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Version:QY202203(06)

Well known comprehensive solution operator in power electronics field

上海旗亚电子科技有限公司

SHANGHAI FLAGAT ELECTRONIC TECHNOLOGY CO., LTD

English version

PRODUCT CATALOG

REACTOR/TRANSFORMER/RESISTOR/BRAKING UNIT/FILTER

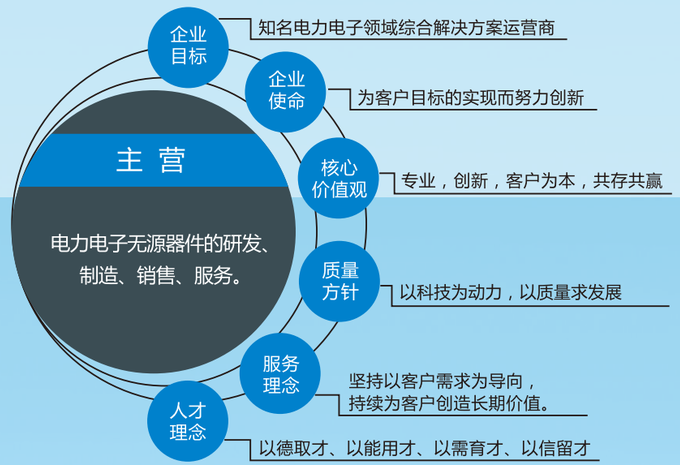
Corporate culture

上海旗亚电子科技有限公司是中国知名的电力电子领域综合解决方案运营商和服务商。FLAGAT品牌旗下的制动单元、电抗器、电阻器、滤波器、变压器等产品被广泛应用到工业传动、新能源、电能质量、轨道交通等领域。

旗亚科技以“为客户目标的实现而努力创新”为企业使命，不断致力于产品的开拓与创新，提升用户体验，帮助用户及合作伙伴取得成功。

SHANGHAI FLAGAT ElECTRONIC TECHNOLOGY CO., LTD. is a well-known comprehensive solution operator and service provider in the field of power electronics in China.Flafat brand's reactors, transformers, braking units, resistors, filters and other products are widely used in industrial transmission, new energy, power quality, rail transit and other fields.

FLAGAT technology takes "striving for innovation for the realization of customers' goals" as its corporate mission, and is constantly committed to product development and innovation, improving user experience, and helping users and partners to achieve success.



Application and scheme


Industrial control


New energy


Power quality


Rail transit


Load

Contents

Qualification and certification








ISO9001 / CE / Type test report / Patent ...

Aluminum case resistor

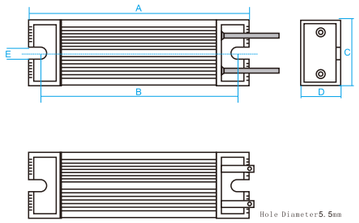
Product Profile

The aluminum shell resistor is made of aluminum shell and gold shell. Its weather resistance, vibration resistance and safety are better than those of traditional porcelain frame resistors. It is widely used in power supply, frequency converter, servo system and other high demand electrical circuits, and can be used in harsh industrial control environment. Easy to install tightly, easy to attach radiator. Beautiful appearance, it is an ideal supporting product for power electronics.

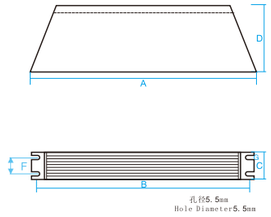
Product features

1. power range: 60-3000W
2. resistance range: 1 Ω -10k Ω;
3. electric strength: ac3000v 50Hz 1min
4. IP protection grade: ip00-ip54
5. fluid carrying material: 0cr25al5
6. thermal equilibrium time constant: 3600s
7. working voltage range of conventional products: ≤ 1200V
8. working characteristics: it is suitable for short-time impact, with large heat capacity and slow heat transfer. It is not suitable for long-time work, and a radiator should be added for long-time work.
9. applicable standard: gb/t5729-1994 fixed resistors for electronic equipment

Product outline drawing



Picture A



Picture B

Product Type	Rated Power(w)	Product Picture	Size (±2mm) A	B	C	D	E	F	G	Cable(mm²)	Lead Length (±10mm)	Terminal	Weight (kg±5%)	Resistance Value(Ω)
LCR	60	Picture A	115	98	40	20	5.5	×	×	1.5	250	2-5S	0.165	1Ω-10kΩ
	80		140	123	40	20	5.5	×	×	1.5	250	2-5S	0.2	1Ω-10kΩ
	100		165	148	40	20	5.5	×	×	1.5	250	2-5S	0.24	1Ω-10kΩ
	120		190	173	40	20	5.5	×	×	1.5	250	2-5S	0.28	1Ω-10kΩ
	150		215	198	40	20	5.5	×	×	1.5	250	2-5S	0.32	1Ω-10kΩ
	200		165	147	60	30	5.5	×	×	1.5	250	2-5S	0.464	1Ω-10kΩ
	300		215	198	60	30	5.5	×	×	1.5	250	2-5S	0.62	1Ω-10kΩ
	400		265	247	60	30	5.5	×	×	1.5	250	2-5S	0.8	1Ω-10kΩ
	500		335	317	60	30	5.5	×	×	1.5	250	2-5S	1.03	1Ω-10kΩ
	800	Picture B	400	382	61	59	×	40.5	5.5	×	×	M6	2.2	1Ω-10kΩ
	1000		400	384	50	107	×	30	5.5	×	×	M6	3.6	5Ω-10kΩ
	1200		450	434	50	107	×	30	5.5	×	×	M6	4	5Ω-10kΩ
	1500		485	469	50	107	×	30	5.5	×	×	M6	4.35	5Ω-10kΩ
	2000		550	534	50	107	×	30	5.5	×	×	M6	4.9	5Ω-10kΩ
	2500		550	534	50	107	×	30	5.5	×	×	M6	4.9	5Ω-10kΩ
	3000		550	534	50	107	×	30	5.5	×	×	M6	4.9	5Ω-10kΩ

Finished product identification code

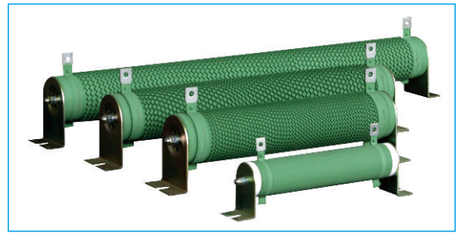
LCR – 2000W / 20R – M – W

- LCR: Product Type
- 2000W: Rated Power
- 20R: Resistance Value(ohm) (Ω) indicates resistance value im units of ohms
- M: Connection M=terminal J= lead (If none, it defaults to regular product)
- W: Temperature control (optional)

Ripple resistor

Product Profile

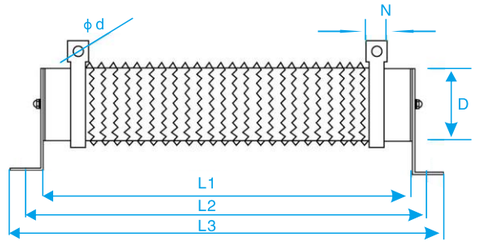
The corrugated resistor takes the cylindrical porcelain tube as the framework, and two stainless steel terminals are fixed on both sides. The framework is wound with corrugated resistance wires and coated with a layer of high temperature resistant and flame retardant coating on the resistor body. This product can be customized according to customer requirements. This product is suitable for simulated load test, equipment discharge, automatic control, inverter energy consumption braking and other occasions.

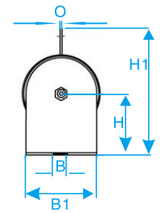


Product features

1. power range: 60-3000W
2. resistance range: 1 Ω -10k Ω;
3. electric strength: ac3000v 50Hz 1min
4. IP protection grade: IP00
5. fluid carrying material: 0cr25al5
6. thermal equilibrium time constant: 1800s
7. working voltage range of conventional products: ≤ 1200V
8. working characteristics: corrugated resistance wire, good heat dissipation, can work for a long time.
9. applicable standard: gb/t5729-1994 fixed resistors for electronic equipment

Product outline drawing





Product Type	Rated power(w)	Size (±2mm) L1	L2	L3	D	B	B1	H	H1	N	Φd	O	Weight (kg±5%)	Resistance Value(Ω)
BCR	60	102	124	146	28	6.5	28	28	62	9.5	4.5	1.2	0.2	1Ω-10kΩ
	80	152	174	196	28	6.5	28	28	62	9.5	4.5	1.2	0.24	1Ω-10kΩ
	100	182	204	226	28	6.5	28	28	62	9.5	4.5	1.2	0.24	1Ω-10kΩ
	120	182	204	226	28	6.5	28	28	62	9.5	4.5	1.2	0.24	1Ω-10kΩ
	150	197	219	241	40	8	40	41	86	12	5.5	2.0	0.43	1Ω-10kΩ
	200	197	219	241	40	8	40	41	86	12	5.5	2.0	0.43	1Ω-10kΩ
	300	284	306	328	40	8	40	41	86	12	5.5	2.0	0.62	1Ω-10kΩ
	400	284	306	328	40	8	40	41	86	12	5.5	2.0	0.62	1Ω-10kΩ
	500	318	340	362	50	8	50	45	99	16	6.5	2.0	0.7	1Ω-10kΩ
	600	318	340	362	50	8	50	45	99	16	6.5	2.0	0.7	1Ω-10kΩ
	750	318	340	362	50	8	50	45	99	16	6.5	2.0	0.96	1Ω-10kΩ
	1000	302	327	352	60	8.5	60	60	119	16	6.5	2.0	1.4	5Ω-10kΩ
	1200	417	442	467	60	8.5	60	60	119	16	6.5	2.0	1.4	5Ω-10kΩ
	1500	417	442	467	60	8.5	60	60	119	16	6.5	2.0	1.72	5Ω-10kΩ
	2000	512	537	562	60	8.5	60	60	119	16	6.5	2.0	2.02	5Ω-10kΩ
	2500	602	627	652	60	8.5	60	60	119	16	6.5	2.0	2.45	5Ω-10kΩ
	3000	602	627	652	68	8.5	68	68	127	16	6.5	2.0	2.8	1Ω-10kΩ

Finished product identification code

BCR – 2000W / 20R

- BCR: Product Type
- 2000W: Rated Power
- 20R: Resistance Value(ohm) (Ω) indicates resistance value im units of ohms

Braking resistance box

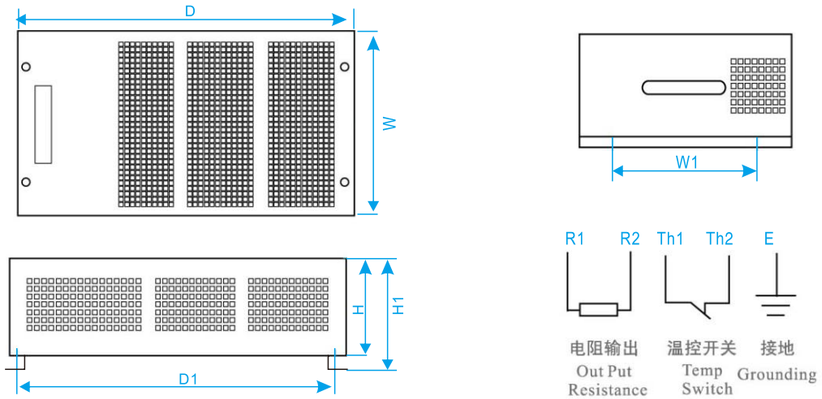
Product Profile

The resistance box product is composed of corrugated resistors, with beautiful appearance, convenient installation, good safety and heat dissipation capacity. It can be used for high-power energy consumption braking, and can also be used as a simulated load for various high-power equipment.

