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

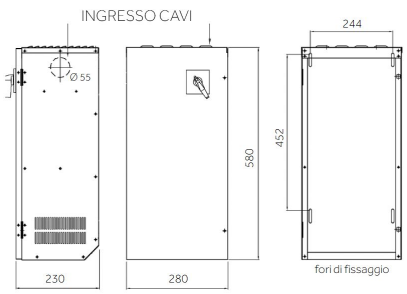
TECHNICAL DATA

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	≤ 0,2 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: ≤0.4 W / kvar • temperature category: -25 / D

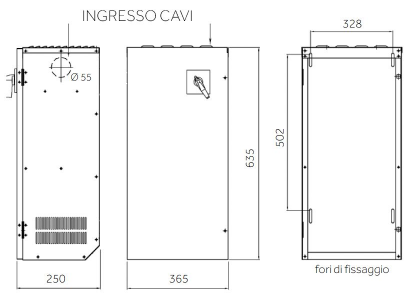
CONSTRUCTION CHARACTERISTICS

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

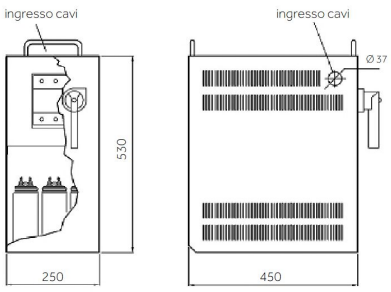
GSP series



GSG series



CS-AAR series



CONFIGURATION

General notes

- The cable entry is always side up;
- For the dimensions of the GS4 series, please take a look at the mechanical drawings of the cabinets, referring to the Type G4E.

Table

Code	Tiype	50Hz			60Hz			Capacitance	Weight	THDI Max.	THDIc Max.	Protection device
		Qn	Un	In	Qn	Un	In			(%)	(%)	
		kvar	*V*	A	*kvar*	*V*	*A*	*µF*	*kg.*			
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

<u>CS series with blocking reactors:</u>

-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	Tiype	50Hz			60Hz			Capacitance	Weight	THDI Max.	THDIc Max.	Protection device
		Qn	Un	In	Qn	Un	In			(%)	(%)	
		kvar	*V*	A	*kvar*	*V*	*A*	*F*	*kg.*			
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/100T	12,5	400	18	13,5	380	21	3 x 77	35	100	3%	Sez+Fus 25A
8981403025705	CS-AAR/100T	25	400	36	27	380	41	3 x 154	44	100	3%	Sez+Fus 50A
8981403050705	CS-AAR/100T	50	400	72	54	380	76	3 x 308	62	100	3%	Sez+Fus 100A

Version with contactor available on request.