

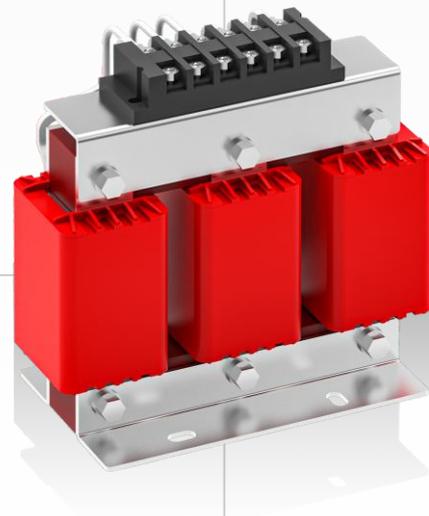
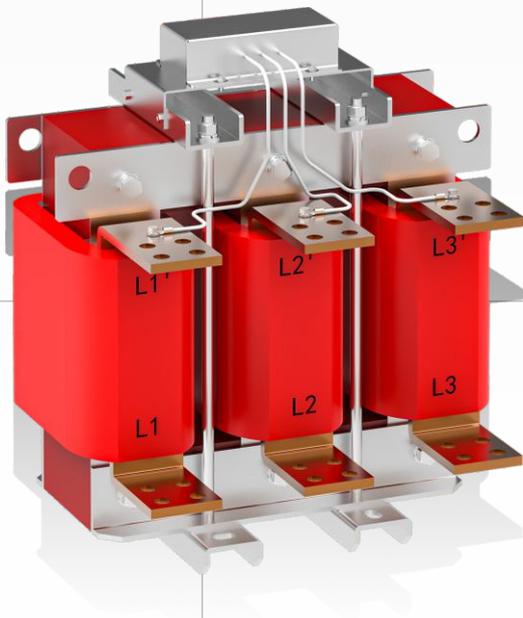
**F**OCUSING ON POWER QUALITY.  
PROFESSION, CONCENTRATION.

# DIRECT **SIKES**

Power Transformers / Harmonic Filter / Sine Wave Filter / EMC Filter/  
Reactor / Regenerative Brake / Braking Chopper / Power Braking Resistor/  
Load test for generator, electric vehicle driver, motor controller, charging  
station etc.

## DV/DT Filters

Whole product portfolios of power quality can be offered.



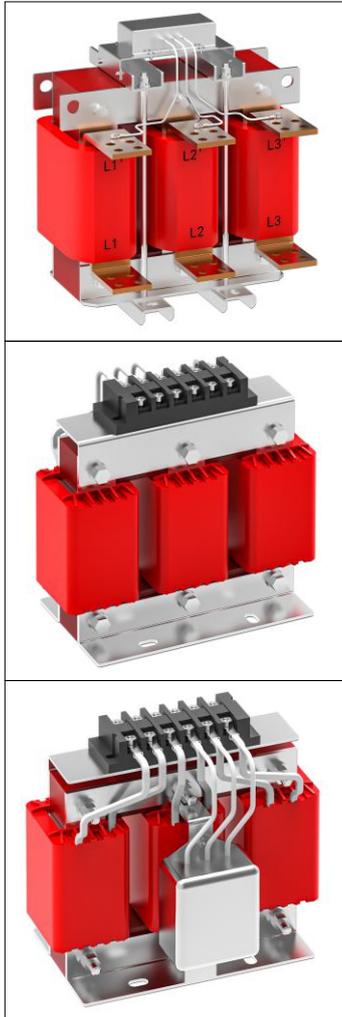
We are developing and producing in China for the world.



**GUANGDONG SIKES Electric Co.,Ltd.**

**SIKES**  
**18** YEARS OF  
SUCCESS

# DV/DT Filters



## Descriptions

Our dv/dt filters protect motors against high voltage increases and voltage peaks at motor terminals. Since modern motor solutions consist of variable speed drives (VSD), dv/dt filters are a vital system component. Dv/dt filters allow longer motor cables and are a central element for retrofitting actions. With dv/dt filters, the voltage has still a pulse shaped wave form, though the current is sinusoidal. Due to their lower reactor and capacitor values, generally dv/dt output filters are smaller and lighter in weight than sine wave filters.

