

ELECTRODYNAMIC LINE CONDITIONERS

STEROGUARD

STEROGUARD THREE-PHASE +N 230/400V

GENERAL FEATURES

TRANSIENT VOLTAGE SUPPRESSOR

The protection against transient overvoltages generated by atmospheric discharges or by switching process is carried out by type 2 (cat. C) surge arresters complying with EN 61643-11/VDE 0675, part 6-11 characterised by a nominal discharge current (8/20) In of 40 (or 60) kA, by a discharge current with Imax impulse of 50 (or 110) kA, a up protection level not greater than 1300 V and a response time tA shorter than 25 ns.

ISOLATION TRANSFORMER

This component, thanks to the electrostatic shield inserted between primary and secondary windings, ensures the galvanic separation and high attenuation of common mode noises. It is characterised by N delta-star configuration or F or N thermal class, low output impedance and insensitivity to the power factor. The insulation between primary and secondary, primary and shield, secondary and shield is greater than 3000 V during one minute.

ELECTRODYNAMIC VOLTAGE REGULATOR

It ensures the "true RMS" value of the voltage with $\pm 1\%$ output accuracy even in the presence of strong harmonic distortions.

The innovative control circuit, combined with the structural reliability of the electrodynamic stabilisation system, has the following characteristics:

- response time from 6 to 40ms/Volt, depending on the model
- overload capacity 10 times the nominal voltage for 10 milliseconds, 5 times for 6 seconds, twice for 60 seconds
- efficiency of 97-98%
- insensitivity to load power factor and load variations
- insensitivity to mains frequency variations, in $\pm 5\%$ range
- harmonic distortion introduced lower than 0.2% under any operating condition (virtually zero)
- internal impedance that varies, according to the models, from 0.52 to 0.0015 Ohm (it does not require a new sizing of the protections being irrelevant compared to the line impedance)
- sizing of the magnetic components aimed at limiting iron and copper losses in order to create a cooling system that only uses the natural convection. In fact, the use of fans requires maintenance, filter cleaning and replacement on average every two years.

RFI FILTERS

On the conditioners' output is installed a three phase filter for the suppression of electromagnetic interferences.

OPERATING TEMPERATURE

Steroguard line conditioners are designed to operate properly with a maximum ambient temperature of +40°C under harsh conditions: continuous duty, full load, input voltage at minimum value.

CONFIRMITY TO STANDARDS

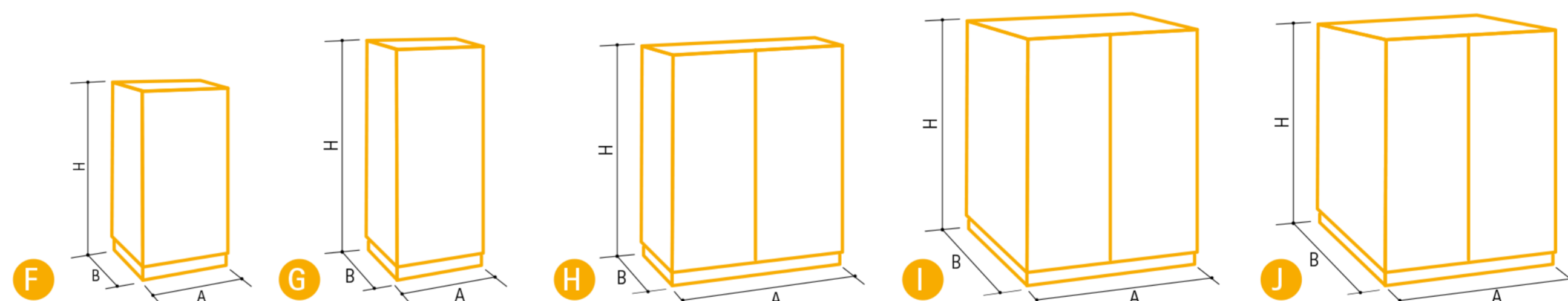
Steroguard line conditioners comply with the Standards contained in Directives: EMC and further amendments, Low Voltage 2014/30/UE and ETIC 2014/35/UE.