Product features

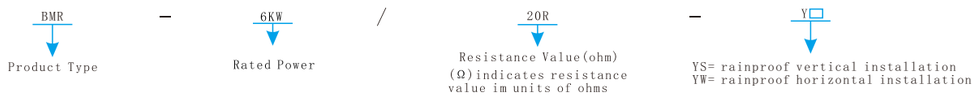
1. rated power range: single 1.5kw-15kw; Double deck 30KW
2. resistance range: 1 Ω -1000 Ω
3. electric strength: ac3000v 50Hz 1min
4. IP protection grade: ip00-ip23
5. fluid carrying material: 0cr25al5
6. thermal equilibrium time constant: 1800s
7. working voltage range: ≤ 5000v
8. working voltage range of conventional products: ≤ 1200V
9. conventional products have built-in temperature control switch.
10. applicable standard: gb/t5729-1994 fixed resistors for electronic equipment

Product outline drawing



Product Type	Rated Power(w)	Size （±2mm）						Terminal block screw	Cable(mm²)	Weight (kg±5%)	Combination
		W	D	H	H1	D1	W1				
BMR	3.0	210	500	155	185	480	180	M6	6	7.8	1.5KW*2
	4.0	295	600	155	185	580	240	M6	10	9.8	2KW*2
	4.5	295	600	155	185	580	240	M6	10	9.8	1.5KW*3
	4.8	295	600	155	185	580	240	M6	10	10.0	1.6KW*3
	6.0	295	600	155	185	580	240	M6	10	12.0	2KW*3
	8.0	380	685	155	185	645	280	M6	10	15.0	2.7KW*3
	10.0	380	685	155	185	645	280	M6	10	17.5	2.5KW*4
	12.5	470	775	155	185	735	400	M6	16	21.0	3.2KW*4
	15.0	470	775	155	185	735	400	M6	16	23.5	3KW*5
	20.0	380	685	340	370	645	280	M6	16	35.0	10KW*2
	25.0	470	775	340	370	735	400	M6	16	42.0	12.5KW*2
	30.0	470	775	340	370	735	400	M6	16	15KW*2	15KW*2

Finished product identification code



Power resistance cabinet

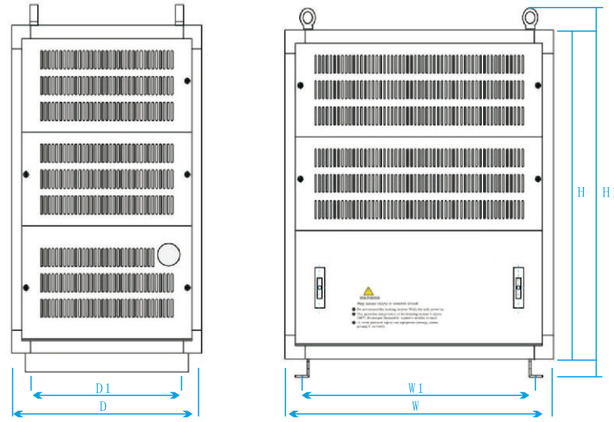
Product Profile

Stainless steel resistance products have reliable performance, with the characteristics of large capacity, high voltage resistance, corrosion resistance, vibration resistance, impact resistance, no induction, no contact resistance, long service life, etc. It is mainly used for motor starting, braking and speed regulation.

Product features

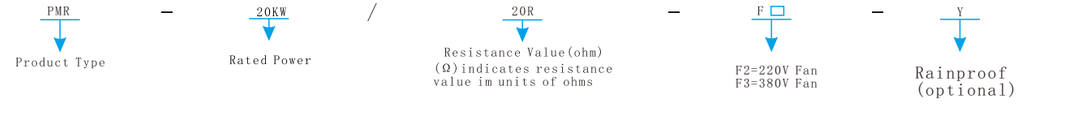
1. rated power range: single layer 5.6kw and 10kW, multi-layer stacking (single group ≤ 6 layers)
2. product appearance and structure are divided into indoor open type and outdoor protective type
3. resistance range: 1 Ω -1000 Ω
4. voltage range: 220v-1140v
5. electric strength: ac3000v 50Hz 1min

Product outline drawing



Product Type	Rated Power(w)	Size （±2mm）						Terminal block screw	Cable(mm²)	Weight (kg±5%)	Combination
		W	D	H	H1	D1	W1				
PMR	30	700	500	900	985	342	615	M6	16	74	2.5KW*12
	40	700	500	900	985	342	615	M6	25	84	2.5KW*16
	50	700	500	1300	1385	342	615	M6	25	100	2.5KW*20
	60	700	500	1300	1385	342	615	M6	35	110	2.5KW*24
	70	700	500	1500	1585	342	615	M6	35	125	2.5KW*28
	80	700	500	1500	1585	342	615	M6	50	135	2.5KW*32
	100	700	500	1800	1885	342	615	M6	50	160	2.5KW*40
	200	1400	500	1800	1885	342	615	M6	75	320	100KW*2

Finished product identification code



Stainless steel resistance

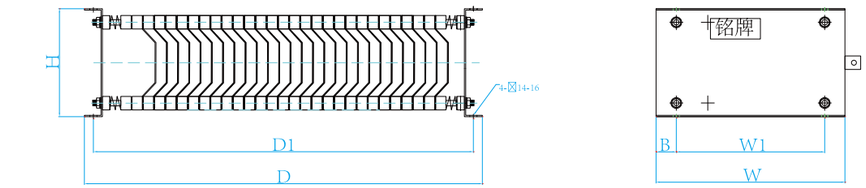
Product Profile

Stainless steel resistance products have reliable performance, with the characteristics of large capacity, high voltage resistance, corrosion resistance, vibration resistance, impact resistance, no induction, no contact resistance, long service life, etc. It is mainly used for motor starting, braking and speed regulation.

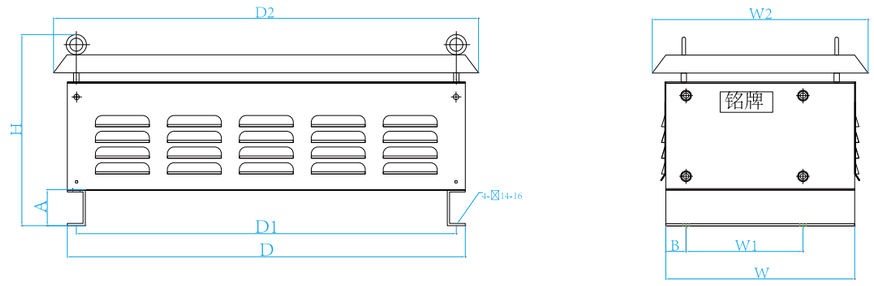
Product features

1. rated power range: single layer 5.6kw and 10kW, multi-layer stacking (single group ≤ 6 layers)
2. product appearance and structure are divided into indoor open type and outdoor protective type
3. resistance range: 1 Ω -1000 Ω
4. voltage range: 220v-1140v
5. electric strength: ac3000v 50Hz 1min

Product outline drawing



A Indoor open type



B Outdoor protective type

Product Type	Size （±2mm）									Weight （kg±10%）
	D	W	H	D1	W1	D2	W2	A	B	
SOMR-5.6KW	645	375	240	605	260	×	×	×	40	16
SOMR-10KW	885	375	240	845	260	×	×	×	40	27
SPMR-5.6KW	645	420	425	605	260	705	480	100	40	24
SPMR-10KW	885	420	425	845	260	945	480	100	40	35

Remarks:The above models are single box specifications, and high power can be stacked and combined correspondingly

Finished product identification code

SOMR – 10KW / 20R

- SOMR: Product Type
  - FD-SOMP Indoor open type
  - FD-SPMP Outdoor protective type
- 10KW: Rated Power
- 20R: Resistance Value(ohm) (Ω) indicates resistance value im units of ohms

Braking unit

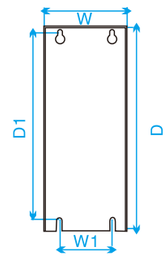
Product Profile

The function of the braking unit product is to consume the regenerative energy generated by the motor during deceleration on the braking resistance in the form of heat energy, so as to generate sufficient braking torque, so as to improve the braking performance of the frequency converter and shorten the braking time of the frequency converter.

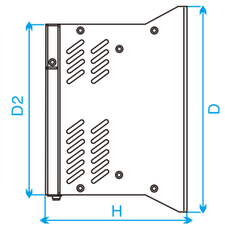
Product features

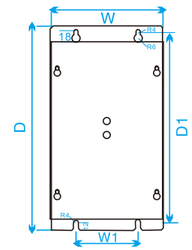
1. Economy: the product has high cost performance and complete specifications, covering single machine economic type and parallel universal type, reducing the use cost.
2. universality: the multi gear adjustable chopper voltage can be applied to all brands of low-voltage frequency converters, and the special design can use ordinary resistance instead of non inductive resistance.
3. reliability: with IGBT overheating, overcurrent and short circuit protection functions, it can prevent IGBT breakdown from causing safety hazards caused by long-time load operation of braking resistance.
4. humanized design: a. the panel adopts the spring screw connection technology to make the wiring operation more convenient. b. The operation can be observed and understood through the indicator light without opening the panel.

Product outline drawing

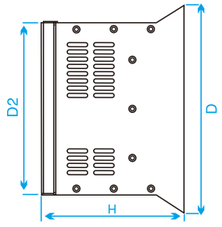


Picture A





Picture B



Product Type	picture NO	Rated current(A)	Peak current(A)	inimum braking resistor（Ω）	Size （±2mm）						Mounting Hole Size	Terminal	Cable（mm²）	Weight (kg±10%)
					W	D	H	W1	D1	D2				
BCS-2015D	A	15	50	10	96	228	135	50	213	195	Φ5	M4	4-6	1.8
BCS-2030D		30	75	6.5	96	228	135	50	213	195	Φ5	M4	6-8	1.8
BCS-4030D		15	50	20	96	228	135	50	213	195	Φ5	M4	4-6	1.8
BCS-4045D		25	75	13.6	96	228	135	50	213	195	Φ5	M4	4-6	1.8
BCS-4075D		40	100	9.5	96	228	135	50	213	195	Φ5	M4	6-8	1.8
BCS-4045DM		25	75	13.6	103	215	158	78	200	185	Φ5	M4	4-6	3
BCS-4075DM		40	100	9.5	103	215	158	78	200	185	Φ5	M4	4-6	3
BCS-4090DM		50	150	7	103	215	158	78	200	185	Φ5	M4	8-10	3
BCS-4110DM		60	150	6.5	133	298	168	90	283	259	Φ8	M8	8-16	3.8
BCS-4160DM		70	200	4	133	298	168	90	283	259	Φ8	M8	8-16	3.8
BCS-4220M	B	120	300	3	190	330	193	100	309	282	Φ8	M8	16-36	7
BCS-4300M		200	450	2.5	190	330	193	100	309	282	Φ8	M8	25-50	7
BCS-4400M		300	600	2	190	330	193	100	309	282	Φ8	M8	25-50	7
BCS-6045DM	A	25	75	22	103	215	158	78	200	185	Φ5	M4	4-6	3
BCS-6110DM		70	200	13	133	298	168	90	283	259	Φ8	M8	8-16	3.8
BCS-6220M	B	85	300	5	190	330	193	100	309	282	Φ8	M8	16-36	7
BCS-11220M		60	200	20	254	407	212	190	388		Φ8	M8	16-36	

Note: the unit price economical type cannot be used in parallel with multiple units. Please pay attention to the minimum resistance range when configuring the resistance.

Finished product identification code

BCS – 4 0 4 5 D M

- BCS: Product Type
- 4: AC voltage class 4 380VAC
- 0 4 5: Ed10% adaptive frequency converter power
- D: stand-alone
- M: High performance module

Three phase input reactor

Product Profile

The three-phase input reactor is installed on the input side of the frequency converter to protect the frequency converter from the impact of transient overpressure. It can reduce the surge and peak current, improve the real power factor of the power supply, suppress the harmonic of the power grid, and improve the input current waveform.