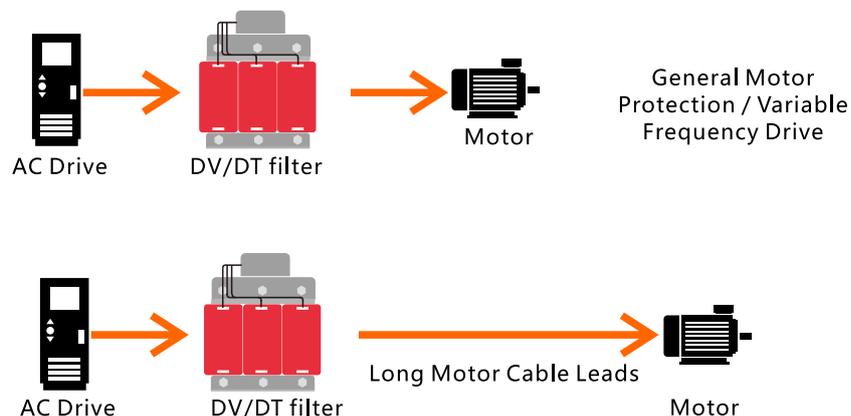
## Functions

- Effectively reducing the dt/dv voltage of the inverter servo motor ends;
- Preventing the transmission cable and the servo motor coil from early aging and breakdown;
- Extending the service life of the servo motors and operation period and improving the servo's reliability;
- Reducing the interference to the nearby equipment and circuits;
- Reducing the motor grounding leaking current;
- Reducing the interference when the contactor between filters and the motors is switched on;
- Reducing the peak pulse voltage of the servo motor ends.

## Technical Standards

- EN 61 558 Teil 1
- EN 61 558 Teil 20

## Applications



## ■ Features

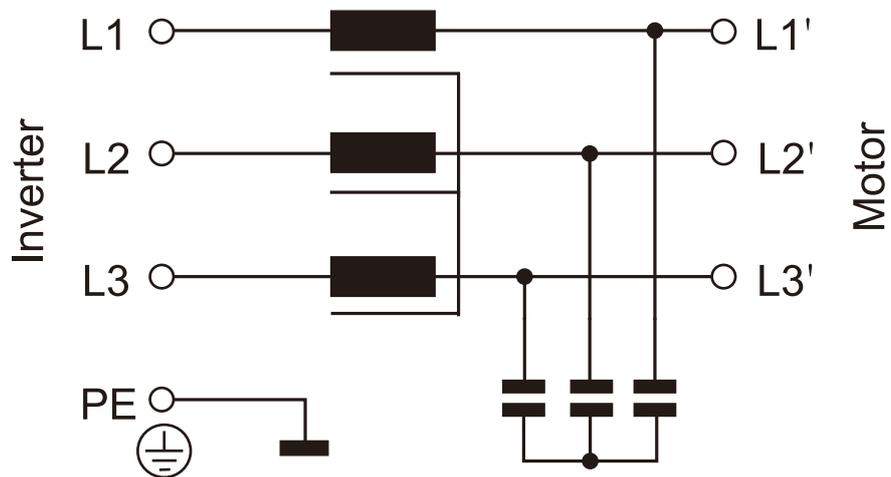
### Main Characteristics

Nominal system voltage (ph-ph)	3x 380 to 500 Vac. (Others on request)
Output Motor Frequency	0-120Hz standard (others on request.)
Switching frequency	2k to 16kHz
Rated load power (P)	1,5 to 1200kW
Nominal current (I)	3.3A to 2300A
Max. peak voltage	≤1000V
Standard voltage drop at rated current	< 4% (50Hz)
Maximum transient overload	1.6 times the rated current for 60s/every 10min (ta ≤ 45°C)

### Design features

Cabinet	On request
Degree of protection	IP 00 (other on request)
Construction and connection	Terminals or Copper bar
Ventilation	Natural
Mounting	On the floor
Installation	Indoor standards
Operating temperature	Ambient : -25°C to +45°C
Relative humidity	80 %

