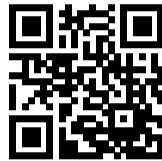


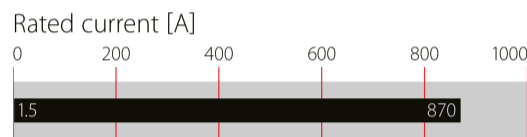
3-phase Line Reactor to reduce mains disturbances at 690 V



- 2% 3-phase line reactor for 690 V network
- Reducing harmonics on the mains side
- Reducing commutation notches
- Limiting inrush current
- Reliable and economical solution for mitigating mains disturbances



Performance indicators



Technical Specifications

Nominal operating voltage	3x 500 to 690 VAC
Rated operating voltage	3x 450 to 760 VAC
Rated currents	1.52 to 871 A @ 45°C
Impedance	2% @ 690 V, 50 Hz and rated rms current
Overload capability	1.6x rated current for 1 minute, once per hour
Pollution degree	PD3
High potential test voltage	P -> P 3030 VAC, 1 s P -> E 3030 VAC, 1 s
Insulation class	UL electrical insulation system SCH-200(N)
Overvoltage category	OV III (IEC 60664-1 / UL 61800-5-1)
Protection category	IP 00
Climatic class	40/100/21 (IEC 60068-1)
Cooling	Natural cooling AN
Ambient temperature range	-40°C to +45°C fully operational +45°C to +100°C derated operation* -40°C to +100°C transport and storage
Design corresponding to	UL 61800-5-1, EN 61558-2-20, EN 60076-6
Earthing System	TN, TT, IT
Flammability corresponding to	UL 94 V-2
Lifetime (calculated)	20 years

* derating according NEC 310-15(C), I_{derated} = I_{nominal} * SQRT((T_{max} - T_{amb}) / (T_{max} - T_{nominal})) = I_{nominal} * SQRT((100°C - T_{amb}) / 55°C)

Approvals & Compliances



(UL recognized up to 280 A)

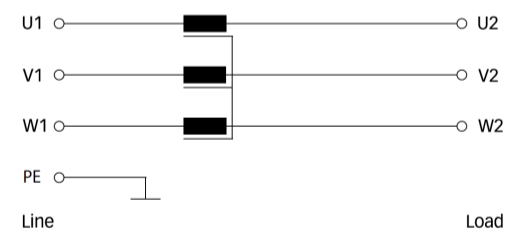
Features and Benefits

- Ensure reliability, performance and a long service life of electrical consumers
- Reduction of mains harmonics and commutation notches
- Help to meet international power quality standards
- Protection of motor drive electronics and dc link capacitors against mains transients
- Reduction of inrush and peak currents
- Improvement of conducted LF immunity
- Prevention from nuisance tripping caused by power line voltage spikes
- Improvement of true power factor

Typical Applications

- Motor drives and various adjustable speed drive systems, such as:
- Oil and gas
- Robots
- Machinery
- Process automation equipment

