
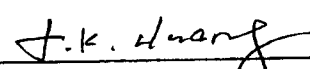


Prüfbericht - Nr.: 02030408 002		Seite 1 von 1 Page 1 of 1	
Test Report No.:			
Auftraggeber: Client:	Sekaku Electron Industry Co., Ltd., Shenshan Industrial City, Hengli Town, Dongguan city, Guangdong, P.R, China.		
Gegenstand der Prüfung: Test item:	Speaker serials		
Bezeichnung: Identification:	See below	Serien-Nr.: Serial No.:	Engineering sample without serial number
Wareneingangs-Nr.: Receipt No.:	G2031167	Eingangsdatum: Date of receipt:	13.11.2002
Prüfört: Testing location:	GTIHEA, 204, Xingang West Road, Guangzhou, Guangdong, P. R. China		
Prüfgrundlage: Test specification:	EN60529: 1991		
Prüfergebnis: Test Result:	Der vorstehend beschriebene Prüfgegenstand wurde geprüft und entspricht oben genannter Prüfgrundlage. The a. m. test item passed.		
Prüflaboratorium/ Testing Laboratory: TÜV Rheinland (Guangdong) Co.,Ltd., 43/F, Metro Plaza, No.183, Tiahhe Bei Road, Guangzhou, Guang dong, P.R.China			
zusammengestellt/ compiled by:		kontrolliert/ checked by:	
14,11,2002	Michael liu	14,11,2002	Huang likun
			
Datum Date	Name Name	Unterschrift Signature	Datum Date
Sonstiges/ Other Aspects:			
Per application letter dated 13.11.2002, project order: G2031167.			
<ul style="list-style-type: none"> - the report is based on E2030408 E01, only change the type error "CSP-115DW" to "CSP-115WP". No test is needed. - The type no.: CSR-105, CSR-205, CSR-206, CSR-306, CSR-105Y, CSR-205Y, CSR-206Y, CSR-306Y, CSP-106, CSP-106D, CSP-106WP, CSP-106DWP, CSP-106PT, CSP-115, CSP-115D, CSP-115WP, CSP-115DWP, CSP-115PT, CSP-210, CSP-210D, CSP-210WP, CSP-210DWP, CSP210PT, CSP-220, CSP-220D, CSP220WP, CSP-220DWP, CSP-220PT, CS-315, CS-320, CS-330, CS-620, CS-640, CS-212, CSP-660, CS-220. 			
Abkürzungen:	ok / P = entspricht Prüfgrundlage fail / F = entspricht nicht Prüfgrundlage n.a. / N = nicht anwendbar	Abbreviations:	ok / P = passed fail / F = failed n.a. / N = not applicable
<p>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</p> <p><i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i></p>			

EN 60529			
Clause	Requirement - Test	Result - Remark	Verdict

5	Degrees of protection against access to hazardous parts and against solid foreign objects indicated by the first characteristic numeral		P
5.1	Protection against access to hazardous parts		P
	First characteristic numeral :	4	P
	Test conditions according to sub-clause 12.2		P
	Compliance checked		P
5.2	Protection against solid foreign objects		P
	First characteristic numeral :	4	P
	Test conditions according to sub-clause 13.2 or 13.4 or 13.5		P
	Compliance checked		P

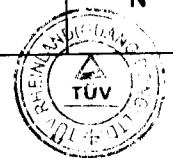
6	Degrees of protection against ingress of water indicated by the second characteristic numeral		P
	Second characteristic numeral :	4	P
	Test conditions according to sub-clause 14.2.1 to 14.2.8 as applicable		P
	Compliance checked		F

7	Degrees of protection against access to hazardous parts indicated by the additional letter		N
	Additional letter :		N
	Test conditions according to sub-clause 15.2		N
	Compliance checked		N

8	Supplementary letters		N
	Additional supplementary letter :		N
	Test conditions according to sub-clause 15.2		N
	Compliance checked		N

9	IP code designations	IP44	P
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10	Marking		P
	Specified in relevant product standards		N
	Such standard also specify the method of marking which is to be used when		N



