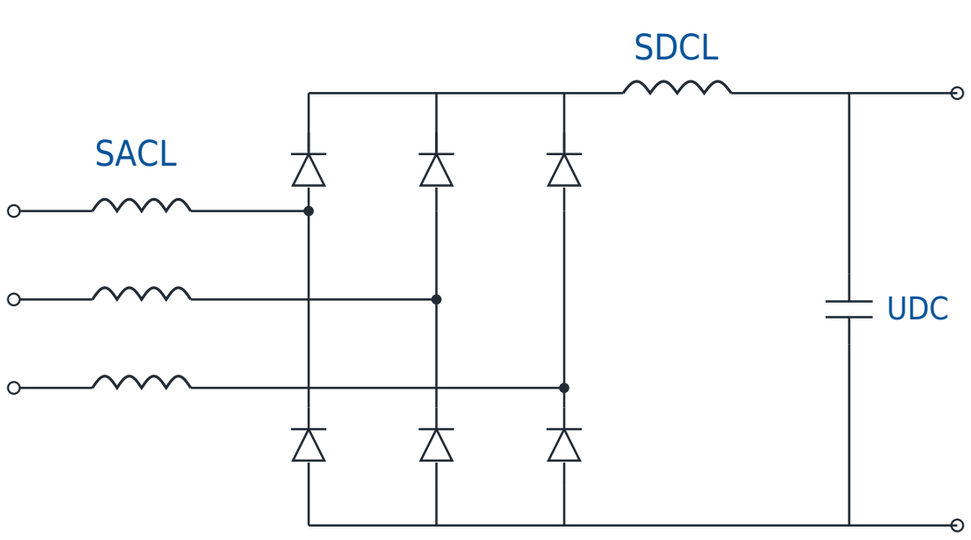
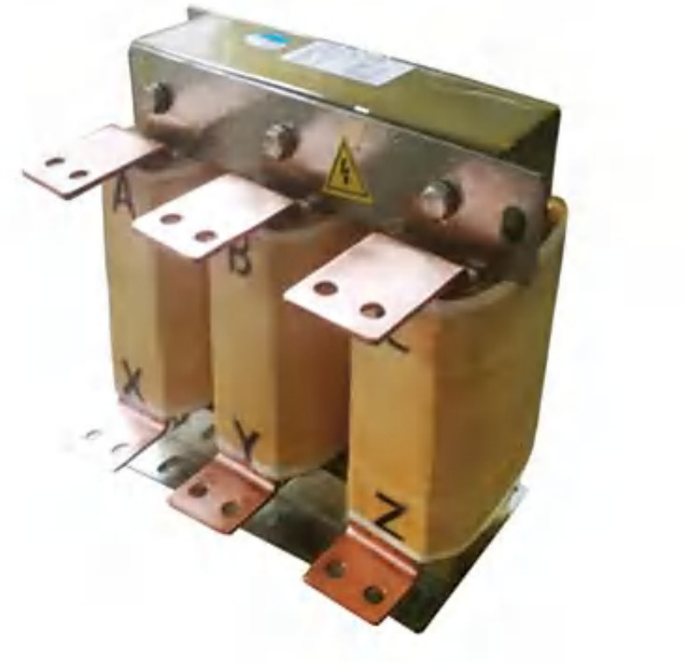
Input Reactors

Application Circuit

Installed at the input of six-pulse rectifiers (VFDs, DC drives and centralized EV charging rectifier cabinets) to improve power factor, limit surge current and reduce harmonic interference fed back into the grid.

