

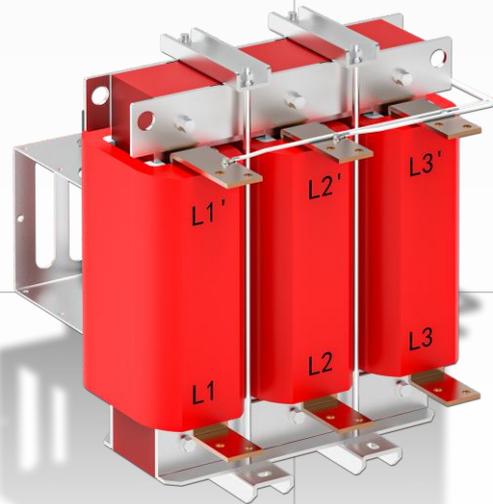
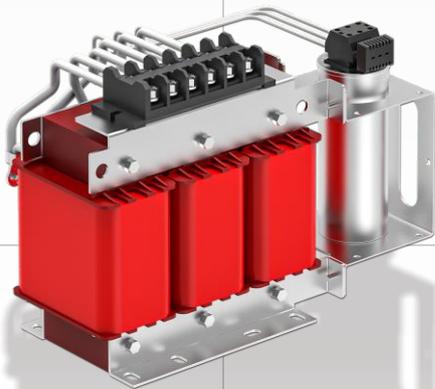
FOCUSING ON POWER QUALITY.
PROFESSION, CONCENTRATION.

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.

Sine wave filter

Whole product portfolios of power quality can be offered.



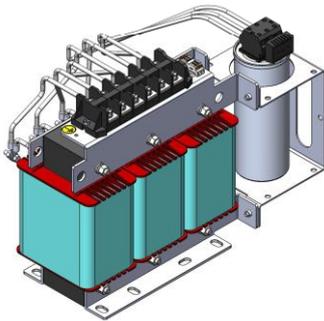
We are developing and producing in China for the world.



GUANGDONG SIKES Electric Co.,Ltd.

SIKES
18 YEARS OF
SUCCESS

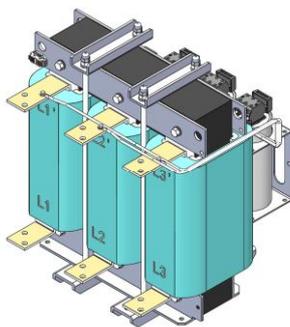
Descriptions



Sikes Sine wave filters have been specially designed to improve the wave form and avoid overvoltages in the motors of VSD system. These low-pass filters are installed in inverters with PWM output, between the frequency inverter and the motor. Switching IGBT (isolated gate bipolar transistor) to high frequency causes an output voltage with peaks that can reach 1300 V (or more) in terminals and coils of the motor.

These constant voltage values age the motor and decrease the performance of the coils, also wearing and pitting bearings, causing overheating and unnecessary noises and the transmission of interferences through cables. This effect becomes more obvious the greater the distance between the inverter and the motor.

Functions

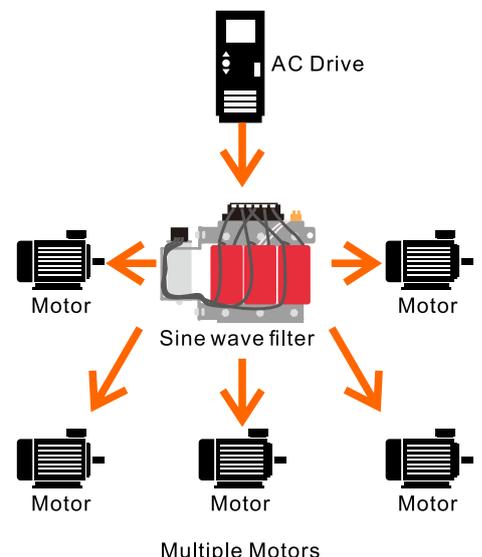
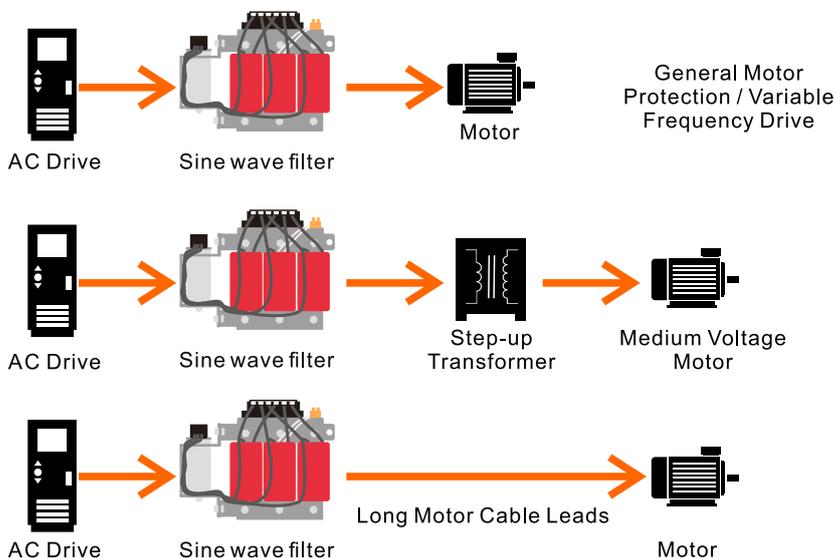


- Reduction of the overvoltage peaks caused by PWM and, therefore, a lower wear of motor insulation systems and bearings;
- Reduction of motor noise and improves motor efficiency;
- Improves the quality of the output wave of the PWM (pulse width modulator), reduces discharge currents driven by pulse frequency, especially in long lines connected to the motor. Recommended for up to 500m motor cable lengths with filter.
- Attenuation of the interference emissions radiated by the conductors between the modulator and motor and improves the entire EMC load on the equipment.