## ■ Typical electrical schematic



## Selection Table

Filter Model	Picture NO.	System Voltage	Motor drive rating @50Hz (kw)	Rated Current (A)	Switching frequency (kHz)	Connections		Weight (kg)
						Terminal	Copper Bar	
SKS-DVT-0005-4C/10	01	3×380 to 500VAC	1.5	5	≥6	√		2.3
SKS-DVT-0007-4C/10	01	3×380 to 500VAC	2.2	7	≥6	√		2.2
SKS-DVT-0010-4C/10	01	3×380 to 500VAC	3.7	10	≥6	√		2.2
SKS-DVT-0015-4C/10	02	3×380 to 500VAC	5.5	15	≥5	√		2.8
SKS-DVT-0020-4A/10	02	3×380 to 500VAC	7.5	20	≥5	√		2.65
SKS-DVT-0030-4A/10	03	3×380 to 500VAC	11	30	≥4	√		4.2
SKS-DVT-0040-4A/10	04	3×380 to 500VAC	15	40	≥4	√		5.6
SKS-DVT-0050-4A/10	05	3×380 to 500VAC	18.5	50	≥4	√		5.2
SKS-DVT-0060-4A/10	06	3×380 to 500VAC	22	60	≥4	√		7.9
SKS-DVT-0080-4A/10	07	3×380 to 500VAC	30	80	≥3	√		8.8
SKS-DVT-0090-4A/10	07	3×380 to 500VAC	37	90	≥3	√		8.8
SKS-DVT-0120-4A/10	08	3×380 to 500VAC	45	120	≥3		√	15.4
SKS-DVT-0150-4A/10	08	3×380 to 500VAC	55	150	≥3		√	15
SKS-DVT-0200-4A/10	09	3×380 to 500VAC	75	200	≥3		√	22
SKS-DVT-0240-4A/10	10	3×380 to 500VAC	90	240	≥3		√	25
SKS-DVT-0250-4A/10	10	3×380 to 500VAC	110	250	≥3		√	25.5
SKS-DVT-0290-4A/10	11	3×380 to 500VAC	132	290	≥3		√	33.8
SKS-DVT-0330-4A/10	11	3×380 to 500VAC	160	330	≥3		√	33.5
SKS-DVT-0390-4A/10	11	3×380 to 500VAC	185	390	≥3		√	41.5
SKS-DVT-0420-4A/10	11	3×380 to 500VAC	200	420	≥2		√	36.5
SKS-DVT-0490-4A/10	11	3×380 to 500VAC	220	490	≥2		√	46
SKS-DVT-0530-4A/10	11	3×380 to 500VAC	250	530	≥2		√	41
SKS-DVT-0600-4A/10	12	3×380 to 500VAC	280	600	≥2		√	56
SKS-DVT-0660-4A/10	12	3×380 to 500VAC	315	660	≥2		√	56
SKS-DVT-0720-4A/10	13	3×380 to 500VAC	355	720	≥2		√	86
SKS-DVT-0800-4A/10	14	3×380 to 500VAC	400	800	≥2		√	80
SKS-DVT-0900-4A/10	14	3×380 to 500VAC	450	900	≥2		√	65
SKS-DVT-1000-4A/10	13	3×380 to 500VAC	500	1000	≥2		√	86
SKS-DVT-1100-4A/10	15	3×380 to 500VAC	560	1100	≥2		√	75
SKS-DVT-1250-4A/10	15	3×380 to 500VAC	630	1250	≥2		√	102
SKS-DVT-1500-4A/10	16	3×380 to 500VAC	800	1500	≥2		√	112
SKS-DVT-1600-4A/10	16	3×380 to 500VAC	900	1600	≥2		√	112
SKS-DVT-2300-4A/10	17	3×380 to 500VAC	1200	2300	≥2		√	110

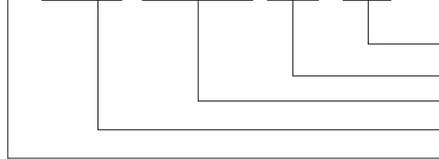
**Selection Recommendation: It's compulsory to collect all network conditions**

- Rated values and service type of the load to the filter
- Rated values of other non-linear loads
- Indication of the point where the filter has to be installed
- Presence and type of the power factor equipment in the network
- Motor frequency, Switching frequency and fundamental operating frequency

