to connect up to 8 leads of 120 mm² cross section
- connecting plate (connecting flag) with IVEP clamps to connect four leads of 180 mm² cross section (inlet arrangement and design - see Fig. 2)
- the connection of leads may be arranged in two perpendicular directions, with any two leads fastened by one of the two clamps
- possibility to connect busbars or cables
- parts of the current-carrying path made of silver coated copper
- supporting insulators made of plastics
- connecting parts and other small parts manufactured of stainless steel
- hot galvanized frame and other steel parts

The QADZ 3 disconnector equipped with earthing knife contact, the movement of which depends on the travel of the contacts of disconnector. In the disconnector OFF position one side of the power line is earthed.

Disconnectors with isolating earthing switch are designed for use in the DC traction systems with a nominal voltage of 3 kV.

In the swith-off state, the disconnector QADZI 3 will connect a disconnected section with isolating grounding system, which is isolated from the supporting frame of a device.

PACKING, TRANSPORT, STORAGE

Outdoor horn disconnectors for electric traction are supplied as separate devices, attached to wooden pallets. The system is not to be exposed to excessive vibrations during transport.

All used packing materials are fully recyclable.

INSTALLATION AND COMMISSIONING

One of the prerequisites for a reliable and defect-free operation of a switching device is the installation which is to be carried out with care and in a professional manner. The assembly, servicing and operating instructions are shown in the accompanying documents being an integral part of the delivery.

SPECIFICATION

		QAD 3				QADZ 3; QADZI 3			
Rated DC voltage (to ČSN 34 1500)	kV	3							
Lightning impulse test voltage	kV	80							
Short-time withstand AC voltage, 50 Hz, 1 minute, (in both dry and wet conditions)	kV	30							
Rated current	A	2500	3000	4000	4500	2500	3000	4000	4500
Rated breaking current with predominantly active load and with negligibly small inductance and capacity (for QADZ 3.2500.11 and QADZI).	A					100	100	100	100
Rated short-time current 1s	kA	20; 31,5							
Stroke of the operating handle	mm	140							

The disconnector insulation level meets the requirements of the ČSN 34 1500 standard, Table No. 3. The apparatus is to be mounted in horizontal position.

TYPE DESIGNATION CODING – basic design

Basic design	QAD					
Rated voltage	3,6 kV	3				
Rated current	2500 A 3000 A 4000 A 4500 A	2500 3000 4000 4500				
Rated short-time withstand current of 1 sec. Durativ		20/1 31/1				
Design: side left „L“						
Disconnecter inputs without clamps and splice bars	L					
Disconnecter inputs with splice bars and clamps	LA					
Disconnecter equipped with IVEP "railway" clamps	LB					
Design: side right „R“						
Disconnecter inputs without clamps and splice bars	R					
Disconnecter inputs with splice bars and clamps	RA					
Disconnecter equipped with IVEP "railway" clamps	RB					

Example of coding when placing and order:
QAD 3.3000.20/1.LA.RA

TYPE DESIGNATION CODING – disconnector with earthing switch

Basic design		QADZ					
Rated voltage	3,6 kV	3					
Rated current	2500 A 3000 A 4000 A 4500 A	2500 3000 4000 4500					
Rated short-time withstand current of 1 sec. Durativ		20/1 31/1					
Design:	side left „L“						
Disconnector inputs without clamps and splice bars		L					
Disconnector inputs with splice bars and clamps		LA					
Disconnector equipped with IVEP "railway" clamps		LB					
Design:	side right „R“						
Disconnector inputs without clamps and splice bars		R					
Disconnector inputs with splice bars and clamps		RA					
Disconnector equipped with IVEP "railway" clamps		RB					
Location of earthing switch	(left) (right)	L R					

