

# CATALOGUE

TRACTION DISCONNECTORS

## TYP QAV; EQAV

1,5 kV, 3000 A

Unser Handelspartner in Deutschland



ISO 9001:2009  
ISO 14001:2005

**ivep**<sup>®</sup>

## GENERAL INFORMATION

The QAV and EQAV traction disconnectors are outdoor devices used for switching purposes in electric traction systems of all kind of public transport (such as tramways, trolleybuses), in both railway and railway siding systems.

### Advantages:

- completely adjusted device
- high overload
- rugged structure
- contact system with reduced voltage drop
- double insulation
- earthing switch on the left and on the right
- hand and drive control
- environment friendly instruments
- silver-coated current-carrying path
- current-carrying path made from high-conductivity copper (99.9% of Cu)
- breaking capacity
- hand or motor drive

## STANDARDS AND REGULATIONS

As to the dielectric strength of insulation, the QAV and EQAV disconnectors comply with the specified conditions if TDP 010/10/93 regulations and the respective ČSN 34 1500, ČSN 35 4205 (egv IEC 694), ČSN 34 5640 standards.

## OPERATING CONDITIONS

**Traction disconnectors are designed for outdoor operating conditions**

Highest ambient temperature	+ 50 °C
Lowest ambient temperature	- 50 °C
Relative air humidity	100 %
Air pressure not to exceed	700 Pa (34 m/s)
Altitude up to	1000 m

## PACKING, TRANSPORT, STORAGE

Traction disconnectors for electric traction are supplied as separate devices, attached to wooden pallets with any accessories.

All used packing materials are fully recyclable.

**SPECIFICATION**

Typ			QAV 1... QAV 1...	QAV 1... QAV 1...	EQAV 1... EQAV 1...
Rated voltage	U <sub>r</sub>	kV	1,5	1,5	1,5
Rated normal current	I <sub>r</sub>	A	3000	3000	3000
Rated short-time withstand current 1s	I <sub>k</sub>	kA	20	20	20
Lightning impulse test voltage 1,2/50 μs, 15 pulses		kV	75	75	75
Power frequency test voltage in rain condition in dry condition 15 min		kV	20	20	20
Mechanical lifetime minimum	C-O		10000	10000	10000
Weight	kg		27	27,4	29,4
Double insulation			no	yes	yes
Earthing switch			no	no	yes

## DESIGNATION CODING - QAV

Basic design	QAV						
Rated voltage	1,5						
Rated current	3000A						
Rated short-time withstand current of 1 sec. duration	20/1						
Design: side left	LA LB LC LD LE						
Design: side right	RA RB RC RD RE						
Disconnecter without double insulation	SI						
Disconnecter with double insulation	DI						

### EXAMPLE OF ORDERING WITH USING THE RESPECTIVE CODING DATA

Traction horn disconnector without earthing switch QAV 1,5 kV, 3000 A,  
QAV 1,5.3000.20/1.LA.RA.DI

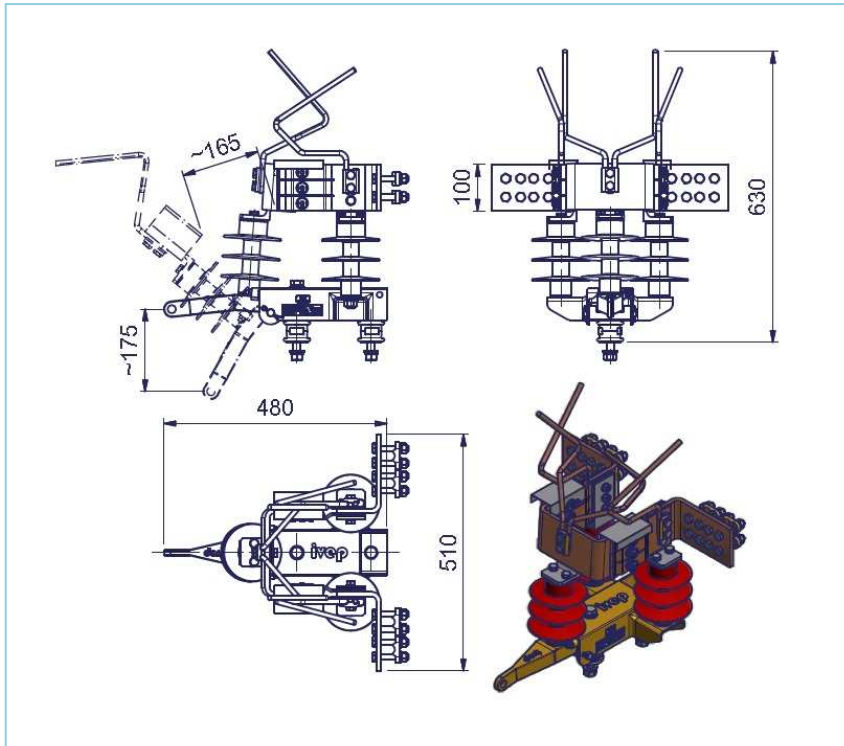
**DESIGNATION CODING – EQAV (with earthing switch)**