Product features

1. rated working voltage: 220vac-1140vac 50/60hz
2. rated working current: 5A to 1600A @40 ℃;
3. electrical resistance: core winding 3000vac/50hz/5ma/10s without flying fox breakdown (factory test)
4. insulation resistance: core winding 1000VDC insulation resistance ≥ 100m Ω
5. reactor noise: less than 80dB (tested at 1m from the horizontal distance of reactor)
6. protection grade: IP00
7. insulation grade: above grade F
8. maximum current: 1.5* rated current, lasting for 60s
9. temperature rise: ≤ 85K
10. applicable standard: iec60076; Gb19212.1-2008; Gb19212.21-2007; Gb1094.6-2011

Application

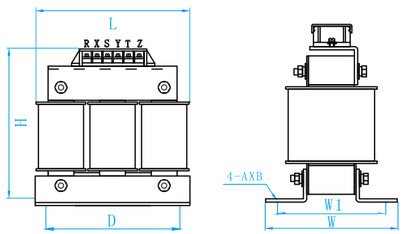
The input reactor is recommended especially in the following environments:

1. several frequency converters are connected closely in parallel
2. the line power supply has obvious disturbance (interference, overvoltage) from other equipment;
3. there is voltage imbalance between each phase of the line power supply, exceeding 1.8% of the rated voltage
4. a large number of frequency converters are installed on the same line
5. reduce cos ϕ Correct the overload on the capacitor if the device contains a power factor correction device

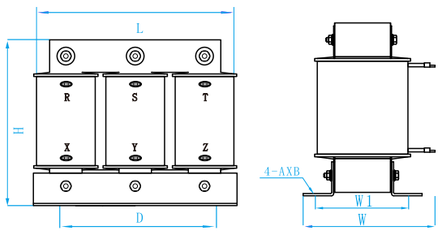
Environmental conditions

1. altitude shall not exceed 2000m
2. temperature resistance grade F (155 ℃) or above
3. the operating ambient temperature is -25 ℃ ~ +45 ℃, and the relative humidity is not more than 90%

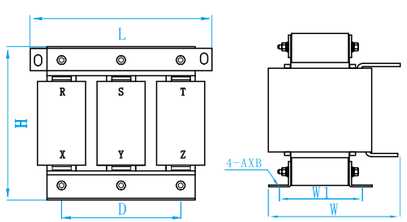
Product outline drawing



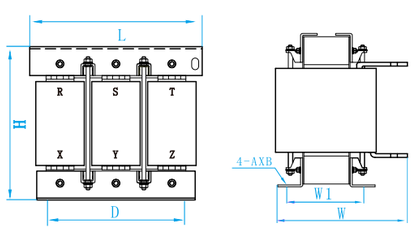
Picture A



Picture B



Picture C



Picture D

Three phase input reactor

Dimension drawing of 380V 2% voltage drop product

Product Type	picture NO	Power(KW)	Rated Current(A)	Inductance Value (mH)	Voltage Drop	Insulation Class	Size (±2mm)						Weight (kg±10%)
							L	W	H	D	W1	A*B	
ASL-0005-EISA-E2M8	A	1.5	5	2.8	2%	F.H	120	75	135	90	52	6*12	2.5Kg
ASL-0007-EISA-E2M0		2.2	7	2	2%	F.H	120	75	135	90	52	6*12	2.5Kg
ASL-0010-EISA-E1M4		3.7	10	1.4	2%	F.H	120	75	135	90	52	6*12	2.9Kg
ASL-0015-EISA-EM94		5.5	15	0.94	2%	F.H	120	75	135	90	52	6*12	2.9Kg
ASL-0020-EISA-EM70		7.5	20	0.7	2%	F.H	120	75	135	90	52	6*12	3.0Kg
ASL-0030-EISA-EM47	B	11	30	0.47	2%	F.H	155	140	140	95	61	6*12	5.0Kg
ASL-0040-EISA-EM35		15	40	0.35	2%	F.H	155	140	140	95	61	6*12	5.0Kg
ASL-0050-EISA-EM28		18.5	50	0.28	2%	F.H	180	155	165	120	80	8.5*20	8.0Kg
ASL-0060-EISA-EM24		22	60	0.24	2%	F.H	180	155	165	120	80	8.5*20	8.0Kg
ASL-0080-EISA-EM18		30	80	0.18	2%	F.H	180	155	165	120	80	8.5*20	8.0Kg
ASL-0090-EISA-EM16		37	90	0.156	2%	F.H	180	155	165	120	80	8.5*20	8.0Kg
ASL-0120-EISA-EM12		45	120	0.117	2%	F.H	195	185	195	120	98	8.5*20	13.0Kg
ASL-0150-EISA-E94U		55	150	0.094	2%	F.H	195	185	195	120	98	8.5*20	13.0Kg
ASL-0200-EISA-E70U	C	75	200	0.07	2%	F.H	245	175	255	182	98	11*18	23.0Kg
ASL-0250-EISA-E56U		110	250	0.056	2%	F.H	245	175	255	182	98	11*18	23.0Kg
ASL-0290-EISA-E48U		132	290	0.048	2%	F.H	245	175	255	182	98	11*18	23.0Kg
ASL-0330-EISA-E42U		160	330	0.042	2%	F.H	295	190	275	214	104	12*20	36.0Kg
ASL-0390-EISA-E36U		185	390	0.036	2%	F.H	295	190	275	214	104	12*20	36.0Kg
ASL-0490-EISA-E28U		220	490	0.028	2%	F.H	295	190	275	214	104	12*20	36.0Kg
ASL-0600-EISA-E24U		280	600	0.024	2%	F.H	295	220	295	214	114	12*20	40.0Kg
ASL-0660-EISA-E22U		300	660	0.022	2%	F.H	295	220	295	214	114	12*20	40.0Kg
ASL-0800-EISA-E18U		380	800	0.0175	2%	F.H	345	235	315	270	129	12*20	52.0Kg
ASL-1000-EISA-E14U		450	1000	0.014	2%	F.H	380	255	345	290	129	12*20	58.0Kg
ASL-1200-EISA-E12U	D	550	1200	0.0117	2%	F.H	380	260	425	290	134	12*20	75.0Kg
ASL-1600-EISA-E8U6		630	1600	0.0086	2%	F.H	380	290	425	290	159	12*20	90.0Kg

Dimension drawing of 690V 2% voltage drop product

Product Type	picture NO	Power(KW)	Rated Current(A)	Inductance Value (mH)	Voltage Drop	Insulation Class	Size (±2mm)						Weight (kg±10%)
							L	W	H	D	W1	A*B	
ASL-0005-EISA-E5M6	A	3.7	5	5.6	2%	F.H	120	75	135	90	52	6*12	3.0Kg
ASL-0007-EISA-E4M0		5.5	7	4	2%	F.H	120	75	135	90	52	6*12	3.0Kg
ASL-0010-EISA-E2M8		7.5	10	2.8	2%	F.H	155	90	165	95	61	6*12	5.6Kg
ASL-0015-EISA-E1M9		11	15	1.87	2%	F.H	155	90	165	95	61	6*12	5.6Kg
ASL-0020-EISA-E1M4		15/18.5	20	1.4	2%	F.H	155	90	165	95	61	6*12	5.6Kg
ASL-0030-EISA-EM93	B	22	30	0.93	2%	F.H	180	90	165	120	83	8.5*10	8.0Kg
ASL-0040-EISA-EM70		30	40	0.7	2%	F.H	180	155	165	120	83	8.5*20	8.0Kg
ASL-0050-EISA-EM56		37/45	50	0.56	2%	F.H	190	175	165	120	98	8.5*20	10.0Kg
ASL-0060-EISA-EM47		55	60	0.47	2%	F.H	190	175	165	120	98	8.5*20	10.0Kg
ASL-0080-EISA-EM35		75	80	0.35	2%	F.H	220	175	205	150	96	11*18	15.0Kg
ASL-0090-EISA-EM31		90	90	0.31	2%	F.H	220	175	205	150	96	11*18	15.0Kg
ASL-0120-EISA-EM23	C	110	120	0.23	2%	F.H	245	195	225	182	118	11*18	25.0Kg
ASL-0150-EISA-EM19		132	150	0.19	2%	F.H	245	195	225	182	118	11*18	25.0Kg
ASL-0200-EISA-EM14		160/185	200	0.14	2%	F.H	295	205	275	214	124	12*20	36.0Kg
ASL-0250-EISA-EM11		220	250	0.11	2%	F.H	295	205	275	214	124	12*20	36.0Kg
ASL-0290-EISA-E96U		240	290	0.096	2%	F.H	295	205	275	214	124	12*20	36.0Kg
ASL-0330-EISA-E85U		280/300	330	0.085	2%	F.H	295	265	275	214	154	12*20	50.0Kg
ASL-0390-EISA-E72U		380	390	0.072	2%	F.H	295	265	275	214	154	12*20	50.0Kg
ASL-0490-EISA-E57U		450	490	0.057	2%	F.H	295	265	275	214	154	12*20	50.0Kg
ASL-0600-EISA-E47U	D	550	600	0.047	2%	F.H	380	265	320	290	164	12*20	74.0Kg
ASL-0660-EISA-E42U		630	660	0.042	2%	F.H	380	265	320	290	164	12*20	74.0Kg
ASL-0800-EISA-E35U		710	800	0.035	2%	F.H	380	295	350	290	174	12*20	85.0Kg
ASL-1000-EISA-E28U		800	1000	0.028	2%	F.H	380	310	350	290	194	12*20	105.0Kg

Three phase output reactor

Product Profile

The three-phase output reactor is installed at the output end of the frequency converter to limit the capacitive charging current of the connecting cable between the frequency converter and the motor and passivate the PMW wave voltage rise rate output by the frequency converter.

Product features

1. rated working voltage: 220vac-1140vac 50/60hz
2. rated working current: 5A to 1600A @40 ℃;
3. electrical resistance: core winding 3000vac/50hz/5ma/10s without flying fox breakdown (factory test)
4. insulation resistance: core winding 1000VDC insulation resistance ≥ 100m Ω
5. reactor noise: less than 80dB (tested at 1m from the horizontal distance of reactor)
6. protection grade: IP00
7. insulation grade: above grade F
8. maximum current: 1.5* rated current, lasting for 60s
9. temperature rise: ≤ 85K
10: Carrier frequency: 2-8khz
11. applicable standard: iec60076; Gb19212.1-2008; Gb19212.21-2007; Gb1094.6-2011

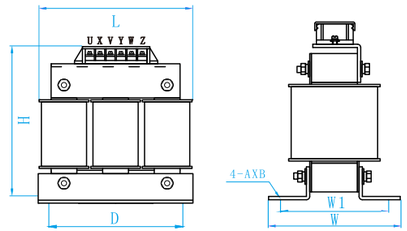
Application

1. limit dv/dt to 500v/us
2. limit the voltage on the motor terminal to: 1000V to 400V ~ (RMS value) 1150v to 460V ~ (RMS value)
3. reduce filter interference caused by opening the contactor between filter and motor
4. reduce motor grounding leakage current

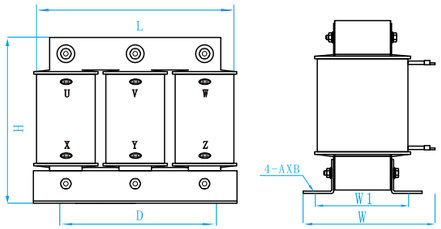
Environmental conditions

1. altitude shall not exceed 2000m
2. temperature resistance grade F (155 ℃) or above
3. the operating ambient temperature is -25 ℃ ~ +45 ℃, and the relative humidity is not more than 90%