Technical Standards

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

Applications



Features

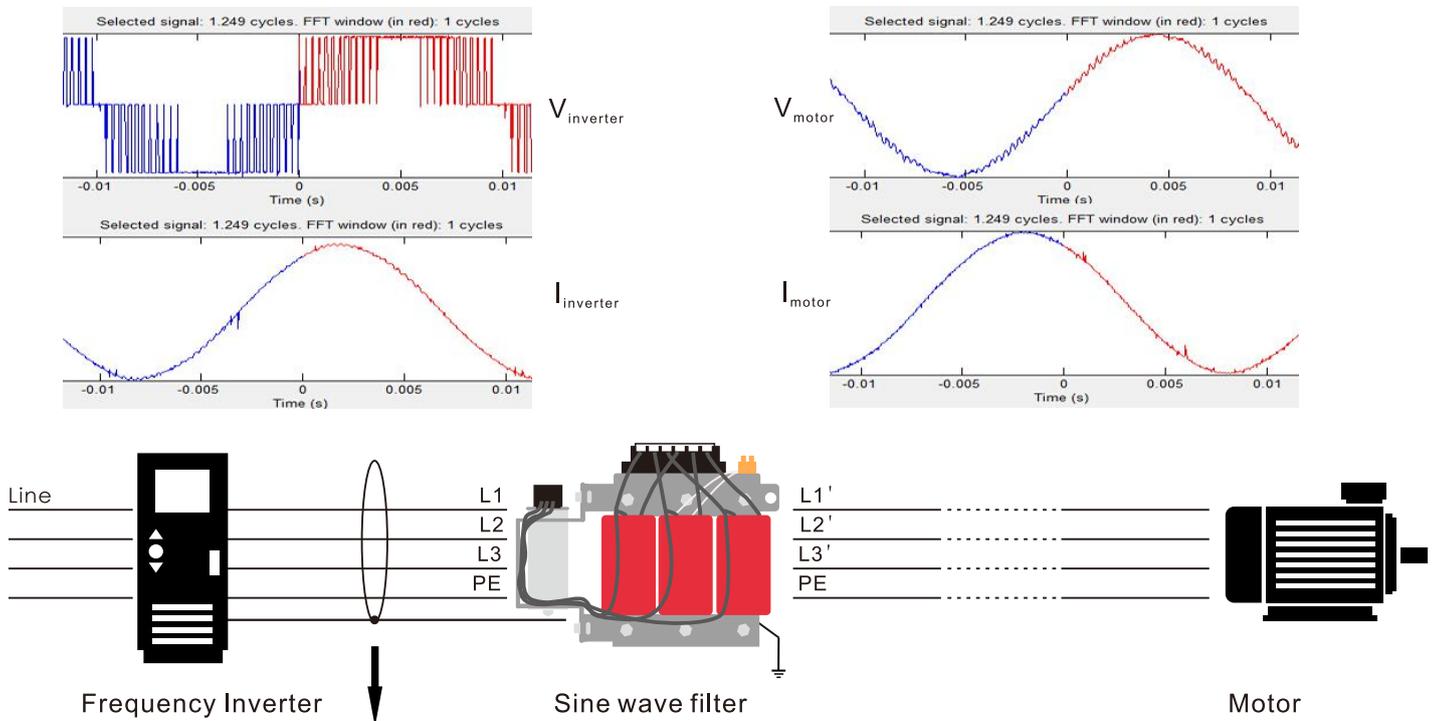
Main Characteristics

Nominal system voltage (ph-ph)	3x 380±10% (Others on request)
Operating frequency	0-120Hz standard (others on request.)
Switching frequency	2k to 16kHz
Rated load power (P)	1,5 to 630kW
Nominal current (I)	3.3A to 1209A
Residual ripple voltage THD	<5%
Standard voltage drop at rated current	4% (50Hz)
Maximum transient overload	1.6 times the rated current for 60s/every 10min (@ ≤ 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 %

Block schematic



- If there are EMC (EN 133200, IEC/EN60939) requirements, please use shielded cables;
- If not, please try using ordinary cables.

Selection Table (We can provide 3D models all of our products.)

Filter Model	Picture NO.	System Voltage (±10%)	Motor drive rating @50Hz (kw)	Rated Current (A)	Switching frequency (kHz)	Connections	Power Loss (W)	Weight (kg)
SKS-SF-0003-4A/05	1	3×380VAC	1.5	3.3	≥6	Terminal	35	7.0
SKS-SF-0006-4A/05	2	3×380VAC	2.2	6	≥6		76	9.7
SKS-SF-0008-4A/05	3	3×380VAC	3.7	8	≥6		78	10.4
SKS-SF-0013-4A/05	4	3×380VAC	5.5	13	≥5		78	9.7
SKS-SF-0017-4A/05	5	3×380VAC	7.5	17	≥5		79	16.2
SKS-SF-0024-4A/05	6	3×380VAC	11	24	≥4		121	16.6
SKS-SF-0032-4A/05	7	3×380VAC	15	32	≥4		132	21.5
SKS-SF-0038-4A/05	8	3×380VAC	18.5	38	≥4		148	25.5
SKS-SF-0048-4A/05	9	3×380VAC	22	48	≥4		188	28.2
SKS-SF-0063-4A/05	10	3×380VAC	30	63	≥3		264	38.3
SKS-SF-0076-4A/05	11	3×380VAC	37	76	≥3		300	42
SKS-SF-0091-4A/05	12	3×380VAC	45	91	≥3		305	49.7
SKS-SF-0116-4A/05	13	3×380VAC	55	116	≥3		362	78
SKS-SF-0148-4A/05	14	3×380VAC	75	148	≥3	507	75	
SKS-SF-0181-4A/05	15	3×380VAC	90	181	≥3	672	88.5	
SKS-SF-0214-4A/05	15	3×380VAC	110	214	≥3	903	87.7	
SKS-SF-0262-4A/05	16	3×380VAC	132	262	≥3	1159	100.6	
SKS-SF-0317-4A/05	17	3×380VAC	160	317	≥3	1070	111	
SKS-SF-0352-4A/05	18	3×380VAC	185	352	≥3	1085	120	
SKS-SF-0413-4A/05	19	3×380VAC	200	413	≥2	1140	150	
SKS-SF-0419-4A/05	20	3×380VAC	220	419	≥2	1170	150	
SKS-SF-0484-4A/05	21	3×380VAC	250	484	≥2	1180	164	
SKS-SF-0531-4A/05	22	3×380VAC	280	531	≥2	1207	178	
SKS-SF-0605-4A/05	23	3×380VAC	315	605	≥2	1571	256	
SKS-SF-0666-4A/05	24	3×380VAC	350	666	≥2	1588	274	
SKS-SF-0721-4A/05	25	3×380VAC	400	721	≥2	1788	292	
SKS-SF-0807-4A/05	26	3×380VAC	450	807	≥2	1808	310	
SKS-SF-0888-4A/05	27	3×380VAC	500	888	≥2	1966	328	
SKS-SF-0999-4A/05	28	3×380VAC	560	999	≥2	2204	383	
SKS-SF-1209-4A/05	29	3×380VAC	630	1209	≥2	2529	473	
SKS-SF-1366-4A/05	30	3×380VAC	710	1366	≥2	2777	493	
SKS-SF-1539-4A/05	31	3×380VAC	800	1539	≥2	2620	502	
SKS-SF-1937-4A/05	32	3×380VAC	1000	1937	≥2	3712	595	
SKS-SF-2322-4A/05	33	3×380VAC	1200	2322	≥2	3747	770	
SKS-SF-2600-4A/05	34	3×380VAC	1400	2600	≥2	4332	813	
						Copper Bar		