Typical electrical schematic



Reactor Selection Table

Reactor	Rated current	Rated power*	Rated Power**	Inductance value	Typical power losses	Terminal	Weight	
	@ 45°C [A]	@ 690 V [kW]	@ 600 V [HP]				[kg]	[lbs]
RWK 3062-1.5-88-E0XXX	1.52	1.6	1.9	16.7	23	88	0.49	1
RWK 3062-3-88-E0XXX	3.04	3.1	3.6	8.3	32	88	0.89	1.9
RWK 3062-5.5-88-E0XXX	5.53	5.7	6.6	4.6	47	88	1.2	2.6
RWK 3062-7.5-88-E0XXX	7.61	7.9	9.2	3.3	61	88	1.7	3.7
RWK 3062-10-88-E0XXX	10.4	11	12.8	2.44	69	88	2.4	5.3
RWK 3062-15-89-E0XXX	15.2	16	18.7	1.67	103	89	3.4	7.5
RWK 3062-21-89-E0XXX	20.7	21	24.5	1.22	106	89	4.9	10.8
RWK 3062-26-92-E0XXX	25.6	26	30.3	0.99	124	92	5.1	11.2
RWK 3062-30-92-E0XXX	30.4	31	36	0.83	151	92	5.4	11.9
RWK 3062-41-92-E0XXX	41.5	43	50	0.61	172	92	8.8	19.4
RWK 3062-51-92-E0XXX	51.2	53	62	0.50	206	92	10.2	22.5
RWK 3062-62-99-E0XXX	62.2	64	75	0.41	294	99	10.3	22.7
RWK 3062-76-99-E0XXX	76.1	79	92	0.33	257	99	11.4	25.1
RWK 3062-100-99-E0XXX	104	108	126	0.24	324	99	13.8	30.4
RWK 3062-120-99-E0XXX	124	128	149	0.20	399	99	15.7	34.6
RWK 3062-150-99-E0XXX	152	157	183	0.17	456	99	20.0	44.1
RWK 3062-180-99-E0XXX	183	189	220	0.14	553	99	24.5	54
RWK 3062-220-99-E0XXX	221	228	266	0.11	593	99	27.5	60.6
RWK 3062-280-99-E0XXX	277	286	334	0.092	747	99	34.5	76.1
RWK 3062-350-99-E0XXX	346	358	417	0.073	1055	99	45.5	100.3
RWK 3062-440-99-E0XXX	436	451	526	0.058	1069	99	49.5	109.1
RWK 3062-490-99-E0XXX	491	508	592	0.052	1181	99	67.5	148.8
RWK 3062-550-99-E0XXX	553	572	667	0.046	1116	99	68.5	151
RWK 3062-690-99-E0XXX	692	715	834	0.037	1280	99	103	227.1
RWK 3062-870-99-E0XXX	871	900	1049	0.029	1167	99	110	242.5

* Calculated at rated current, 690 V and $\cos \phi = 0.865$.

** Calculated at rated current, 600 V and $\cos \phi = 0.865$.

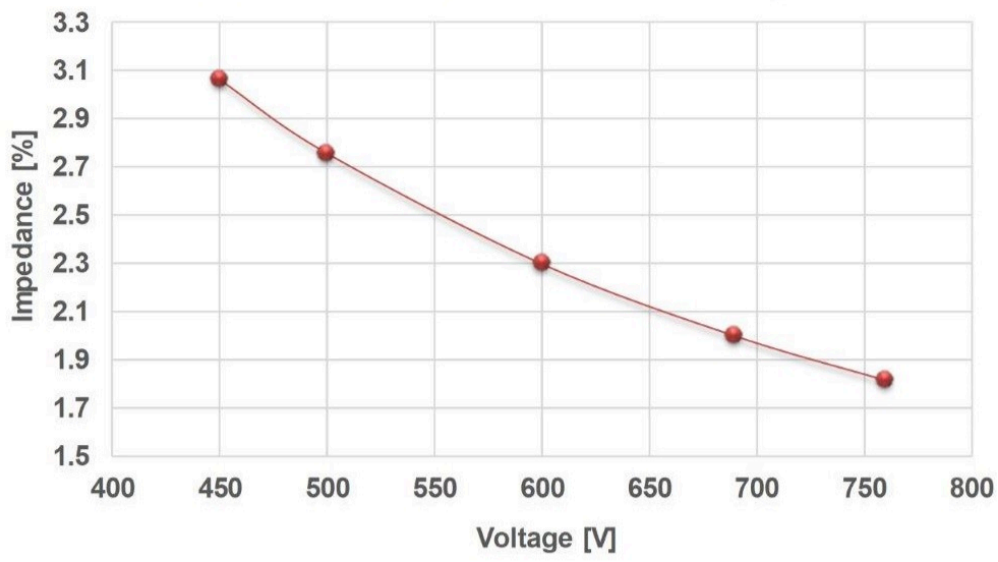
Terminals

Type	-88	-89	-92	-99
Ring cable shoe	-	-	M6	M8/M10/M12
Fork cable shoe	M3.5 width max. 6.4mm	M4 width max. 8.0mm	-	-
Flex wire AWG	22-16	16-14	-	-
Rec. torque	0.78 Nm	1.76 Nm	-	-

