



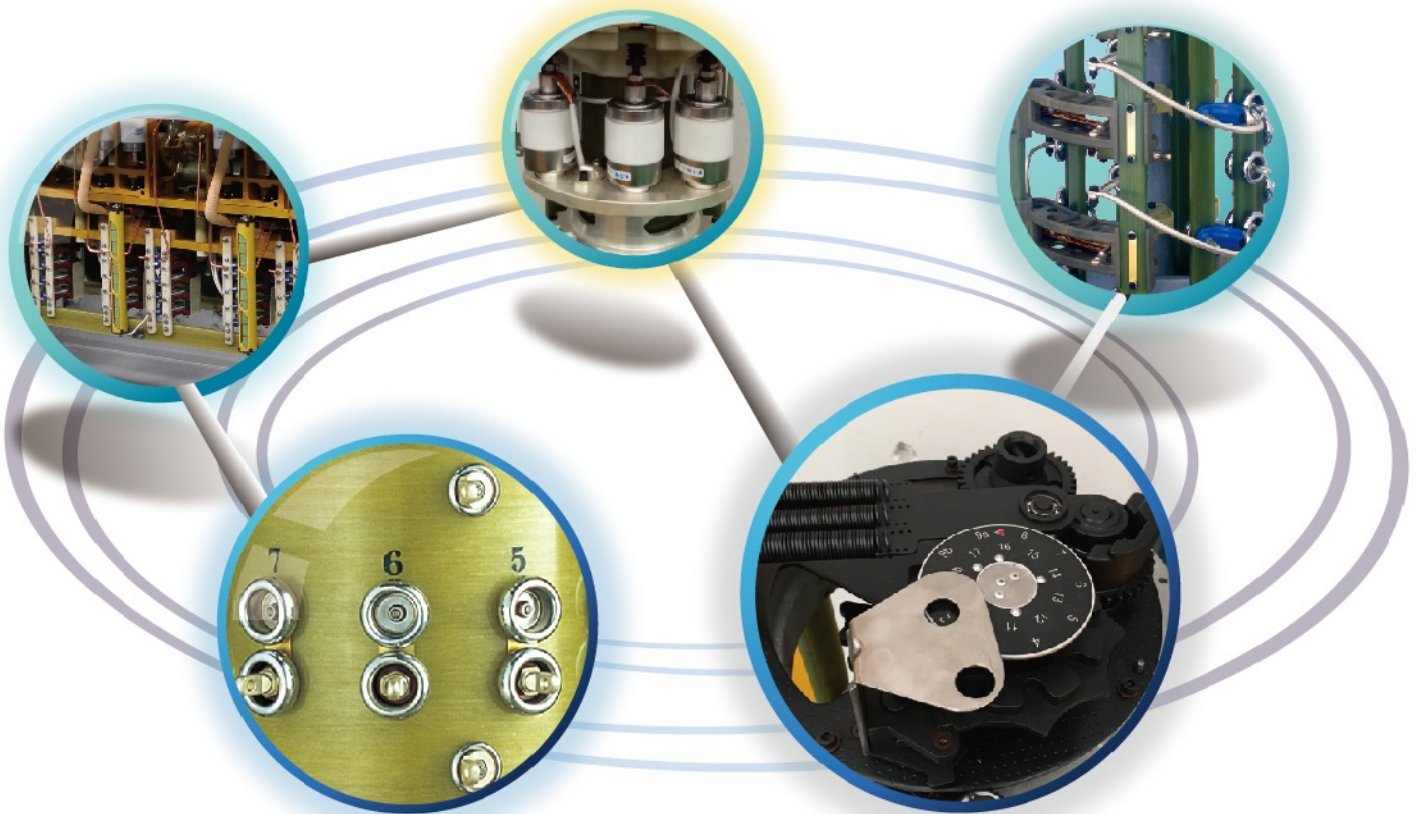
# PRODUCTS RANGE

On-Load Tap Changer

De-Energized Tap Changer

Motor Driver Unit

Online Oil Filter Plant



## Conventional Oil Type On-Load Tap Changers



### CM OLTC

OLTC Type	CM	
	III or II	I
Phase	III or II	I
Max. rated through current $I_{um}$ up to (A)	600	1500
Short circuit current test (kA)		
Thermal (3S)	8	24
Dynamic (Peak)	20	60
Max. rated step voltage $U_{im}$ (V)	3300	3300
Rated step capacity $P_{stin}$ (kVA)	1500	3500
The highest voltage for equipment $U_m$ up to (kV)	252	252
Max. operation positions		
Without change-over selector	18	18
With change-over selector	35	35