Basic design	EQAV								
Rated voltage	1,5 KV								
Rated current	3000A								
Rated short-time withstand current of 1 sec. duration	20/1								
Design: side left	LA LB LC LD LE								
Design: side right	RA RB RC RD RE								
Earthing switch on the side left	L								
Earthing switch on the side right	R								
Disconnecter without double insulation	SI								
Disconnecter with double insulation	DI								

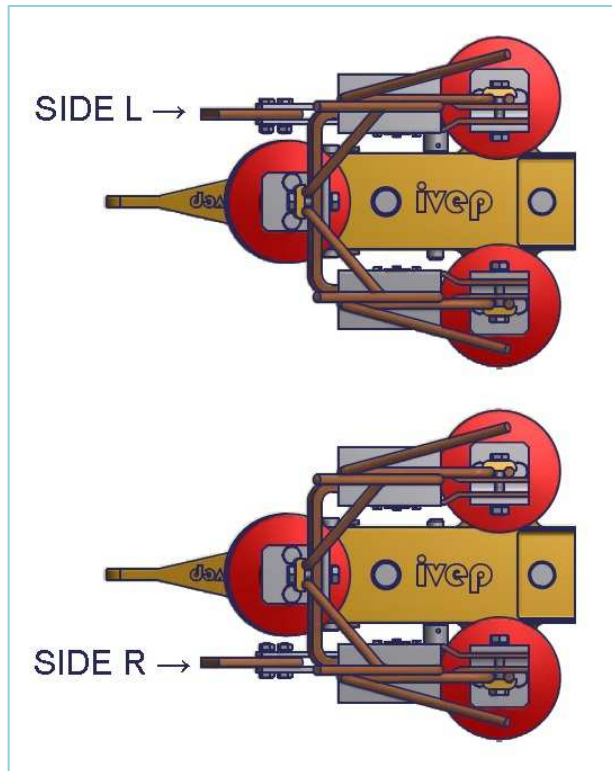
**EXAMPLE OF ORDERING WITH USING THE RESPECTIVE CODING DATA**

Traction horn disconnector with earthing EQAV 1,5 kV, 3000 A,  
EQAV 1,5.3000.20/1.LA.RA.L.DI

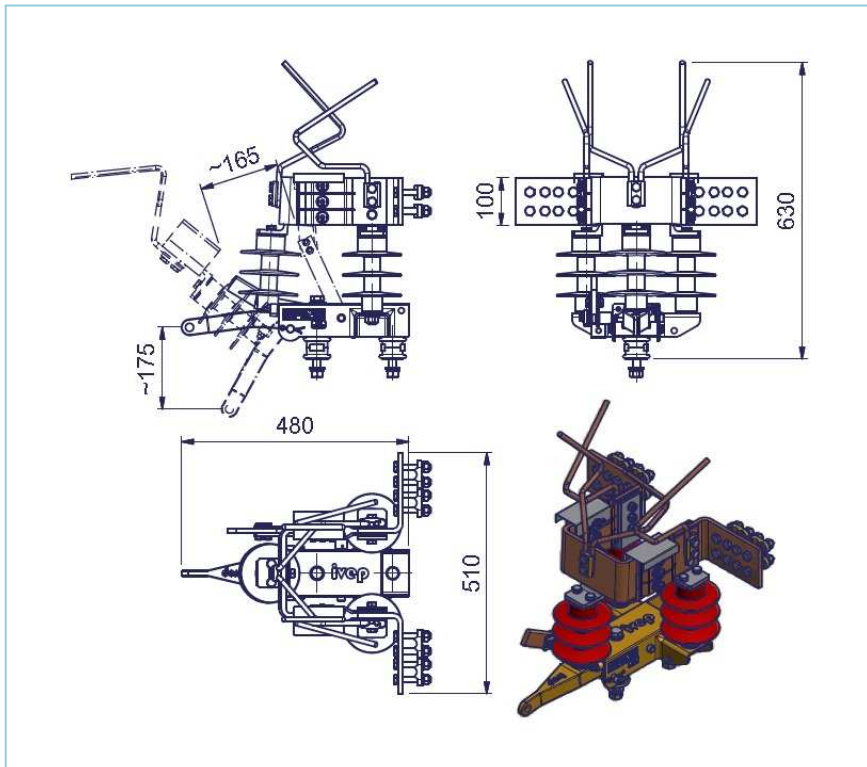
**DISCONNECTOR TYPE QAV 1,5.3000.20/1.LB.RB.DI**