EN 60529			
Clause	Requirement - Test	Result - Remark	Verdict
	- one part of an enclosure has a different degree of protection to that of another part of the same enclosure		N
	- the mounting position has an influence on the degree of protection		N
	- the maximum immersion depth and time are indicated		N
11	General requirements for tests		P
11.1	Atmospheric conditions for water or dust tests		P
	- temperature		P
	- relative humidity		P
	- air pressure		P
11.2	Test samples		P
	- number of samples tested	15	P
	- conditions for mounting, assembling and positioning of the samples		P
	- pre-conditioning, if any		N
	- tested energized or not		N
	- tested in motion or not	No motion	N
	The manufacturer's instructions shall apply in the absence of such specifications		N
11.3	Application of test requirements and interpretation of test results		N
	- responsibility of the relevant technical committee		N
	- in the absence of such specification the requirement of this standard shall apply		N



EN 60529			
Clause	Requirement – Test	Result - Remark	Verdict
11.4	Combination of test conditions for the first characteristic numeral		P
	First characteristic numeral:	4	P
11.5	Empty enclosures		N
	Detailed requirements shall be indicated by the enclosure manufacturer in his instructions for the arrangement and spacing of hazardous parts or parts which might be affected by the penetration of foreign objects or water		N
	The manufacturer of the final assembly shall ensure that after the electrical equipment is enclosed the enclosure meets the declared degree of protection of the final product		N
12	Tests for protection against access to hazardous parts indicated by the first characteristic numeral		P
12.1	Access probes according to Table VI are used	Test wire for 1.0 mm ϕ	P
12.2	Test conditions as specified	With test force 1N \pm 10%	P
12.3	Acceptance conditions	No clearance reduces	P
	Adequate clearance is kept between access probe and hazardous parts		P
12.3.1	For low-voltage equipment		P
	The access probe shall not touch hazardous live parts	No penetration	P
12.3.2	For high-voltage equipment		N
	The equipment shall be capable of withstanding the dielectric tests as specified in the relevant product standard applicable to the equipment		N
	Where an enclosure includes sections at different voltage levels the appropriate acceptance conditions for adequate clearance shall be applied for each section		N
12.3.3	For equipment with hazardous mechanical parts	No hazardous parts	N
	The access probe shall not touch hazardous mechanical parts		N
13	Tests for protection against solid foreign objects indicated by the first characteristic numeral		P
13.1	Test means and the main test conditions according to Table VII are used		P



EN 60529			
Clause	Requirement - Test	Result - Remark	Verdict
13.2	Test conditions for first characteristic numerals 1,2,3,4		P
	Object probe is pushed against any openings of the enclosure with the force specified in table VII		N
13.3	Acceptance conditions for first characteristic numerals 1,2,3,4		N
	The protection is satisfactory if the full diameter of the probe does not pass through any opening		N
13.4	Dust test for first characteristic numerals 5 & 6		N
	Tests are conducted as specified and classified according to its category 1 or 2		N
	If it is impractical to test the complete enclosure in the test chamber, one of the following procedures shall be applied:		N
	- testing of individually enclosed sections of the enclosure		N
	- testing of representative parts of the enclosure, comprising components such as doors, ventilation openings, joints, shaft seals, etc., in position during test		N
	- testing of a smaller enclosure having the same full-scale design details		N
13.5	Special conditions for first characteristic numeral 5		N
13.5.1	Test conditions as specified		N
13.5.2	Acceptance conditions		N
	The protection is satisfactory if talcum powder has not accumulated in a quantity or location such that, as with any other kind of dust, it could interfere with the correct operation of the equipment or impair safety		N
	No dust shall deposit where it could lead to tracking along the creepage distances		N
13.6	Special conditions for first characteristic numeral 6		N
13.6.1	Test conditions as specified		N
13.6.2	Acceptance conditions		N