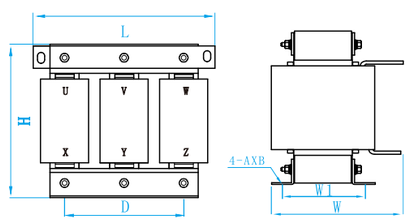
Product outline drawing



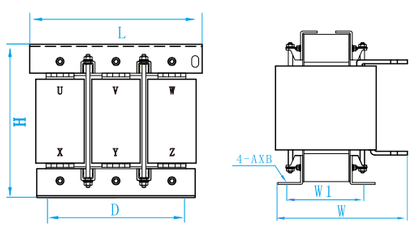
Picture A



Picture B



Picture C



Picture D

Three phase output reactor

Dimension drawing of 380V 1% voltage drop product

Product Type	picture NO	Power(KW)	Rated Current(A)	Inductance Value (mH)	Voltage Drop	Insulation Class	Size (±2mm)						Weight (kg±10%)
							L	W	H	D	W1	A*B	
OSL-0005-EISA-E1M4	A	1.5	5	1.4	1%	F、H	120	75	135	90	52	6*12	2.5Kg
OSL-0007-EISA-E1M0		2.2	7	1	1%	F、H	120	75	135	90	52	6*12	2.5Kg
OSL-0010-EISA-EM70		3.7	10	0.7	1%	F、H	120	75	135	90	52	6*12	2.9Kg
OSL-0015-EISA-EM47		5.5	15	0.47	1%	F、H	120	75	135	90	52	6*12	2.9Kg
OSL-0020-EISA-EM35		7.5	20	0.35	1%	F、H	120	75	135	90	52	6*12	3.0Kg
OSL-0030-EISA-EM23	B	11	30	0.23	1%	F、H	155	140	140	95	61	6*12	5.0Kg
OSL-0040-EISA-EM18		15	40	0.18	1%	F、H	155	140	140	95	61	6*12	5.0Kg
OSL-0050-EISA-EM14		18.5	50	0.14	1%	F、H	180	155	165	120	80	8.5*20	8.0Kg
OSL-0060-EISA-EM12		22	60	0.12	1%	F、H	180	155	165	120	80	8.5*20	8.0Kg
OSL-0080-EISA-E87U		30	80	0.087	1%	F、H	180	155	165	120	80	8.5*20	8.0Kg
OSL-0090-EISA-E78U		37	90	0.078	1%	F、H	180	155	165	120	80	8.5*20	8.0Kg
OSL-0120-EISA-E58U		45	120	0.058	1%	F、H	195	185	195	120	98	8.5*20	13.0Kg
OSL-0150-EISA-E47U		55	150	0.047	1%	F、H	195	185	195	120	98	8.5*20	13.0Kg
OSL-0200-EISA-E35U	C	75	200	0.035	1%	F、H	245	175	255	182	98	11*18	23.0Kg
OSL-0250-EISA-E28U		110	250	0.028	1%	F、H	245	175	255	182	98	11*18	23.0Kg
OSL-0290-EISA-E24U		132	290	0.024	1%	F、H	245	175	255	182	98	11*18	23.0Kg
OSL-0330-EISA-E21U		160	330	0.021	1%	F、H	295	190	275	214	104	12*20	30.0Kg
OSL-0390-EISA-E18U		185	390	0.018	1%	F、H	295	190	275	214	104	12*20	30.0Kg
OSL-0490-EISA-E14U		220	490	0.014	1%	F、H	295	190	275	214	104	12*20	30.0Kg
OSL-0600-EISA-E12U		280	600	0.012	1%	F、H	295	210	295	214	104	12*20	35.0Kg
OSL-0660-EISA-E11U		300	660	0.011	1%	F、H	295	210	295	214	104	12*20	35.0Kg
OSL-0800-EISA-E8U7		380	800	0.00875	1%	F、H	345	225	315	270	119	12*20	43.0Kg
OSL-1000-EISA-E7U0		450	1000	0.0070	1%	F、H	380	250	345	290	124	12*20	55.0Kg
OSL-1200-EISA-E5U8	D	550	1200	0.00585	1%	F、H	380	260	425	290	134	12*20	73.0Kg
OSL-1600-EISA-E4U3		630	1600	0.0043	1%	F、H	380	390	425	290	159	12*20	85.0Kg

Dimension drawing of 690V 1% voltage drop product

Product Type	picture NO	Power(KW)	Rated Current(A)	Inductance Value (mH)	Voltage Drop	Insulation Class	Size (±2mm)						Weight (kg±10%)
							L	W	H	D	W1	A*B	
OSL-0005-EISA-E2M8	A	3.7	5	2.8	1%	F.H	120	75	135	90	52	6*12	3.0Kg
OSL-0007-EISA-E2M0		5.5	7	2	1%	F.H	120	75	135	90	52	6*12	3.0Kg
OSL-0010-EISA-E1M4		7.5	10	1.4	1%	F.H	155	90	165	95	61	6*12	5.6Kg
OSL-0015-EISA-EM93		11	15	0.93	1%	F.H	155	90	165	95	61	6*12	5.6Kg
OSL-0020-EISA-EM70		15/18.5	20	0.7	1%	F.H	155	90	165	95	61	6*12	5.6Kg
OSL-0030-EISA-EM47	B	22	30	0.47	1%	F.H	180	155	165	120	83	8.5*10	8.0Kg
OSL-0040-EISA-EM35		30	40	0.35	1%	F.H	180	155	165	120	83	8.5*20	8.0Kg
OSL-0050-EISA-EM28		37/45	50	0.28	1%	F.H	190	175	165	120	98	8.5*20	10.0Kg
OSL-0060-EISA-EM23		55	60	0.23	1%	F.H	190	175	165	120	98	8.5*20	10.0Kg
OSL-0080-EISA-EM18		75	80	0.18	1%	F.H	190	180	185	120	98	11*18	12.0Kg
OSL-0090-EISA-EM16		90	90	0.16	1%	F.H	190	180	185	120	98	11*18	12.0Kg
OSL-0120-EISA-EM12	C	110	120	0.12	1%	F.H	245	175	225	182	98	11*18	25.0Kg
OSL-0150-EISA-E94U		132	150	0.094	1%	F.H	245	175	225	182	98	11*18	25.0Kg
OSL-0200-EISA-E70U		160/185	200	0.07	1%	F.H	245	185	255	182	108	12*20	27.0Kg
OSL-0250-EISA-E55U		220	250	0.055	1%	F.H	245	185	255	182	108	12*20	27.0Kg
OSL-0290-EISA-E48U		240	290	0.048	1%	F.H	245	192	255	182	108	12*20	27.0Kg
OSL-0330-EISA-E42U		280/300	330	0.042	1%	F.H	295	235	275	214	134	12*20	43.0Kg
OSL-0390-EISA-E36U		380	390	0.036	1%	F.H	295	235	275	214	134	12*20	43.0Kg
OSL-0490-EISA-E28U		450	490	0.028	1%	F.H	295	245	275	214	134	12*20	43.0Kg
OSL-0600-EISA-E23U		550	600	0.023	1%	F.H	295	270	295	214	164	12*20	62.0Kg
OSL-0660-EISA-E21U		630	660	0.021	1%	F.H	295	270	295	214	164	12*20	62.0Kg
OSL-0800-EISA-E18U	D	710	800	0.018	1%	F.H	380	275	350	290	154	12*20	76.0Kg
OSL-1000-EISA-E14U		800	1000	0.014	1%	F.H	380	300	350	290	184	12*20	95.0Kg

DC reactor

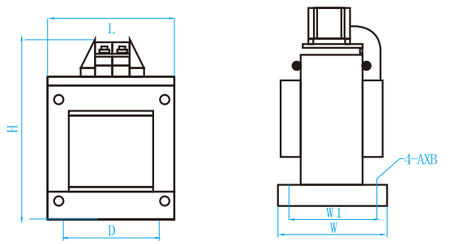
Product Profile

DC reactor used in DC circuit can reduce current ripple and ensure continuous current flow when the inductance reaches a certain amount. Improve input current waveform distortion caused by capacitor filtering, reduce and prevent rectifier bridge damage and capacitor overheating caused by impulse current, improve power factor, reduce DC bus AC pulse, and limit power grid voltage transients.

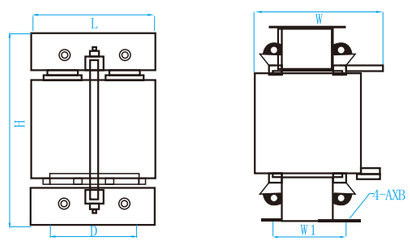
Product features

1. rated working voltage: dc500v-dc1000v 50/60hz
2. rated working current: 5A to 1600A@40 ℃;
3. electrical resistance: core winding 3000vac/50hz/5ma/10s without flying fox breakdown (factory test)
4. insulation resistance: core winding 1000VDC insulation resistance ≥ 100m Ω
5. reactor noise: less than 80dB (tested at 1m from the horizontal distance of reactor)
6. protection grade: IP00
7. insulation grade: above grade F
8. maximum current: 1.5* rated current, lasting for 60s
9. temperature rise: ≤ 85K
10. applicable standard: iec60076; Gb19212.1-2008; Gb19212.21-2007; Gb1094.6-2011

Product outline drawing



Picture A



Picture B

Product Type	picture NO	Power(KW)	Rated Current(A)	Inductance Value (mH)	Insulation Class	Size (±2mm)						Weight (kg±10%)
						L	W	H	D	W1	A*B	
DSL-0010-EIDA-E6M3	A	3.7	10	6.3	F,H	104	100	135	85	80	6*11	3.0Kg
DSL-0015-EIDA-E3M6		5.5	15	3.6	F,H	104	100	135	85	80	6*11	3.0Kg
DSL-0020-EIDA-E2M7		7.5	20	2.7	F,H	104	100	135	85	80	6*11	3.0Kg
DSL-0030-EIDA-E2M0		11	30	2	F,H	115	120	160	95	90	7*11	4.5Kg
DSL-0040-EIDA-E1M5		15	40	1.5	F,H	115	120	160	95	90	7*11	4.5Kg
DSL-0050-EIDA-E1M1		22	50	1.08	F,H	115	120	160	95	90	7*11	4.5Kg
DSL-0065-EIDA-EM80		30	65	0.8	F,H	115	120	160	95	90	7*11	4.5Kg
DSL-0080-EIDA-EM70		37	80	0.7	F,H	138	130	170	111	95	7*18	6.0Kg
DSL-0100-EIDA-EM54		45	100	0.54	F,H	138	130	170	111	95	7*18	6.0Kg
DSL-0120-EIDA-EM45	B	55	120	0.45	F,H	165	155	215	130	87	10*16	14.0Kg
DSL-0160-UIDA-EM36		75	160	0.36	F,H	165	165	215	130	97	10*16	15.0Kg
DSL-0200-UIDA-EM33		90	200	0.33	F,H	210	180	275	176	105	11*18	20.0Kg
DSL-0250-UIDA-EM26		110	250	0.26	F,H	210	195	275	176	115	11*18	24.0Kg
DSL-0300-UIDA-EM20		132	300	0.20	F,H	210	210	275	176	125	11*18	27.0Kg
DSL-0350-UIDA-EM17		160	350	0.17	F,H	210	225	275	176	125	11*18	28.0Kg
DSL-0450-UIDA-E90U		185	450	0.09	F,H	210	225	275	176	125	11*18	28.0Kg
DSL-0500-UIDA-E60U		220	500	0.06	F,H	210	225	275	176	125	11*18	28.0Kg
DSL-0650-UIDA-E50U		300	650	0.05	F,H	210	225	275	176	130	11*18	30.0Kg
DSL-0800-UIDA-E50U		380/400	800	0.05	F,H	240	245	290	206	120	11*18	35.0Kg
DSL-1000-UIDA-E40U		450	1000	0.04	F,H	270	260	325	224	132	12*20	48.0Kg
DSL-1200-UIDA-E40U		550	1200	0.04	F,H	270	270	355	224	147	12*20	55.0Kg
DSL-1600-UIDA-E30U		630	1600	0.03	F,H	310	315	350	230	162	12*20	68.0Kg

Harmonic reactor

Product Profile

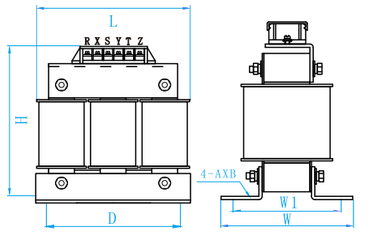
The detuning reactor is also called series reactor, which is connected in series with the power factor compensation capacitor to form a reactive power compensation equipment, protect the capacitor, prevent harmonic amplification, absorb part of harmonic current, and play a certain filtering role.

1. the detuning reactor can protect the capacitor and prevent harmonic amplification,
2. after the shunt reactor and capacitor are connected in series, it can absorb part of the harmonic current to reduce harmonic pollution.