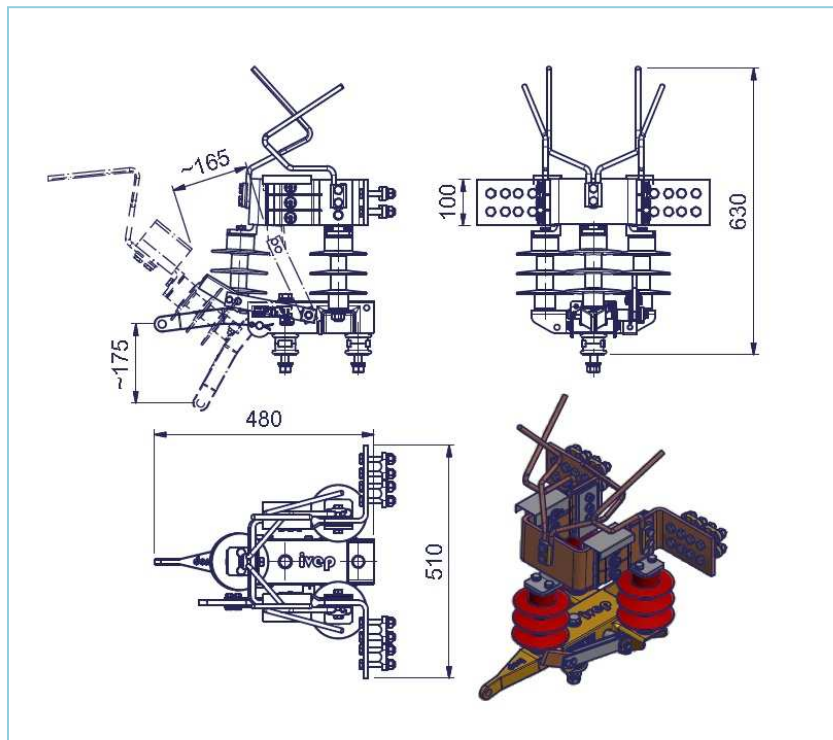
**DISCONNECTOR WITH EARTHING SWITCH – VERSION L and R**