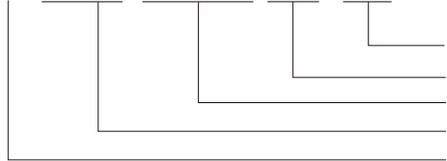
Selection Recommendation: It's compulsory to collect all network conditions

- Rated values and service type of the load to the filter
- Rated values of other non-line 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:

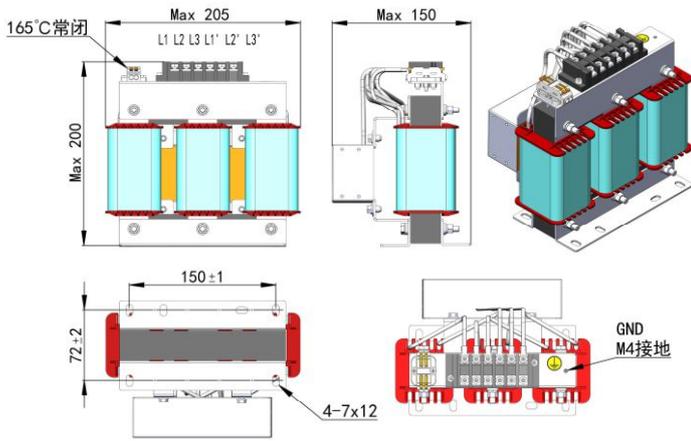
SKS-□□□-□□□□-□□□/□□



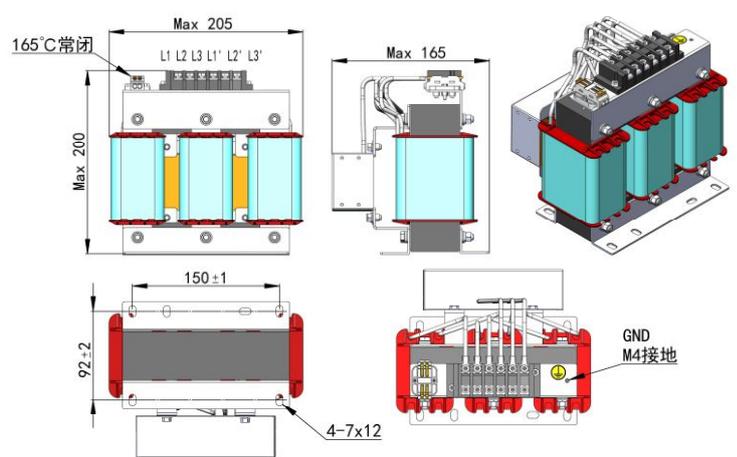
THDv,05 for THDv≤5%
 Manufacture processing codes
 Rated current
 Series name
 Brand name

Mechanical data (We can provide 3D models all of our products.)

