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Three-phase Input Reactor

Product Profile

The RV-ACL series three-phase input reactor is installed on the input side of the drive to protect the drive from transient overvoltage. It reduces surge and peak currents, improves the power factor, suppresses grid harmonics, and improves the input current waveform.

Product features

- Rated operating voltage: 220VAC-1140VAC 50/60Hz
- Rated operating current: 5A ~ 1600A @ 40°C
- Insulation resistance: $\geq 100M\Omega$ between core and winding at 1000VDC
- Dielectric strength: Core-winding 3000VAC/50Hz/5mA/10s
No arcing (factory test)
- Reactor noise level: Less than 80dB
(tested at a horizontal distance of 1 meter from the reactor)
- Protection level: IP00
- Insulation class: Class F or higher
- Maximum current: $1.5 \times$ rated current, continuous for 60s
- Temperature rise: $\leq 85K$
- Product standards: GB19212.1-2008; GB19212.21-2007; GB1094.6-2011



Application

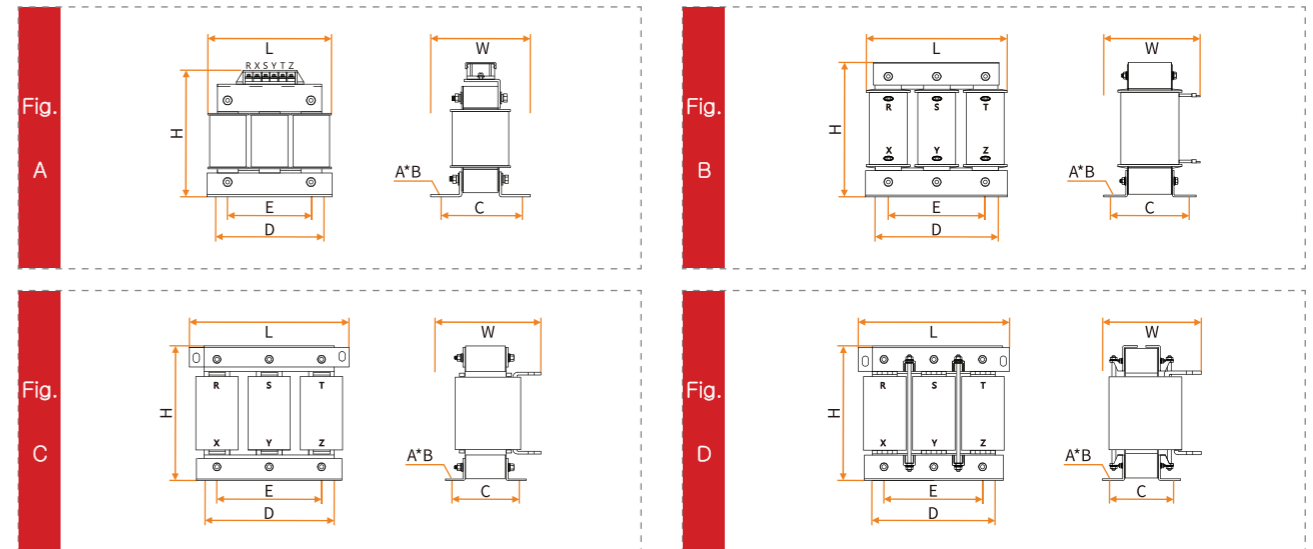
- The power supply is causing significant interference (interference, overvoltage) to other equipment.
- The power supply phase voltage imbalance is $> 1.8\%$ of the rated voltage.
- The line power transformer has extremely low impedance, which is more than 10 times the rated value of the drive.
- A large number of drives are installed on a single line to reduce line current.
- Use $\cos\phi$ (power factor) correction capacitors or a power factor correction unit.

Environmental conditions

- Altitude not exceeding 2000 meters.
- Temperature resistance class F (155°C) or higher.
- Operating ambient temperature $-25^{\circ}C$ to $+45^{\circ}C$, relative humidity not exceeding 90%.
- Ambient air, no flammable or explosive materials, good ventilation.

Product Selection

Product size



Model (380V)	Figure No.	Adaptive Power (kW)	Rated Current (A)	Inductance (mH)	Pressure Drop	Size ($\pm 2mm$)							Weight (kg $\pm 10\%$)
						L	W	H	D	E	C	A*B	
RV-ACL-1R5-1	A	1.5	5	2.8	2%	120	75	135	90	60	51	6*12	2.5
RV-ACL-2R2-1	A	2.2	7	2.0	2%	120	75	135	90	60	51	6*12	2.5
RV-ACL-004-1	A	3.7	10	1.4	2%	120	75	135	90	60	51	6*12	2.5
RV-ACL-5R5-1	A	5.5	15	0.94	2%	120	75	135	90	60	51	6*12	2.5
RV-ACL-7R5-1	A	7.5	20	0.7	2%	120	75	135	90	60	51	6*12	3
RV-ACL-011-1	B	11	30	0.47	2%	155	120	135	95	70	58	6*12	5
RV-ACL-015-1	B	15	40	0.35	2%	155	120	135	95	70	58	6*12	5
RV-ACL-018-1	B	18.5	50	0.28	2%	180	145	160	120	80	73	8.5*17	7
RV-ACL-022-1	B	22	60	0.24	2%	180	145	160	120	80	73	8.5*17	7
RV-ACL-030-1	B	30	80	0.18	2%	180	145	160	120	80	83	8.5*17	8
RV-ACL-037-1	B	37	90	0.16	2%	180	145	160	120	80	83	8.5*17	8
RV-ACL-045-1	B	45	120	0.117	2%	195	170	160	120	80	98	8.5*17	11
RV-ACL-055-1	B	55	150	0.094	2%	195	185	160	120	80	98	8.5*17	12
RV-ACL-075-1	C	75	200	0.07	2%	220	160	210	182	120	98	11*18	16
RV-ACL-110-1	C	110	250	0.056	2%	220	160	210	182	120	98	11*18	16
RV-ACL-132-1	C	132	290	0.048	2%	245	160	230	182	120	98	11*18	20
RV-ACL-160-1	C	160	330	0.042	2%	245	160	230	182	120	98	11*18	20
RV-ACL-185-1	C	185	390	0.036	2%	270	175	260	214	140	104	11*18	27
RV-ACL-220-1	C	220	490	0.028	2%	270	190	260	214	140	114	11*18	27
RV-ACL-280-1	C	280	600	0.0235	2%	295	210	295	214	140	124	12*20	40
RV-ACL-315-1	C	315	660	0.021	2%	295	210	295	214	140	124	12*20	40
RV-ACL-380-1	C	380	800	0.0175	2%	355	220	320	270	210	124	12*20	48
RV-ACL-450-1	C	450	1000	0.014	2%	355	220	345	270	210	124	12*20	53
RV-ACL-550-1	D	550	1200	0.012	2%	355	230	365	270	210	124	12*20	58
RV-ACL-630-1	D	630	1600	0.00875	2%	380	240	440	290	210	134	12*20	85

Three-phase Output Reactor

Product Profile

The RV-OCL series three-phase output reactor is installed on the output side of the drive to smooth and filter, reduce transient voltage dv/dt , and extend motor life. It also reduces motor noise and eddy current losses. It also mitigates leakage current caused by output high-order harmonics and protects the drive's internal power switching devices.

