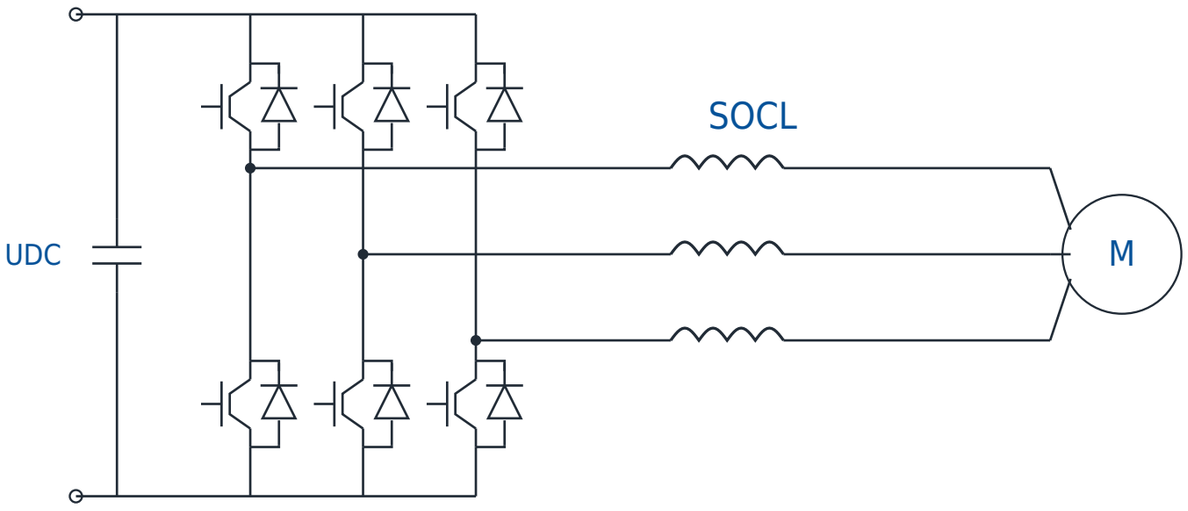
Output Reactors

Application Circuit

Installed at the VFD output for induction-motor drives. Suppresses higher-order harmonics caused by switching-frequency ripple and reduces dv/dt voltage transients from reflections along long motor cables, reducing motor eddy-current losses and noise while protecting insulation.





Technical Specifications

Rated Voltage	3-AC 400 V / 690 V / 1140 V, 50 Hz
Insulation Class	F/H
Noise Level	≤75 dB
Dielectric Strength	AC 3000 V / AC 4200 V, 50 Hz, 5 s; leakage ≤5 mA
Ambient Temperature	−25°C to 55°C (75°C for explosion-proof version)
Standards	GB/T 1094.6-2011; IEC 289:1987; GB/T 19212.1-2023

VFD Output-Side Solutions

Output-side solution options

Alternative configurations between VFD and motor

VFD
U / V / W

- **SOCL · UD = 1%** — Low cost; motor cable ≤150 m
- **DUT dv/dt peak filter** — Upeak ≤1000 / 1800 V; dv/dt ≤300 V/μs — Mid cost; motor cable ≤400 m
- **DVT dv/dt peak filter (950 m)** — Upeak ≤1000 / 1800 V; dv/dt ≤300 V/μs — Good value; motor cable ≤950 m
- **SLB sine-wave filter** — Higher cost
- **VSA peak absorber** — Upeak ≤1000 / 1800 V — Good value; motor cable ≤950 m
- **LCM sine conditioner** — THDv/i ≤5% — Good value; motor cable 400–950 m