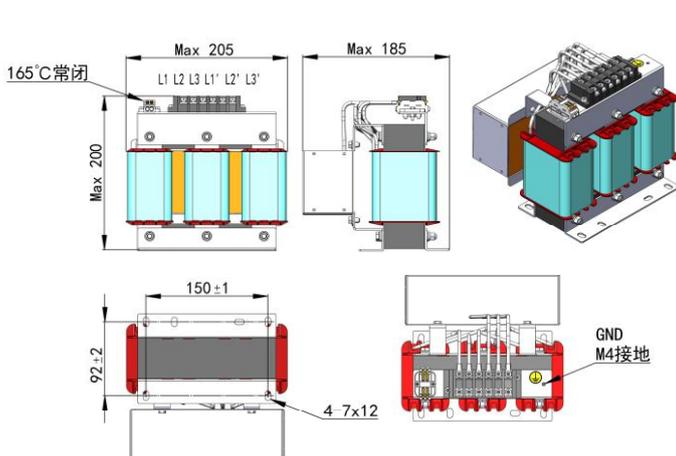
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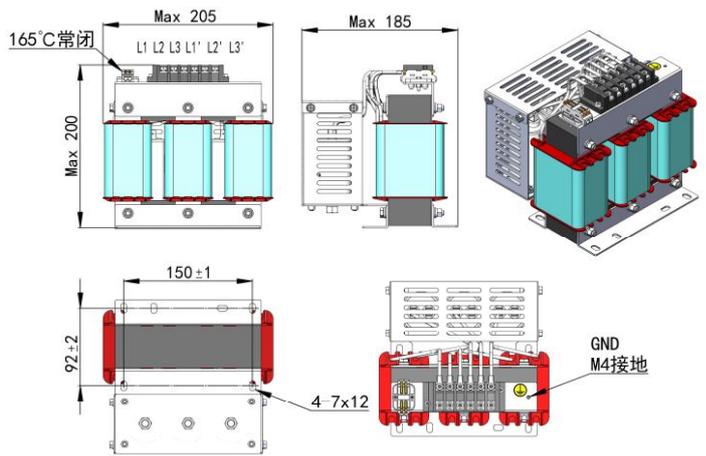
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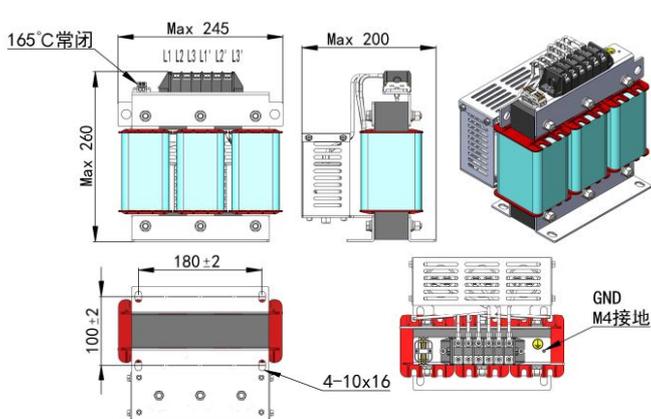
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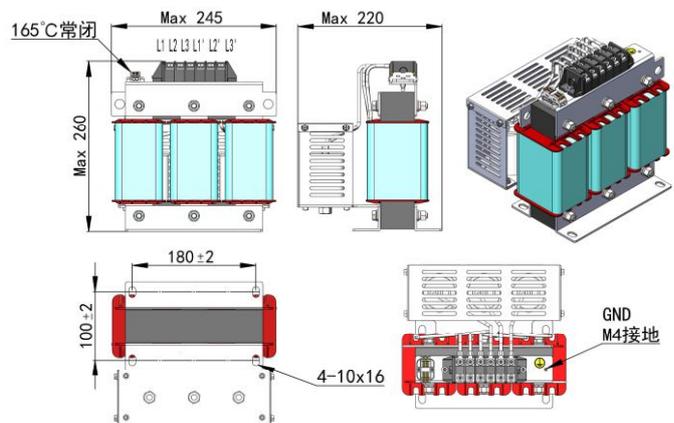
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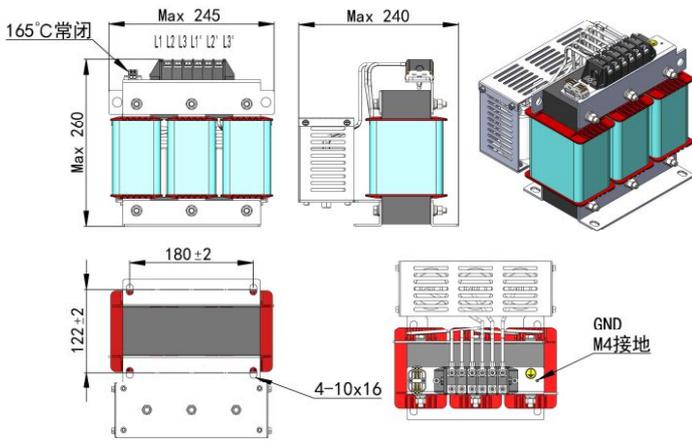
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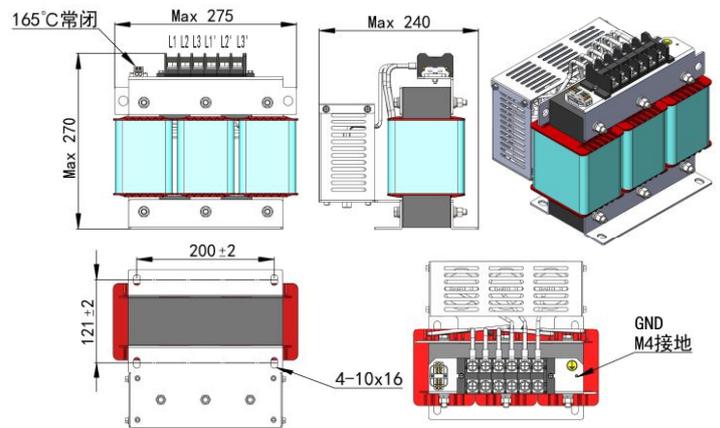
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Mechanical data