Product features

- Rated operating voltage: 220VAC-1140VAC 50/60Hz
- Rated operating current: 5A ~ 1600A @ 40°C
- Insulation resistance: $\geq 100M\Omega$ between core and winding at 1000VDC
- Dielectric strength: Core-winding 3000VAC/50Hz/5mA/10s
No arcing (factory test)
- Reactor noise level: Less than 80dB
(tested at a horizontal distance of 1 meter from the reactor)
- Protection level: IP00
- Insulation class: Class F or higher
- Maximum current: $1.5 \times$ rated current, continuous for 60s
- Temperature rise: $\leq 85K$
- Product standards: GB19212.1-2008; GB19212.21-2007; GB1094.6-2011



Application

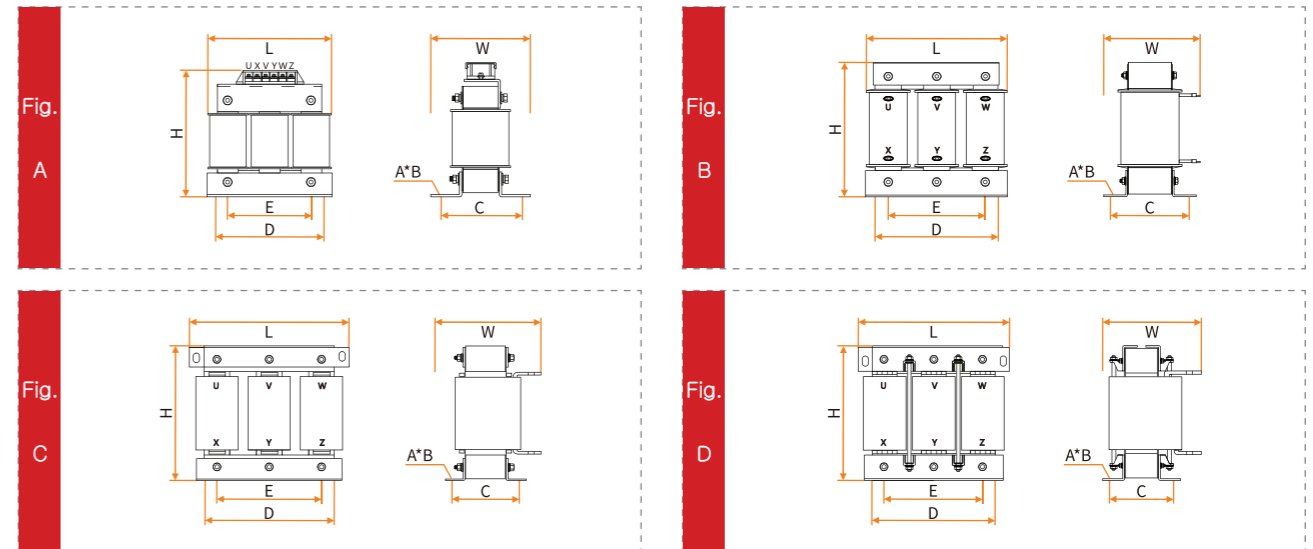
- Limit dv/dt to 500V/ μs .
- Limit the voltage at the motor terminals to: 1000V to 400V (rms value); 1150V to 460V (rms value).
- Reduce filter interference caused by the contactor between the filter and the motor.
- Reduce motor ground leakage current.

Environmental conditions

- Altitude not exceeding 2000 meters.
- Temperature resistance class F (155°C) or higher.
- Operating ambient temperature $-25^{\circ}C$ to $+45^{\circ}C$, relative humidity not exceeding 90%.
- Ambient air, no flammable or explosive materials, good ventilation.

Product Selection

Product size



Model (380V)	Figure No.	Adaptive Power (kW)	Rated Current (A)	Inductance (mH)	Pressure Drop	Size ($\pm 2mm$)							Weight (kg $\pm 10\%$)
						L	W	H	D	E	C	A*B	
RV-OCL-1R5-1	A	1.5	5	1.4	1%	120	73	140	90	60	51	6*12	2.5
RV-OCL-2R2-1	A	2.2	7	1	1%	120	73	140	90	60	51	6*12	2.5
RV-OCL-004-1	A	3.7	10	0.7	1%	120	73	140	90	60	51	6*12	2.5
RV-OCL-5R5-1	A	5.5	15	0.47	1%	120	73	140	90	60	51	6*12	2.5
RV-OCL-7R5-1	A	7.5	20	0.35	1%	120	73	140	90	60	51	6*12	3
RV-OCL-011-1	B	11	30	0.235	1%	155	120	135	95	70	58	6*12	5
RV-OCL-015-1	B	15	40	0.175	1%	155	120	135	95	70	58	6*12	5
RV-OCL-018-1	B	18.5	50	0.14	1%	155	120	135	95	70	58	6*12	5
RV-OCL-022-1	B	22	60	0.12	1%	155	120	135	95	70	58	6*12	5
RV-OCL-030-1	B	30	80	0.087	1%	180	135	160	120	80	73	8.5*17	6.5
RV-OCL-037-1	B	37	90	0.078	1%	180	135	160	120	80	73	8.5*17	6.5
RV-OCL-045-1	B	45	120	0.058	1%	180	155	160	120	80	83	8.5*17	8
RV-OCL-055-1	B	55	150	0.047	1%	180	170	160	120	80	83	8.5*17	8
RV-OCL-075-1	C	75	200	0.035	1%	220	160	210	182	120	98	11*18	16
RV-OCL-110-1	C	110	250	0.028	1%	220	160	210	182	120	98	11*18	16
RV-OCL-132-1	C	132	290	0.024	1%	220	160	220	182	120	98	11*18	17
RV-OCL-160-1	C	160	330	0.021	1%	220	160	220	182	120	98	11*18	17
RV-OCL-185-1	C	185	390	0.018	1%	270	175	240	214	140	104	11*18	24
RV-OCL-220-1	C	220	490	0.014	1%	270	180	260	214	140	104	11*18	25
RV-OCL-280-1	C	280	600	0.0116	1%	295	190	295	214	140	104	12*20	32
RV-OCL-315-1	C	300	660	0.011	1%	295	190	295	214	140	104	12*20	32
RV-OCL-380-1	C	380	800	0.00875	1%	360	210	320	270	210	114	12*20	40
RV-OCL-450-1	C	450	1000	0.007	1%	360	210	345	270	210	114	12*20	45
RV-OCL-550-1	D	550	1200	0.0058	1%	360	220	345	270	210	114	12*20	48
RV-OCL-630-1	D	630	1600	0.0043	1%	380	215	440	290	210	114	12*20	62

DC Reactor

Product Profile

The DC reactor is installed on the DC side of the drive. Its main purpose is to limit the AC component superimposed on the DC current to a certain specified value, maintain the continuity of the rectifier current, reduce the current ripple value, and improve the input power factor.