Motor

Dimensions and Technical Data

Fig. A

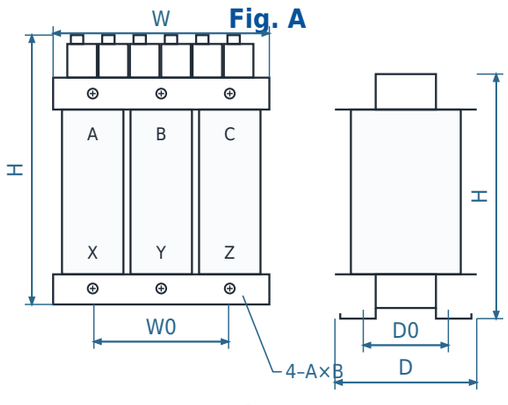


Fig. D

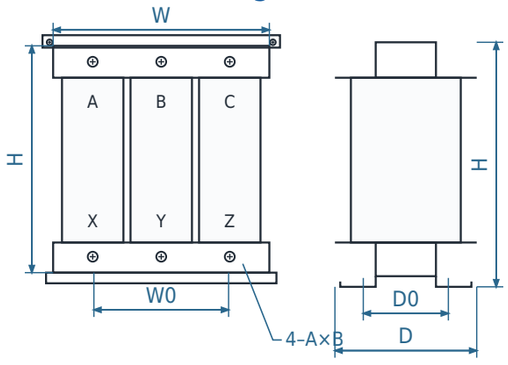


Fig. B

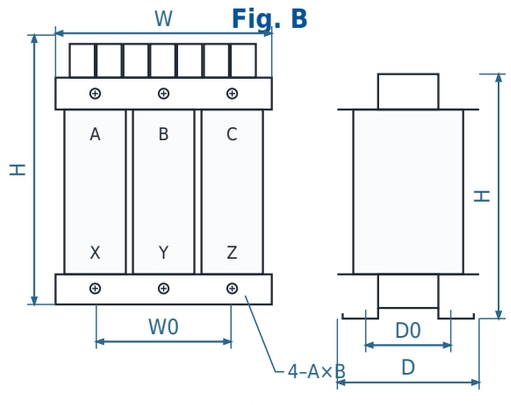


Fig. E

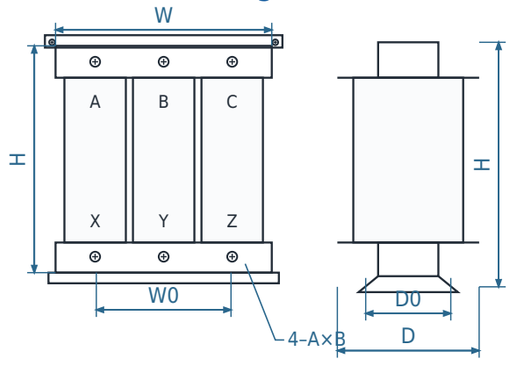


Fig. C

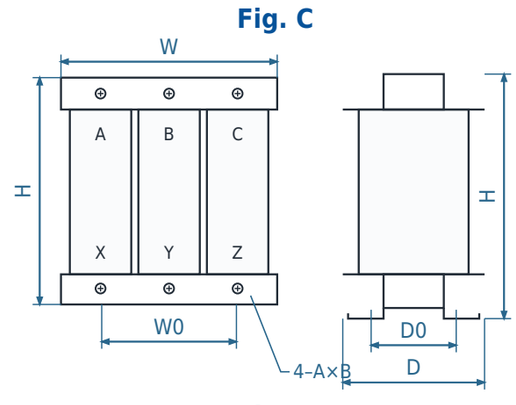
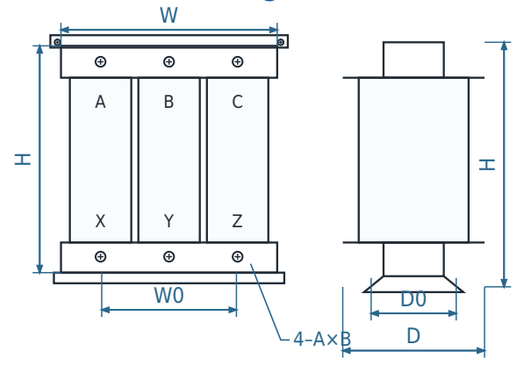