STEROGUARD LINE CONDITIONERS 3PH+N 230/400V 50/60 HZ WITH INPUT ISOLATION TRANSFORMER

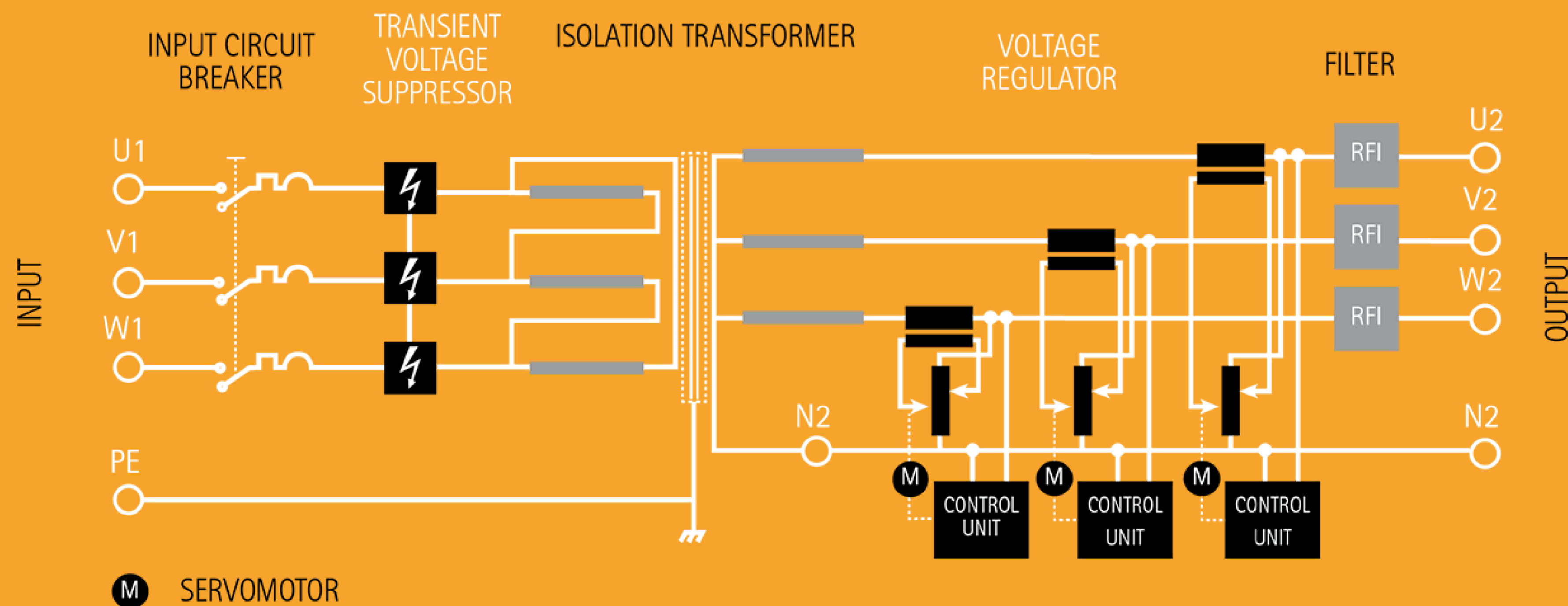
Model	Power kVA	Rated current Amp	Voltage variation %	Response time ms/V	Accuracy $\pm\%$	Standard fittings	Protection degree IP	Weight kg	Dimensions mm a x b x h	Figure
Y306AC 6	6	9	± 30	11				250		
Y306AC 8	8	12	± 25	12				250	650x 650x1300	F
Y306AC 10	10	14	± 20	14	± 1	V, L, HF, PS, IT, I	21	270		
Y306AC 15	15	22	± 15	16				300		
Y306AC 18	18	26	± 10	19				350	650x650x1800	G
Y308AC 8	8	12	± 30	13				330		
Y308AC 12	12	17	± 25	14	± 1	V, L, HF, PS, IT, I	21	350	650x 650x1800	G
Y308AC 15	15	22	± 20	16				360		
Y308AC 20	20	29	± 15	18				370		
Y308AC 25	25	36	± 15	18				400		
Y310AC 15	15	22	± 30	13				420		
Y310AC 20	20	29	± 25	14	± 1	V, L, HF, PS, IT, I	21	440	650x 650x1800	G
Y310AC 25	25	36	± 20	16				460		
Y310AC 40	40	58	± 15	18				500		
Y310AC 60	60	87	± 10	21				550		
Y311AC 25	25	36	± 30	13				540		
Y311AC 30	30	43	± 25	14	± 1	V, L, HF, PS, IT, I	21	550	650x650x1800	G
Y311AC 40	40	58	± 20	16				560		
Y311AC 60	60	87	± 15	18				610		
Y311AC 80	80	115	± 10	21				700	1100x650x1800	H
Y312AC 30	30	43	± 30	14				620		
Y312AC 40	40	58	± 25	15	± 1	V, L, HF, PS, IT, I	21	700	1100x650x1800	H
Y312AC 50	50	72	± 20	24				720		
Y312AC 70	70	101	± 15	33				740		
Y312AC 100	100	144	± 10	37				790		
Y313AC 40	40	58	± 30	11				850	1100x900x1800	I
Y313AC 55	55	79	± 25	12	± 1	V, L, HF, PS, IT, I	21	860		
Y313AC 70	70	101	± 20	14				930		
Y313AC 100	100	144	± 15	16				950	1100x1300x1800	J
Y313AC 140	140	202	± 10	18				1270		
Y314AC 60	60	87	± 30	11	± 1	V, L, HF, PS, IT, I	21	1140	1100x1300x1800	J
Y314AC 80	80	115	± 25	12				1180		
Y314AC 100	100	144	± 20	14				1280		
Y314AC 140	140	202	± 15	16				1290		
Y314AC 240	200	289	± 10	18				1510		
Y316AC 80	80	115	± 30	11	± 1	V, L, HF, PS, IT, I	21	1290	1100x1300x1800	J
Y316AC 100	100	144	± 25	12				1350		
Y316AC 140	140	202	± 20	14				1500	1100x1300x1800	J
Y316AC 200	200	289	± 15	16				1560		
Y316AC 280	280	404	± 10	18				1770		
Y317AC 120	120	173	± 30	15				1580		
Y317AC 160	160	231	± 25	16				1610	1100x1300x1800	J
Y317AC 200	200	289	± 20	17	± 1	V, L, HF, PS, IT, I	21	830+990	1100x650x1800 + 1100x900x1900	H+I
Y317AC 280	280	404	± 15	20				830+1250		