Product features

- Rated operating voltage: DC500V–DC1000V 50/60Hz
- Rated operating current: 5A ~ 1600A @ 40°C
- Insulation resistance: $\geq 100M\Omega$ between core and winding at 1000VDC
- Dielectric strength: Core–winding 3000VAC/50Hz/5mA/10s
No arcing (factory test)
- Reactor noise level: Less than 80dB
(tested at a horizontal distance of 1 meter from the reactor)
- Protection level: IP00
- Insulation class: Class F or higher
- Maximum current: 1.5X rated current for 60s
- Temperature rise: $\leq 85K$
- Product standards: GB19121.1–2008; GB19212–2007; GB1094.6–2011



Application

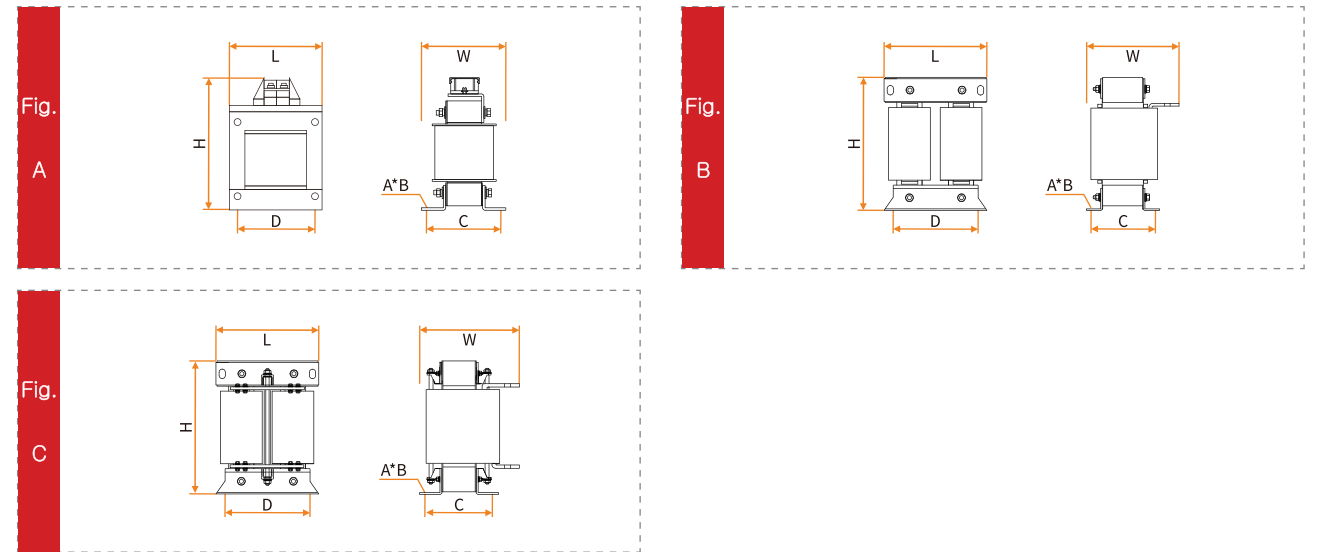
- Improves input current waveform distortion caused by capacitor filtering.
- Reduces and prevents damage to the rectifier bridge and capacitor overheating caused by inrush current.
- Improve power factor and reduce AC pulses on the DC bus.
- Limits grid voltage distortion.
- Works with parallel–connected capacitors to suppress or filter out DC ripple, eliminating any negative impact on the load.

Environmental conditions

- Altitude not exceeding 2000 meters.
- Temperature resistance class F (155°C) or higher.
- Operating ambient temperature $-25^{\circ}C$ to $+45^{\circ}C$, relative humidity not exceeding 90%.
- Ambient air, flammable, or explosive materials are all kept away, and good ventilation is required.

Product Selection

Product size



Model (380V)	Figure No.	Adaptive Power (kW)	Rated Current (A)	Inductance (mH)	Size ($\pm 2mm$)						Weight (kg $\pm 10\%$)
					L	W	H	D	C	A*B	
RV-DCL-004-1	A	3.7	10	5.2	104	100	120	85	80	7*11	1.8
RV-DCL-5R5-1	A	5.5	15	3.6	104	100	120	85	80	7*11	1.8
RV-DCL-7R5-1	A	7.5	20	2.7	104	110	120	85	90	7*11	3
RV-DCL-011-1	A	11	30	1.8	114	115	155	95	90	7*11	4
RV-DCL-018-1	A	18.5	40	1.2	114	115	155	95	90	7*11	4
RV-DCL-022-1	A	22	50	0.95	114	115	155	95	90	7*11	4
RV-DCL-030-1	A	30	65	0.68	114	115	155	95	90	7*11	4
RV-DCL-037-1	A	37	80	0.6	133.2	120	170	111	85	7*22	6
RV-DCL-045-1	A	45	100	0.48	133.2	120	170	111	85	7*22	6
RV-DCL-055-1	A	55	120	0.36	150	135	190	125	105	8*15	9
RV-DCL-075-1	A	75	160	0.28	150	135	190	125	105	8*15	9
RV-DCL-090-1	A	90	200	0.24	150	155	190	125	125	8*15	13
RV-DCL-110-1	B	110	250	0.2	210	155	245	175	95	11*18	15
RV-DCL-132-1	B	132	300	0.17	210	160	245	175	95	11*18	15
RV-DCL-160-1	B	160	350	0.14	210	180	265	175	115	11*18	22
RV-DCL-185-1	B	185	450	0.08	210	175	265	175	115	11*18	22
RV-DCL-220-1	B	220	500	0.06	210	175	265	175	115	11*18	23
RV-DCL-315-1	B	315	650	0.05	210	195	280	175	125	11*18	25
RV-DCL-400-1	B	400	850	0.04	210	200	330	175	125	11*18	30
RV-DCL-450-1	B	450	1000	0.035	235	210	360	200	130	11*18	30
RV-DCL-500-1	B	550	1200	0.03	235	215	420	200	130	11*18	45
RV-DCL-630-1	C	630	1600	0.015	260	270	345	200	150	12*20	48

dv/dt Filters

Product Profile

The RV-VTR series dv/dt filters are primarily used in industrial automation systems to protect motors from pulse spikes and dv/dt common-mode voltages generated by variable-frequency drives, extending motor life and improving system reliability. When cable lengths exceed 200m, it is recommended to install a dv/dt filter. (Please consult for shielded cables longer than 300m.)

Product features

- Rated operating voltage: 380VAC 50/60Hz
- Operating current: 5A ~ 1600A @ 40°C
- Maximum current: 1.5 times rated current, continuous for 60 seconds
- Temperature rise: ≤95K
- Low noise level: ≤65dB
- Protection level: Class F or higher
- Protection rating: IP00
- Per-phase inductance tolerance: -10, +10%
- Insulation level: ≥100MgV
- Dielectric test: winding-to-winding, winding-to-ground: 3.5kV, 1MIN
- Product standards: GB19212.1-2008; GB19212.21-2007; GB1094.6-2011