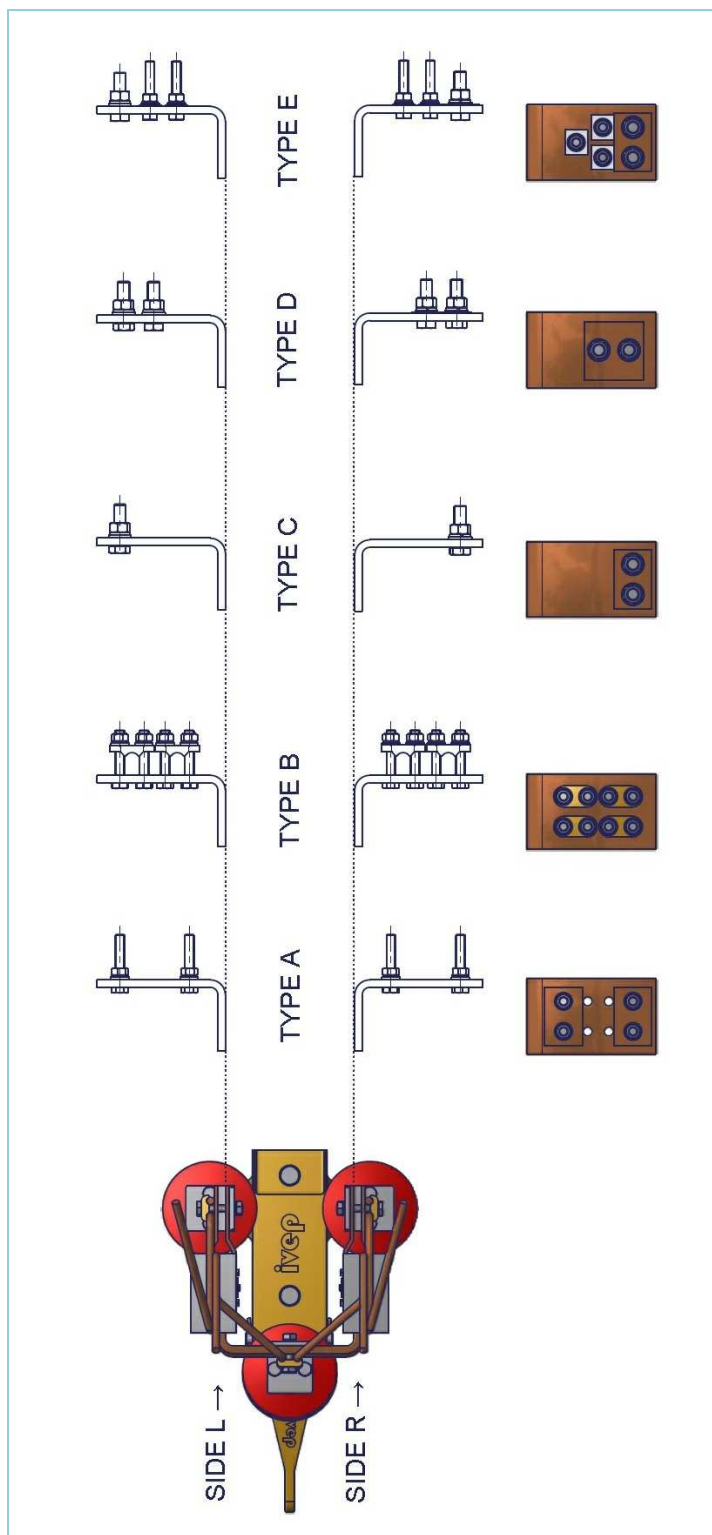
**DISCONNECTER WITH EARTHING SWITCH - EARTHING SWITCH ON THE L SIDE**



**DISCONNECTER WITH EARTHING SWITCH - EARTHING SWITCH ON THE R SIDE**



## CONNECTING FLAGS – OPTIONS







## HAND DRIVES AND ACCESSORIES

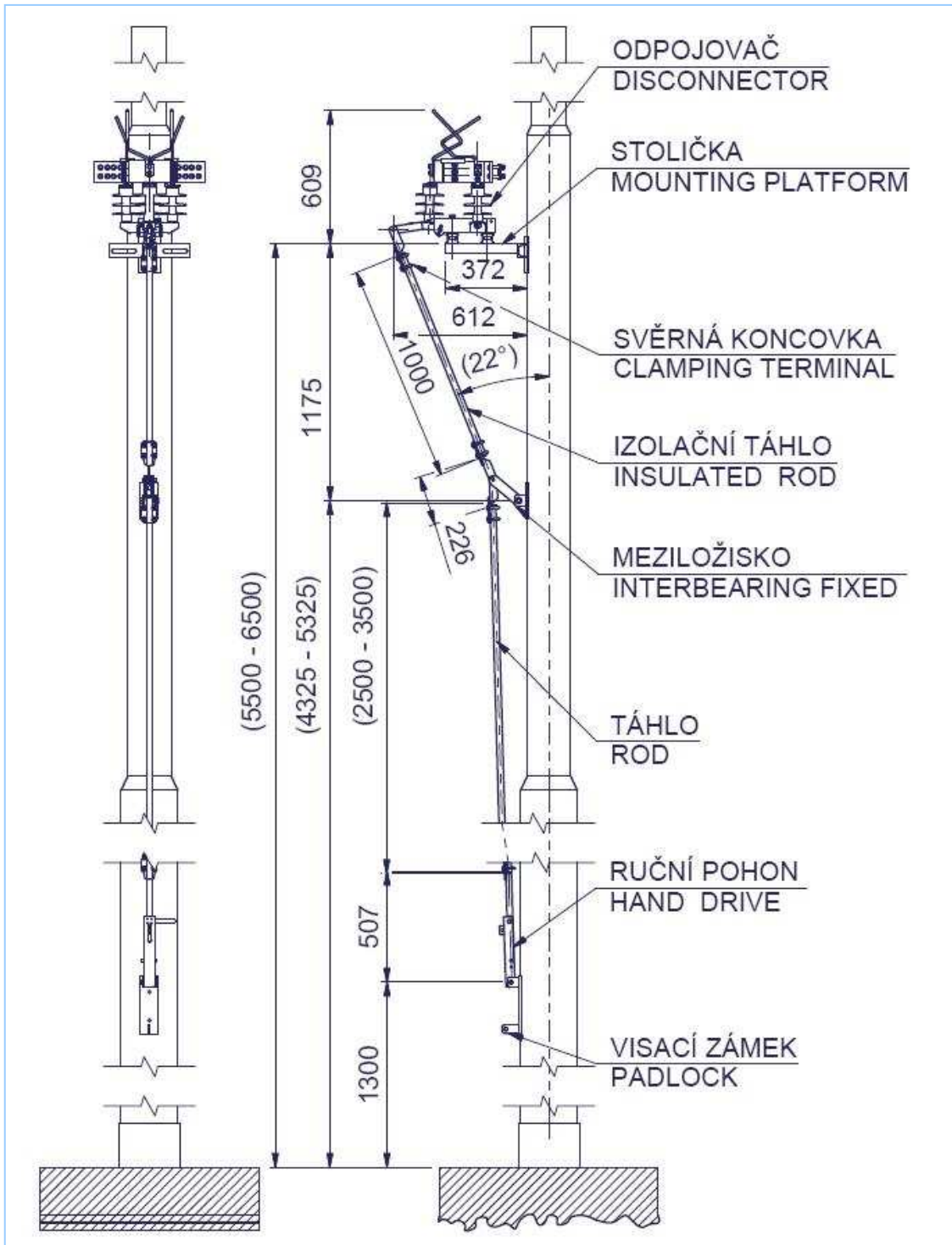