EN 60529			
Clause	Requirement - Test	Result - Remark	Verdict

	The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test		N
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14	Tests for protection against water indicated by the second characteristic numeral		P
14.1, 14.2	Test means and test conditions are performed according to table VIII		P
14.2.1	Test for second characteristic numeral 1 with drip box		N
14.2.2	Test for second characteristic numeral 2 with drip box		N
14.2.3	Test for second characteristic numeral 3 with oscillating tube or spray nozzle		N
14.2.4	Test for second characteristic numeral 4 with oscillating tube or spray nozzle	With spray nozzle for 10min	P
14.2.5	Test for second characteristic numeral 5 with the 6.3mm nozzle		N
14.2.6	Test for second characteristic numeral 6 with the 12.5mm nozzle		N
14.2.7	Test for second characteristic numeral 7: temporary immersion between 0.15m and 1m		N
14.2.8	Test for second characteristic numeral 8: continuous immersion subject to agreement		N
14.3	Acceptance conditions		P
	It is the responsibility of the relevant Technical committee to specify the amount of water which may be allowed to enter the enclosure and the details of a dielectric strength test, if any		N
	In general, if any water has entered, it shall not	For CS-212 ,CSP-660,CS-220,CSR105,CSP115DWP, CSP115 type , some water deposits on the bottom.	P
	- be sufficient to interfere with the correct operation of the equipment or impair safety	All samples operated normally after the test and no safety was impaired	P
	- deposit on insulation parts where it could lead to tracking along the creepage distances	No creepage distance reduced	P
	- reach live parts or windings not designed to operate when wet	No water on live parts	P



EN 60529			
Clause	Requirement - Test	Result - Remark	Verdict
	by inspection that any water which enters does not accumulate and that it drains away without doing any harm to the equipment		
	For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts		N
15	Tests for protection against access to hazardous parts indicated by the additional letter		N
15.1	Access probes to hazardous parts according to table VI		N
15.2	Test conditions as specified		N
15.3	Acceptance conditions		N
	The protection is satisfactory if adequate clearance is kept between the access probe and hazardous parts		N



EN 60529		Result - Remark	Verdict
Clause	Requirement - Test		

Copy of rating label:

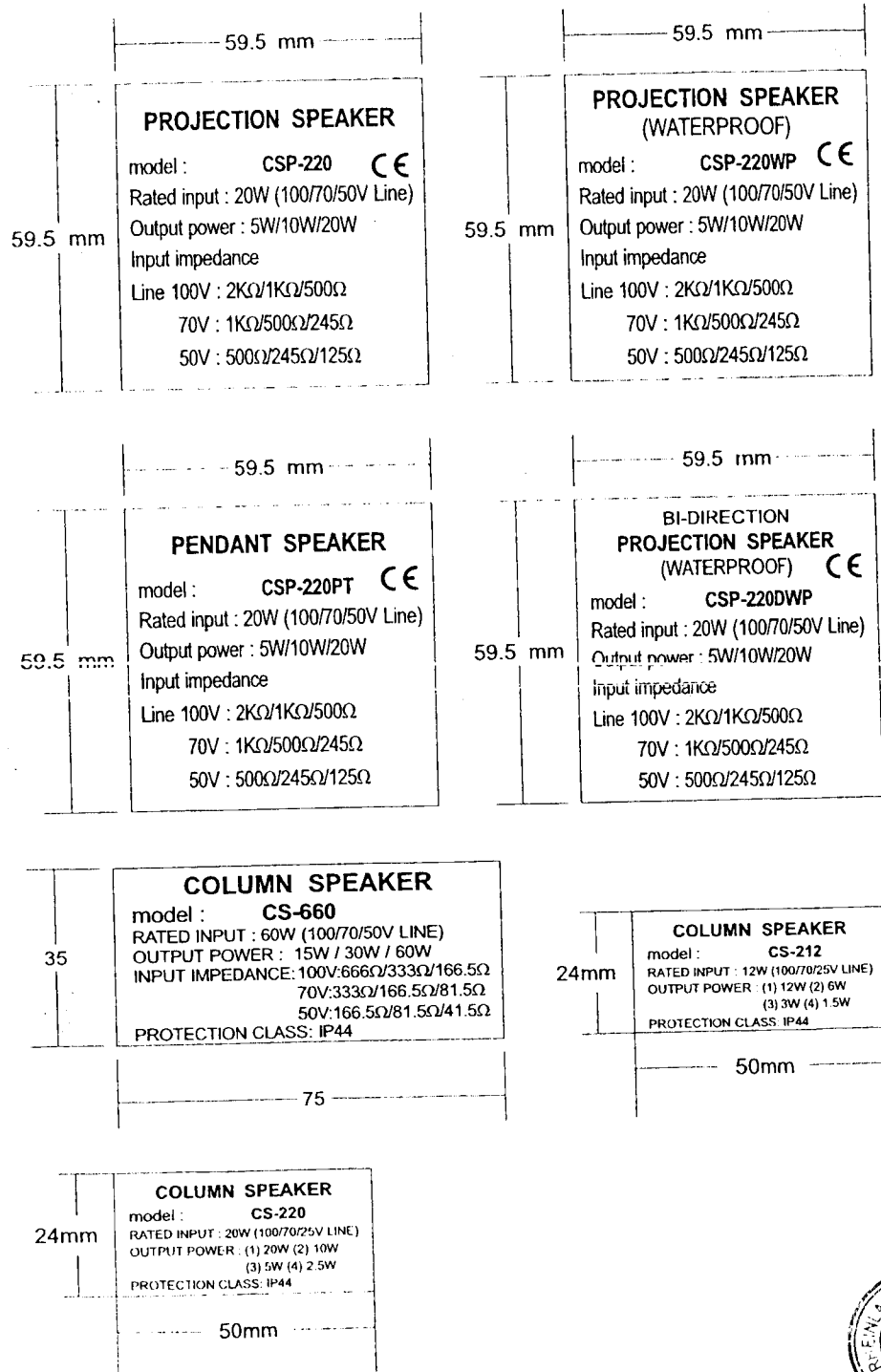
59.5 mm	59.5 mm	59.5 mm	59.5 mm	59.5 mm
59.5 mm	59.5 mm	59.5 mm	59.5 mm	59.5 mm
<p>PENDANT SPEAKER model : CSP-115PT CE Rated input : 15W (100/70/50V Line) Output power : 3.75W/7.5W/15W Input impedance Line 100V : 2.66kΩ/1.33kΩ/666Ω 70V : 1.33kΩ/666Ω/326Ω 50V : 666Ω/326Ω/166Ω</p>	<p>PROJECTION SPEAKER model : CSP-115 CE Rated input : 15W (100/70/50V Line) Output power : 3.75W/7.5W/15W Input impedance Line 100V : 2.66kΩ/1.33kΩ/666Ω 70V : 1.33kΩ/666Ω/326Ω 50V : 666Ω/326Ω/166Ω</p>	<p>PROJECTION SPEAKER model : CSP-115WP CE Rated input : 15W (100/70/50V Line) Output power : 3.75W/7.5W/15W Input impedance Line 100V : 2.66kΩ/1.33kΩ/666Ω 70V : 1.33kΩ/666Ω/326Ω 50V : 666Ω/326Ω/166Ω</p>	<p>PROJECTION SPEAKER model : CSP-106 CE Rated input : 6W (100/70/50V Line) Output power : 1.5W/3W/6W Input impedance Line 100V : 6.6kΩ/3.3kΩ/1.66kΩ 70V : 3.3kΩ/1.66kΩ/816Ω 50V : 1.66kΩ/816Ω/416Ω</p>	<p>PROJECTION SPEAKER model : CSP-210 CE Rated input : 10W (100/70/50V Line) Output power : 2.5W/5W/10W Input impedance Line 100V : 4kΩ/2kΩ/1kΩ 70V : 2kΩ/1kΩ/490Ω 50V : 1kΩ/490Ω/250Ω</p>
<p>BI-DIRECTION PROJECTION SPEAKER (WATERPROOF) CE model : CSP-115DWP Rated input : 15W (100/70/50V Line) Output power : 3.75W/7.5W/15W Input impedance Line 100V : 2.66kΩ/1.33kΩ/666Ω 70V : 1.33kΩ/666Ω/326Ω 50V : 666Ω/326Ω/166Ω</p>	<p>PROJECTION SPEAKER model : CSP-115WP CE Rated input : 15W (100/70/50V Line) Output power : 3.75W/7.5W/15W Input impedance Line 100V : 2.66kΩ/1.33kΩ/666Ω 70V : 1.33kΩ/666Ω/326Ω 50V : 666Ω/326Ω/166Ω</p>	<p>PROJECTION SPEAKER model : CSP-115WP CE Rated input : 15W (100/70/50V Line) Output power : 3.75W/7.5W/15W Input impedance Line 100V : 2.66kΩ/1.33kΩ/666Ω 70V : 1.33kΩ/666Ω/326Ω 50V : 666Ω/326Ω/166Ω</p>	<p>PROJECTION SPEAKER model : CSP-115WP CE Rated input : 15W (100/70/50V Line) Output power : 3.75W/7.5W/15W Input impedance Line 100V : 2.66kΩ/1.33kΩ/666Ω 70V : 1.33kΩ/666Ω/326Ω 50V : 666Ω/326Ω/166Ω</p>	<p>PROJECTION SPEAKER model : CSP-115WP CE Rated input : 15W (100/70/50V Line) Output power : 3.75W/7.5W/15W Input impedance Line 100V : 2.66kΩ/1.33kΩ/666Ω 70V : 1.33kΩ/666Ω/326Ω 50V : 666Ω/326Ω/166Ω</p>