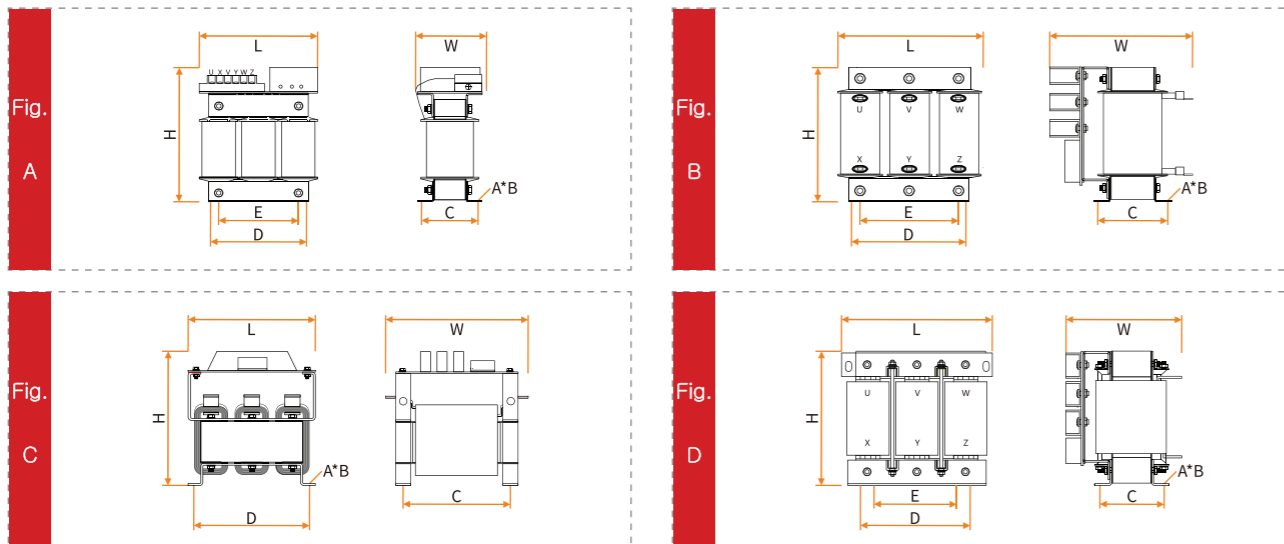


Product selection size

Model (380V)	Figure No.	Adaptive Power (kW)	Rated Current (A)	Switching Frequency (kHz)	Size (±2mm)						Weight (kg±10%)	
					L	W	H	D	E	C		A*B
RV-VTR-004-1	A	3.7	10	5	185	95	170	95	70	58	6*12	5.5
RV-VTR-5R5-1	A	5.5	15	5	185	95	170	95	70	58	6*12	5.5
RV-VTR-7R5-1	A	7.5	20	5	185	95	170	95	70	58	6*12	5.5
RV-VTR-011-1	B	11	30	4	195	195	170	120	80	73	8.5*17	8
RV-VTR-015-1	B	15	40	4	195	195	170	120	80	73	8.5*17	8
RV-VTR-018-1	B	18.5	50	4	195	205	170	120	80	83	8.5*17	10
RV-VTR-022-1	B	22	60	4	195	205	170	120	80	83	8.5*17	10
RV-VTR-030-1	B	30	80	4	195	230	190	120	80	98	8.5*17	12
RV-VTR-037-1	B	37	90	4	195	230	190	120	80	98	8.5*17	12
RV-VTR-045-1	B	45	120	4	220	260	190	182	120	124	11*18	21
RV-VTR-055-1	B	55	150	4	220	260	190	182	120	124	11*18	21
RV-VTR-075-1	C	75	200	4	250	272	245	225	-	185	11*18	26
RV-VTR-110-1	C	110	250	4	250	272	245	225	-	185	11*18	26
RV-VTR-132-1	C	132	290	4	250	272	255	225	-	185	11*18	29
RV-VTR-160-1	C	160	330	4	285	302	260	260	-	212	11*18	35
RV-VTR-185-1	C	185	390	4	285	302	270	260	-	212	11*18	38
RV-VTR-220-1	C	220	490	3	285	308	280	260	-	212	11*18	42
RV-VTR-280-1	C	280	600	3	350	260	320	270	210	124	12*20	50
RV-VTR-315-1	C	300	660	3	350	260	320	270	210	124	12*20	50
RV-VTR-380-1	C	380	800	3	350	270	350	270	210	124	12*20	55
RV-VTR-450-1	C	450	1000	3	350	300	350	270	210	144	12*20	68
RV-VTR-550-1	D	550	1200	3	350	360	350	270	210	184	12*20	90
RV-VTR-630-1	D	630	1600	3	380	325	440	290	210	164	12*20	110

Product Selection

Product size



Sine Wave Filter

Product Profile

RV-SFR series sine wave filter products are used to improve the voltage waveform at the output end of the drive, correct the PWM waveform of the drive output and convert it into a sine wave, extend the drive output distance up to 3km, effectively suppress high-frequency and dv/dt radio frequency interference, reduce output harmonic components, reduce eddy current loss and noise of the motor, extend motor life, and improve system reliability.

Product features

- Rated operating voltage: 380V (690V: 1140V), 50/60Hz
- Rated operating current: 20A ~ 1600A @ 40°C
- Withstand voltage test: 3000VAC 60/s (capacitor release)
- Carrier frequency: 2-8kHz
- Protection level: IP00
- Insulation class: Class F or higher
- Voltage drop: 8%-12%
- No-load current: ≤8%
- Voltage harmonic distortion (THD) ≤5%
- Reactor noise: <80dB (tested at a horizontal distance of 1 meter from the reactor)
- Altitude: <1000 meters
- Ambient temperature: -25°C ~ 40°C
- Product standards: GB19212.1-2008; GB19212.21-2007; GB1094.6-2011