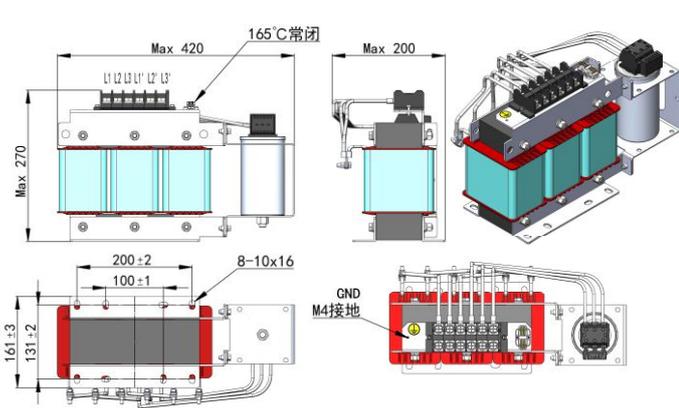
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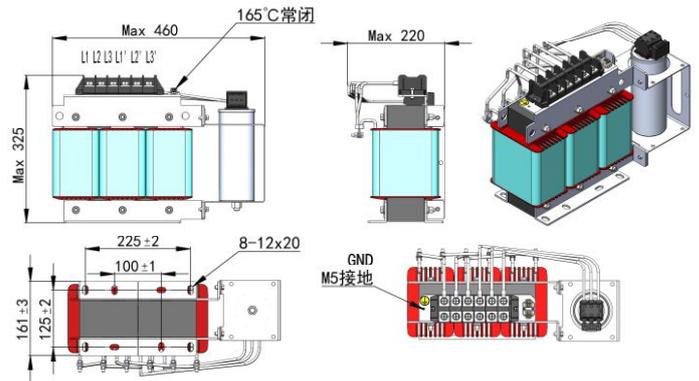
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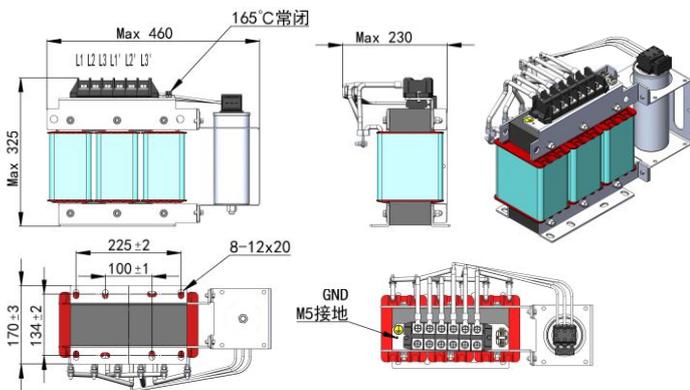
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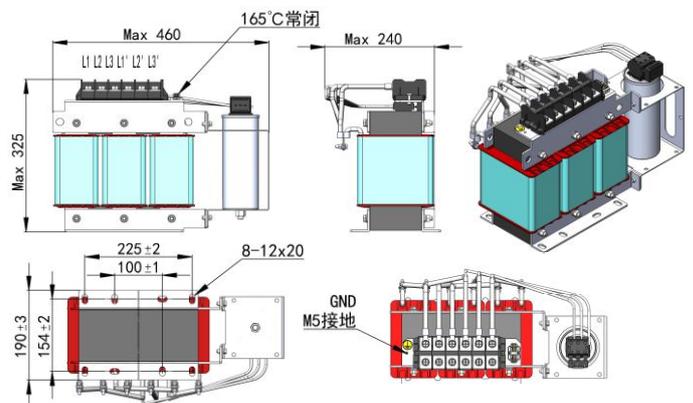
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Picture NO. 10