Earth Screw

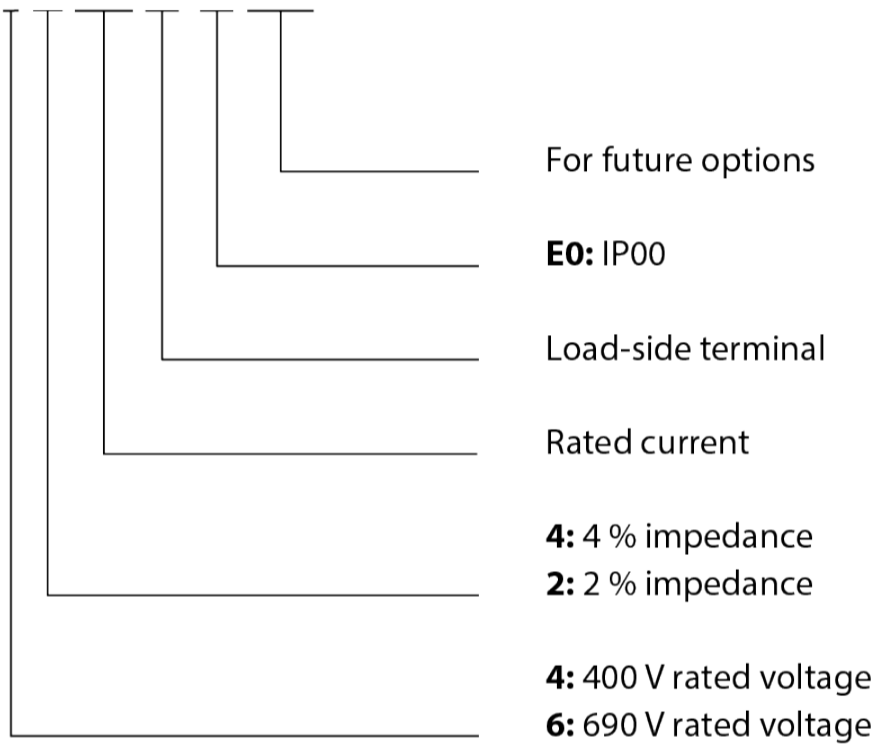
Type	Size	Torque
		[Nm] [lbs-in]
1.5A	M2.5	0.3 2.7
3-10A	M3	0.6 5.3
15-30A	M4	1.7 15
41-100A	M6	4 35.4
120-870A	M8	9 79.7