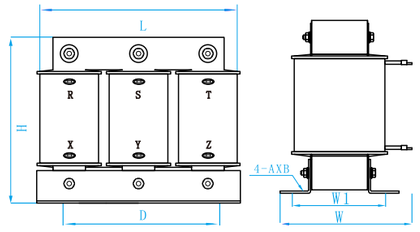
Product features

1. rated working voltage: 220vac-1140vac 50/60hz
2. working current: 5A to 1600A @40 ℃;
3. reactance rate (impedance characteristic):6%, 7%, 14%
4. maximum current: 1.5* rated current, lasting for 60s
5. temperature rise: ≤ 85K
6. low noise ≤ 80dB
7. protection grade: above grade F
8. protection grade: IP00
9. inductance error of each phase: -10, +10%
10. insulation level: 1kV insulation resistance ≥ 100m Ω
11. dielectric test winding on winding and winding to ground: 3.5kv, 1min;
12. with thermal protection function, output node capacity: 140 ℃, 2a, 250V;
13. applicable standard: iec60076; Gb19212.1-2008; Gb19212.21-2007; Gb1094.6-2011

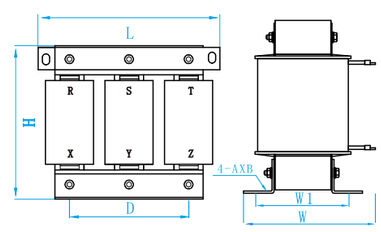
Product outline drawing



Picture A



Picture B



Picture C

Capacitor voltage 440VAC system voltage 400V 6% reactance rate

Product Type	picture NO	Capacitance (Kvar)	Reactance capacity (Kvar)	Rated Current(A)	Inductance Value (mH)	Size (±2mm)						Weight (kg±10%)
						L	W	H	D	W1	A*B	
HSL-005-440-6	A	5	0.3	6.6	7.40	155	95	155	95	63	6*12	5.0Kg
HSL-007-440-6		7.5	0.45	9.8	4.93	155	95	155	95	63	6*12	5.0Kg
HSL-010-440-6	B	10	0.6	13.1	3.70	180	140	165	120	72	8.5*20	8.0Kg
HSL-012-440-6		12.5	0.75	16.4	2.96	180	140	165	120	72	8.5*20	8.0Kg
HSL-015-440-6		15	0.9	19.7	2.47	180	140	165	120	72	8.5*20	9.0Kg
HSL-020-440-6		20	1.2	26.2	1.85	180	160	165	120	92	8.5*20	12.0Kg
HSL-025-440-6	C	25	1.5	32.8	1.48	230	170	185	150	98	11*18	14.0Kg
HSL-030-440-6		30	1.8	39.4	1.23	230	170	185	150	98	11*18	14.0Kg
HSL-035-440-6		35	2.1	45.9	1.06	250	180	210	182	98	11*18	19.0Kg
HSL-040-440-6		40	2.4	52.5	0.92	250	180	210	182	98	11*18	19.0Kg
HSL-050-440-6		50	3	65.6	0.74	250	180	210	182	98	11*18	19.0Kg
HSL-060-440-6		60	3.6	78.7	0.62	270	190	240	182	108	11*18	34.0Kg
HSL-070-440-6		70	4.2	91.9	0.53	270	190	240	182	108	11*18	34.0Kg
HSL-080-440-6		80	4.8	105.0	0.46	270	190	240	182	108	11*18	34.0Kg

Harmonic reactor

Capacitor voltage 480VAC system voltage 400V 7% reactance rate

Product Type	picture NO	Capacitance (Kvar)	Reactance capacity (Kvar)	Rated Current (A)	Inductance Value (mH)	Size (±2mm)						Weight (kg±10%)
						L	W	H	D	W1	A*B	
HSL-005-480-7	A	5	0.35	5.39	10.267	155	95	155	95	63	6*12	5.0Kg
HSL-007-480-7		7.5	0.53	8.08	6.848	155	95	155	95	63	6*12	5.0Kg
HSL-010-480-7	B	10	0.7	10.78	5.136	190	140	200	120	83	8.5*17	8.0Kg
HSL-012-480-7		12.5	0.88	13.47	4.109	190	140	200	120	83	8.5*17	8.0Kg
HSL-015-480-7		15	1.05	16.17	3.424	190	140	200	120	83	8.5*17	9.0Kg
HSL-020-480-7		20	1.4	21.56	2.568	190	160	165	120	98	8.5*17	12.0Kg
HSL-025-480-7		25	1.75	26.94	2.055	190	170	185	120	98	8.5*17	14.0Kg
HSL-030-480-7		30	2.1	32.33	1.712	230	170	190	164	96	11*18	17.0Kg
HSL-035-480-7	C	35	2.45	37.72	1.468	265	180	210	192	94	11*18	21.0Kg
HSL-040-480-7		40	2.8	43.11	1.284	265	180	210	192	94	11*18	21.0Kg
HSL-050-480-7		50	3.5	53.89	1.027	265	190	210	192	104	11*18	24.0Kg
HSL-060-480-7		60	4.2	64.67	0.856	265	200	210	192	114	11*18	28.0Kg
HSL-070-480-7		70	4.9	75.45	0.734	265	190	240	192	114	11*18	30.0Kg
HSL-080-480-7		80	5.6	86.22	0.642	265	190	240	192	114	11*18	30.0Kg

Capacitor voltage 480VAC system voltage 400V 14% reactance rate

Product Type	picture NO	Capacitance (Kvar)	Reactance capacity (Kvar)	Rated Current (A)	Inductance Value (mH)	Size (±2mm)						Weight (kg±10%)
						L	W	H	D	W1	A*B	
HSL-005-480-14	A	5	0.7	5.34	20.11	190	110	190	120	83	8.5*17	7.0Kg
HSL-007-480-14		7.5	1.05	8.71	13.40	190	110	190	120	88	8.5*17	8.5Kg
HSL-010-480-14		10	1.4	11.61	10.05	190	120	190	120	98	8.5*17	11.0Kg
HSL-012-480-14		12.5	1.75	14.52	8.04	190	120	210	120	98	8.5*17	13.0Kg
HSL-015-480-14		15	2.1	17.42	6.70	230	130	250	164	98	11*18	15.0Kg
HSL-020-480-14	C	20	2.8	23.23	5.03	250	180	220	182	98	11*18	19.0Kg
HSL-025-480-14		25	3.5	29.04	4.02	290	180	245	214	98	11*18	23.0Kg
HSL-030-480-14		30	4.2	34.84	3.35	290	180	245	214	98	11*18	23.0Kg
HSL-035-480-14		35	4.9	40.65	2.87	305	210	260	210	104	12*20	28.0Kg
HSL-040-480-14		40	5.6	46.46	2.51	305	230	260	210	114	12*20	33.0Kg
HSL-050-480-14		50	7	58.07	2.01	305	230	260	210	114	12*20	36.0Kg
HSL-060-480-14		60	8.4	69.69	1.68	320	230	275	234	124	12*20	45.0Kg
HSL-070-480-14		70	9.8	81.30	1.44	365	235	325	290	134	12*20	54.0Kg
HSL-080-480-14		80	11.2	92.92	1.26	365	235	325	290	134	12*20	54.0Kg

Capacitor voltage 525VAC system voltage 440V 14% reactance rate

Product Type	picture NO	Capacitance (Kvar)	Reactance capacity (Kvar)	Rated Current (A)	Inductance Value (mH)	Size (±2mm)						Weight (kg±10%)
						L	W	H	D	W1	A*B	
HSL-005-525-14	A	5	0.7	5.34	24.05	190	110	190	120	83	8.5*17	7.0Kg
HSL-007-525-14		7.5	1.05	8.01	16.034	190	110	190	120	88	8.5*17	8.5Kg
HSL-010-525-14		10	1.4	10.68	12.026	190	120	190	120	98	8.5*17	11.0Kg
HSL-012-525-14		12.5	1.75	13.35	9.62	190	120	210	120	98	8.5*17	13.0Kg
HSL-015-525-14		15	2.1	16.02	8.017	230	130	250	164	98	11*18	15.0Kg
HSL-020-525-14	C	20	2.8	21.36	6.013	250	180	220	182	98	11*18	19.0Kg
HSL-025-525-14		25	3.5	26.70	4.81	290	180	245	214	98	11*18	23.0Kg
HSL-030-525-14		30	4.2	32.04	4.009	290	180	245	214	98	11*18	23.0Kg
HSL-035-525-14		35	4.9	37.38	3.436	305	210	260	210	104	12*20	28.0Kg
HSL-040-525-14		40	5.6	42.72	3.006	305	230	260	210	124	12*20	35.0Kg
HSL-050-525-14		50	7	53.40	2.405	305	230	260	210	124	12*20	38.0Kg
HSL-060-525-14		60	8.4	64.08	2.004	320	230	275	234	124	12*20	45.0Kg
HSL-070-525-14		70	9.8	74.76	1.718	365	235	325	290	134	12*20	54.0Kg
HSL-080-525-14		80	11.2	85.44	1.503	365	235	325	290	134	12*20	54.0Kg

Model selection formula

Reactor capacity = single capacitor capacity * reactance rate

Finished product identification code

HSL — 030 — 440 — 6

Product Type — Capacity — Capacitor voltage — Reactance rate

EMI single phase AC filter

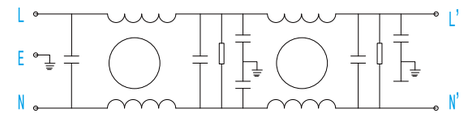
Product Profile

Single phase AC filter products have excellent insertion loss, low leakage current and other characteristics. Compact structure, easy installation, wide application range and strong versatility.

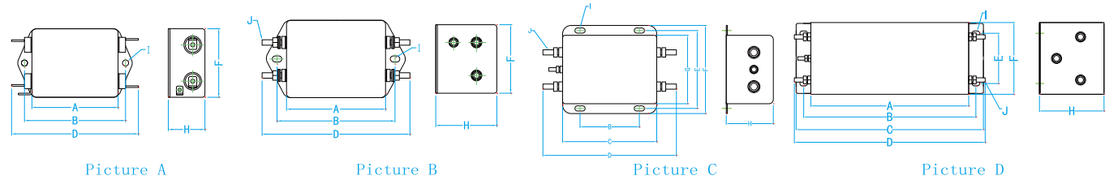
Product features

1. high insertion loss
2. excellent EMI noise suppression capability
3. reduce conducted interference
4. rated voltage: 120/250vac
5. working frequency: 50/60hz
6. test voltage: (1 minute) line to line 1500vdc line to ground 2500vdc
7. insulation resistance: line to ground 500VDC ≥ 1500m
8. temperature range: -25 ℃ ~ + 85 ℃
9. product executive standard: iec/en 60939

Electrical schematic diagram



Product outline drawing



Product Type	picture NO	Power(KW)	Rated Current(A)	Size (±2mm)										Weight (kg±10%)
				A	B	C	D	E	F	G	H	I	J	
DFI-0001-2B	A	0.1	1	63	74	×	85	×	51	×	30	4.5	×	0.18
DFI-0003-2B		0.4	3	63	74	×	85	×	51	×	30	4.5	×	0.18
DFI-0006-2B		0.75	6	63	74	×	85	×	51	×	30	4.5	×	0.18
DFI-0010-2B		1.5	10	63	74	×	85	×	51	×	30	4.5	×	0.18
DFI-0015-2B		2.2	15	63	74	×	85	×	51	×	30	4.5	×	0.18
DFI-0020-2B	B	3.7	20	73	87	×	106	×	57	×	45	4.5	M4	0.3
DFI-0030-2B		5.5	30	73	87	×	106	×	57	×	45	4.5	M4	0.9
DFI-0050-2B	C	7.5	50	×	80	120	178	115	130	100	50	4.5*6.5	M6	1.0
DFI-0060-2B		11	60	×	80	120	178	115	130	100	50	4.5*6.5	M6	1.0
DFI-0080-2B	D	15	80	220	243	261	293	80	100	×	90	6.4*9.4	M8	1.2
DFI-0100-2B		18.5	100	220	243	261	293	80	100	×	90	6.4*9.4	M8	1.5
DFI-0130-2B		22	130	220	243	261	293	80	100	×	90	6.4*9.4	M8	1.5
DFI-0150-2B		30	150	220	243	261	290	96	125	×	90	6.4*9.4	M10	3.0
DFI-0200-2B		37	200	220	243	261	290	96	125	×	90	6.4*9.4	M10	3.0

Finished product identification code

D — F — I — 0010 — 2 — B — (no default general DG guide rail)

D: A three-phase AC; D single-phase AC; SA three phase four wire AC
F: Filter
I: I In; O Out
0010: Rated Current
2: Rated voltage
B: Filtering level
(no default general DG guide rail): DZT terminal block(single-phase optional)

EMI three-phase input filter

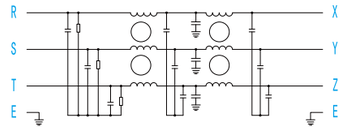
Product Profile

The three-phase input filter product has good interference suppression ability and can be used in data processing system, telecommunication system, frequency converter, power purification and other equipment requiring strong interference suppressors.