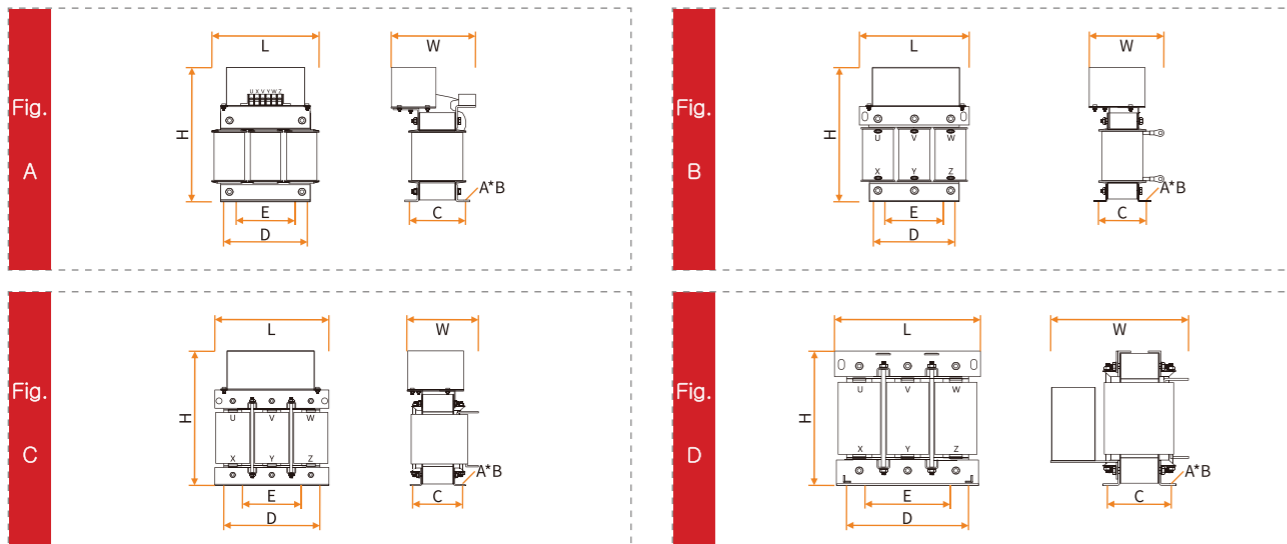


Product selection size

Model (380V)	Figure No.	Adaptive Power (kW)	Rated Current (A)	Switching Frequency (kHz)	Size (±2mm)							Weight (kg±10%)
					L	W	H	D	E	C	A*B	
RV-SFR-004-1	A	3.7	10	5	215	185	245	120	80	98	8.5*17	12
RV-SFR-5R5-1	A	5.5	15	5	215	185	245	120	80	98	8.5*17	12
RV-SFR-7R5-1	A	7.5	20	5	215	185	265	120	80	98	8.5*17	13
RV-SFR-011-1	A	11	30	4	225	210	270	182	120	124	11*18	22
RV-SFR-015-1	B	15	40	4	255	195	330	182	120	124	11*18	28
RV-SFR-018-1	B	18.5	50	4	255	195	330	182	120	124	11*18	28
RV-SFR-022-1	B	22	60	4	295	210	335	214	140	130	11*18	36
RV-SFR-030-1	B	30	80	4	295	220	390	214	140	130	11*18	40
RV-SFR-037-1	B	37	90	4	295	220	390	214	140	130	11*18	42
RV-SFR-045-1	C	45	120	4	375	235	395	290	210	164	12*20	70
RV-SFR-055-1	C	55	150	4	375	235	435	290	210	164	12*20	78
RV-SFR-075-1	C	75	200	4	375	275	460	290	210	194	12*20	95
RV-SFR-110-1	C	110	250	4	375	275	510	290	210	194	12*20	108
RV-SFR-132-1	C	132	290	4	425	285	545	380	260	190	15*25	118
RV-SFR-160-1	C	160	330	4	425	285	545	380	260	190	15*25	118
RV-SFR-185-1	C	185	390	4	500	290	560	430	310	210	15*25	160
RV-SFR-220-1	C	220	490	3	500	330	580	430	310	230	15*25	170
RV-SFR-280-1	D	280	600	3	500	515	485	430	310	230	15*25	200
RV-SFR-315-1	D	300	660	3	500	515	485	430	310	230	15*25	200
RV-SFR-380-1	D	380	800	3	500	550	485	430	310	260	15*25	230
RV-SFR-450-1	D	450	1000	3	525	540	560	480	360	240	15*25	270
RV-SFR-550-1	D	550	1200	3	525	560	605	480	360	260	15*25	315
RV-SFR-630-1	D	630	1600	3	655	605	750	400	-	320	15*25	400

Product Selection

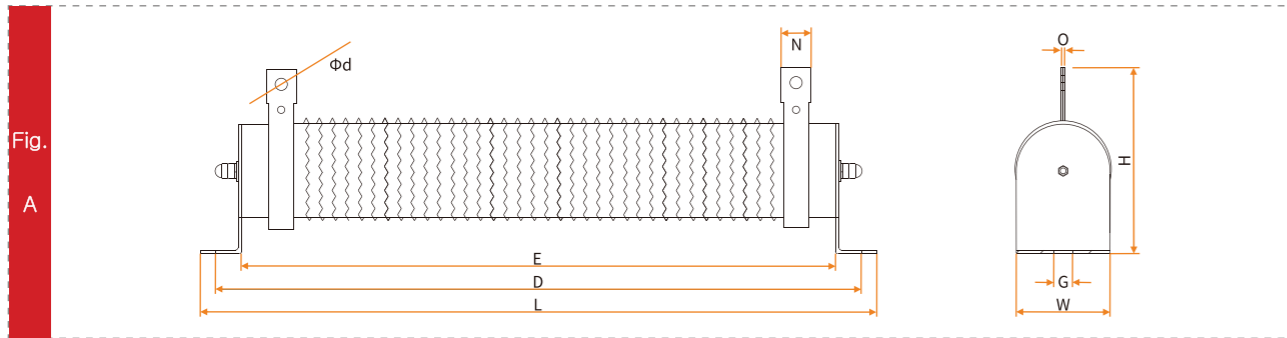
Product size



Corrugated Resistors

Product Selection

Product size



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Model	Figure No.	Power (kW)	Size (±2mm)									Typical Resistance Value (OHM)	Weight (kg±10%)
			L	W	H	D	E	G	N	Φd	O		
RX-120	A	120	225	28	62	205	180	6.5	10	4.5	2	750	0.2
RX-150	A	150	240	40	90	215	195	8	12	5.5	2	750	0.5
RX-200	A	200	240	40	90	215	195	8	12	5.5	2	750	0.5
RX-300	A	300	328	40	90	305	280	8	12	5.5	2	150	0.6
RX-400	A	400	328	40	90	305	280	8	12	5.5	2	75	0.6
RX-500	A	500	360	50	100	340	315	8	16	6.5	2	85	1
RX-600	A	600	360	50	100	340	315	8	16	6.5	2	100	1
RX-800	A	800	360	50	100	340	315	8	16	6.5	2	40-50	1
RX-1000	A	1000	355	60	120	325	300	8.5	16	6.5	2	40-50	1.5
RX-1200	A	1200	470	60	120	440	415	8.5	16	6.5	2	40	2
RX-1500	A	1500	470	60	120	440	415	8.5	16	6.5	2	20-40	2
RX-2000	A	2000	555	60	120	535	510	8.5	16	6.5	2	20-40	2.2
RX-2500	A	2500	645	60	120	625	600	8.5	16	6.5	2	20-40	2.8
RX-3000	A	3000	660	68	135	630	600	8.5	16	6.5	2	20-40	3.2
RX-4000	A	4000	535	80	145	500	470	8.5	16	6.5	2	20-40	3.4
RX-5000	A	5000	560	100	160	535	500	8.5	16	6.5	2	20-32	5
RX-6000	A	6000	660	100	160	635	600	8.5	16	6.5	2	20-32	6.2

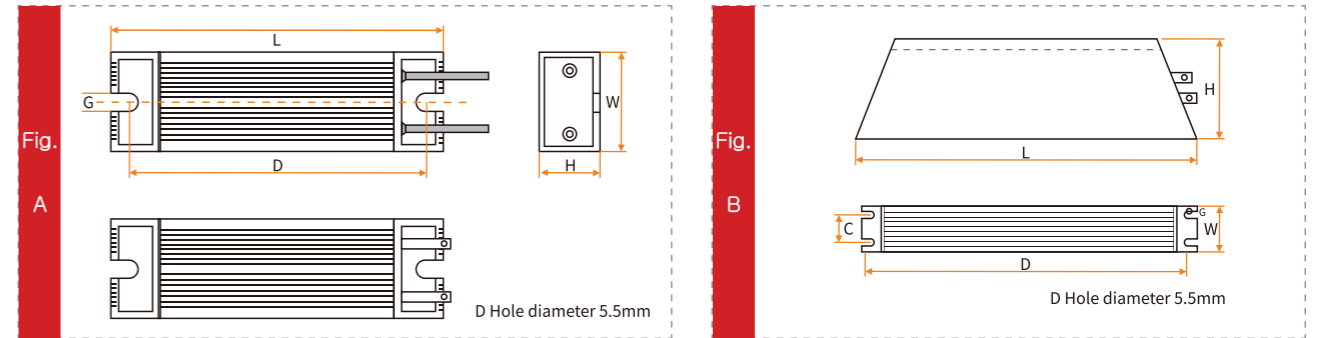
Execution standards

- GB/T5729-1994 Fixed resistors for electronic equipment.

Aluminum Shell Resistors

Product Selection

Product size



*Note: For power above 500KW, you can choose terminal type or lead type outlet. Please indicate the outlet type to the sales engineer when ordering. For customized products, please consult the sales staff.