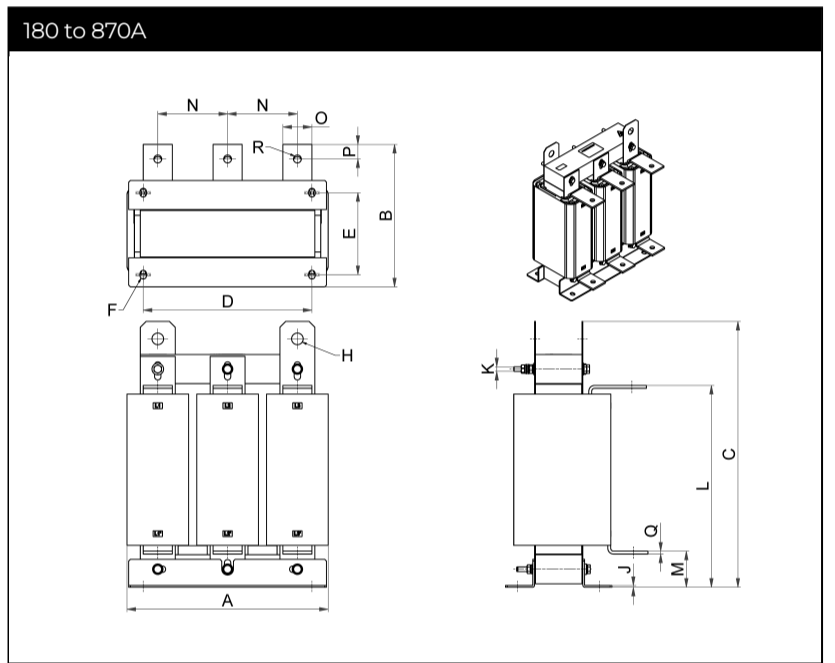
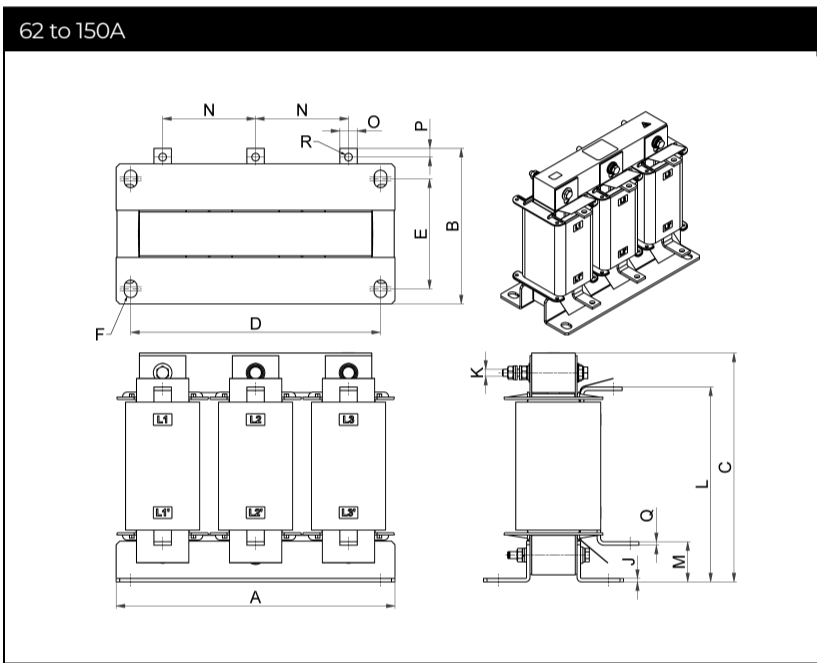