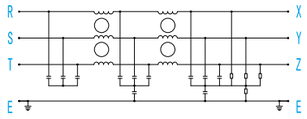
Product features

1. high insertion loss
2. excellent EMI noise suppression capability
3. reduce bidirectional conducted interference between frequency converter and power grid
4. rated voltage: 380/440vac
5. working frequency: 50/60hz
6. test voltage: (1 minute) line to line 1500vdc line to ground 2500vdc
7. insulation resistance: line to ground 500VDC ≥ 1500m
8. temperature range: -25 ℃ ~ + 85 ℃
9. product executive standard: iec/en 60939

Electrical schematic diagram

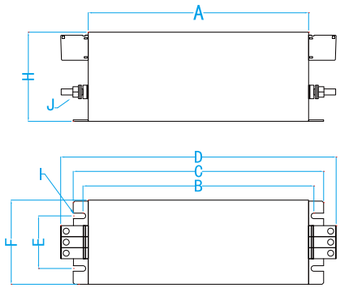


FD-AFI-0005-4B～FD-AFI-0200-4B

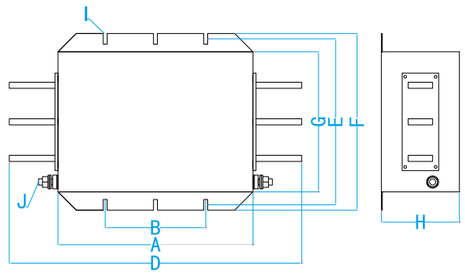


FD-AFI-0250-4B～FD-AFI-1600-4B

Product outline drawing



Picture A



Picture B

Product Type	picture NO	Power(KW)	Rated Current(A)	Size (±2mm)										Weight (kg±10%)
				A	B	C	D	E	F	G	H	ΦI	J	
AFI-0005-4B	A	1.5	5	168	180	190	190	20	40	×	75	4.5	M4	0.8
AFI-0010-4B		3.7	10	168	180	190	190	20	40	×	75	4.5	M4	1.2
AFI-0020-4B		7.5	20	220	235	250	242	25	45	×	75	5.5	M4	1.3
AFI-0036-4B		15	36	240	255	270	310	31	50	×	85	5.5	M4	1.5
AFI-0050-4B		18.5	50	220	234	250	290	60	85	×	90	5.5	M6	2.3
AFI-0065-4B		30	65	220	234	250	290	60	85	×	90	5.5	M6	3.0
AFI-0080-4B		37	80	240	255	270	320	60	85	×	140	6.5	M8	5.0
AFI-0100-4B		45	100	240	255	270	320	60	85	×	140	6.5	M8	5.0
AFI-0130-4B		55	130	240	255	270	338	65	95	×	150	6.5	M8	5.5
AFI-0150-4B		75	150	240	255	270	338	65	95	×	150	6.5	M8	5.5
AFI-0200-4B		110	200	350	365	380	455	102	120	×	170	6.5	M8	6.0
AFI-0250-4B	B	132	250	200	100	×	300	195	220	170	90	6.5*9.5	M8	6.0
AFI-0320-4B		160	320	200	100	×	300	195	220	170	90	6.5*9.5	M8	6.2
AFI-0400-4B		220	400	210	105	×	315	245	260	230	128	6.5*10.5	M8	13.0
AFI-0500-4B		250	500	210	105	×	315	245	260	230	128	6.5*10.5	M8	13.0
AFI-0600-4B		315	600	210	105	×	315	245	260	230	128	6.5*10.5	M8	14.0
AFI-0800-4B		400	800	320	165	×	445	245	260	230	128	6.5*10.5	M8	14.0
AFI-0900-4B		450	900	320	165	×	445	245	260	230	128	6.5*10.5	M8	24.0
AFI-1000-4B		500	1000	320	165	×	445	245	260	230	128	6.5*10.5	M8	24.0
AFI-1200-4B		630	1200	400	245	×	580	270	292	250	150	8.5*14	M12	26.0
AFI-1600-4B		800	1600	400	245	×	580	270	292	250	150	8.5*14	M12	28.0

EMI three-phase output filter

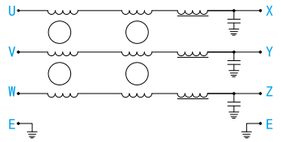
Product Profile

The three-phase output filter product has good interference suppression ability. It is placed at the output end of the frequency converter, which can effectively reduce the electromagnetic interference generated by the frequency converter.

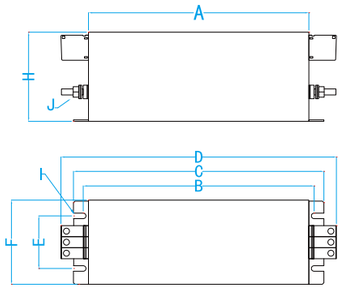
Product features

1. high insertion loss
2. excellent EMI noise suppression capability
3. reduce bidirectional conducted interference between frequency converter and motor
4. rated voltage: 380/440vac
5. working frequency: 50/60hz
6. test voltage: (1 minute) line to line 1500vdc line to ground 2500vdc
7. insulation resistance: line to ground 500VDC ≥ 1500m
8. temperature range: -25 ℃ ~ + 85 ℃
9. product executive standard: iec/en 60939

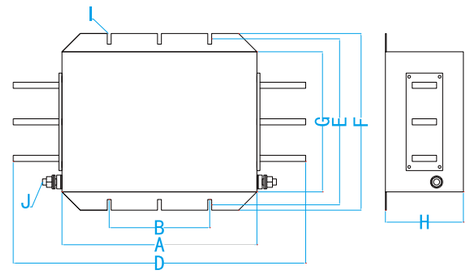
Electrical schematic diagram



Product outline drawing



Picture A



Picture B

Product Type	picture NO	Power(KW)	Rated Current(A)	Size (±2mm)										Weight (kg±10%)
				A	B	C	D	E	F	G	H	ΦI	J	
AFO-0005-4B	A	1.5	5	168	180	190	190	20	40	×	75	4.5	M4	0.8
AFO-0010-4B		3.7	10	168	180	190	190	20	40	×	75	4.5	M4	1.2
AFO-0020-4B		7.5	20	220	235	250	242	25	45	×	75	5.5	M4	1.3
AFO-0036-4B		15	36	240	255	270	310	31	50	×	85	5.5	M4	1.5
AFO-0050-4B		18.5	50	220	234	250	290	60	85	×	90	5.5	M6	2.3
AFO-0065-4B		30	65	220	234	250	290	60	85	×	90	5.5	M6	3.0
AFO-0080-4B		37	80	240	255	270	320	60	85	×	140	6.5	M8	5.0
AFO-0100-4B		45	100	240	255	270	320	60	85	×	140	6.5	M8	5.0
AFO-0130-4B		55	130	240	255	270	338	65	95	×	150	6.5	M8	5.5
AFO-0150-4B		75	150	240	255	270	338	65	95	×	150	6.5	M8	5.5
AFO-0200-4B		110	200	350	365	380	455	102	120	×	170	6.5	M8	6.0
AFO-0250-4B	B	132	250	200	100	×	300	195	220	170	90	6.5*9.5	M8	6.0
AFO-0320-4B		160	320	200	100	×	300	195	220	170	90	6.5*9.5	M8	6.2
AFO-0400-4B		220	400	210	105	×	315	245	260	230	128	6.5*10.5	M8	13.0
AFO-0500-4B		250	500	210	105	×	315	245	260	230	128	6.5*10.5	M8	13.0
AFO-0600-4B		315	600	210	105	×	315	245	260	230	128	6.5*10.5	M8	14.0
AFO-0800-4B		400	800	320	165	×	445	245	260	230	128	6.5*10.5	M8	14.0
AFO-0900-4B		450	900	320	165	×	445	245	260	230	128	6.5*10.5	M8	24.0
AFO-1000-4B		500	1000	320	165	×	445	245	260	230	128	6.5*10.5	M8	24.0
AFO-1200-4B		630	1200	400	245	×	580	270	292	250	150	8.5*14	M12	26.0
AFO-1600-4B		800	1600	400	245	×	580	270	292	250	150	8.5*14	M12	28.0

DV/DT filter

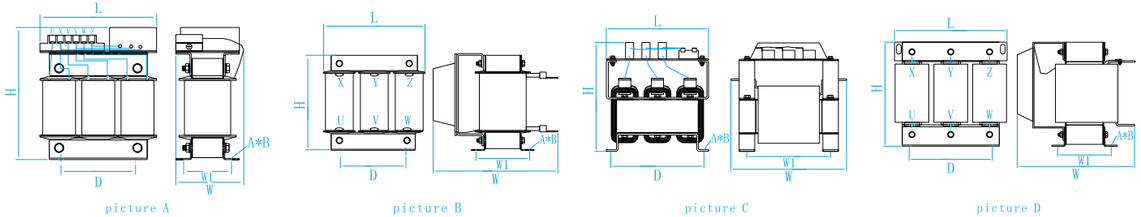
Product Profile

Dv/dt filter products are mainly used in industrial automation systems to protect the motor from the impact of pulse spikes and dv/dt common mode voltage generated when the motor is driven by frequency conversion, prolong the service life of the motor and improve the reliability of the system.

Product features

1. rated working voltage: 380VAC 50/60hz
2. working current: 5A to 1600A @40 ℃;
3. maximum current: 1.5* rated current, lasting for 60s
4. temperature rise: ≤ 95k
5. low noise ≤ 65dB
6. protection grade: above grade F
7. protection grade: IP00
8. inductance error of each phase: -10, +10%
9. insulation level: 1kV insulation resistance ≥ 100m Ω
10. dielectric test winding on winding and winding to ground: 3.5kv, 1min;
11. applicable standard: iec60076; Gb19212.1-2008; Gb19212.21-2007; Gb1094.6-2011

Product outline drawing



picture A　picture B　picture C　picture D

Product Type	picture NO	Power(KW)	Rated Current(A)	Switching frequency (kHz)	Size (±2mm)						Weight (kg±10%)
					L	W	H	D	W1	A*B	
VSL-0010-EISA-04	A	3.7	10A	5	175	100	190	95	61	8.5*17	6.0Kg
VSL-0015-EISA-04		5.5	15A	5	175	100	190	95	61	8.5*17	6.0Kg
VSL-0020-EISA-04		7.5	20A	5	175	100	190	95	61	8.5*17	6.0Kg
VSL-0030-EISA-04		11	30A	4	190	220	170	120	84	8.5*17	11.0Kg
VSL-0040-EISA-04	B	15	40A	4	190	220	170	120	84	8.5*17	11.0Kg
VSL-0050-EISA-04		18.5	50A	4	190	235	170	120	89	8.5*17	15.0Kg
VSL-0060-EISA-04		22	60A	4	190	235	170	120	98	8.5*17	15.0Kg
VSL-0080-EISA-04		30	80A	4	190	235	200	120	98	8.5*17	15.0Kg
VSL-0090-EISA-04		37	90A	3	190	235	200	120	98	8.5*17	15.0Kg
VSL-0120-EISA-04	C	45	120A	3	260	260	255	225	175	11*18	25.0Kg
VSL-0150-EISA-04		55	150A	3	260	260	255	225	175	11*18	25.0Kg
VSL-0200-EISA-04		75	200A	3	260	300	270	225	205	11*18	29.0Kg
VSL-0250-EISA-04		110	250A	3	260	300	270	225	205	11*18	29.0Kg
VSL-0290-EISA-04		132	290A	3	260	300	285	225	205	11*18	33.0Kg
VSL-0330-EISA-04		160	330A	3	295	330	275	214	139	12*20	48.0Kg
VSL-0390-EISA-04		185	390A	3	295	330	275	214	139	12*20	48.0Kg
VSL-0490-EISA-04	D	220	490A	2	295	330	275	214	139	12*20	48.0Kg
VSL-0600-EISA-04		280	600A	2	345	330	315	270	134	12*20	58.0Kg
VSL-0660-EISA-04		300	660A	2	345	350	315	270	149	12*20	68.0Kg
VSL-0800-EISA-04		380	800A	2	380	340	350	290	134	12*20	70.0Kg
VSL-1000-EISA-04		450	1000A	2	380	350	350	290	134	12*20	75.0Kg
VSL-1200-EISA-04		550	1200A	2	380	425	425	290	184	12*20	115.0Kg
VSL-1600-EISA-04		630	1600A	2	380	425	425	290	184	12*20	120.0Kg

Sine wave filter

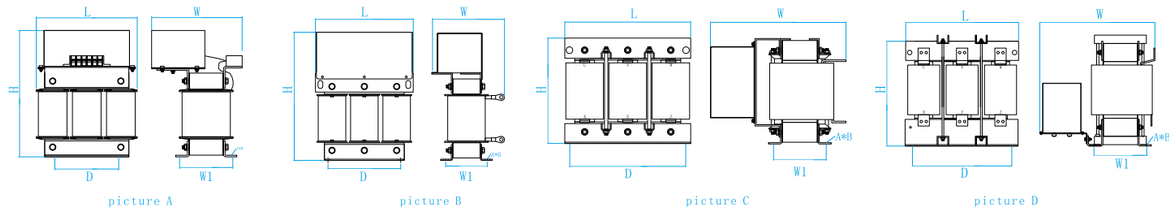
Product Profile

The function of sine wave filter product is to improve the voltage waveform at the output end of the frequency converter, correct the PWM waveform output by the frequency converter to convert into sine wave, extend the output distance of the frequency converter up to 3km, effectively suppress high-frequency and dv/dt RF interference, reduce the output harmonic component, reduce the eddy current loss and noise of the electric machine, prolong the service life of the motor and improve the system reliability.