Model	Figure No.	Power (kW)	Size (±2mm)						Wiring (mm)	Lead Length (mm)	Typical Resistance Value (OHM)	Weight (kg±10%)
			L	W	H	D	C	G				
RL-60	A	60	115	40	20	98	-	5.5	1.5	250	750	0.2
RL-80	A	80	140	40	20	123	-	5.5	1.5	250	750	0.2
RL-100	A	100	165	40	20	148	-	5.5	1.5	250	390	0.2
RL-120	A	120	165	40	20	148	-	5.5	1.5	250	390	0.3
RL-150	A	150	165	60	30	148	-	5.5	1.5	250	390	0.4
RL-200	A	200	165	60	30	148	-	5.5	1.5	250	390	0.4
RL-300	A	300	215	60	30	198	-	5.5	1.5	250	150	0.6
RL-400	A	400	265	60	30	248	-	5.5	1.5	250	150	0.7
RL-500	A	500	335	60	30	318	-	5.5	1.5	250	100	1.0
RL-600	A	600	335	60	30	318	-	5.5	1.5	250	75	1.0
RL-800	A	800	400	60	30	384	-	5.5	1.5	250	40-50	1.3
RL-1000	B	1000	400	50	107	384	30.5	5.5	-	-	40-50	3.5
RL-1200	B	1200	450	50	107	434	30.5	5.5	-	-	40	4.0
RL-1500	B	1500	485	50	107	469	30.5	5.5	-	-	20-40	4.3
RL-2000	B	2000	550	50	107	534	30.5	5.5	-	-	20-40	5.2
RL-2500	B	2500	550	50	107	534	30.5	5.5	-	-	20-40	5.2
RL-3000	B	3000	550	50	107	534	30.5	5.5	-	-	20-32	5.2
RL-4000	B	4000	600	50	107	583	30.5	5.5	-	-	20-40	5.6
RL-5000	B	5000	700	50	107	683	30.5	5.5	-	-	20-40	6.5
RL-6000	B	6000	700	50	107	683	30.5	5.5	-	-	20-32	6.5

Harmonic Filters

Product Profile

Harmonic filters are devices used to filter out one or more current harmonics in the grid-side system. Compared to traditional passive filters, they are smaller and offer enhanced harmonic suppression capabilities. When connected to the front end of a drive, the total harmonic current after filtering is less than 10% of the fundamental current at full load. With an efficiency exceeding 98%, passive harmonic filters provide a cost-effective, stable, and reliable harmonic solution. As a standalone option, they are easily installed into existing cabinets. This series of filters is carefully matched to brand-name drives and is suitable for various motor control methods, ensuring stable system operation without any adverse effects on the grid. They can be used directly in conjunction with existing DC reactors, EMC/EMI filters, and other pre-installed systems. A filter branch bypass control function is standard, which can be controlled via an external contactor based on actual usage.

Product features

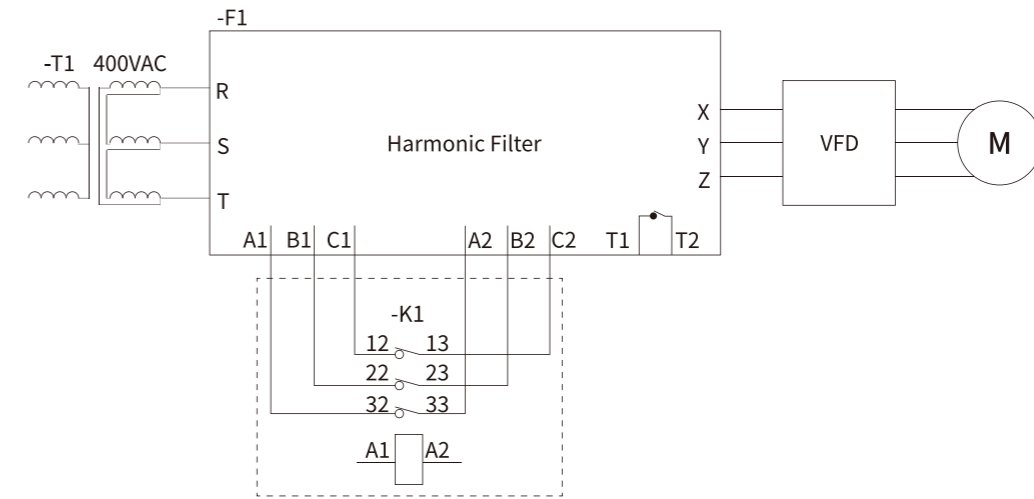
- Rated operating voltage: AC 380V–480V, 50Hz
- Protection level: IP20 (all series are equipped with protective housings)
- Harmonic filtering effectiveness: Under full load, the total harmonic current distortion (THDI) at the input of the -10 series products is $\leq 10\%$ (background voltage THDU $< 2\%$, grid short-circuit power to installed load ratio > 66).
- Insulation level: Overvoltage Category III (compliant with EN61800-5-1)
- Full-load efficiency: Greater than 98%
- Cooling method: AN
- Ambient temperature (operating): Under full load, $-25^{\circ}\text{C} \sim +50^{\circ}\text{C}$
- Storage temperature: $-25^{\circ}\text{C} \sim 65^{\circ}\text{C}$
- Operating altitude: 0 ~ 2000 meters above sea level
- Relative humidity: 0 ~ 95% non-condensing
- No-load current: $\leq 25\%$ of rated current
- Applicable standards: IEC61800-5-1; GB/T 14549-1993



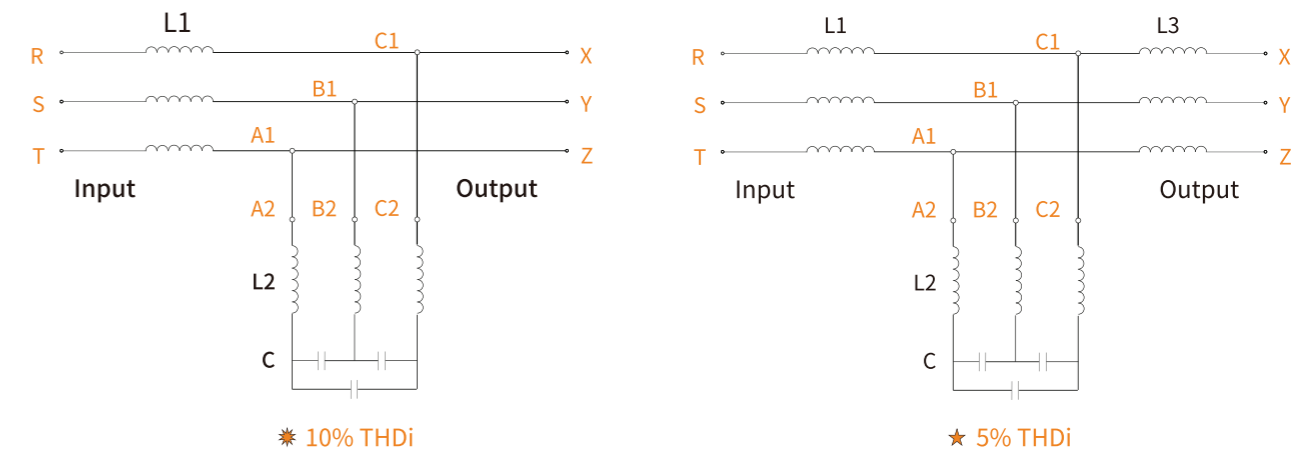
Precautions for use

- Harmonic filters are supplied with the drive and should only be installed at the drive's power input.
- When selecting a filter, ensure the power of the filter matches the power of the drive and motor as closely as possible. This will achieve better filtering performance. If a higher-power filter is used with a lower-power drive, the filtering effect will be reduced.
- It is recommended that the power of the filter be equal to the drive power or one level higher than the motor power. Harmonic filters are most effective at full load efficiency.
- During installation, connect a reliable ground wire according to the wiring instructions in the circuit diagram.
- A single harmonic filter can power multiple drives, but the total load must not exceed the rated power of the harmonic filter.
- The reactor in the filter is a heat-generating device. During installation, ensure that there is at least 100mm of clearance around the filter.
- The capacitor in the filter is temperature-sensitive. Ensure that the ambient temperature of the capacitor is below 50°C .
- When operating the harmonic filter, first measure the filter input and output terminals for any residual hazardous voltage.
- If the operating environment, such as altitude or power grid quality, exceeds the technical requirements, please contact technical customer service. The above data only applies to conventional product requirements. Customization is possible if there are special requirements.