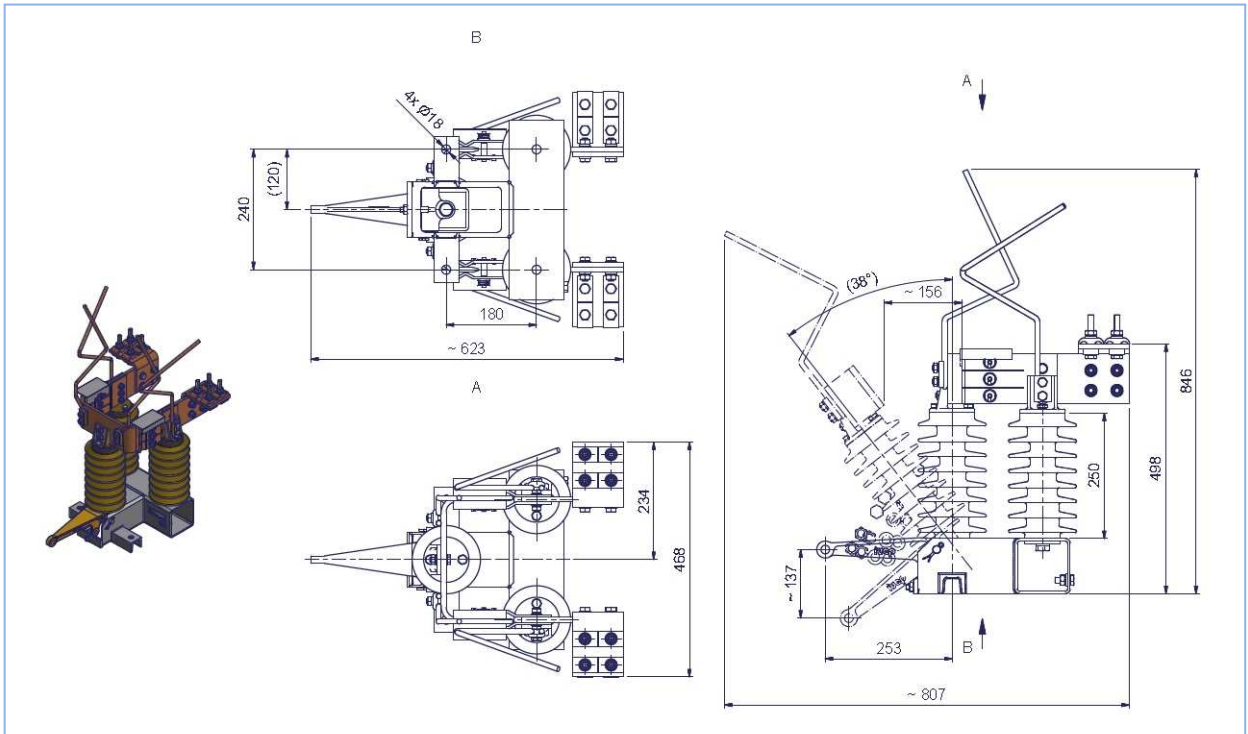
Example of coding when placing and order:
QADZ 3.3000.20/1.LA.RA.L