Product features

1. rated working voltage: 380VAC 50/60hz
2. rated working current: 20a to 1600A @40 ℃;
3. voltage withstand test: 3000VAC 60/s (capacitor release)
4. carrier frequency: 2-8khz
5. protection grade: IP00
6. insulation grade: above grade F
7. pressure drop: 8%-12%
8. no load current: ≤ 8%
9. voltage harmonic distortion thd ≤ 5%
10. reactor noise: less than 80dB (tested at 1m from the horizontal distance of reactor)
11. altitude: <1000m
12. applicable standard: iec60076; Gb19212.1-2008; Gb19212.21-2007; Gb1094.6-2011

Product outline drawing



picture A　picture B　picture C　picture D

Product Type	picture NO	Power(KW)	Rated Current(A)	Inductance Value (mH)	Switching frequency (kHz)	Size (±2mm)						Weight (kg±10%)
						L	W	H	D	W1	A*B	
SFL-0010-EISC-04	A	3.7	10A	7.0	4	190	170	245	120	98	8.5*17	12.0Kg
SFL-0015-EISC-04		5.5	15A	4.67	4	190	170	245	120	98	8.5*17	12.0Kg
SFL-0020-EISC-04		7.5	20A	3.5	4	190	170	265	120	98	8.5*17	15.0Kg
SFL-0030-EISC-04		11	30A	2.334	4	190	170	265	120	98	8.5*17	15.0Kg
SFL-0040-EISA-04	B	15	40A	1.75	4	245	200	330	182	104	11*18	25.0Kg
SFL-0050-EISA-04		18.5	50A	1.4	4	245	200	330	182	104	11*18	25.0Kg
SFL-0060-EISA-04		22	60A	1.167	4	245	200	330	182	104	11*18	25.0Kg
SFL-0080-EISA-04		30	80A	0.88	4	290	230	360	214	113	11*18	35.0Kg
SFL-0090-EISA-04		37	90A	0.81	4	290	230	360	214	113	11*18	35.0Kg
SFL-0120-EISA-04	C	45	120A	0.584	3	325	345	300	289	139	12*20	56.0Kg
SFL-0150-EISA-04		55	150A	0.467	3	325	345	300	289	139	12*20	56.0Kg
SFL-0200-EISA-04		75	200A	0.367	3	385	385	310	350	159	12*20	75.0Kg
SFL-0250-EISA-04		110	250A	0.28	3	385	415	330	350	159	12*20	76.0Kg
SFL-0290-EISA-04		132	290A	0.242	3	385	425	355	350	164	12*20	86.0Kg
SFL-0330-EISA-04		160	330A	0.212	3	385	435	355	350	164	12*20	88.0Kg
SFL-0390-EISA-04		185	390A	0.18	3	405	460	410	364	174	15*25	125.0Kg
SFL-0490-EISA-04	D	220	490A	0.143	2	500	515	440	440	214	15*25	160.0Kg
SFL-0600-EISA-04		280	600A	0.116	2	500	500	510	440	214	15*25	200.0Kg
SFL-0660-EISA-04		300	660A	0.106	2	500	515	510	440	234	15*25	200.0Kg
SFL-0800-EISA-04		380	800A	0.088	2	500	540	550	440	234	15*25	225.0Kg
SFL-1000-EISA-04		450	1000A	0.07	2	500	540	600	440	234	15*25	280.0Kg
SFL-1200-EISA-04		550	1200A	0.06	2	500	540	650	440	254	15*25	315.0Kg
SFL-1600-EISA-04		630	1600A	0.05	2	500	610	660	440	254	15*25	405.0Kg

Harmonic filter

Product Profile

The harmonic filter product is a device used to filter one or more current harmonics in the power grid side system.

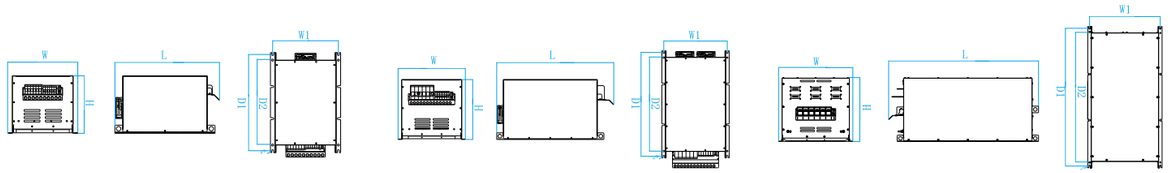
Product features

1. rated working voltage: AC380V ~ 480v
2. frequency: 50Hz
3. overload capacity: 1.6 times, 60s
4. absolute level: overvoltage category III meets en61800-5-1
5. full load efficiency: more than 98%
6. harmonic filtering effect: under the full load condition, the total harmonic current distortion rate at the filter input is less than 10% (background voltage thud is less than 2%, and the ratio of grid short-circuit power to installed load is more than 66)
7. ambient temperature (working): under full load, -25 ℃ ~ +50 ℃
8. no load current: less than 25% of rated current
9. applicable standard: iec60076; Gb19212.1-2008; Gb19212.21-2007; Gb1094.6-2011

Precautions for use

1.Harmonic filter is a filter matched with frequency converter, which can only be installed at the power incoming line of uncontrollable rectifier frequency converter;
2. when selecting, the power of the filter and the power of the frequency converter shall be matched as much as possible, and the best filtering effect can be obtained. If the filter with larger power is used for the frequency converter with smaller power, the filtering effect will be reduced;
3. the reactor in the filter is a heating device. During installation, pay attention to keep at least 100mm space around the filter;
4. during installation, connect reliable ground wires according to the wiring instructions in the circuit diagram
5. please consult the manufacturer when the altitude, power grid quality and other operating environment exceed the technical requirements

Product outline drawing



picture A　　picture B　　picture C

Product Type	picture NO	Power(KW)	Rated Current(A)	Size (±2mm)							Weight (kg±10%)
				L	W	H	D1	D2	W1	A*B	
DHL-2.2K-04-10	A	2.2	5.6	445	245	245	392	345	216	9*13.5	40.0Kg
DHL-3K-04-10		3	7.2	445	245	245	392	345	216	9*13.5	40.0Kg
DHL-5.5K-04-10		5.5	12.6	480	285	245	432	385	256	9*13.5	40.0Kg
DHL-7.5K-04-10		7.5	17	480	285	245	432	385	256	9*13.5	40.0Kg
DHL-11K-04-10		11	25	555	340	310	503	439	311	11*16.5	45.0Kg
DHL-15K-04-10		15	32	555	340	310	503	439	311	11*16.5	50.0Kg
DHL-18.5K-04-10		18.5	38	555	340	310	503	439	311	11*16.5	50.0Kg
DHL-22K-04-10		22	45	600	400	330	543	479	372	11*16.5	58.0Kg
DHL-30K-04-10		30	61	600	400	330	543	479	372	11*16.5	58.0Kg
DHL-37K-04-10		37	72	600	400	330	543	479	372	11*16.5	58.0Kg
DHL-45K-04-10	B	45	88	665	420	360	596	550	392	11*16.5	80.0Kg
DHL-55K-04-10		55	105	665	420	360	596	550	392	11*16.5	80.0Kg
DHL-75K-04-10		75	145	780	450	400	687	619	420	11*16.5	140.0Kg
DHL-90K-04-10		90	169	780	450	400	687	619	420	11*16.5	140.0Kg
DHL-110K-04-10		110	206	860	510	435	766	708	485	11*17.5	140.0Kg
DHL-132K-04-10		132	246	860	510	435	766	708	485	11*17.5	140.0Kg
DHL-160K-04-10		160	293	830	515	445	766	708	488	11*17.5	185.0Kg
DHL-200K-04-10	C	200	363	1035	510	435	946	886	485	11*20	220.0Kg
DHL-250K-04-10		250	430	1035	510	435	946	886	485	11*20	230.0Kg

Finished product identification code

DHL – 30K – EISA – 04 – 10

DHL: Product Type　30K: Power　EISA: Structure and Material　04: Inductance　10: THD %

Transformer

Three phase isolation transformer(IST)

Product Profile

The main function of the three-phase isolation transformer is to isolate the electrical equipment from the power grid, commonly known as the safety transformer. It is widely used in industrial and mining enterprises, power plants, airports, high-rise buildings, subways and other places with high requirements for safety and fire protection. It is used for changing voltage, supplying lighting electrical facilities, power supply and rectifier power supply.

Three phase autotransformer(AST)

Product Profile

The main function of three-phase autotransformer is to adjust the voltage, which is mainly used for on load voltage regulation and step-down starting of large motors

Three phase rectifier transformer(RST)

Product Profile

The main function of the three-phase rectifier transformer is the power transformer for the rectifier system, which is widely used in lighting, machine tool electrical appliances, mechanical and electronic equipment, medical equipment, rectifier devices, etc.

Single phase isolation transformer(IDT)

Product Profile

The main function of single-phase isolation transformer is to isolate the electrical equipment from the power grid. It is usually used as the power supply for machine tools, various mechanical equipment and control, lighting, signal lights, etc. in the control cabinet.

Single phase autotransformer (ADT)

Product Profile

The main function of single-phase autotransformer is to adjust the voltage, which is widely used in electrical equipment that needs stable voltage.

Finished product identification code

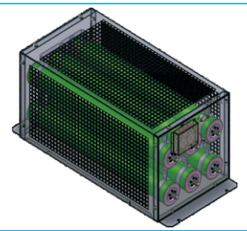
I – S – T – C – 10KVA – (380V / 220V)

I=Isolation A=Autotransformer R=Rectifier　S= Three phase D= Single phase　T: Transformer　C: Material quality　10KVA: capacity　380V: Primary voltage　220V: Secondary voltage

European brake resistance box (OBMR)

Product Profile

OBMR series products are composed of corrugated resistors. The appearance is designed according to European style, which is easy to install and has good safety and heat dissipation capacity.



Heating tube resistance (HMR)

Product Profile

HMR series electric heating tube resistance box, mainly assembled from electric heating tube resistors, is suitable for energy consumption braking circuits of high-power, high current braking equipment, rail transit, new energy, experimental testing equipment, elevators, cranes and other frequency converters.

Corwbar resistance (CBR)

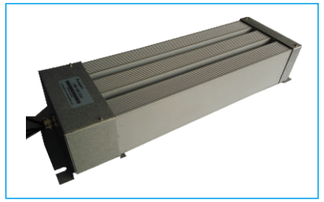
Product Profile

CMR series corwbar resistor adopts low voltage ride through technology and is applied to the rotor side of wind turbine generator to bypass the rotor side converter. When low-voltage disturbance occurs in the power grid, it can prevent the DC bus voltage from being too high and the rotor current from being too large. It mainly works in the fault state, damping the stator flux, and crowbar resistance can dissipate huge energy in an instant.

Aluminum housing multi connected resistor (LCMR)

Product Profile

LCMR series products are composed of aluminum shell resistors, with beautiful appearance, good safety and heat dissipation capacity. Easy to install tightly and attach radiators.



Energy feedback reactor (ESL)

Product Profile

The main function of ESL series energy feedback reactor products is to filter the regenerative energy generated by frequency converter braking and feed back to the power grid, resulting in high-order harmonics. Reduce pollution to the power grid, clean the power grid and improve power quality.

LCL filter (LCL)

Product Profile

LCL filter can effectively and economically ensure and improve the feed quality from energy to power grid.

Photovoltaic wind power filter reactor (PVL)

Product Profile

PVL series photovoltaic wind power filter reactor is used to suppress the high-order harmonic current derived from the switching frequency ripple current of photovoltaic inverter and wind power converter and purify the power grid.