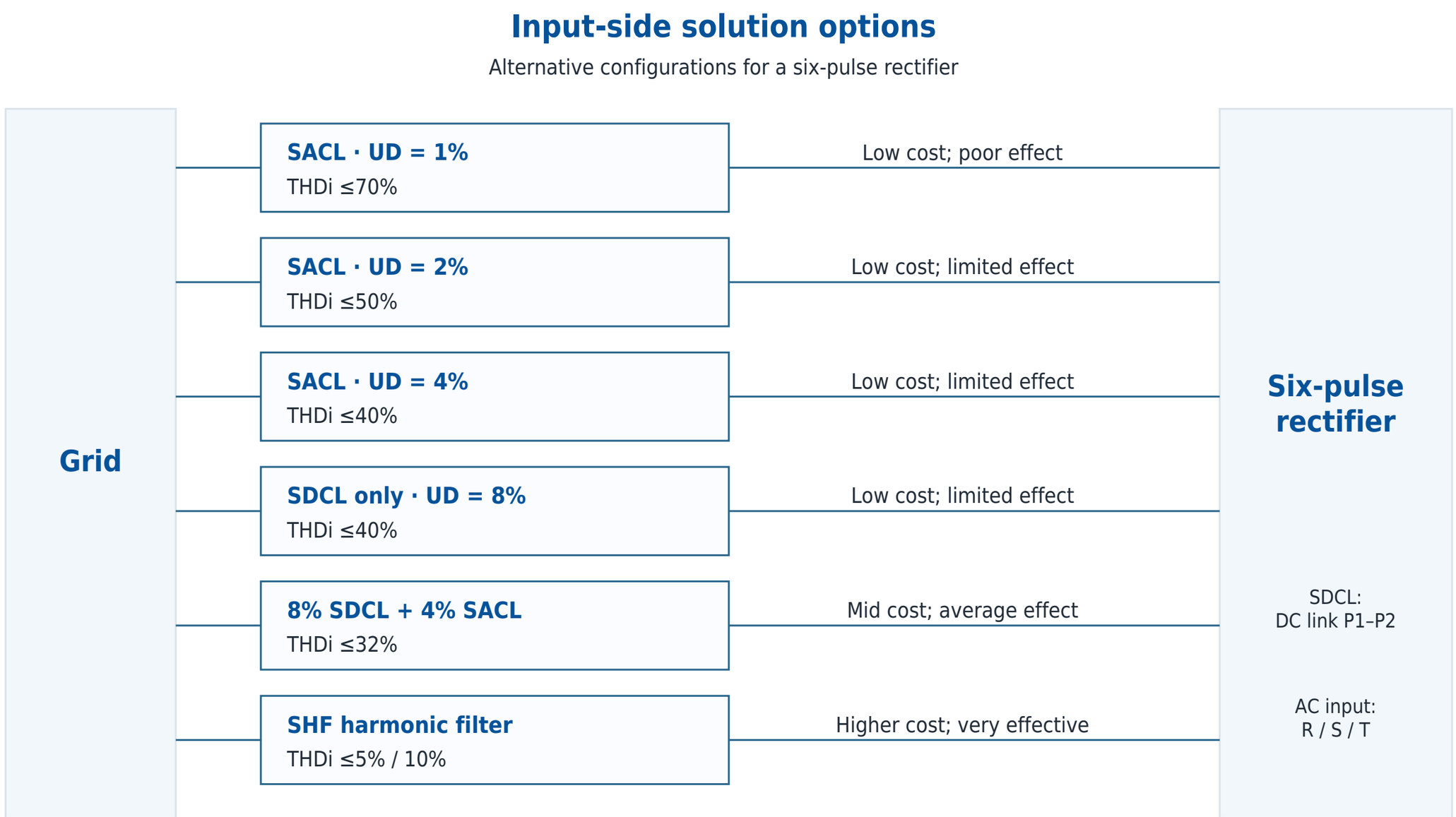




Technical Specifications

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 Input-Side Solutions



Dimensions and Technical Data

Fig. A

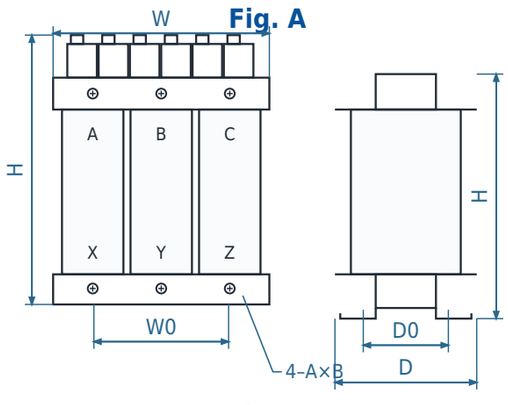


Fig. D