■ For more technical details, please contact our sales representatives

**Model Rules:**

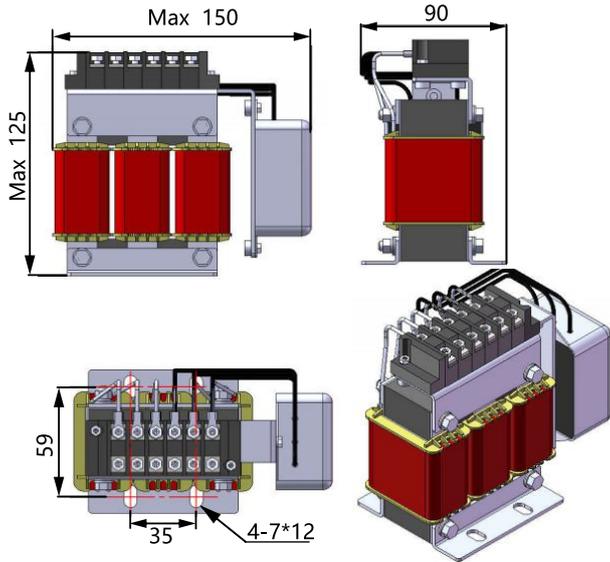
SKS□□□-□□□□-□□/□□



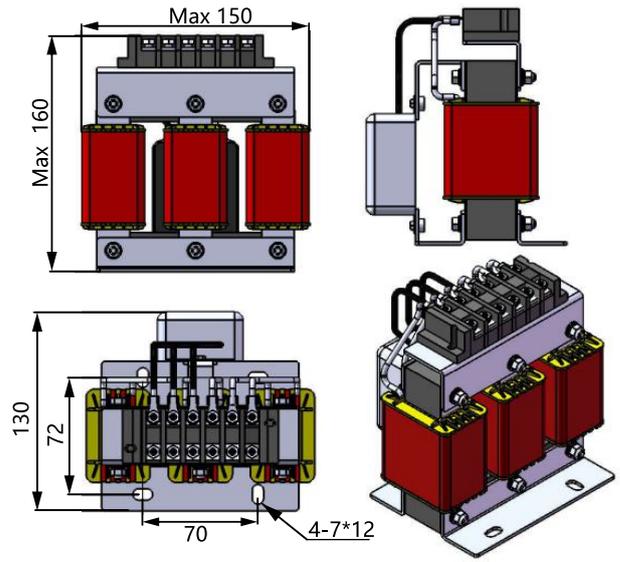
- 10 for 1000V/μS, 05 for 500V/μS
- Manufacture processing codes
- Rated current
- Series name
- Brand name