### CM OLTC with Multiple Coarse & Fine Regulation

OLTC Type	CM Multiple Coarse & Fine regulation	
	III	I
Phase	III	I
Max. rated through current $I_{um}$ up to (A)	600	1500
Short circuit current test (kA)		
Thermal (3S)	8	24
Dynamic (Peak)	20	60
Max. rated step voltage $U_{im}$ (V)	3300	3300
Rated step capacity $P_{stin}$ (kVA)	1500	3500
The highest voltage for equipment $U_m$ up to (kV)	252	252
Max. operation positions	107	





## Conventional Oil Type On-Load Tap Changers



### CMD OLTC

OLTC Type	CMD	
Phase	III	I
Max. rated through current $I_{um}$ up to (A)	1000	2400
Short circuit current test (kA)		
Thermal (3S)	12	24
Dynamic (Peak)	30	60
Max. rated step voltage $U_{im}$ (V)	4000	4000
Rated step capacity $P_{stn}$ (kVA)	3000	5600
The highest voltage for equipment $U_m$ up to (kV)	252	252
Max. operation positions		
Without change-over selector	18	18
With change-over selector	35	35

### CV & SV OLTC

OLTC Type	CV & SV	
Phase	III	I
Max. rated through current $I_{um}$ up to (A)	500	700
Short circuit current test (kA)		
Thermal (3S)	7	10
Dynamic (Peak)	17.5	25
Max. rated step voltage $U_{im}$ (V)	1500	1500
Rated step capacity $P_{stn}$ (kVA)	525	660
The highest voltage for equipment $U_m$ up to (kV)	72.5	72.5
Max. operation positions		
Without change-over selector	14	14
With change-over selector	27	27



## Vacuum On-Load Tap Changers For Oil Immersed Transformers



### CM2 OLTC

OLTC Type	CM2	
Phase	III	I
Max. rated through current $I_{um}$ up to (A)	600	1500
Short circuit current test (kA)		
Thermal (3S)	8	24
Dynamic (Peak)	20	60
Max. rated step voltage $U_{im}$ (V)	3300	3300
Rated step capacity $P_{stn}$ (kVA)	1500	3500
The highest voltage for equipment $U_m$ up to (kV)	252	252
Max. operation positions		
Without change-over selector	18	18
With change-over selector	35	35

### SHZV OLTC

OLTC Type	SHZV	
Phase	III	I
Max. rated through current $I_{um}$ up to (A)	1300	3000
Short circuit current test (kA)		
Thermal (3S)	15	30
Dynamic (Peak)	37.5	70
Max. rated step voltage $U_{im}$ (V)	4000	4000
Rated step capacity $P_{stn}$ (kVA)	3300	6000
The highest voltage for equipment $U_m$ up to (kV)	252	252
Max. operation positions		
Without change-over selector	36	36
With change-over selector	107	107



### CV2 OLTC

OLTC Type	CV2	
Phase	III	I
Max. rated through current $I_{um}$ up to (A)	500	500
Short circuit current test (kA)		
Thermal (3S)	7.5	7.5
Dynamic (Peak)	18.75	18.75
Max. rated step voltage $U_{im}$ (V)	1500	1500
Rated step capacity $P_{stn}$ (kVA)	525	525
The highest voltage for equipment $U_m$ up to (kV)	145	145
Max. operation positions		
Without change-over selector	12	12
With change-over selector	23	23



## Vacuum Tap Changer For Gas Insulated Transformers

### SHGV OLTC

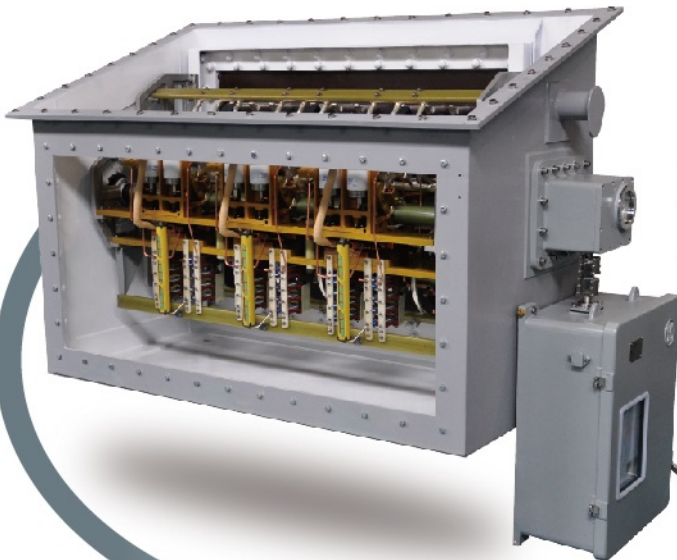
OLTC Type	SHGV
Phase	III or I
Max. rated through current $I_{mup}$ to (A)	400
Short circuit current test (kA)	
Thermal (3S)	6
Dynamic (Peak)	15
Max. rated step voltage $U_{im}$ (V)	4000
Rated step capacity $P_{stn}$	1200
The highest voltage for equipment $U_m$ up to (kV)	126
Max. operation positions	
With change-over selector	14
With change-over selector	27



