

GS - CS

Fixed Power Factor Correction equipment



The **GS** and **CS** series are specifically designed for fixed power factor correction in applications such as compensation for no-load transformers, fixed power factor correction of constant consumption. When electrical systems are affected by harmonics, CS series with blocking reactors is strongly recommended.

PERFORMANCE DATA

- **Rated voltage** 415 Vac (others on request)
- **Max. voltage on capacitors** (without harmonics) 450 Vac for GS-B15 series; 550 Vac for GS-B50 series; 550 Vac for CS series
- **Rated frequency** 50 Hz (60 Hz on request)
- **Insulation voltage** 690 Vac
- **Overvoltage** 1,1 Un (rated voltage)
- **Capacitance tolerance** -5% / +10%
- **Discharge resistor** 75V residual within 3 minutes (included)

QUALITY AND TESTING

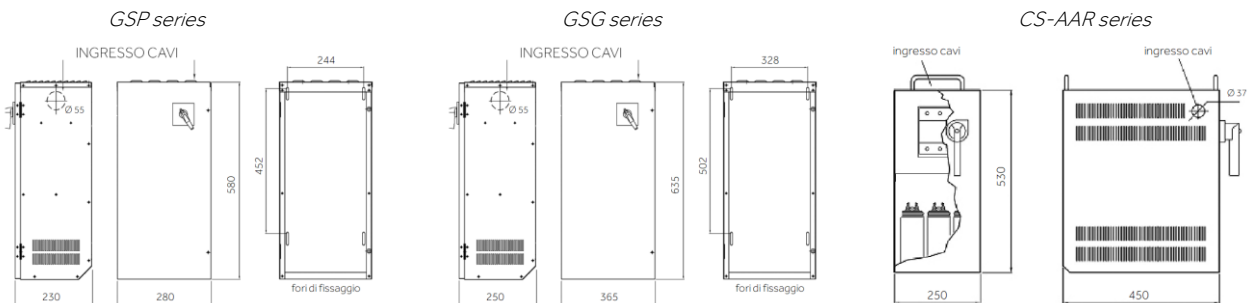
Regulations IEC/EN 60831-1 / 2, IEC/EN 61921

TECHNICAL DATA

- Supply** Three-phase + earth.
- Degree of protection** IP 30.
- Installation** Vertical. GS series : cabinet for wall mounting. CS series: cabinet for floor mounting. Indoor installation, in a well ventilated position away from heat sources.
- Ventilation** GS series : natural. CS series: forced.
- Dielectric losses** $\leq 0,2 \text{ W / kvar}$.
- Fuses** **T version only.** Each capacitors bank is protected by fuses. The protection system of both the power circuits (NH-00 curve gG fuses) and the auxiliary ones (isolable fuse holders and 10.3x38 fuses) foresees the use of high breaking power fuses (100kA).
- Capacitors** Single-phase capacitors in self-healing metallized polypropylene (MKP), equipped with an anti-burst device and discharge resistance. They are impregnated in vegetable oil, PCB free. Delta connection. Type of continuous service.
 - overvoltage: 1.1 x A (8h / 24h)
 - current overload: 1.3 x In
 - capacity tolerance: -5% / + 10%
 - losses due to dissipation: $\leq 0.4 \text{ W / kvar}$
 - temperature category: -25 / D

CONSTRUCTION CHARACTERISTICS

- GSP-GSG-CS-GS4** fixed bank, without any protection device.
- GSPT-GSGT-CST-GS4T** single battery with sectioning device (disconnecter) and protection device (fuses), suitable for power factor correction of the users.



CONFIGURATION

General notes

- The cable entry is always side up;
- The dimensions of the GS4 series are 435 (b) x 326 (d) x 806 (h) mm, as per the G4E cabinet shown in the mechanical drawings;
- The "T" indicates the presence of fuses;
- The "M" indicates the presence of fuses and contactor, a configuration particularly suitable for motor applications.