Y317AC 420	420	606	± 10	26				830+1900	1100x650x1800 + 1100x1300x1900	H+J
Y318AC 160	160	231	± 30	11				1150+1200		
Y318AC 220	220	318	± 25	12				1150+1450	2 x 1100x900x1900	2H
Y318AC 280	280	404	± 20	13				1150+1550		
Y318AC 400	400	577	± 15	15	± 1	V, L, HF, PS, IT, I	21	1150+1700	1100x900x1900 + 1100x1300x1900	I+J
Y318AC 580	580	837	± 10	19				1150+2280	1100x900x1900 + 1500x1350x2150	I+K
Y319AC 250	250	361	± 30	16				1400+1550	1100x1300x1800 + 1100x900x1900	J+I
Y319AC 320	320	462	± 25	17				1400+1750		
Y319AC 420	420	606	± 20	19	± 1	V, L, HF, PS, IT, I	21	1400+2150	1100x1300x1800 + 1100x1300x1900	2J
Y319AC 580	580	837	± 15	22				1400+2400	1100x1300x1800 + 1500x1350x2150	J+K
Y319AC 850	850	1227	± 10	27				1400+2900	1100x1300x1800 + 2150x1350x2150	J+L

Fittings:

- V: digital voltmeter
- L: pilot lamps
- HF: HF filter
- PS: surge arresters
- IT: isolation transformer
- I: input circuit breaker



IREM LCs are designed to deliver the declared power permanently (24/7) under the worst operating conditions, i.e. at full load, at minimum input voltage and max input current and at the declared ambient temperature.



IREM Steroguard Line Conditioners provide a maximum level of protection to high power appliances, burdened by power quality problems due to high electromagnetic susceptibility, connected to distribution lines disturbed by sudden voltage variations, high frequency interferences and voltage spikes. The voltage regulation system is made up exclusively of magnetic components capable of supporting electric loads with high inrush currents. The use of electronic components is limited to the control of the mains and of magnetic components stabilising the voltage. Thanks to these features, the electromechanical line conditioners stand apart for their high electromagnetic immunity and for the reliability characterised by a MTBF longer than 500,000 hours. They are, therefore, particularly suitable for powering radio-TV transmitters, telephone systems, radar systems, motors, compressors, pumps, medical equipment, machine tools and so on. Their constructive features ensure that maintenance can be carried out even by technical staff with only a basic knowledge of electrical installations.

MINISTATIC AND STEROGUARD