Wiring Instructions



Schematic Diagram

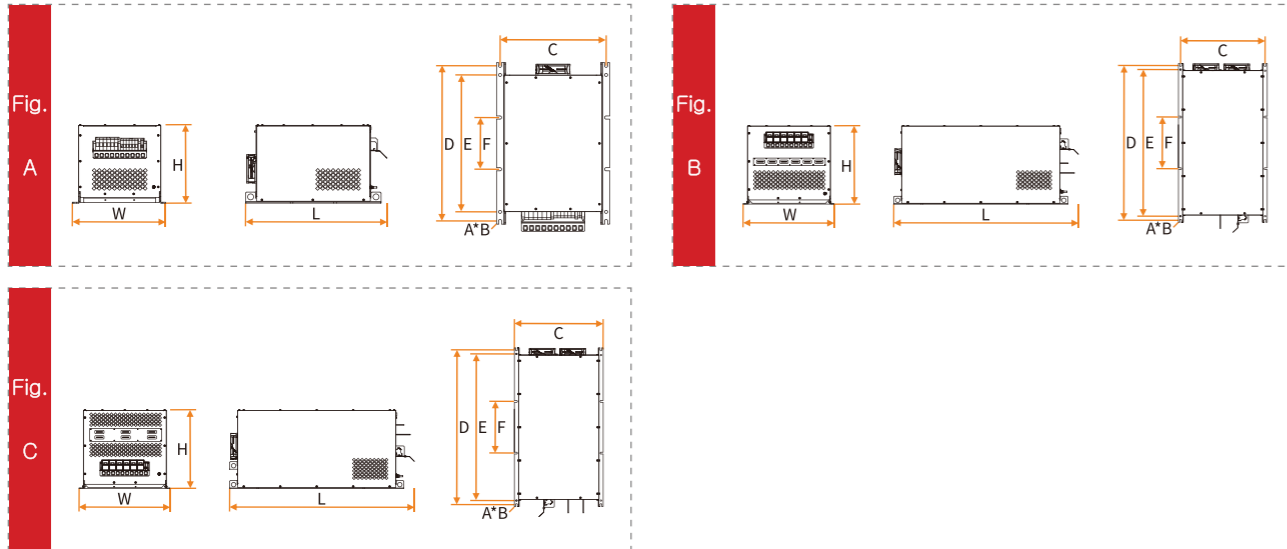


Terminal name (internal name)	Uses
R, S, T	Input side terminal
X, Y, Z	Output side terminal
A1-A2, B1-B2, C1-C2	Filter branch bypass control terminal (external contactor control)
TH1, TH2	Overheat protection
E	Protective earthing (\perp)

Explain: For the use of pltering branch bypass, after removing the short circuit between A1-A2, B1-B2, C1-C2 the user selects the appropriate control contactor based on the Harmonic Plter current value in the selection information.

Product Selection

Product size



Model (380V)	Figure No.	Adaptive Power (kW)	Rated Current (A)	Current Distortion Rate THDi≤	Size (±2mm)								Weight (kg±10%)
					L	W	H	D	E	F	C	A*B	
RV-SAC-1R5-1	A	1.5	4	10%	410	262	252	357	310	140	236	9*13.5	20
RV-SAC-2R2-1	A	2.2	6	10%	410	262	252	357	310	140	236	9*13.5	20
RV-SAC-003-1	A	3	8	10%	410	262	252	357	310	140	236	9*13.5	20
RV-SAC-5R5-1	A	5.5	13	10%	410	262	252	357	310	140	236	9*13.5	22
RV-SAC-7R5-1	A	7.5	16	10%	495	295	288	435	350	160	270	11*18	29
RV-SAC-011-1	A	11	24	10%	495	295	288	435	350	160	270	11*18	38
RV-SAC-015-1	A	15	32	10%	495	295	288	435	350	160	270	11*18	38
RV-SAC-018-1	A	18.5	38	10%	495	295	288	435	350	160	270	11*18	38
RV-SAC-022-1	A	22	45	10%	560	350	310	485	400	165	325	11*18	53
RV-SAC-030-1	A	30	65	10%	560	350	310	485	400	165	325	11*18	54
RV-SAC-037-1	A	37	75	10%	560	350	310	485	400	165	325	11*18	54
RV-SAC-045-1	A	45	90	10%	630	385	400	565	480	185	360	11*18	75
RV-SAC-055-1	A	55	110	10%	630	385	400	565	480	185	360	11*18	77
RV-SAC-075-1	B	75	150	10%	680	458	460	615	530	235	434	11*18	119
RV-SAC-090-1	B	90	180	10%	680	458	460	615	530	235	434	11*18	124
RV-SAC-110-1	B	110	210	10%	880	550	495	766	708	316	523	11*18	146
RV-SAC-132-1	B	132	260	10%	880	550	495	766	708	316	523	11*18	167
RV-SAC-160-1	B	160	315	10%	880	550	495	766	708	316	523	11*18	185
RV-SAC-200-1	C	200	380	10%	950	580	565	821	763	560	552	11*20	210
RV-SAC-250-1	C	250	480	10%	950	580	565	821	763	560	552	11*20	220

EMI Filters

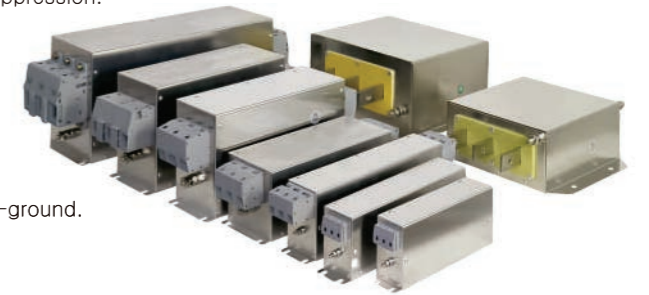
Product Profile

EMI filters offer excellent insertion loss and excellent suppression of electromagnetic interference (conducted and radiated, common-mode and differential-mode).

EMI filters are passive components composed of inductors and capacitors. Essentially, they are low-pass filters, allowing the power frequency to pass unimpeded while effectively suppressing all high-frequency interference (generally defined as interference noise frequencies between 150kHz and 30MHz) above the power frequency. EMI filters offer bidirectional suppression capabilities. For example, the input filter can prevent electromagnetic interference from the grid from affecting the drive, while also preventing electromagnetic interference generated by the drive from contaminating the grid.

Product features

- Standard products are high-performance B-pole filters.
- High insertion loss and excellent electromagnetic interference suppression.
- Operating voltage: 220VDC/AC to 1140VAC 50/60Hz.
- Operating current: 1A to 1600A and other specifications.
- IP rating: IP00 to IP54.
- Test voltage: (1 minute) 1500VDC line-to-line, 2500VDC line-to-ground.
- Insulation resistance: ≥1500MΩ line-to-ground at 500VDC.
- Product compliance standard: IEC/EN 60939.