TRACTION DISCONNECTORS

**TYP QAV; EQAV**

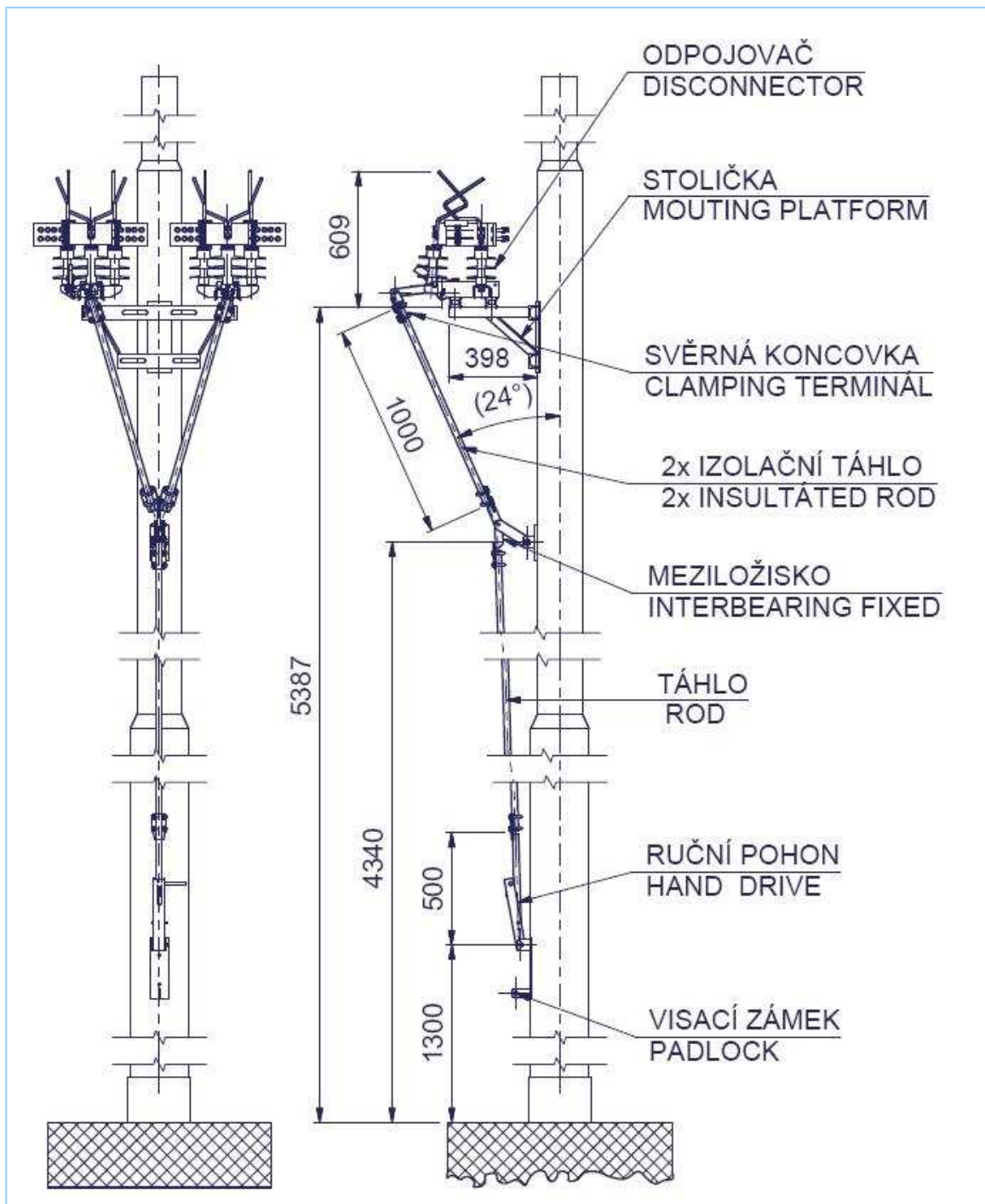
1,5 kV, 3000 A



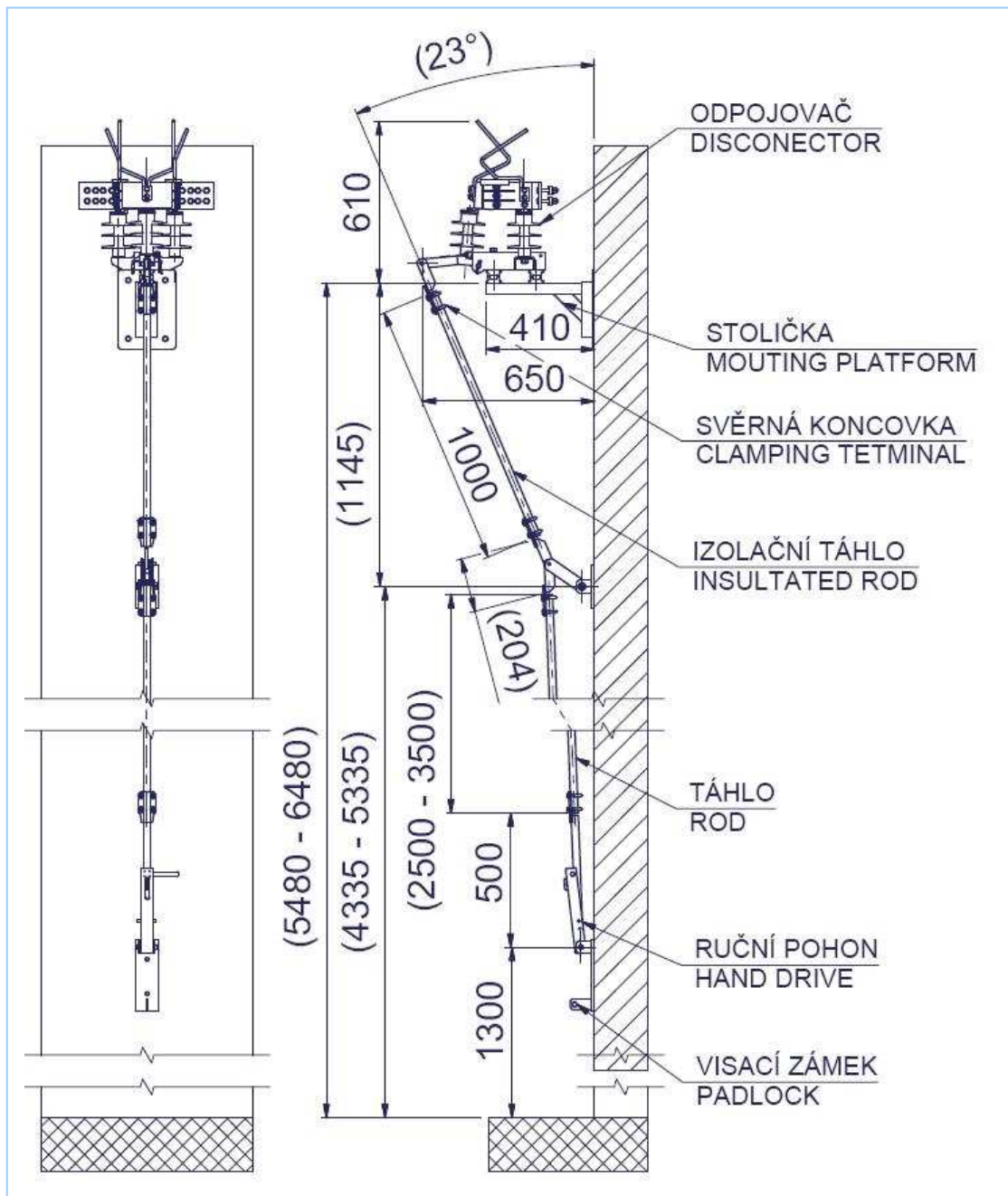
MOUNTING DISCONNECTER WITH HAND DRIVE TO THE POLE BY USING PLATFORM SMD 1



MOUNTING TWO DISCONNECTORS WITH HAND DRIVE TO THE POLE BY USING PLATFORM SMD 2