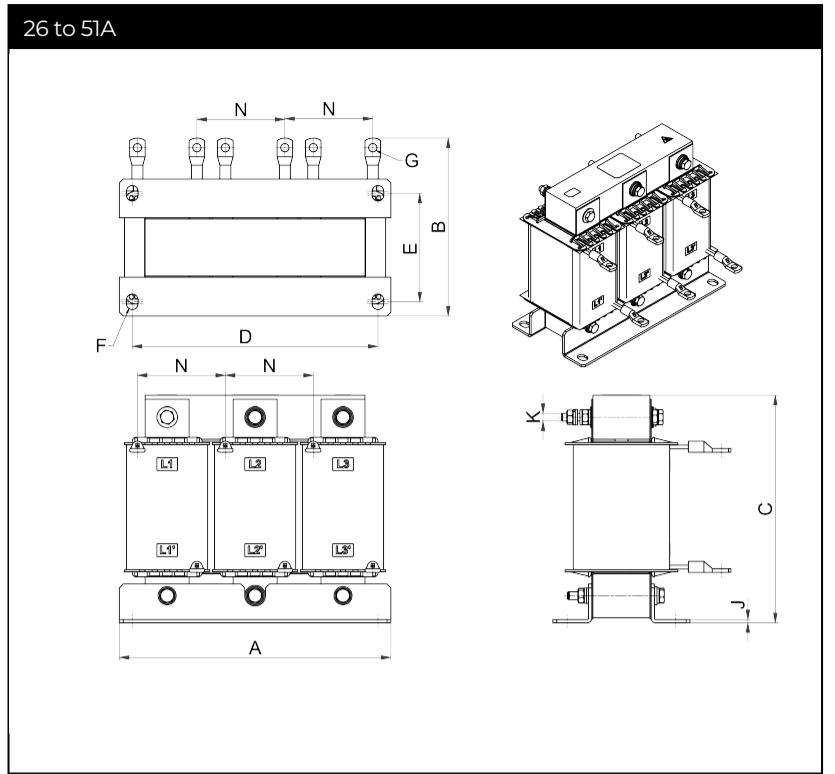
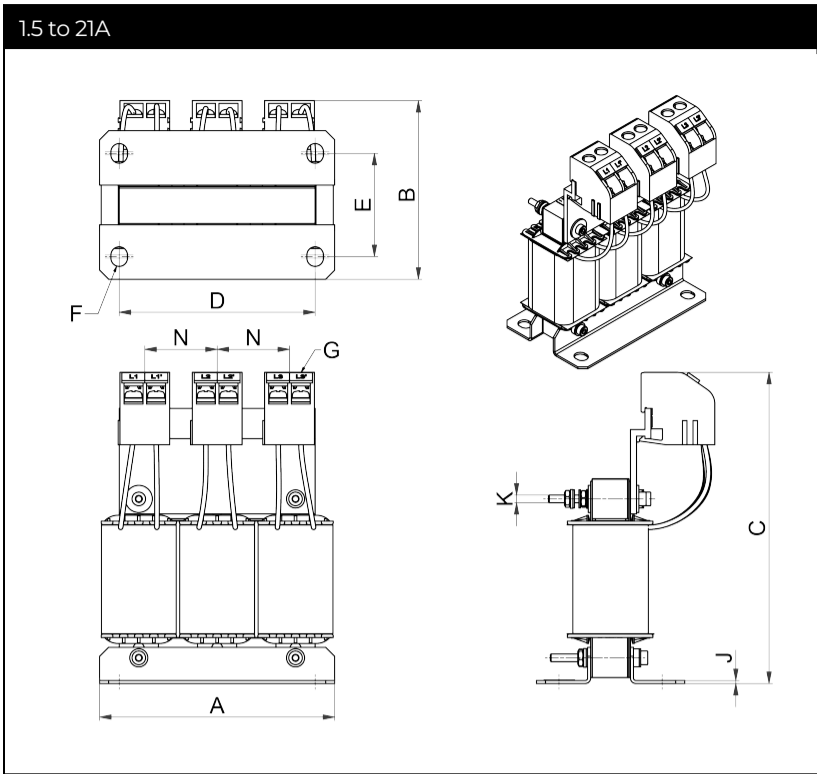
RWK 3062 Impedance Vs. Voltage