## Mechanical data

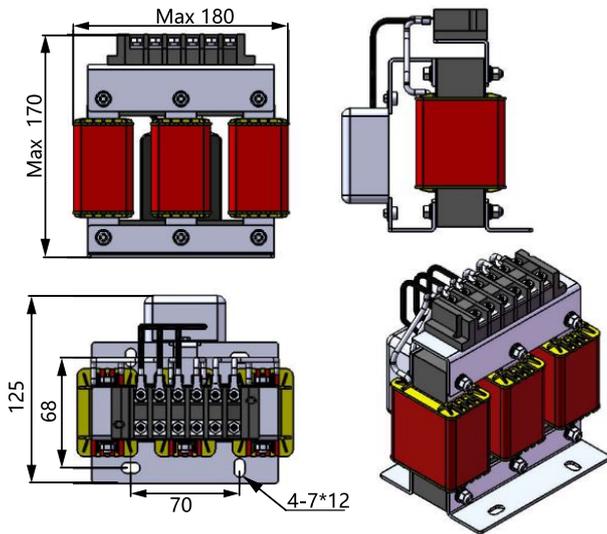
All dimensions in mm; 1 inch = 25,4 mm



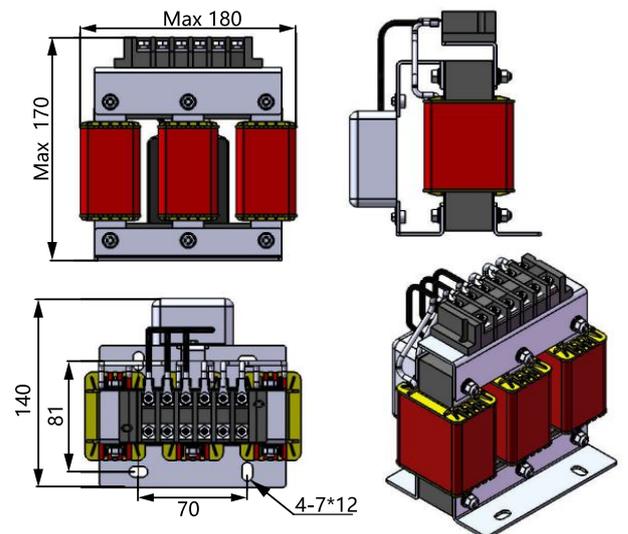
Picture NO. 01



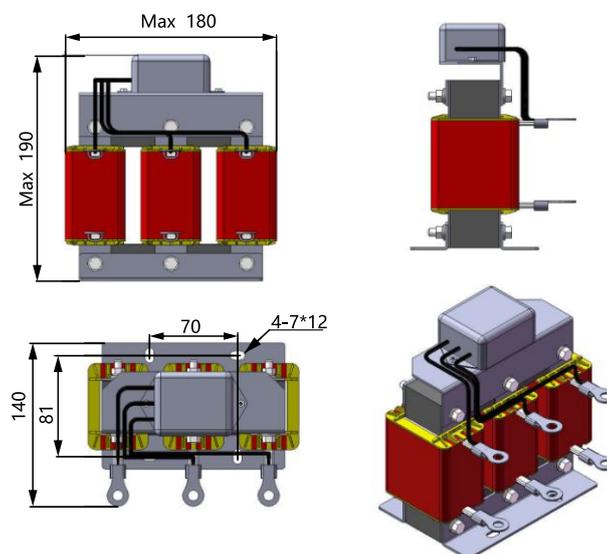
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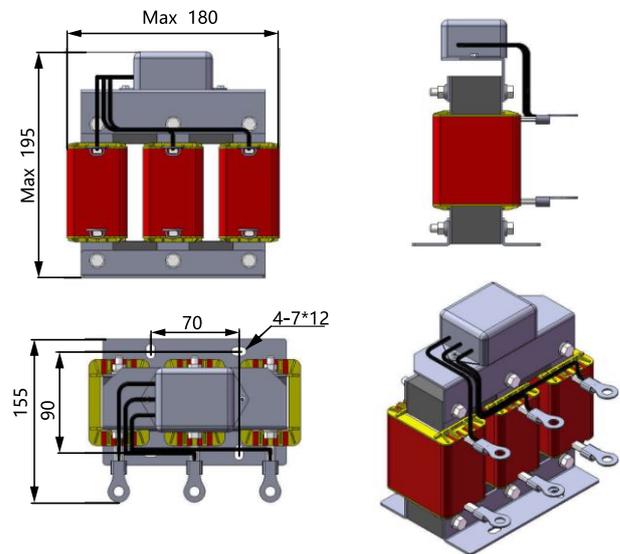
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Picture NO. 04



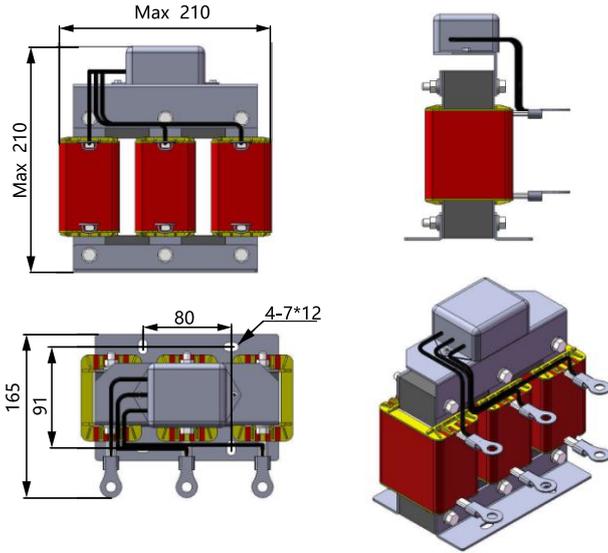
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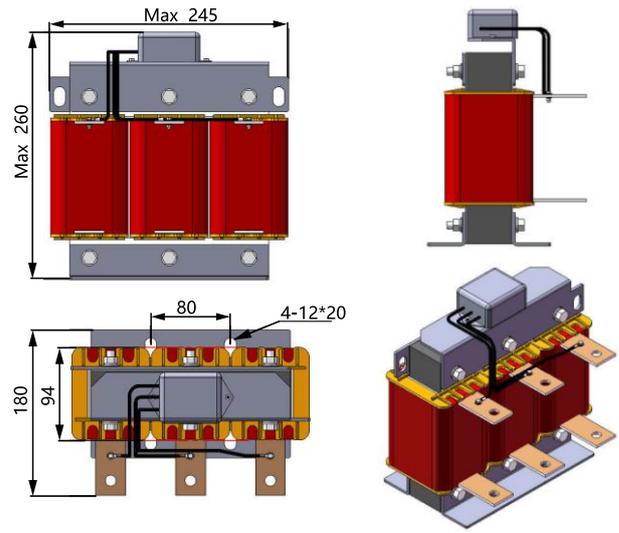
Picture NO. 06