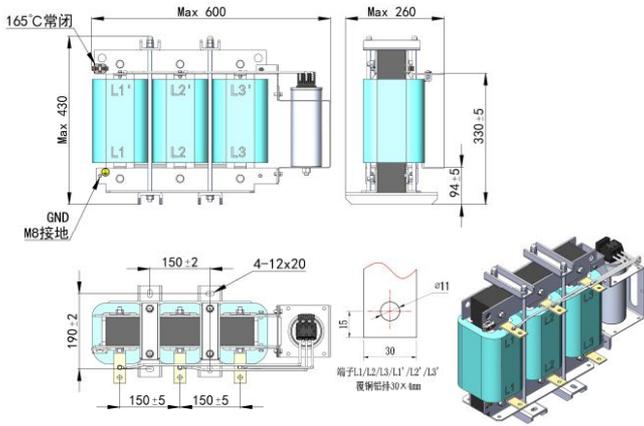
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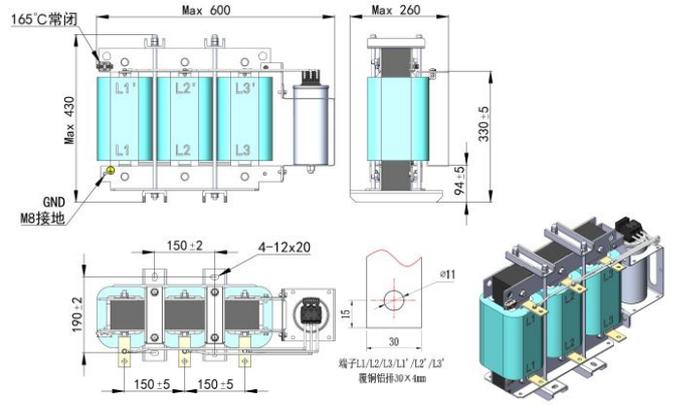
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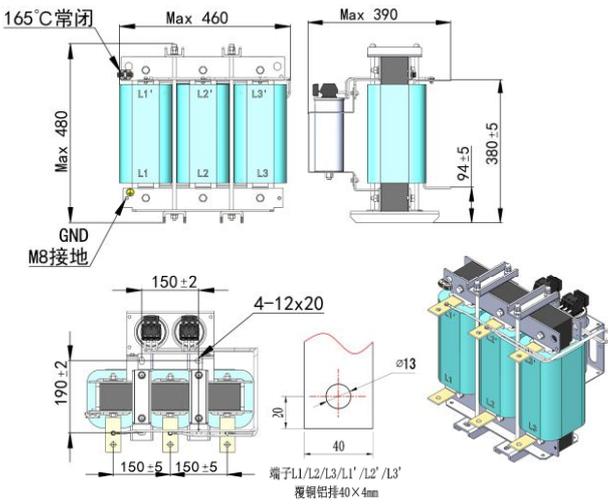
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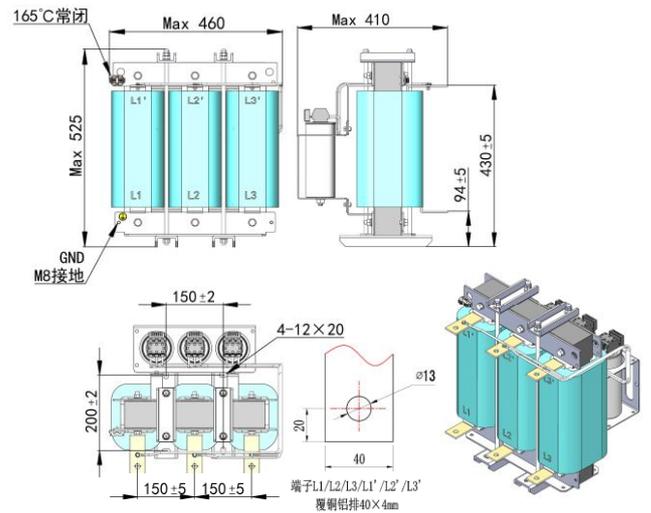
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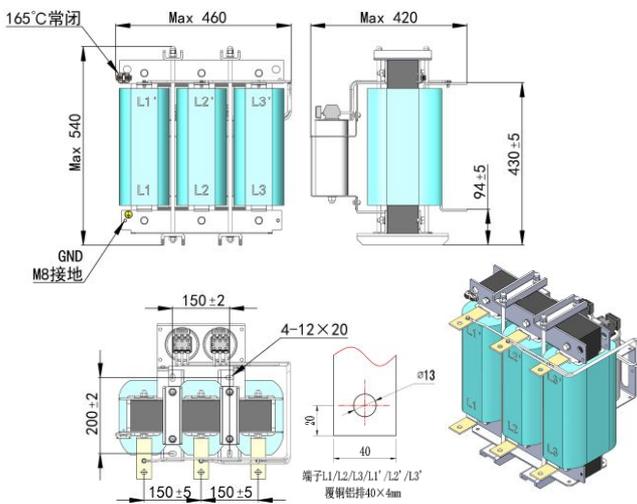
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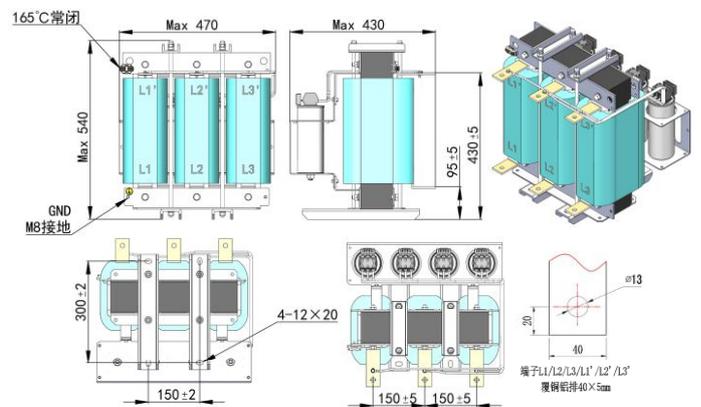
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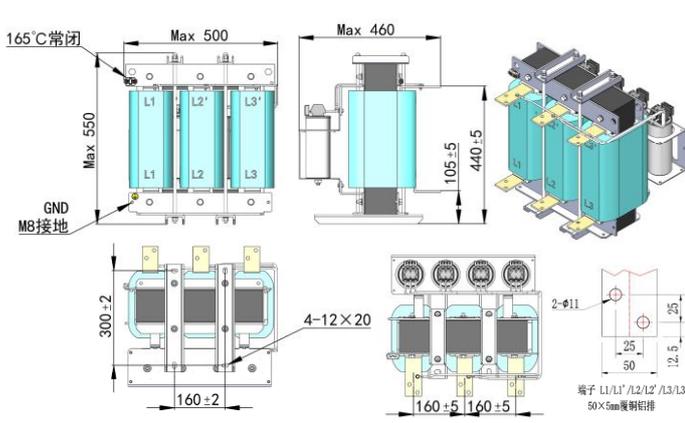
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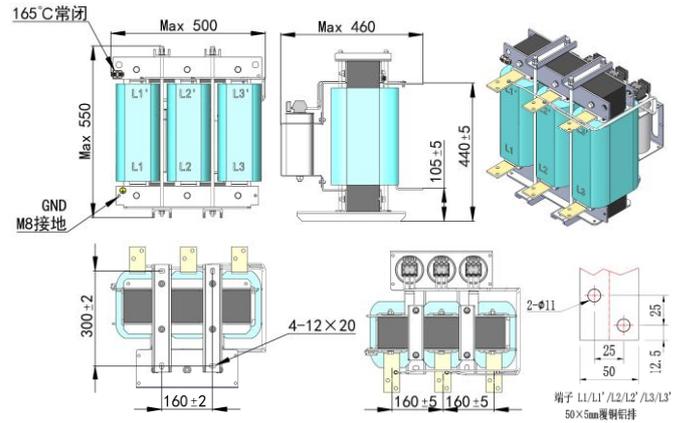
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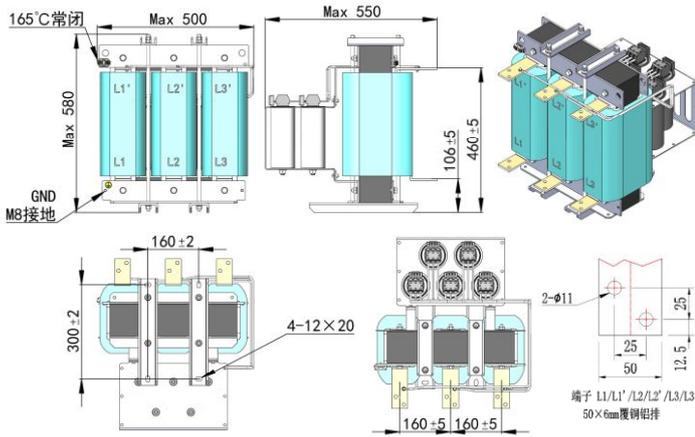
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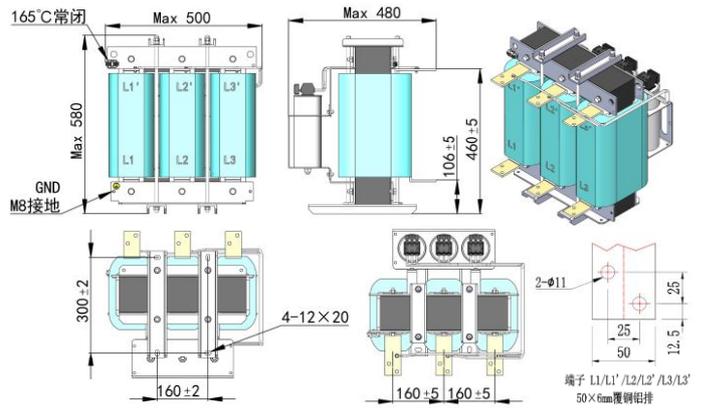