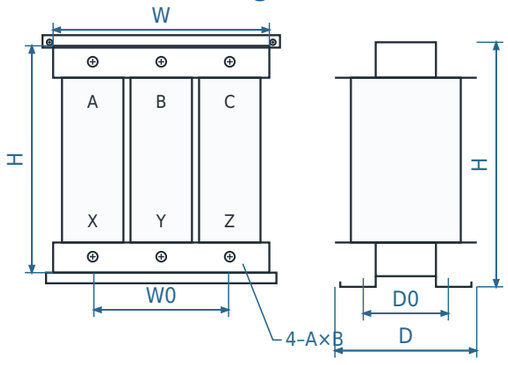


Fig. B

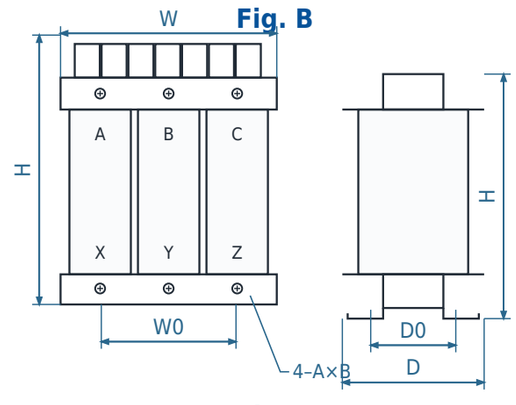


Fig. E

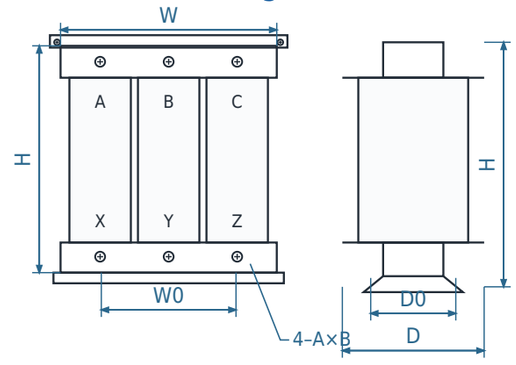


Fig. C

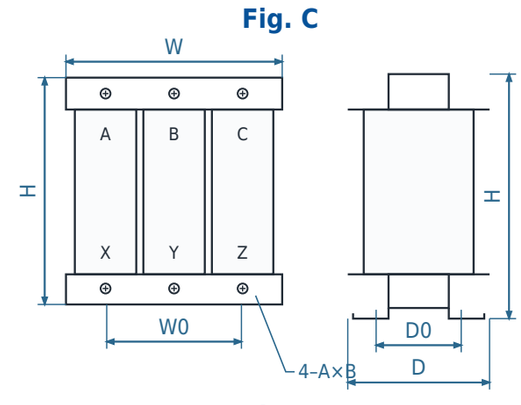
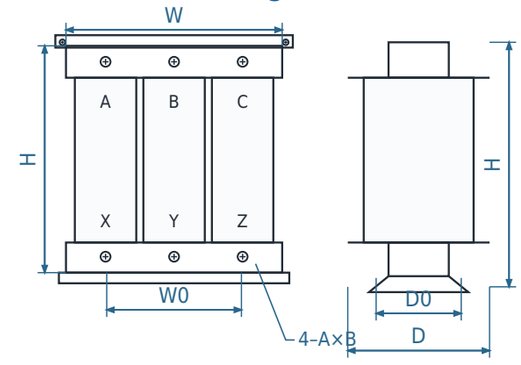