## Mechanical data

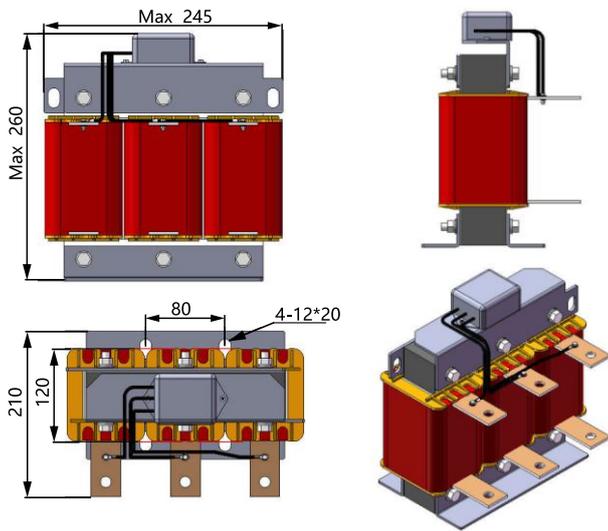
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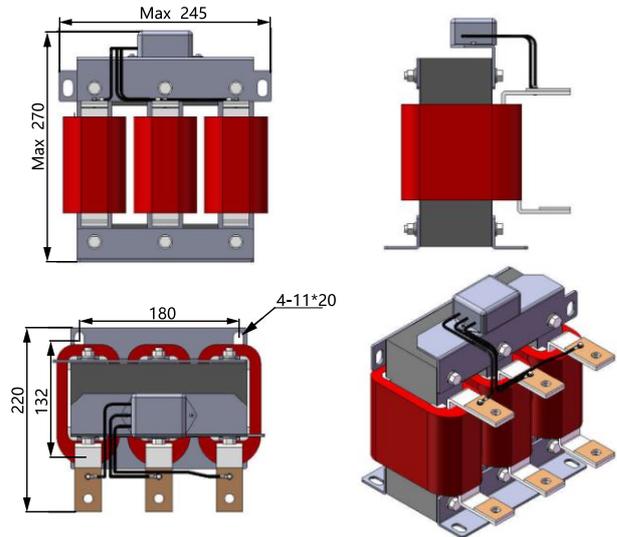
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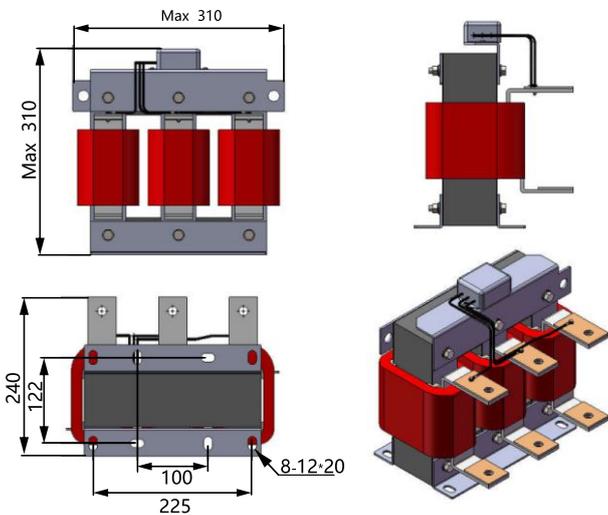
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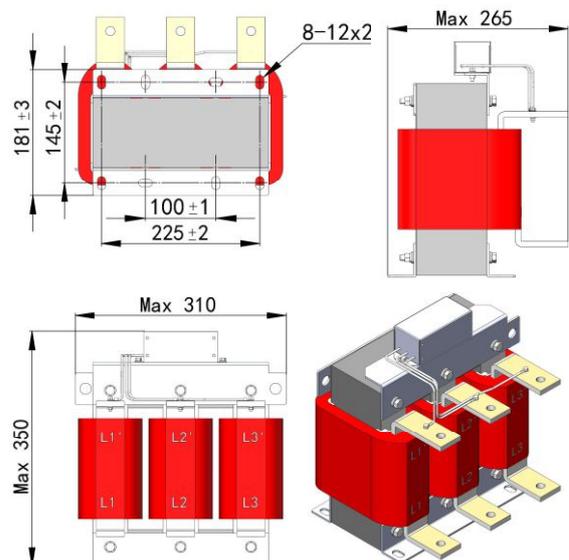
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Picture NO. 10