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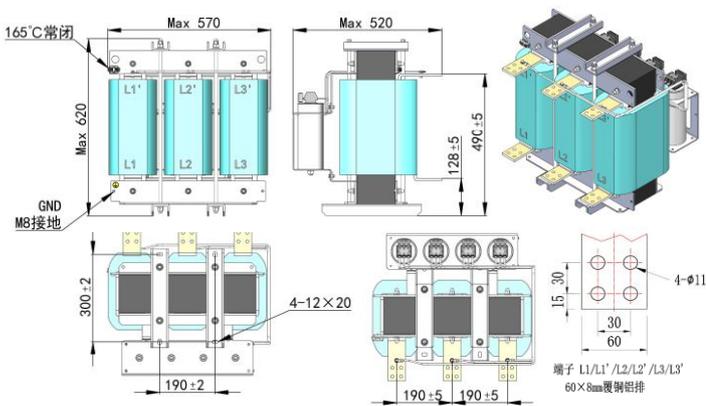
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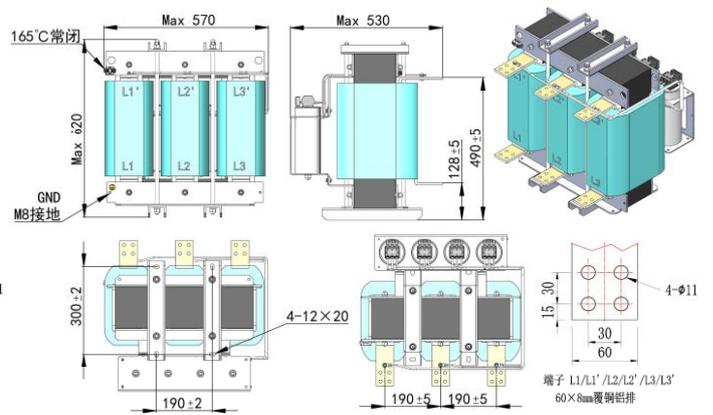
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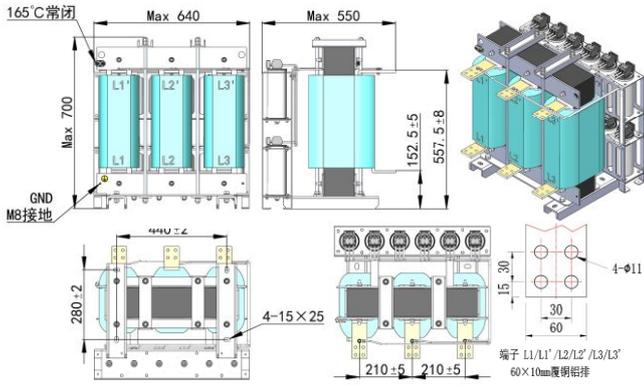
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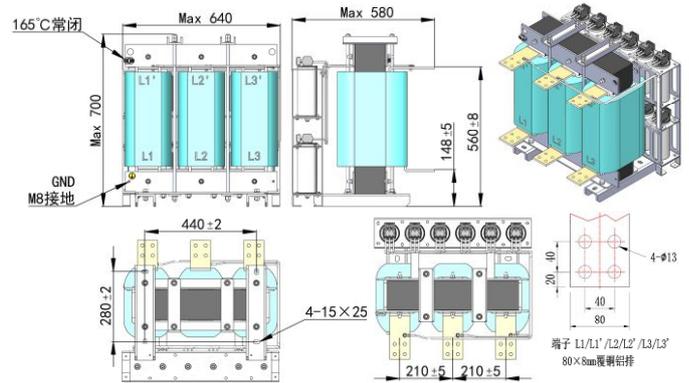
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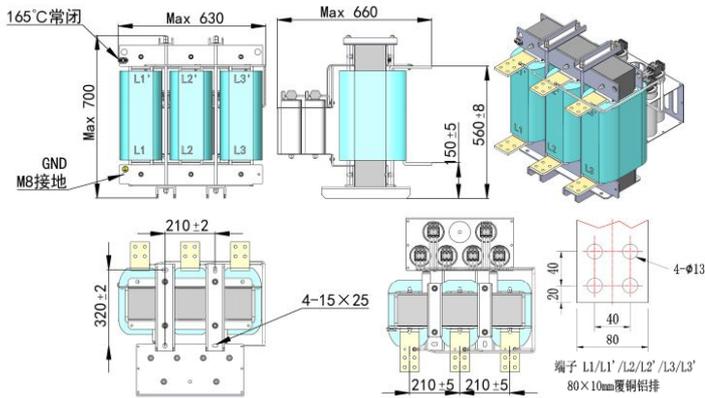
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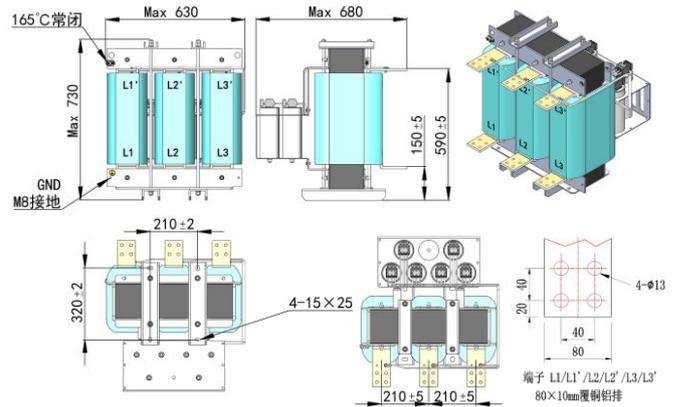
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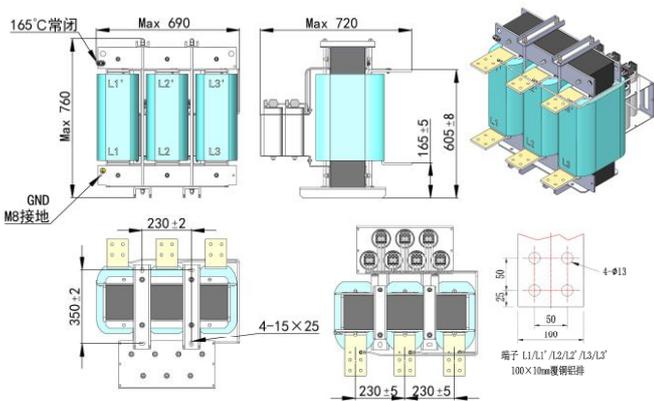
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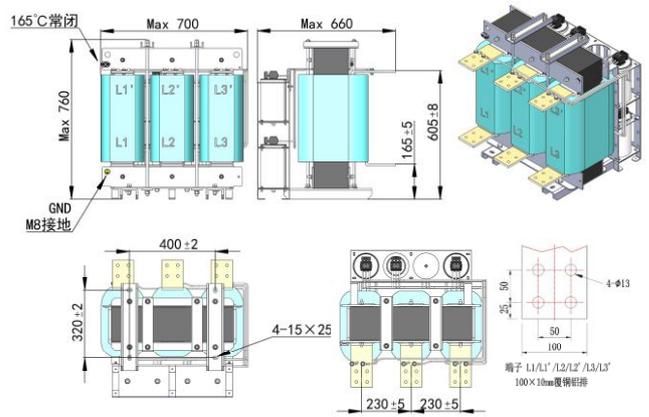
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Picture NO. 28