Product selector

RWK 30n m-xxx-yy-E0 XXX





Dimensions In Mm*

RWK 3062	A	B±5	C±3	D	E	F	G	H	J	K	L±5	M±5	N±5	O	P	Q	R
1.5	78	59	103.1	65	34.2	6.5x5.5	-88		1	M2.5			24±1				
3	96	62.5	117.9	77	37.5	6.5x5.5	-88		1.5	M3			31.1±1				
5.5	125	69	136.1	110	44.8	8x5.5	-88		2	M3			41.5±1				
7.5	125	69	136.8	110	44.8	8x5.5	-88		2	M3			41.5±1				
10	125	78.5	136.4	110	54.5	8x5.5	-88		2	M3			41.5±1				
15	155	79	159.7	130	56.1	12x9	-89		2.5	M4			50±1				
21	155	94	159	130	71	12x9	-89		2.5	M4			50±1				
26	155	128	132	130	71	12x9	ø6.4		2.5	M4			50±4				
30	155	128	132.7	130	71	12x9	ø6.4		2.5	M4			50±4				
41	190	140	156.6	170	77.5	12x9	ø6.4		2.5	M6			60±4				
51	210	143	176	190	84	12x9	ø6.4		2.5	M6			68±4				
62	230	122.7	191	210	77.5	12x9			2.5	M6	163	30	76±4	15	7.5	3	ø6.6
76	240	133.9	196.7	215	94.5	15x11			3	M6	167.5	34.5	80±4	15	7.5	3	ø6.6
100	240	152.3	196.7	215	104.5	15x11			3	M6	168.5	34.5	80±4	20	10	4	ø9
120	265	148.9	217.5	240	99.7	15x11			3	M8	183	39	88±4	20	10	4	ø9
150	291	171.1	235	260	117.5	15x11			3	M8	198.5	39.5	96±4	25	12.5	4	ø11
180	290	189.4	234.2	260	131	15x11		n/a	3	M8	201.7	42.7	96	25	12.5	4	ø11
220	290	194.6	287.2	260	136	15x11		ø20	3	M8	206.2	42.2	100	25	12.5	4	ø11
280	340	198.9	333.5	290	121	15x11		ø20	3	M8	237.5	52.5	112	30	15	5	ø11
350	360	190.4	422.2	310	121	15x11		ø20	3	M8	297	62	125	30	15	5	ø11
440	360	203.7	422.6	310	121	15x11		ø20	3	M8	297	62	125	40	20	5	ø13.5
490	346±5	244	457	290	141	15x11		ø20	3	M8	347	62	120	50	25	5	ø13.5
550	347±5	244.8	457	290	141	15x11		ø20	3	M8	347	62	120	50	25	5	ø13.5
690	365±5	296.3	474	310	185	15x11		ø20	3	M8	373.5	55.5	130	50	25	8	ø13.5
870	376±5	309	474	310	185	15x11		ø20	3	M8	379	61	130	50	25	8	ø13.5