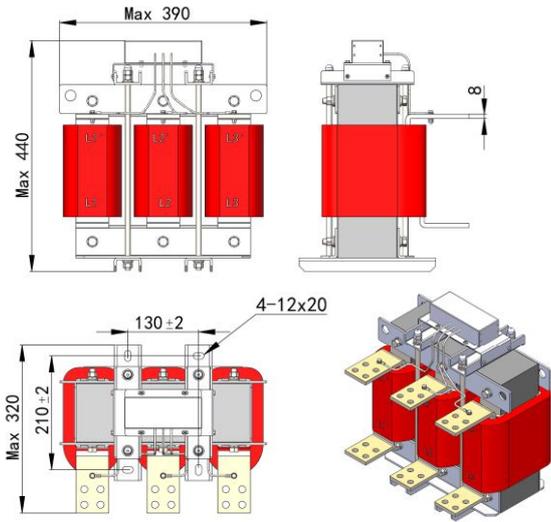
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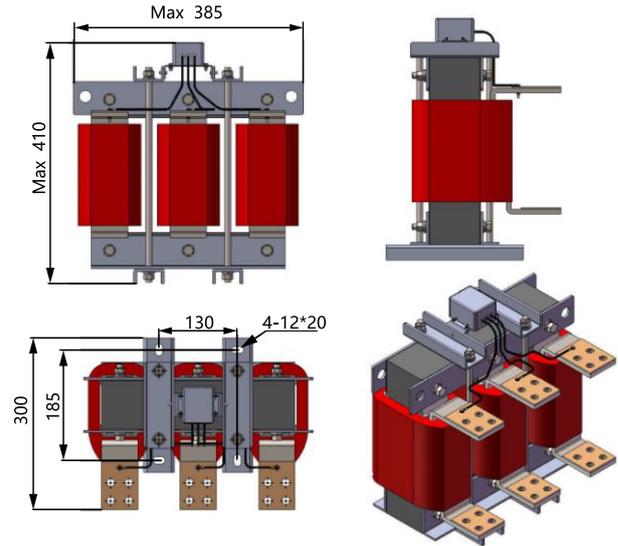
Picture NO. 12