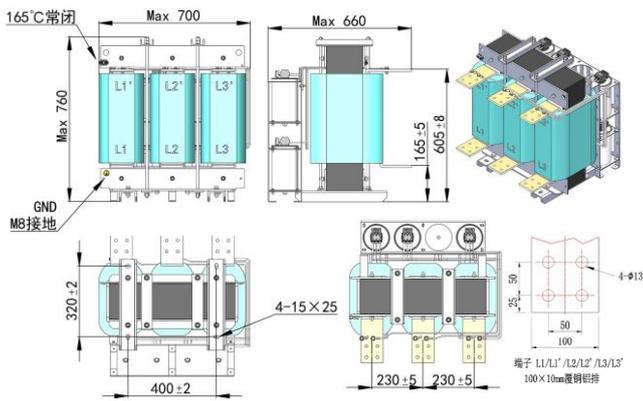
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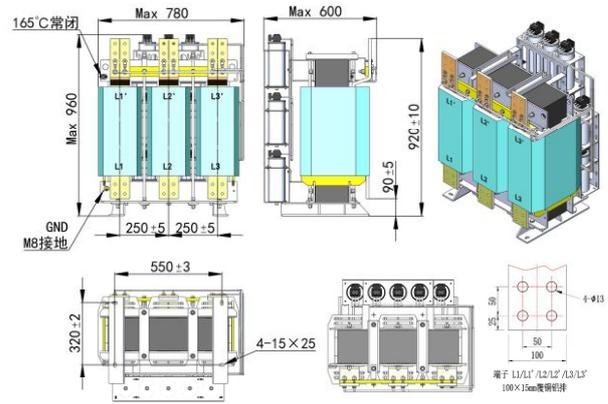
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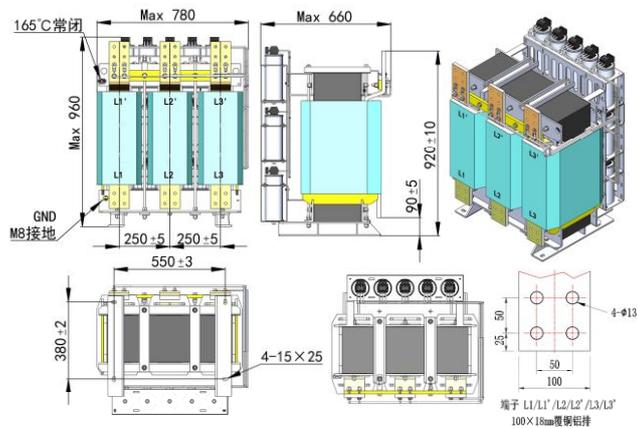
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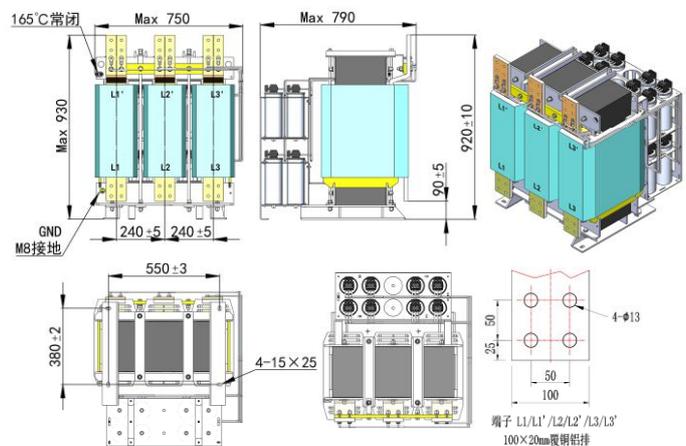
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Picture NO. 32



Picture NO. 33

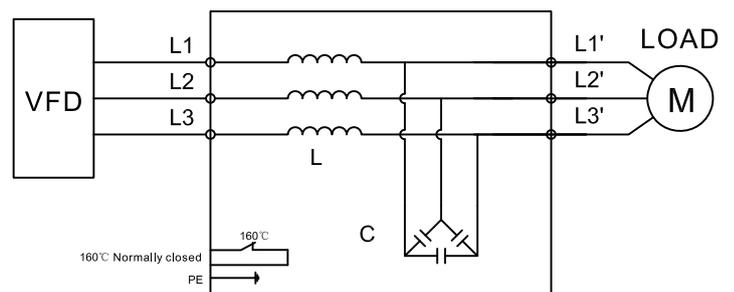


Picture NO. 34

TERMINALS OR COPPER BAR

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

CIRCUIT WIRING



The normally closed switch is used to protect the filter. When the filter is overheated the normally closed switch changes from normally closed to normally open. The normally closed switch can be connected to the digital input of the frequency converter as a fault signal input. When the filter is overheated the frequency converter will stop the output power. It can also be connected in series with the coil of the contactor on the main circuit, the main circuit will break when the filter is overheated.

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, class A

SIGNS