EN 60529

Clause	Requirement – Test	Result - Remark	Verdict
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Copy of rating label:



EN 60529

Clause	Requirement - Test	Result - Remark	Verdict
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Copy of rating label:

CSR-306Y
 OUTPUT POWER :
 30W(15W/7.5W)
 IMPEDANCE :
 8Ω(BR)/16Ω(RED)/32Ω(OR)
 660Ω(GRM)/330Ω(WT)/COM(BLK)

RATED INPUT :
 30W(100/70V LINE)
 INPUT LINE
 100V:30W(OR)/15W(GR)/7.5W(WT)
 70V:30W(RED)/15W(OR)/7.5W(GR)
 8Ω:30W(BR)

CSR-306
 OUTPUT POWER :
 30W(15W/7.5W)
 IMPEDANCE :
 8Ω(BR)/16Ω(RED)/32Ω(OR)
 660Ω(GRM)/330Ω(WT)/COM(BLK)

RATED INPUT :
 30W(100/70V LINE)
 INPUT LINE
 100V:30W(OR)/15W(GR)/7.5W(WT)
 70V:30W(RED)/15W(OR)/7.5W(GR)
 8Ω:30W(BR)

CSR-205Y
 OUTPUT POWER :
 20W(10W/5W)
 IMPEDANCE :
 8Ω(BR)/16Ω(RED)/32Ω(OR)
 1KΩ(GR)/2KΩ(WT)/COM(BLK)

RATED INPUT :
 20W(100/70V LINE)
 INPUT LINE
 100V:20W(OR)/10W(GR)/5W(WT)
 70V:20W(RED)/10W(OR)/5W(GR)
 8Ω:20W(BR)

CSR-205
 OUTPUT POWER :
 20W(10W/5W)
 IMPEDANCE :
 8Ω(BR)/16Ω(RED)/32Ω(OR)
 1KΩ(GR)/2KΩ(WT)/COM(BLK)

RATED INPUT :
 20W(100/70V LINE)
 INPUT LINE
 100V:20W(OR)/10W(GR)/5W(WT)
 70V:20W(RED)/10W(OR)/5W(GR)
 8Ω:20W(BR)

COLUMN SPEAKER
 model : CS-640
 RATED INPUT : 40W (100/70/50V LINE)
 OUTPUT POWER : 10W / 20W / 40W
 INPUT IMPEDANCE: 100V:1KΩ/500Ω/250Ω
 70V:500Ω/250Ω/122.5Ω
 50V:250Ω/122.5Ω/62.5Ω
 PROTECTION CLASS: IP44