MOUNTING TWO DISCONNECTORS WITH HAND DRIVE TO THE POLE BY USING PLATFORM SMD 3

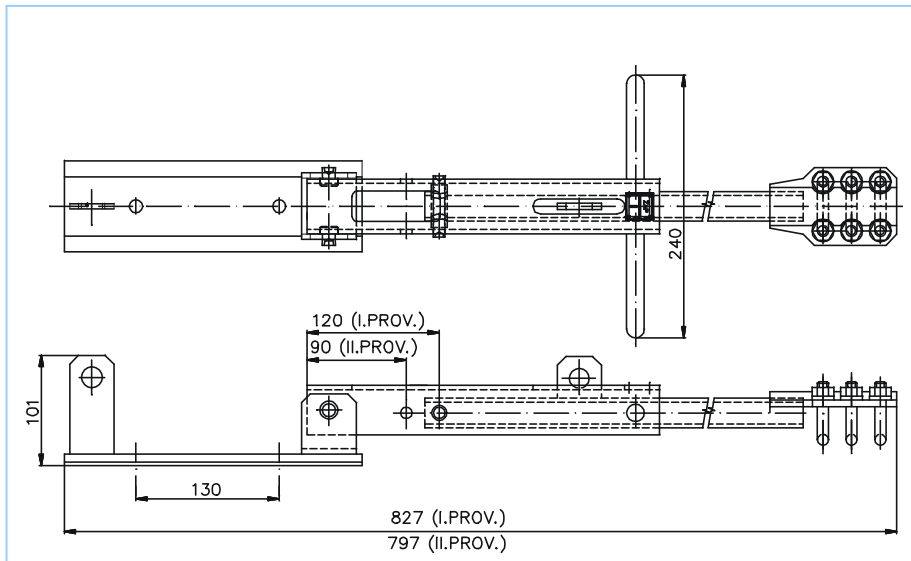


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**TYPE DESIGNATION CODING FOR THE ORDERING OF HAND DRIVE AND ACCESSORIES**