## On-Tank Resistive Vacuum Tap Changer

### HWV OLTC

OLTC Type	HWV
Phase	III
Max. rated through current $I_{mup}$ to (A)	1000
Short circuit current test (kA)	
Thermal (3S)	12
Dynamic (Peak)	30
Max. rated step voltage $U_{im}$ (V)	3300
Rated step capacity $P_{stn}$	2600
The highest voltage for equipment $U_m$ up to (kV)	72.5
Max. operation positions	
With change-over selector	18
With change-over selector	35





## Vacuum On-Load Tap Changers For Dry Type Transformers



**CZ OLTC**

OLTC Type	CZ
Phase	3x1
Max. rated through current $I_{um}$ up to (A)	500
Short circuit current test (kA)	
Thermal (3S)	5
Dynamic (Peak)	12.5
Max. rated step voltage $U_{im}$ (V)	900
Rated step capacity $P_{stn}$ (kVA)	250
The highest voltage for equipment $U_m$ up to (kV)	72.5
Max. operation positions Without change-over selector	17

**CVT OLTC**

OLTC Type	CVT
Phase	III
Max. rated through current $I_{um}$ up to (A)	200
Short circuit current test (kA)	
Thermal (3S)	4
Dynamic (Peak)	10
Max. rated step voltage $U_{im}$ (V)	500
Rated step capacity $P_{stn}$ (kVA)	80
The highest voltage for equipment $U_m$ up to (kV)	12
Max. operation positions Without change-over selector	9



# De-Energized Tap Changers



**WSL THREE-PHASE DETC**

DETC Type	WSL	WDL
Phase	III	I
Max. rated through current $I_{um}$ up to (A)	4000	6000
Short circuit current test (kA)		
Thermal (3S)	40	60
Dynamic (Peak)	100	150
The highest voltage for equipment $U_m$ up to (kV)	363	363
Max. operation positions	11	11
Connection	linear, single-bridging double-bridging, reversing star-delta, series-parallel	
Operation mode	hand wheel on top manual driving mechanism at side motor driving mechanism at side	

**WDL SINGLE PHASE DETC**

**WDG DETC (B TYPE)**

**DETC Type**

**A TYPE**

**B TYPE**

	WDG	WLG	WSG	WDG
Phase	I	II	III	I
Max. rated through current $I_{um}$ up to (A)	2000	2000	1000	2000
Short circuit current test (kA)				
Thermal (3S)	20	20	12	20
Dynamic (Peak)	50	50	30	50
The highest voltage for equipment $U_m$ up to (kV)	126	126	126	252
Max. operation positions	2,5,7	2,5,7	5,7	5
Refer to technical data for details				
Connection	linear, single-bridging double-bridging, reversing star-delta, series-parallel			linear single-bridging
Operation mode	manual operation on top or at side motor driving at side			

**WLG DETC (A TYPE)**

## Tap Changer Motor Drive Units And OLTC Online Oil Filter Plant



### CMA7 Motor Drive Unit

Application	All type tap changers
Rated power	750W, 1,100W or 2,200 W
Rated voltage	All voltages DC&AC
Power Frequency	50Hz or 60Hz
Revolutions of drive shaft per switching operation	33
Type of controller	HMC-3C

### SHM-D Motor Drive Unit

Application	All tap changers
Rated power	750W
Rated voltage	All voltages DC&AC
Power Frequency	50Hz or 60Hz
Revolutions of drive shaft per switching operation	33
Type of controller	SHM-K



### ZXJY-II OLTC Online Oil Filter Plant

Application	Online OLTC oil filtering
Rated power	370W
Rated voltage	380V/AC
Power Frequency	50Hz or 60Hz
Rated flow	9L/min
Filter core accuracy	5 $\mu$ m

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