Air core reactor (EHL)

Product Profile

EHL series air core reactor products are used in power systems to limit short-circuit current, reactive power compensation and equal displacement inductive high-voltage electrical appliances. The magnetic flux forms a loop through air, so it is called air core reactor.

High frequency reactor HFL

Product Profile

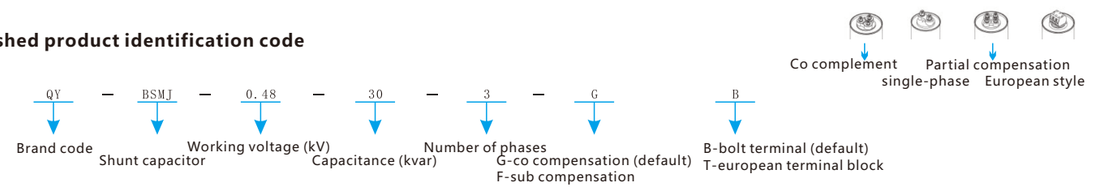
HFL series high-frequency reactor products are processed from high-performance iron core materials with high-frequency magnetic characteristics. It is mainly used in AC 1-30khz medium and high-frequency inverter circuit systems in APF, ups and new energy fields. Its main function is to suppress harmonic components in power systems and ensure the safe operation of other electrical components; Reduce current pulsation, ensure current continuity, and improve the power supply quality of the whole power system.

Self healing low voltage shunt capacitor (BSMJ)

Product Profile

BSMJ series self-healing low-voltage shunt capacitors are cylindrical in appearance, which are mainly used to improve the power factor of power frequency power system, improve the power supply quality of power grid and improve the reliability of power consumption.

Finished product identification code



The above products can be customized according to customer requirements

Resistance selection

制动电阻器的阻值： R　　Braking Resistor's Resistance Value: R

制动电阻器的阻值：$R=\frac{U^2dc}{KXP}$

U^2dc:所选变频器制动回路的斩波电压值

K: 所需的制动转矩倍数1.2-2.0

P: 所选变频器的功率

Braking Reactor's Resistance Value: $R=\frac{U^2dc}{KXP}$

Where:

U^2dc: Voltage value of chopper wave of inverter's braking circuit

K: Folds of braking torque 1.2-2.0

P: The power of the inverter.

制动电阻器的功率：Pr

制动电阻器的功率：$Pr=\frac{P0}{\triangle K}-\frac{P1\times(1-0.2)\times\eta}{\triangle K}$

Po: 电机的功率

△K: 制动电阻器短时工作允许过负荷倍数，具体数值根据工况查图取值

P1: 系统所需的平均制动功率

η: 传动效率，传动的机械系统在制动时，提供与效率相应的制动阻尼

0.2: 电动机的内阻消耗了20%的制动能量

Braking Resistor's Power: Pr

Braking Resistor's Power: $Pr=\frac{P0}{\triangle K}-\frac{P1\times(1-0.2)\times\eta}{\triangle K}$

po: the power of electric motor

△K: folds of allowable transient operating overload. The exact value shall be determined by referring to the chart according to operating conditions.

P1: the average braking power that the system requires.

η: transmission efficiency. The mechanical system of transmission provides braking damp corresponding to the efficiency when it is functioning.

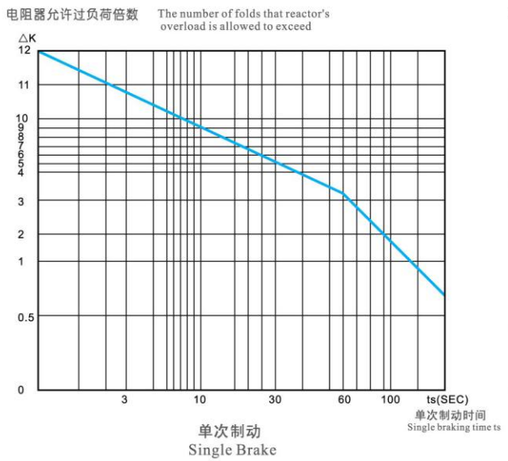
0.2: the internal resistance consumes 20% braking energy

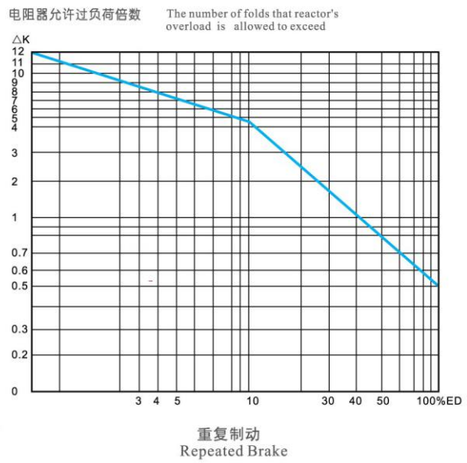
ED制动率以100S运行为一个周期，制动时间所占比率

根据制动电流Udc/R与制动率ED选择制动单元

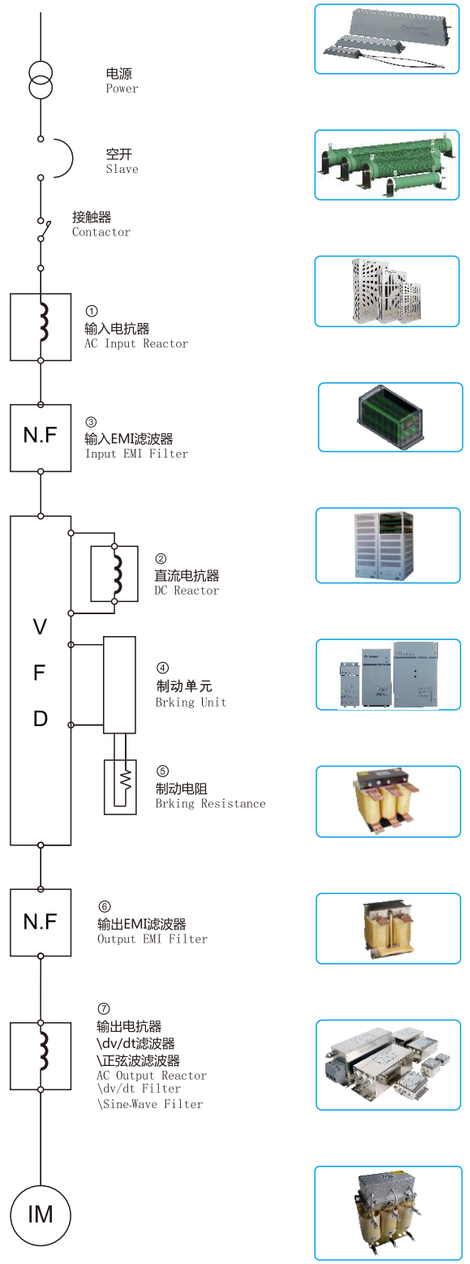
ED brake ratio is the percentage of braking time based on a 100-second operating cycle.

The selection of brake unit shall be carried out in accordance with brakd current Udc/R and brake ratio **ED**





Product layout of frequency conversion system



输出侧电抗器选型建议 Suggestions on type selection of reactor at output side:

电缆长度100M以内 Cable length within 100M:1%压降输出电抗器 1% voltage drop output reactor

电缆长度200M以内 Cable length within 200M:2%压降输出电抗器 2% voltage drop output reactor

电缆长度300M以内 Cable length within 300M: DV/DT滤波器 Dv/dt filter

电缆长度300-3KM以内 Cable length within 300-3KM: 正弦波滤波器 Sine wave filter

①交流输入电抗器 AC InputReactor

提高输入电源功率因数，减少高次谐波，抑制变频器电源设备上的浪涌。

有下列情况时，应安装交流输入电抗器：

1.当电源的容量超过500KVA，并超过变频器容量的10倍时。

2.与能影响电源波形畸变的系统，如晶闸管、大容量变频器等，接在同一电源上的时候。

因为不同的规格的电抗器，其阻抗是不同的。为了保证电抗器能达到良好的效果，请与我们联系。

To increase power factor of power supply and decrease higher harmonic wave and contain wave surge on power supply device of inverter.

The inverter shall be equipped with AC Reactor under the circumstances listed below:

1.The capacity of power supply exceeds 500KVA and exceeds 10 times of the capacity of the inverter;

2.When the inverter is connected to the same power supply along with any system like transistorcluster or large inverter that might affect the wave aberration.

As the impedance of different reactors varies from each other,please be advised to consult usfor optimizing the effect of your reactors.

电抗器	效果		
	提高功率因数	抑制谐波	吸收浪涌
交流输入电抗器	○	○	○
直流电抗器	○非常有效	○非常有效	×无效

②直流电抗器 DC Reactor

直流电抗器提高功率因数的效果比交流输入电抗器要好的多。

当变频器用于多可靠性要求较高的系统中，建议选用交流输入电抗器的同时，再选用一个直流电抗器，因为交流输入电抗器具有吸收浪涌电压的功能。

The effect of DC reactor on the increase in power factor is much better than that of AC input reactor ,When an inverter is applied to a system that has higher requirement for multi-reliability,it is recommended that one additional DC reactor shall be adopted along with an AC input reactor,because AC input reactor reactor can functin to absorb surge voltage.

③输入滤波器 Input Filter

1.能有效地抑制音频设备的无线电干扰，靠近变频器安装。

2.安装在变频器的输入侧。

3.适用于波长范围100K至30MHz。

4.当噪声干扰设备安装在变频器附近时，使用这个类型的滤波器。

1. It can effectively restrain radio interference of audio devices and can be installed near the inverter.

2. It can be installed on the input terminal of inverter.

3. It is applicable to the wavelength that ranges between 100K and 30MHz.

4. This type of filter shall be adopted when noise interference devices are installed near the inverter.

④制动单元 Braking Unit

能有效的控制母线电压泵升，对变频器具有一定的保护作用，并能提高变频器的制动能力。当变频传动系统需要频繁制动时，就需要使用制动单元。它可将电机制动时的机械能转换成热能。

It can effectively control the surge of bus and it functions to some extent to protect the inverter,and can enhance the braking capability of inverter.When the inverter's transmission system needs to function frequently,the braking unit is required to be put in use.It can convert the mechanical energy that is generated by the electric motor into thermal energy.

⑤制动电阻 Braking Resistance

能将电机制动过程中的机械能通过制动电阻以热能的形式消耗掉，可以缩短变频传动系统的减速时间。

It consumes the thermal energy that is converted into from the mechanical energy that is generated by braking action of electric motor,and shortens the time to lower the speed of the inverter's transmission system.

⑥输出滤波器 Output Filter

1.能有效抑制共模和差模电压，减小变频器的辐射干扰及共模轴电流。

2.安装在变频器的输出侧。

3.适用于波长范围100K-30MHz。

1. It can effectively contain common mode voltage and difference-mode voltage and lowers the radiographic interference and common mode axial current.

2. It shall be installed on the output terminal of inverter.

3. It is applicable to the wavelength that ranges between 100K and 30MHz.

⑦正弦波滤波器 Sine Wave Filter

1.能有效地抑制马达的噪声及震动。

2.能有效地抑制变频器输出侧100KHz以内的差模噪声。

运用了高速开关器件的变频器，其输出含有高频谐波，并且PWM波的dv/dt很高。用于驱动一个普通的马达时，由于马达动力电缆的长度，安装方式，电缆特性等原因，将产生行波叠加浪涌电压。浪涌电压将对马达线圈的绝缘性造成损害，因此有必要在马达的前端使用正弦滤波器，正确选用正弦滤波器可以使马达电缆有效长度延长至3KM。

1. It can effectively contain the noise and vibration generated by electric motors.

2. It can effectively contain the difference-mode noise that is generalerated within 1000KHz on the output terminal of inverter. The output of inverter that adopts high-speed switching includes contains a high-frequency harmonic wave and has a very high dv/dt of PWM. When it is applied to drive an ordinary motor,due to the length of motors power cable,way of installation and cable property,it will generate travelling wave-lapping surge voltage, which jeopardizes the insulation of motor's coil.Therefore,it is necessary to provide sine wave filter at the front end of the motor. The appropriate use of sine wave filter can enable motor's valid cable length to be extendedto 3 kilometers.

To the Handbook for selection the company possesses the Right for interpretation, any change can be made without Notice.

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