Basic design					
Hand drives for QAV a EQAV disconnecter	PMD				
Hand operated drive with 200 mm stroke	200				
Double hand drive with 200 mm stroke	202				
Double hand drive with 140 mm stroke	140				
Options for the assembly and fastening	1				
Through connecting straps or bolts					
Intermediate bearings in sleeves and control levers connected through bands or bolts	2				
in sleeves	3				
on the wall	4				
Lenght of pulling rod					
l = 2500 mm (for mounting of 5,5 m above ground)	1				
l = 3000 mm (for mounting of 5,5 to 6 m above ground)	2				
l = 3500 mm (for mounting of 6 to 6,5 m above ground)	3				
according to customers demand	4				
one pulling	0				
Assembly platform:					
platform to mount one SMD 1 disconnecter in sleeves with bolts	1				
platform to mount one SMD 1 disconnecter through connecting straps	11				
platform to mount two SMD 2 disconnecter	2				
platform for wall mounting (arm length: 410 mm) SMD 3	3				
platform for wall mounting (arm length: 710 mm) SMD 4	4				
platform for wall mounting (arm length: 450 mm) SMD 4	5				
mounting without platform	0				

\*) The only difference consists in the design of connecting flags

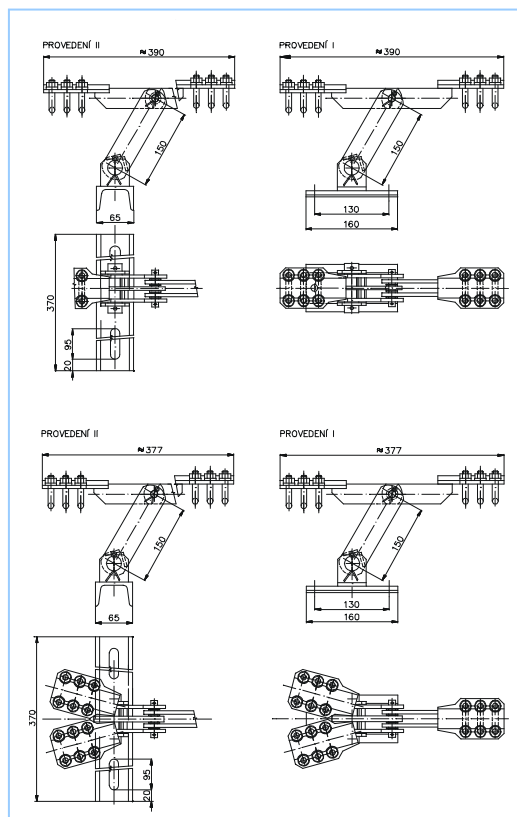
## HAND OPERATED DRIVE



## INTERMEDIATE BEARING FOR SINGLE TYPE DRIVE OR FOR DOUBLE TYPE DRIVE

Design I - to be fixed with fixing bands or bolts

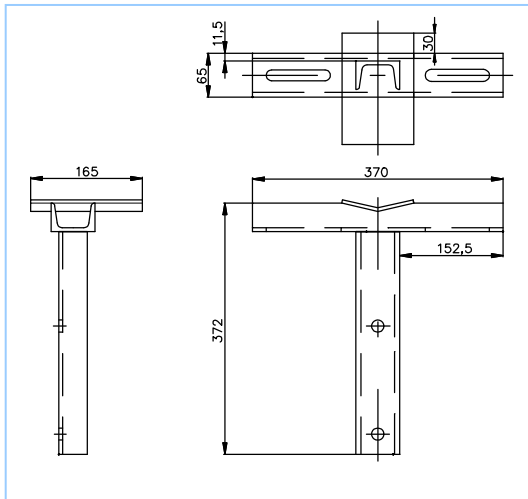
Design II - to be fixed by using clip



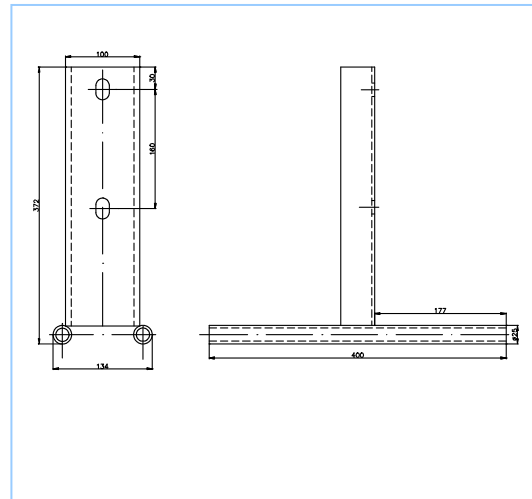
**PLATFORM FOR MOUNTING ONE PIECE OF TRACTION DISCONNECTOR OR PLATFORM FOR MOUNTING TWO DISCONNECTORS OPERATED DOUBLE TYPE DRIVE**