Fig. F



Input Reactors (UD = 2%) — Technical Data

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

Reactor Model	Fig.	6-Pulse Rectifier Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
						W	D	H	W0	D0	A×B
SACL-0005-EISC-280B	A	2.2	5	2.8	1.5	95	69	110	40	48	7×11
SACL-0010-EISC-140B		3.7	10	1.4	2.6	115	76	125	50	53	7×11
SACL-0013-EISC-108B		5.5	13	1.08	2.8	115	76	125	50	53	7×11
SACL-0016-EISC-876C		7.5	16	0.876	2.9	115	76	125	50	53	7×11
SACL-0025-EISC-560C	B	11	25	0.56	5.3	150	100	190	60	67	7×11
SACL-0030-EISC-467C		15	30	0.467	5.6	150	100	190	60	67	7×11
SACL-0045-EISA-310C	C	22	45	0.31	5.8	180	110	160	80	67	7×11
SACL-0060-EISA-234C		30	60	0.234	8.5	180	130	160	80	87	7×11
SACL-0075-EISA-187C		37	75	0.187	8.9	180	130	160	80	87	7×11
SACL-0090-EISA-155C		45	90	0.155	9.2	180	130	160	80	87	7×11
SACL-0110-EISA-128C		55	110	0.128	14.5	230	160	220	110	85	9×18
SACL-0150-EISA-934D		75	150	0.0934	15.2	230	160	220	110	85	9×18
SACL-0180-EISA-780D		90	180	0.078	19.5	230	175	220	110	100	9×18
SACL-0220-EISA-640D		110	220	0.064	20.8	230	175	220	110	100	9×18
SACL-0260-EISA-540D	D	132	260	0.054	27.6	260	185	265	140	110	9×18
SACL-0320-EISA-440D		160	320	0.044	29.2	260	185	265	140	110	9×18
SACL-0400-EISA-350D		200	400	0.035	35.4	300	205	280	170	110	11×18
SACL-0480-EISA-290D		250	480	0.029	47.3	300	230	280	170	135	11×18
SACL-0540-EISA-260D		280	540	0.026	48.7	300	230	280	170	135	11×18
SACL-0600-EISA-234D		315	600	0.0234	50.1	300	230	280	170	135	11×18
SACL-0800-EISA-175D		400	800	0.0175	69.1	360	265	375	190	135	13×26
SACL-1000-EISA-140D		500	1000	0.014	74.8	360	265	375	190	135	13×26
SACL-1100-EISA-127D	E	560	1100	0.0127	98	430	305	410	240	175	14×28
SACL-1200-EISA-117D		630	1200	0.0117	100	430	305	410	240	175	14×28

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

Reactor Model	Fig.	6-Pulse Rectifier Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
						W	D	H	W0	D0	A×B
SACL-0020-EISC-128B	B	15	20	1.28	5.5	150	100	190	60	67	7×11
SACL-0030-EISC-850C		22	30	0.85	8.7	180	110	220	80	87	7×11
SACL-0045-EISA-565C	C	37	45	0.565	12.7	230	160	190	110	85	9×18
SACL-0060-EISA-425C		45	60	0.425	14.7	230	160	220	110	85	9×18
SACL-0090-EISA-282C		75	90	0.282	16.3	230	160	220	110	85	9×18
SACL-0110-EISA-230C		90	110	0.23	20.4	230	175	220	110	100	9×18
SACL-0150-EISA-170C		110	150	0.17	21.5	230	175	220	110	100	9×18
SACL-0200-EISA-128C	D	160	200	0.128	29.1	260	185	265	140	110	9×18
SACL-0250-EISA-102C		200	250	0.102	32.1	260	185	265	140	110	9×18
SACL-0300-EISA-850D		250	300	0.085	37.8	300	200	280	170	110	11×18
SACL-0400-EISA-640D		355	400	0.064	52.2	300	225	280	170	135	11×18
SACL-0480-EISA-530D		450	480	0.053	70.1	360	250	375	190	135	13×26
SACL-0600-EISA-425D		560	600	0.0425	74.7	360	250	375	190	135	13×26
SACL-0800-EISA-320D	E	710	800	0.032	100.5	430	290	410	240	175	14×28
SACL-1000-EISA-254D		900	1000	0.0254	107.1	430	290	410	240	175	14×28
SACL-1100-EISA-230D		1000	1100	0.023	139.1	430	320	520	240	190	14×28
SACL-1400-EISA-180D		1200	1400	0.018	152.3	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.	6-Pulse Rectifier Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
						W	D	H	W0	D0	A×B
FACL-0090-EISC-282C	C	75	90	0.282	17.9	230	160	220	110	85	9×18
FACL-0110-EISC-230C		90	110	0.230	21.3	230	175	220	110	100	9×18
FACL-0150-EISC-170C		110	150	0.17	24.2	230	175	220	110	100	9×18
FACL-0200-EISC-128C	D	160	200	0.128	31.6	260	185	265	140	110	9×18
FACL-0250-EISC-102C		200	250	0.102	35.0	260	185	265	140	110	9×18
FACL-0300-EISC-850D		250	300	0.085	42.8	300	200	280	170	110	11×18
FACL-0400-EISC-640D		355	400	0.064	56.1	300	225	280	170	135	11×18
FACL-0480-EISC-530D		450	480	0.053	73.6	360	250	375	190	135	13×26
FACL-0600-EISC-425D		560	600	0.0425	80.6	360	250	375	190	135	13×26
FACL-0800-EISC-320D	E	710	800	0.032	105.7	430	285	410	240	175	14×28
FACL-1000-EISC-254D		900	1000	0.0254	116.4	430	285	410	240	175	14×28
FACL-1100-EISC-230D		1000	1100	0.023	146.6	430	320	510	240	190	14×28
FACL-1400-EISC-180D		1200	1400	0.018	163.2	430	320	510	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.	6-Pulse Rectifier Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
						W	D	H	W0	D0	A×B
FACL-0110-EISC-380C	D	160	110	0.38	30.9	260	185	265	140	110	9×18
FACL-0150-EISC-280C		200	150	0.28	34.7	260	185	265	140	110	9×18
FACL-0200-EISC-210C		280	200	0.21	44.0	300	200	280	170	110	11×18
FACL-0250-EISC-168C		355	250	0.168	58.0	300	205	280	170	135	11×18
FACL-0300-EISC-140C		450	300	0.14	73.4	360	210	375	190	135	13×26
FACL-0350-EISC-120C		500	350	0.12	78.8	360	220	375	190	135	13×26
FACL-0400-EISC-105C		630	400	0.105	87.4	360	225	375	190	135	13×26
FACL-0480-EISC-875D	E	710	480	0.0875	108.6	430	250	410	240	175	14×28
FACL-0600-EISC-700D		900	600	0.07	123.6	430	250	410	240	175	14×28
FACL-0700-EISC-600D		1000	700	0.06	143.6	430	290	510	240	190	14×28
FACL-0800-EISC-525D		1200	800	0.0525	153.0	430	290	510	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.