Application

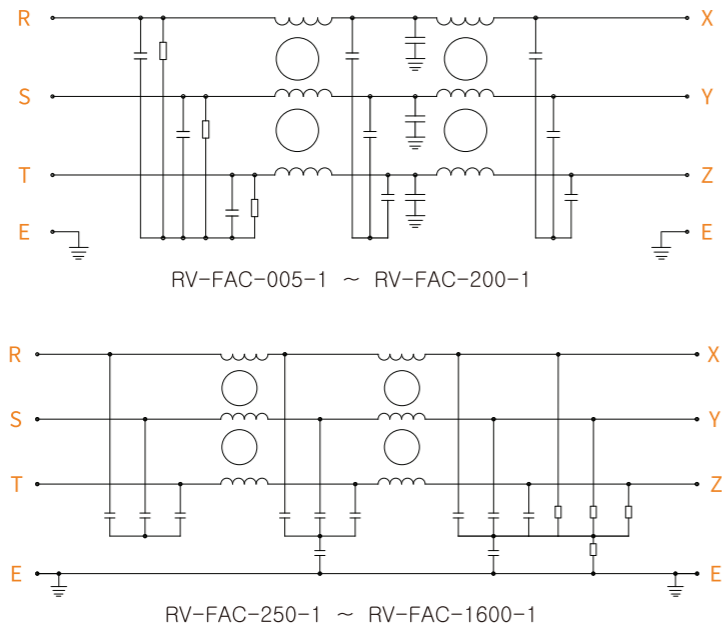
- Frequency converters, servo drives, UPS power supplies, data processing systems, and other equipment requiring electromagnetic interference suppression.
- Electronic equipment, instrumentation, switching power supplies, UPS power supplies, communications equipment, medical equipment, digital circuits, household appliances, and other interference-susceptible equipment that must meet electromagnetic compatibility standards.
- Shielded rooms, partial discharge equipment, air conditioning equipment, and drive systems for renewable energy sources such as wind and solar power.

Environmental conditions

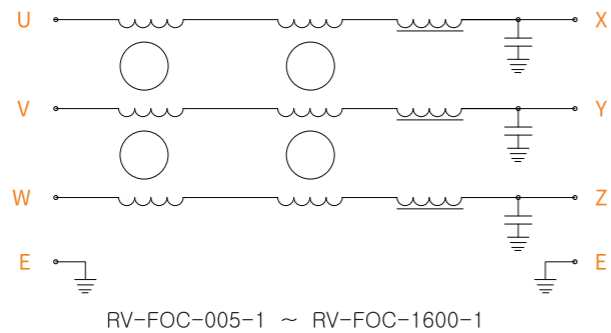
- Altitude must not exceed 2000 meters.
- Ambient operating temperature: -20°C to +45°C, relative humidity no greater than 90% (at 20°C).
- Provide good ventilation; air inlets and outlets must not be blocked.
- The surrounding environment must be dry and clean, free of harmful gases. Flammable and explosive items are strictly prohibited.
- The surrounding environment must be free of conductive dust, explosive gases, and corrosive gases that can severely damage metal and insulation.
- Vibration and shock at the installation site must be less than f: 5-200Hz, 5.8m/s² (0.6g).

Schematic Diagram

■ EMI Input Filter



■ EMI Output Filter



Terminal name (internal name)	Uses
R, S, T, L, N (LINE)	Incoming side
U, V, W (LINE)	Incoming side
X, Y, Z, L', N' (LOAD)	Outgoing side
⏏ (E)	Connected to the on-site protection ground

• The input filter can only be connected to the grid side of the drive because of the presence of phase-to-phase capacitance, that is, the drive input filter.

• Since the output filter does not have phase-to-phase capacitance, it can be connected to the output end of the drive, that is, it is a dedicated output filter for the drive.

Note 1: During drive operation, the two drive diodes in each bridge arm are constantly alternating. Therefore, if a capacitor is connected to the output, the alternating conduction of the drive diodes will cause the capacitors to continuously charge and discharge. This causes the drive diodes to supply current to the motor while also increasing the capacitor's charging and discharging currents, potentially damaging the drive diodes. The drive output contains high frequencies and high-order harmonics. If there is phase-to-phase capacitance, the capacitors pass high frequencies and block low frequencies. Adding capacitors between the lines will immediately cause conduction, resulting in a short circuit.

Note 2: If the output filter is connected to the input end and used as an input filter, it will not cause damage, but the suppression effect will be significantly reduced.

Product Selection

■ 380V EMI Input Filter 380V Selection Table

Model	Current (A)	Drive Power (kW)	Overall dimensions (mm±5)	Installation dimensions (mm±5)
RV-FAC-005-1	5	2	190*40*75	180*20
RV-FAC-010-1	10	4	190*40*75	180*20
RV-FAC-020-1	20	8	242*45*75	235*25
RV-FAC-036-1	36	15	310*50*85	255*31
RV-FAC-050-1	50	19	290*85*90	234*60
RV-FAC-065-1	65	30	290*85*90	234*60
RV-FAC-080-1	80	37	320*85*140	255*60
RV-FAC-100-1	100	45	320*85*140	255*60
RV-FAC-130-1	130	55	338*95*150	255*65
RV-FAC-150-1	150	75	338*95*150	255*65
RV-FAC-200-1	200	110	455*120*170	365*102
RV-FAC-250-1	250	132	300*220*90	100*195
RV-FAC-320-1	320	160	300*220*90	100*195
RV-FAC-400-1	400	220	315*260*128	105*245
RV-FAC-500-1	500	250	315*260*128	105*245
RV-FAC-600-1	600	315	315*260*128	105*245
RV-FAC-800-1	800	400	445*260*128	165*245
RV-FAC-900-1	900	450	445*260*128	165*245
RV-FAC-1000-1	1000	500	445*260*128	165*245
RV-FAC-1200-1	1200	630	580*292*150	245*270
RV-FAC-1600-1	1600	800	580*292*150	245*270

■ 380V EMI Output Filter 380V Selection Table

Model	Current (A)	Drive Power (kW)	Overall dimensions (mm±5)	Installation dimensions (mm±5)
RV-FOC-005-1	5	2	190*40*75	180*20
RV-FOC-010-1	10	4	190*40*75	180*20
RV-FOC-020-1	20	8	242*45*75	235*25
RV-FOC-036-1	36	15	310*50*85	255*31
RV-FOC-050-1	50	19	290*85*90	234*60
RV-FOC-065-1	65	30	290*85*90	234*60
RV-FOC-080-1	80	37	320*85*140	255*60
RV-FOC-100-1	100	45	320*85*140	255*60
RV-FOC-130-1	130	55	338*95*150	255*65
RV-FOC-150-1	150	75	338*95*150	255*65
RV-FOC-200-1	200	110	455*120*170	365*102
RV-FOC-250-1	250	132	300*220*90	100*195
RV-FOC-320-1	320	160	300*220*90	100*195
RV-FOC-400-1	400	220	315*260*128	105*245
RV-FOC-500-1	500	250	315*260*128	105*245
RV-FOC-600-1	600	315	315*260*128	105*245
RV-FOC-800-1	800	400	445*260*128	165*245
RV-FOC-900-1	900	450	445*260*128	165*245
RV-FOC-1000-1	1000	500	445*260*128	165*245
RV-FOC-1200-1	1200	630	580*292*150	245*270
RV-FOC-1600-1	1600	800	580*292*150	245*270