Platform for mounting one piece of traction disconnecter on a pole

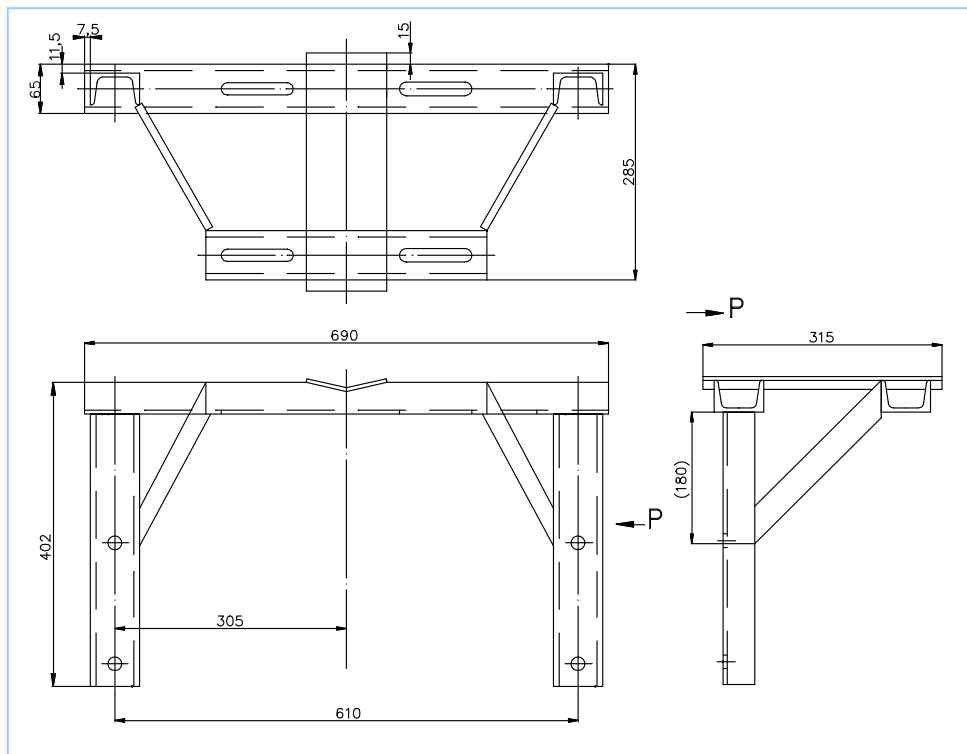
to be fixed by using clip



to be fixed with fixing bands

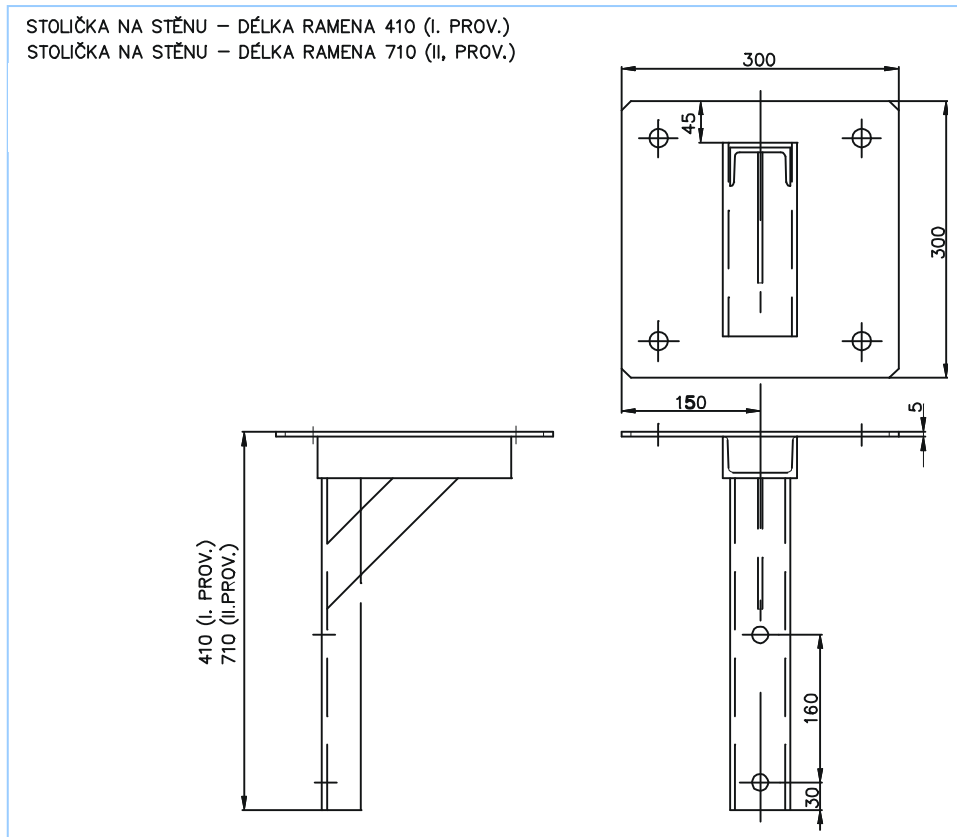


Platform for mounting two disconnectors operated double type drive - on a pole or on a wall



## Platform for mounting one piece of traction disconnecter on a wall

STOLIČKA NA STĚNU – DÉLKA RAMENA 410 (I. PROV.)  
STOLIČKA NA STĚNU – DÉLKA RAMENA 710 (II. PROV.)



*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.*

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