TYPE DESIGNATION CODING – disconnecter with insulated earthing switch

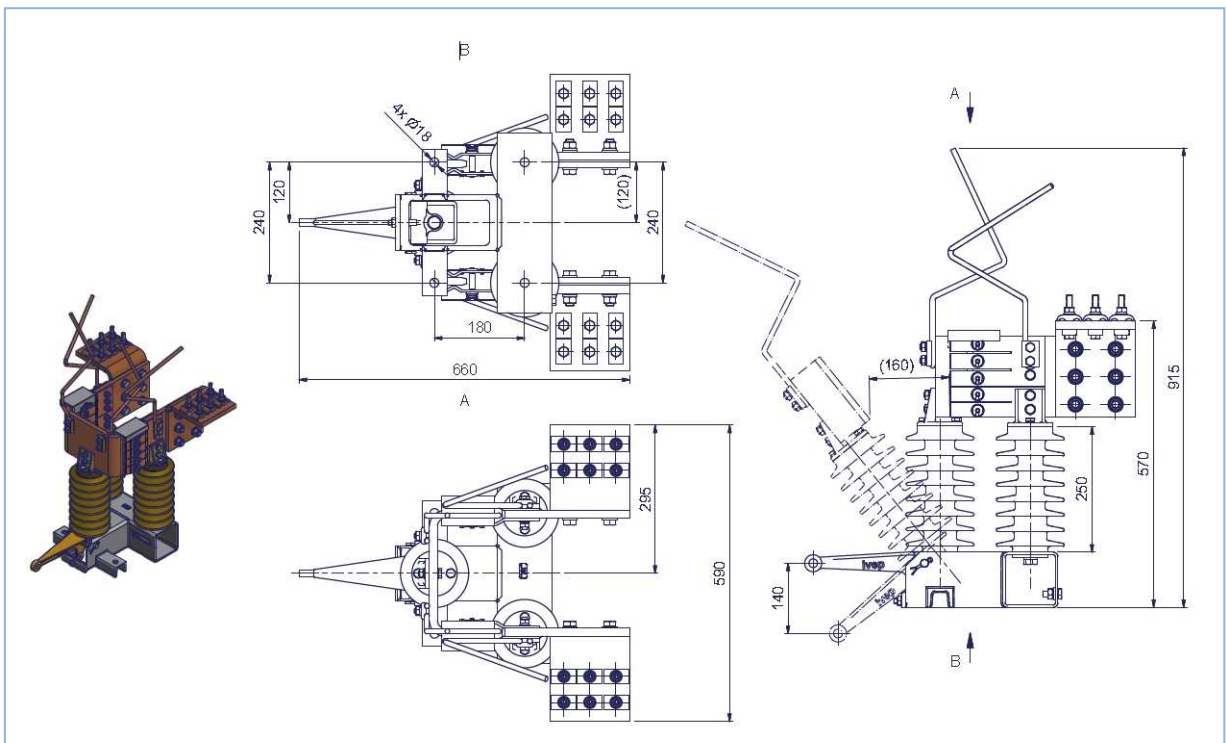
Basic design		QADZI					
Rated voltage	3,6 kV	3					
Rated current	2500 A 3000 A 4000 A 4500 A	2500 3000 4000 4500					
Rated short-time withstand current of 1 sec. Durativ		20/1 31/1					
Design:	side left „L“						
Disconnecter inputs without clamps and splice bars		L					
Disconnecter inputs with splice bars and clamps		LA					
Disconnecter equipped with IVEP "railway" clamps		LB					
Design:	side right „R“						
Disconnecter inputs without clamps and splice bars		R					
Disconnecter inputs with splice bars and clamps		RA					
Disconnecter equipped with IVEP "railway" clamps		RB					
Location of earthing switch	(left) (right)	L R					