## Mechanical data

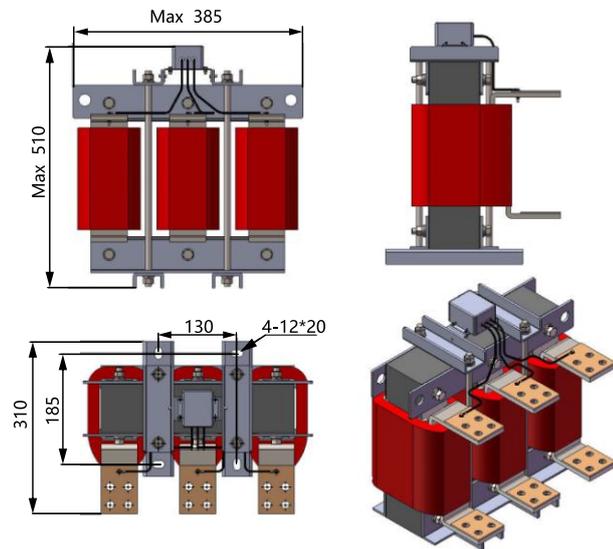
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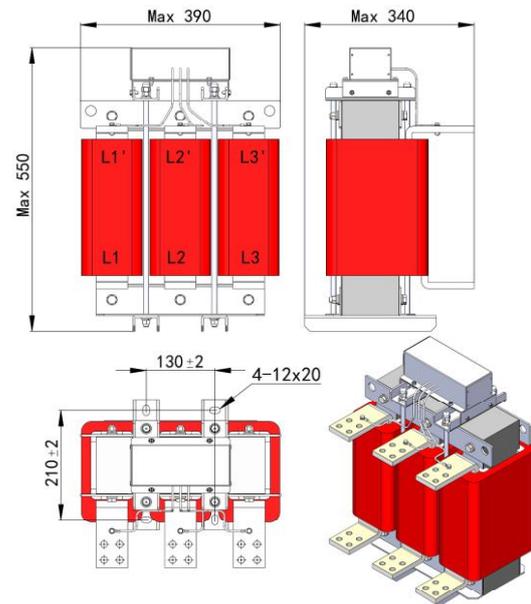
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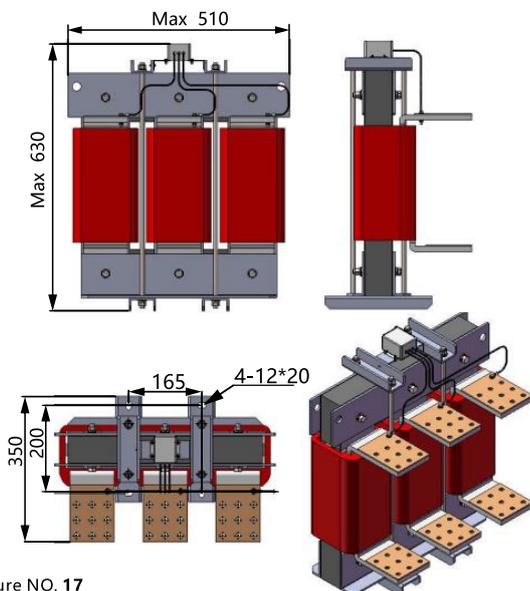
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Picture NO. 15



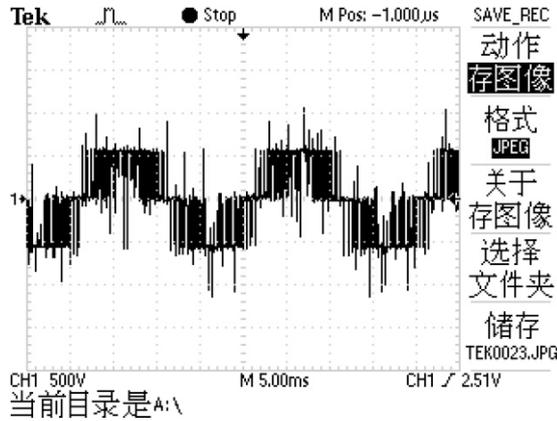
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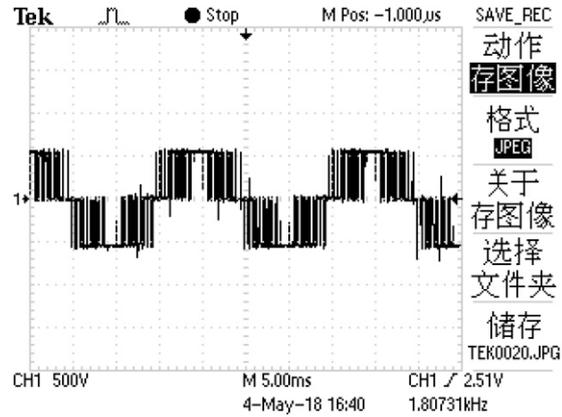
Picture NO. 17

## Typical performance of the filter over full load range

Voltage wave form of motor drive output side



Without dv/dt filter



With dv/dt filter

### TERMINALS OR COPPER BAR

Input	[ L1, L2,L3]
Output	[ L1', L2',L3' ]

### STANDARDS

#### TYPE

Capacitors: CEI EN 60831-1/2, IEC 831-1/2  
 Industrial network affected by harmonics: CEI EN 61642  
 Equipment: CEI EN 60439-1, IEC 439-1, ICE 60939  
 Systems: EN 60439, EN 60831, EN 50081-1, EN 50081-2, clase A

#### SIGNS