Input Reactors (UD = 4%) — Technical Data

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

Reactor Model	Fig.	6-Pulse Rectifier Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
						W	D	H	W0	D0	A×B
SACL-0005-EISC-560B	A	2.2	5	5.6	2.7	115	73	125	50	53	7×11
SACL-0010-EISC-280B	B	3.7	10	2.8	5.1	150	130	190	60	67	7×11
SACL-0013-EISC-216B		5.5	13	2.16	5.6	150	130	190	60	67	7×11
SACL-0016-EISC-175B		7.5	16	1.75	5.6	150	130	190	60	67	7×11
SACL-0025-EISC-112B		11	25	1.12	8.4	180	165	220	80	87	7×11
SACL-0030-EISC-934C		15	30	0.934	8.7	180	165	220	80	87	7×11
SACL-0040-EISA-700C	C	18.5	40	0.7	12.6	230	160	190	110	85	9×18
SACL-0045-EISA-622C		22	45	0.622	12.8	230	160	190	110	85	9×18
SACL-0060-EISA-467C		30	60	0.467	14.8	230	160	220	110	85	9×18
SACL-0075-EISA-374C		37	75	0.374	15.8	230	160	220	110	85	9×18
SACL-0090-EISA-312C		45	90	0.312	16.5	230	160	220	110	85	9×18
SACL-0110-EISA-255C		55	110	0.255	20.6	230	175	220	110	100	9×18
SACL-0150-EISA-187C		75	150	0.187	21.9	230	175	220	110	100	9×18
SACL-0180-EISA-156C	D	90	180	0.156	29.6	260	185	265	140	110	9×18
SACL-0220-EISA-128C		110	220	0.128	32.1	260	185	265	140	110	9×18
SACL-0260-EISA-108C		132	260	0.108	38.1	300	195	280	170	110	11×18
SACL-0320-EISA-875D		160	320	0.0875	39.4	300	195	280	170	110	11×18

SACL-0400-EISA-700D	D	200	400	0.07	50.8	300	225	280	170	135	11×18
SACL-0480-EISA-580D		250	480	0.058	70.1	360	250	375	190	135	13×26
SACL-0540-EISA-520D		280	540	0.052	71.2	360	250	375	190	135	13×26
SACL-0600-EISA-468D		315	600	0.0468	75.3	360	250	375	190	135	13×26
SACL-0800-EISA-350D	E	400	800	0.035	103.2	430	290	410	240	175	14×28
SACL-1000-EISA-280D		500	1000	0.028	114.8	430	290	410	240	175	14×28
SACL-1100-EISA-254D		560	1100	0.0254	138.5	430	305	510	240	190	14×28
SACL-1200-EISA-233D		630	1200	0.0233	145.5	430	305	510	240	190	14×28