Fig. F



Output Reactors (UD = 1%) — Technical Data

System: 3-AC 400 V, 50 Hz; reactor insulation class: F

Reactor Model	Fig.	Switching Freq. ≤ (kHz)	Drive Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
							W	D	H	W0	D0	A×B
SOCL-0005-EISC-140B	A	5	2.2	5	14	1.5	95	69	110	40	48	7×11
SOCL-0010-EISC-700C		5	3.7	10	0.7	2.6	115	76	125	50	53	7×11
SOCL-0013-EISC-540C		5	5.5	13	0.54	2.8	115	76	125	50	53	7×11
SOCL-0016-EISC-438C		5	7.5	16	0.438	2.9	115	76	125	50	53	7×11
SOCL-0025-EISC-280C	B	4	11	25	0.28	5.3	150	100	190	60	67	7×11
SOCL-0030-EISC-233C		4	15	30	0.233	5.6	150	100	190	60	67	7×11
SOCL-0045-EISA-155C	C	4	22	45	0.155	5.8	180	110	160	80	67	7×11
SOCL-0060-EISA-117C		3	30	60	0.117	8.4	180	130	160	80	87	7×11
SOCL-0075-EISA-935D		3	37	75	0.0935	8.7	180	130	160	80	87	7×11
SOCL-0090-EISA-785D		3	45	90	0.0785	8.9	180	130	160	80	87	7×11
SOCL-0110-EISA-640D		3	55	110	0.064	14.4	230	160	220	110	85	9×18
SOCL-0150-EISA-467D		3	75	150	0.0467	15.0	230	160	220	110	85	9×18
SOCL-0180-EISA-390D		3	90	180	0.039	19.2	230	175	220	110	100	9×18
SOCL-0220-EISA-320D		3	110	220	0.032	20.3	230	175	220	110	100	9×18
SOCL-0260-EISA-270D	D	3	132	260	0.027	26.5	260	185	265	140	110	9×18
SOCL-0320-EISA-220D		3	160	320	0.022	27.7	260	185	265	140	110	9×18
SOCL-0400-EISA-175D		3	200	400	0.0175	33.1	300	205	280	170	110	11×18
SOCL-0480-EISA-145D		3	250	480	0.0145	45.0	300	230	280	170	135	11×18
SOCL-0540-EISA-130D		3	280	540	0.013	45.8	300	230	280	170	135	11×18
SOCL-0600-EISA-117D		3	315	600	0.0117	46.8	300	230	280	170	135	11×18
SOCL-0800-EISA-875E		2	400	800	0.00875	66.0	360	265	375	190	135	13×26
SOCL-1000-EISA-700E		2	500	1000	0.007	69.3	360	265	375	190	135	13×26
SOCL-1100-EISA-635E	E	2	560	1100	0.00635	98.0	430	305	410	240	175	14×28
SOCL-1200-EISA-585E		2	630	1200	0.00585	100.0	430	305	410	240	175	14×28

System: 3-AC 690 V, 50 Hz; reactor insulation class: F

Reactor Model	Fig.	Switching Freq. ≤ (kHz)	Drive Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
							W	D	H	W0	D0	A×B
SOCL-0020-EISC-640C	B	2	15	20	0.64	5.4	150	100	190	60	67	7×11
SOCL-0030-EISC-425C		2	22	30	0.425	8.7	180	110	220	80	87	7×11
SOCL-0045-EISA-283C	C	2	37	45	0.283	12.7	230	160	190	110	85	9×18
SOCL-0060-EISA-212C		2	45	60	0.212	14.6	230	160	220	110	85	9×18
SOCL-0090-EISA-141C		2	75	90	0.141	15.4	230	160	220	110	85	9×18
SOCL-0110-EISA-115C		2	90	110	0.115	20.1	230	175	220	110	100	9×18
SOCL-0150-EISA-850D		2	110	150	0.085	20.8	230	175	220	110	100	9×18
SOCL-0200-EISA-640D	D	2	160	200	0.064	28.7	260	185	265	140	110	9×18
SOCL-0250-EISA-510D		2	200	250	0.051	30.6	260	185	265	140	110	9×18
SOCL-0300-EISA-425D		2	250	300	0.0425	36.8	300	200	280	170	110	11×18
SOCL-0400-EISA-320D		1.5	355	400	0.032	48.9	300	225	280	170	135	11×18
SOCL-0480-EISA-265D		15	450	480	0.0265	68.8	360	250	375	190	135	13×26
SOCL-0600-EISA-213D		1.5	560	600	0.0213	71.1	360	250	375	190	135	13×26
SOCL-0800-EISA-160D	E	1.5	710	800	0.016	100.5	430	290	410	240	175	14×28
SOCL-1000-EISA-127D		1.5	900	1000	0.0127	100.6	430	290	410	240	175	14×28
SOCL-1100-EISA-115D		1.5	1000	1100	0.0115	134.8	430	320	520	240	190	14×28
SOCL-1400-EISA-900E		1.5	1200	1400	0.009	144.5	430	320	520	240	190	14×28