Table

Code	Type	50Hz			60Hz			Capacitance <i>μF</i>	Weight <i>kg.</i>	THDI Max. (%)	THDIc Max. (%)	Protection device
		Qn	Un	In	Qn	Un	In					
		<i>kvar</i>	<i>V</i>	<i>A</i>	<i>kvar</i>	<i>V</i>	<i>A</i>					
8951412125325	GSP-B15	12,5	415	17	12,5	380	19	3 x 77	13	15	50	-
8951412250325	GSP-B15	25	415	35	25	380	38	3 x 154	16	15	50	-
8951412375325	GSP-B15	37,5	415	52	37,5	380	57	3 x 231	19	15	50	-
8951412500325	GSG-B15	50	415	70	50	380	76	3 x 308	21	15	50	-
8951412625325	GSG-B15	62,5	415	87	62,5	380	95	3 x 385	26	15	50	-
8951412750325	GS4-B15	75	415	104	75	380	114	3 x 462	38	15	50	-
8951413100325	GS4-B15	100	415	139	100	380	152	3 x 616	43	15	50	-
8971412125355	GSP-B50	12,5	415	17	12,5	380	19	3 x 77	15	35	80	-
8971412250355	GSP-B50	25	415	35	25	380	38	3 x 154	18	35	80	-
8971412375355	GSP-B50	37,5	415	52	37,5	380	57	3 x 231	21	35	80	-
8971412500355	GSG-B50	50	415	70	50	380	76	3 x 308	23	35	80	-
8971412625355	GSG-B50	62,5	415	87	62,5	380	95	3 x 385	28	35	80	-
8971412750355	GS4-B50	75	415	104	75	380	114	3 x 462	40	35	80	-
8971413100355	GS4-B50	100	415	139	100	380	152	3 x 616	41	35	80	-
8951413012325	GSP-B15 T	12,5	415	17	12,5	380	19	3 x 77	16	15	50	Sez+Fus 25A
8951413025325	GSP-B15 T	25	415	35	25	380	38	3 x 154	19	15	50	Sez+Fus 50A
8951413037325	GSP-B15 T	37,5	415	52	37,5	380	57	3 x 231	22	15	50	Sez+Fus 80A
8951413050325	GSG-B15 T	50	415	70	50	380	76	3 x 308	24	15	50	Sez+Fus 100A
8951413062325	GSG-B15 T	62,5	415	87	62,5	380	95	3 x 385	29	15	50	Sez+Fus 125A
8951413075325	GS4-B15 T	75	415	104	75	380	114	3 x 462	41	15	50	Sez+Fus 160A
8951414010325	GS4-B15 T	100	415	139	100	380	152	3 x 616	42	15	50	Sez+Fus 2x100A
8971413012355	GSP-B50 T	12,5	415	17	12,5	380	19	3 x 77	18	35	80	Sez+Fus 25A
8971413025355	GSP-B50 T	25	415	35	25	380	38	3 x 154	23	35	80	Sez+Fus 50A
8971413037355	GSP-B50 T	37,5	415	52	37,5	380	57	3 x 231	25	35	80	Sez+Fus 80A
8971413050355	GSG-B50 T	50	415	70	50	380	76	3 x 308	28	35	80	Sez+Fus 100A
8971413062355	GSG-B50 T	62,5	415	87	62,5	380	95	3 x 385	35	35	80	Sez+Fus 125A
8971413075355	GS4-B50 T	75	415	104	75	380	114	3 x 462	47	35	80	Sez+Fus 160A
8971414010355	GS4-B50 T	100	415	139	100	380	152	3 x 616	48	35	80	Sez+Fus 2x100A
8971412125505	GSP-B50 M	12,5	415	17	12,5	380	20	3 x 77	18	35	80	Sez+Fus 25A
8971412250505	GSP-B50 M	25	415	35	25	380	39	3 x 154	23	35	80	Sez+Fus 50A
8971412375505	GSP-B50 M	37,5	415	52	37,5	380	58	3 x 231	25	35	80	Sez+Fus 80A
8971412500505	GSG-B50 M	50	415	70	50	380	77	3 x 308	28	35	80	Sez+Fus 100A
8971412625505	GSG-B50 M	62,5	415	87	62,5	380	96	3 x 385	35	35	80	Sez+Fus 125A
8971412750505	GS4-B50 M	75	415	104	75	380	115	3 x 462	47	35	80	Sez+Fus 160A

CS series with blocking reactors:

-the dissipation losses of the inductances are 6 W / kvar (AVG);

-the max. harmonic distortion of voltage allowed in the networks is: THDU = 3% (189 Hz). Others available on request.

Code	Type	50Hz			60Hz			Capacitance <i>F</i>	Weight <i>kg.</i>	THDI Max. (%)	THDIc Max. (%)	Protection device
		Qn	Un	In	Qn	Un	In					
		<i>kvar</i>	<i>V</i>	<i>A</i>	<i>kvar</i>	<i>V</i>	<i>A</i>					
8981402125705	CS-AAR/100	12,5	400	18	13,5	380	21	3 x 77	32	100	3%	-
8981402250700	CS-AAR/100	25	400	36	27	380	41	3 x 154	41	100	3%	-
8981402500700	CS-AAR/100	50	400	72	54	380	76	3 x 308	59	100	3%	-
8981403012705	CS-AAR/100 T	12,5	400	18	13,5	380	21	3 x 77	35	100	3%	Sez+Fus 25A
8981403025705	CS-AAR/100 T	25	400	36	27	380	41	3 x 154	44	100	3%	Sez+Fus 50A
8981403050705	CS-AAR/100 T	50	400	72	54	380	76	3 x 308	62	100	3%	Sez+Fus 100A
8981402125675	CS-AAR/100M	12,5	400	18	13,5	380	21	3 x 77	36	100	3%	Sez+Fus 25A
8981402250675	CS-AAR/100 M	25	400	36	27	380	41	3 x 154	45	100	3%	Sez+Fus 50A
8981402500675	CS-AAR/100 M	50	400	72	54	380	76	3 x 308	63	100	3%	Sez+Fus 100A