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

Reactor Model	Fig.	6-Pulse Rectifier Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
						W	D	H	W0	D0	A×B
SACL-0020-EISC-256B	B	15	20	2.56	8.7	180	165	220	80	87	7×11
SACL-0030-EISC-170B		22	30	1.7	9.8	180	165	220	80	87	7×11
SACL-0045-EISA-113B	C	37	45	1.13	19.3	230	175	220	110	100	9×18
SACL-0060-EISA-850C		45	60	0.85	20.3	230	175	220	110	100	9×18
SACL-0090-EISA-564C	D	75	90	0.564	27.7	260	185	265	140	110	9×18
SACL-0110-EISA-460C		90	110	0.46	30.4	260	185	265	140	110	9×18
SACL-0150-EISA-340C		110	150	0.34	37.3	300	190	280	170	110	11×18
SACL-0200-EISA-256C	E	160	200	0.256	50.3	300	215	280	170	135	11×18
SACL-0250-EISA-204C		200	250	0.204	67.7	360	215	375	190	135	13×26
SACL-0300-EISA-170C		250	300	0.17	71.2	360	215	375	190	135	13×26
SACL-0400-EISA-128C		355	400	0.128	98.8	430	270	410	240	175	14×28
SACL-0480-EISA-106C		450	480	0.106	103.5	430	270	410	240	175	14×28
SACL-0600-EISA-850D		560	600	0.085	116.1	430	270	410	240	190	14×28
SACL-0800-EISA-640D		710	800	0.064	149.7	430	310	520	240	190	14×28
SACL-1000-EISA-508D	F	900	1000	0.0508	179	480	315	540	200	190	14×28
SACL-1100-EISA-460D		1000	1100	0.046	232.7	480	360	660	200	210	14×28
SACL-1400-EISA-360D		1200	1400	0.036	248.5	480	380	660	200	210	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.	6-Pulse Rectifier Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
						W	D	H	W0	D0	A×B
FACL-0090-EISC-564C	D	75	90	0.564	30.1	260	170	265	140	110	9×18
FACL-0110-EISC-460C		90	110	0.46	33.5	260	195	265	140	110	9×18
FACL-0150-EISC-340C		110	150	0.34	44.3	300	200	280	170	110	11×18
FACL-0200-EISC-256C		160	200	0.256	54.4	300	215	280	170	135	11×18
FACL-0250-EISC-204C		200	250	0.204	71.9	360	220	375	190	135	13×26
FACL-0300-EISC-170C		250	300	0.17	77.9	360	220	375	190	135	13×26
FACL-0400-EISC-128C	E	355	400	0.128	106.6	430	280	410	240	175	14×28
FACL-0480-EISC-106C		450	480	0.106	117.8	430	280	410	240	175	14×28
FACL-0600-EISC-850D		560	600	0.085	135.9	430	280	410	240	175	14×28
FACL-0800-EISC-640D		710	800	0.064	162.8	430	310	510	240	190	14×28
FACL-1000-EISC-508D	F	900	1000	0.0508	190.6	480	310	540	200	190	14×28
FACL-1100-EISC-460D		1000	1100	0.046	229.4	480	345	660	200	210	14×28
FACL-1400-EISC-360D		1200	1400	0.036	252.5	480	365	660	200	210	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.	6-Pulse Rectifier Power (kW)	Rated Current (A)	Inductance (mH)	Weight (kg)	Dimensions (mm)					
						W	D	H	W0	D0	A×B
FACL-0110-EISC-760C	D	160	110	0.76	52.0	300	195	280	170	135	11×18
FACL-0150-EISC-560C		200	150	0.56	72.8	360	210	375	190	135	13×26
FACL-0200-EISC-420C	E	280	200	0.42	98.6	430	230	410	240	165	14×28
FACL-0250-EISC-336C		355	250	0.336	107.1	430	250	410	240	175	14×28
FACL-0300-EISC-280C		450	300	0.28	116.2	430	250	410	240	175	14×28
FACL-0350-EISC-240C		500	350	0.24	130.8	430	250	410	240	195	14×28
FACL-0400-EISC-210C		630	400	0.21	147.4	430	270	510	240	195	14×28
FACL-0480-EISC-175C	F	710	480	0.175	170.7	480	300	540	200	190	14×28
FACL-0600-EISC-140C		900	600	0.14	193.2	480	300	540	200	190	14×28
FACL-0700-EISC-120C		1000	700	0.12	239.5	480	330	660	200	210	14×28
FACL-0800-EISC-105C		1200	800	0.105	253.6	480	330	660	200	210	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.