* General tolerance: ISO 2768-v

Dimensions In Inches*

RWK 3062	A	B±0.2	C±3	D	E	F	G	H	J	K	L±5	M±0.2	N±0.2	O	P	Q	R
1.5	3.07	2.32	4.06	2.56	1.35	0.26x0.22	-3.46		0.04	M2.5			0.94±0.04				
3	3.78	2.46	4.64	3.03	1.48	0.26x0.22	-3.46		0.06	M3			1.22±0.04				
5.5	4.92	2.72	5.36	4.33	4.76	0.31x0.22	-3.46		0.08	M3			1.63±0.04				
7.5	4.92	2.72	5.39	4.33	1.76	0.31x0.22	-3.46		0.08	M3			1.63±0.04				
10	4.92	3.09	5.37	4.33	2.15	0.31x0.22	-3.46		0.08	M3			1.63±0.04				
15	6.1	3.11	6.29	5.12	2.21	0.47x0.35	-3.5		0.1	M4			1.97±0.04				
21	6.1	3.7	6.26	5.12	2.8	0.47x0.35	-3.5		0.1	M4			1.97±0.04				
26	6.1	5.04	5.2	5.12	2.8	0.47x0.35	Ø6.4		0.1	M4			1.97±0.16				
30	6.1	5.04	5.22	5.12	2.8	0.47x0.35	Ø6.4		0.1	M4			1.97±0.16				
41	7.48	5.51	6.17	6.69	3.05	0.47x0.35	Ø6.4		0.1	M6			2.36±0.16				
51	8.27	5.63	6.93	7.48	3.31	0.47x0.35	Ø6.4		0.1	M6			2.68±0.16				
62	9.06	4.83	7.52	8.27	3.05	0.47x0.35			0.1	M6	6.42	1.18	2.99±0.16	0.59	0.3	0.12	Ø6.6
76	9.45	5.27	7.74	8.46	3.72	0.59x0.43			0.12	M6	6.59	1.36	3.15±0.16	0.59	0.3	0.12	Ø6.6
100	9.45	6	7.74	8.46	4.11	0.59x0.43			0.12	M6	6.63	1.36	1.15±0.16	0.79	0.39	0.16	Ø9
120	10.43	5.86	8.56	9.45	3.93	0.59x0.43			0.12	M8	7.2	1.54	3.46±0.16	0.79	0.39	0.16	Ø9
150	11.46	6.74	9.25	10.24	4.63	0.59x0.43			0.12	M8	7.81	1.56	3.78±0.16	0.98	0.49	0.16	Ø11
180	11.42	7.46	9.22	10.24	5.16	0.59x0.43		n/a	0.12	M8	7.94	1.68	1.54	0.98	0.49	0.16	Ø11
220	11.42	7.66	11.31	10.24	5.35	0.59x0.43		Ø20	0.12	M8	8.12	1.66	1.56	0.98	0.49	0.16	Ø11
280	13.39	7.83	13.13	11.42	4.76	0.59x0.43		Ø20	0.12	M8	9.35	2.07	1.68	1.18	0.59	0.2	Ø11
350	14.17	7.5	16.62	12.2	4.76	0.59x0.43		Ø20	0.12	M8	11.69	2.44	1.66	1.18	0.59	0.2	Ø11
440	14.17	8.02	16.64	12.2	4.76	0.59x0.43		Ø20	0.12	M8	11.69	2.44	2.07	1.57	0.79	0.2	Ø13.5
490	13.62±0.2	9.61	17.99	11.42	5.55	0.59x0.43		Ø20	0.12	M8	13.66	2.44	2.44	1.97	0.98	0.2	Ø13.5
550	13.66±0.2	9.64	17.99	11.42	5.55	0.59x0.43		Ø20	0.12	M8	13.66	2.44	2.44	1.97	0.98	0.2	Ø13.5
690	14.37±0.2	11.67	18.66	12.2	7.28	0.59x0.43		Ø20	0.12	M8	14.7	2.19	2.44	1.97	0.98	0.31	Ø13.5
870	14.8±0.2	12.17	18.66	12.2	7.28	0.59x0.43		Ø20	0.12	M8	14.92	2.4	2.44	1.97	0.98	0.31	Ø13.5

* General tolerance: ISO 2768-v

Headquarters, Global Innovation and Development

Switzerland

Schaffner Group

Industrie Nord
Nordstrasse 11e
4542
Luterbach
+41 32 681 66 26
info@schaffner.com

Sales and Application Centers

Switzerland

Schaffner EMV AG

Industrie Nord
Nordstrasse 11e
4542
Luterbach
+41 32 681 66 26
switzerlandsales@schaffner.com

China

Schaffner EMC Ltd. Shanghai

Building C
T20-3 C No 565 Chuangye Road Pudong
district
C 幢 上海市浦东新区创业路 565 号 T20-3
201201
Shanghai
+ 86 21 38 139 500
cschina@schaffner.com

Singapore

Schaffner EMC Pte Ltd.

Blk 3015A Ubi Road 1 #05-09 Kampong Ubi
Industrial Estate
408705
Singapore
+65 63773283
singaporesales@schaffner.com

To find your local partner within
Schaffner's global network schaffner.com

© 2023 Schaffner Group

The content of this document has been carefully checked and understood. However, neither Schaffner nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifications are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Schaffner does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Swiss law and resulting disputes shall be settled by the courts at the place of business of Schaffner Holding AG. Latest publications and a complete disclaimer can be downloaded from the Schaffner website. All trademarks recognized.