System: 3-AC 690 V, 50 Hz; two-quadrant explosion-proof VFDs; insulation class: H; rated temperature rise ≤70–80 K

Reactor Model	Fig.	Switching Freq. ≤ (kHz)	Drive Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
							W	D	H	W0	D0	A×B
FOCL-0090-EISC-141C	C	2	75	90	0.141	18.1	230	145	220	110	85	9×18
FOCL-0110-EISC-115C		2	90	110	0.115	21.5	230	160	220	110	100	9×18
FOCL-0150-EISC-850D		2	110	150	0.085	24.4	230	170	220	110	100	9×18
FOCL-0200-EISC-640D	D	2	160	200	0.064	32.4	260	180	265	140	110	9×18
FOCL-0250-EISC-510D		2	200	250	0.051	37.9	260	180	265	140	110	9×18
FOCL-0300-EISC-425D		2	250	300	0.0425	45.4	300	185	280	170	110	11×18
FOCL-0400-EISC-320D		1.5	355	400	0.032	59.7	300	225	280	170	135	11×18
FOCL-0480-EISC-265D		1.5	450	480	0.0265	76.8	360	245	375	190	135	13×26
FOCL-0600-EISC-213D		1.5	560	600	0.0213	86.2	360	245	375	190	135	13×26
FOCL-0800-EISC-160D	E	1.5	710	800	0.016	107.6	430	280	410	240	175	14×28
FOCL-1000-EISC-127D		1.5	900	1000	0.0127	118.7	430	280	410	240	175	14×28
FOCL-1100-EISC-115D		1.5	1000	1100	0.0115	149.2	430	300	520	240	190	14×28
FOCL-1400-EISC-900E		1.5	1200	1400	0.009	166.4	430	320	520	240	190	14×28

System: 3-AC 1140 V, 50 Hz; two-quadrant explosion-proof VFDs; insulation class: H; rated temperature rise ≤70–80 K

Reactor Model	Fig.	Switching Freq. ≤ (kHz)	Drive Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
							W	D	H	W0	D0	A×B
FOCL-0110-EISC-190C	D	2	160	110	0.19	33.8	260	180	275	140	110	9×18
FOCL-0150-EISC-140C		2	200	150	0.14	40.1	260	180	275	140	110	9×18
FOCL-0200-EISC-105C		2	280	200	0.105	48.8	300	180	290	170	110	11×18
FOCL-0250-EISC-840D		1.5	355	250	0.084	63.2	300	205	290	170	135	11×18
FOCL-0300-EISC-700D		15	450	300	0.07	78.7	360	215	375	190	135	13×26
FOCL-0350-EISC-600D		1.5	500	350	0.06	85.0	360	215	375	190	135	13×26
FOCL-0400-EISC-525D		1.5	630	400	0.0525	85.3	360	225	375	190	135	13×26
FOCL-0480-EISC-438D	E	1.5	710	480	0.0438	118.7	430	250	410	240	175	14×28
FOCL-0600-EISC-350D		1.5	900	600	0.035	124.4	430	250	410	240	175	14×28
FOCL-0700-EISC-300D		1.5	1000	700	0.03	156.5	430	295	520	240	190	14×28
FOCL-0800-EISC-263D		1.5	1200	800	0.0263	171.9	430	295	520	240	190	14×28

Note: Copper-wound EISC reactors are slightly heavier; all other parameters are unchanged. A, B, C: three-phase input; X, Y, Z: three-phase output.