Example of coding when placing and order:
QADZI 3.3000.20/1.LA.RA.L

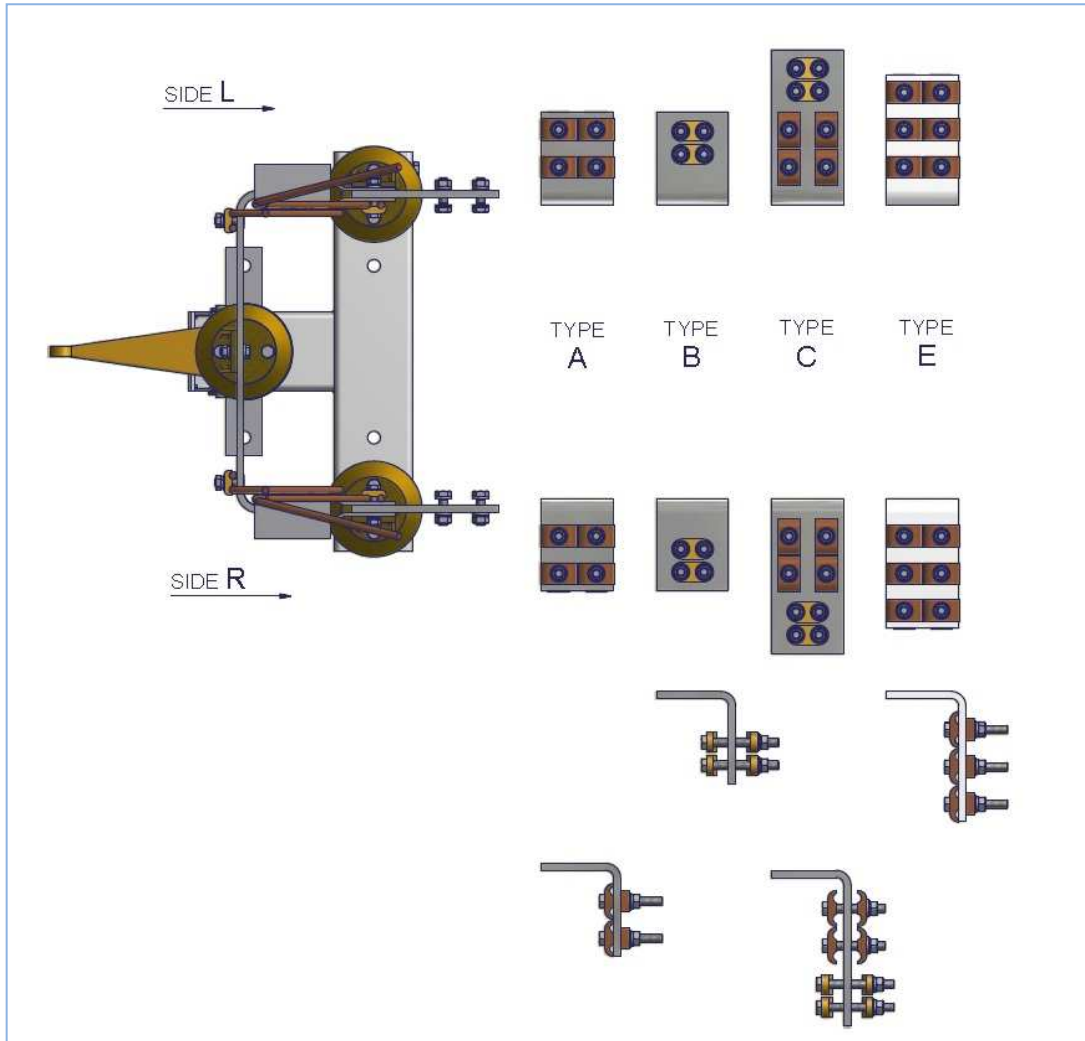
DISCONNECTOR TYPE QAD 3 3000.20/1.LA.RA



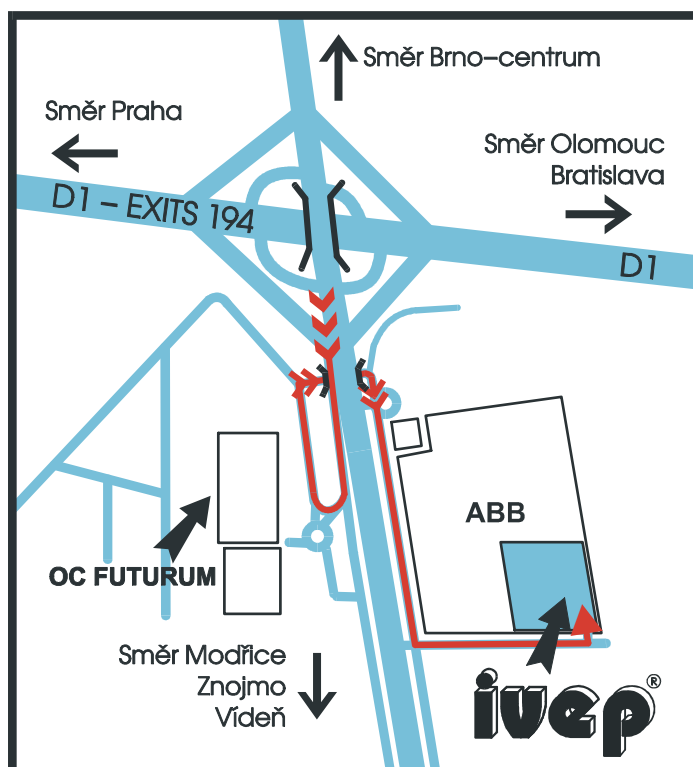
DISCONNECTOR TYPE QAD 3 4500.20/1.LA.RA; RATED CURRENT 4500 A



CONNECTING FLAGS – OPTIONS



Due to continuous development of the products some dimensions, weights, drawings and descriptions may differ from that shown in this data sheet. In order to satisfy the ever increasing needs of the customers the manufacturer reserves the right to provide modifications to the product described, without previous notice.



Domänenstr. 38
44225 Dortmund

Telefon: +49 (0) 231 - 72 73 865
Mobil: +49 (0) 174 - 59 55 755

E-mail: sales@tetrado.de
Web: www.tetrado.de

Manufactured and supplied by:

IVEP, a.s.
Víteňská 117a, 619 00 Brno, Czech Republic

Tel.: +420 547136 654 e-mail: marketing@ivep.cz
Fax: +420 547136 402 [http:// www.ivep.cz](http://www.ivep.cz)