COLUMN SPEAKER
 model : CS-620
 RATED INPUT : 20W (100/70/50V LINE)
 OUTPUT POWER : 5W / 10W / 20W
 INPUT IMPEDANCE: 100V:2KΩ/1KΩ/500Ω
 70V:1KΩ/500Ω/245Ω
 50V:500Ω/245Ω/125Ω
 PROTECTION CLASS: IP44

COLUMN SPEAKER
 model : CS-315
 RATED INPUT : 15W (100/70/25V LINE)
 OUTPUT POWER : (1) 15W (2) 7.5W (3) 3.75W
 (4) 2W (5) 1W
 PROTECTION CLASS: IP44

COLUMN SPEAKER
 model : CS-330
 RATED INPUT : 30W (100/70/25V LINE)
 OUTPUT POWER : (1) 30W (2) 15W (3) 7.5W
 (4) 3.75W (5) 2W
 PROTECTION CLASS: IP44

COLUMN SPEAKER
 model : CS-320
 RATED INPUT : 20W (100/70/25V LINE)
 OUTPUT POWER : (1) 20W (2) 10W (3) 5W
 (4) 2.5W (5) 1.25W
 PROTECTION CLASS: IP44

35

75

35

75

24mm

57mm



EN 60529		
Clause	Requirement - Test	Result - Remark

Copy of rating label:

<p>CSR-105 OUTPUT POWER : 10W/5W/2.5W IMPEDANCE : 8Ω (BR)/490Ω (RED)/1KΩ (OR) 2KΩ (GR)/4KΩ (WIT)/COM (BLK)</p> <p>RATED INPUT : 10W(100/70V LINE) INPUT LINE 100V: 10W(OR)/5W(GR)/2.5W(WIT) 70V: 10W(RED)/5W(OR)/2.5W(GR) 8Ω: 10W(BR)</p>	<p>CSR-206 OUTPUT POWER : 20W/10W/5W IMPEDANCE : 8Ω (BR)/245Ω (RED)/500Ω (OR) 1KΩ (GR)/2KΩ (WIT)/COM (BLK)</p> <p>RATED INPUT : 20W(100/70V LINE) INPUT LINE 100V: 20W(OR)/10W(GR)/5W(WIT) 70V: 20W(RED)/10W(OR)/5W(GR) 8Ω: 20W(BR)</p>	<p>CSR-105Y OUTPUT POWER : 10W/5W/2.5W IMPEDANCE : 8Ω (BR)/490Ω (RED)/1KΩ (OR) 2KΩ (GR)/4KΩ (WIT)/COM (BLK)</p> <p>RATED INPUT : 10W(100/70V LINE) INPUT LINE 100V: 10W(OR)/5W(GR)/2.5W(WIT) 70V: 10W(RED)/5W(OR)/2.5W(GR) 8Ω: 10W(BR)</p>
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59.5 mm	59.5 mm	59.5 mm
59.5 mm	59.5 mm	59.5 mm
<p>PROJECTION SPEAKER (WATERPROOF) CE model : CSP-106WP Rated input : 6W (100/70/50V Line) Output power : 1.5W/3W/6W Input impedance Line 100V : 6.6KΩ/3.3KΩ/1.66KΩ 70V : 3.3KΩ/1.66KΩ/816Ω 50V : 1.66KΩ/816Ω/416Ω</p>	59.5 mm	<p>PROJECTION SPEAKER (WATERPROOF) CE model : CSP-210WP Rated input : 10W (100/70/50V Line) Output power : 2.5W/5W/10W Input impedance Line 100V : 4KΩ/2KΩ/1KΩ 70V : 2KΩ/1KΩ/490Ω 50V : 1KΩ/490Ω/250Ω</p>

59.5 mm	59.5 mm	59.5 mm
59.5 mm	59.5 mm	59.5 mm
<p>BI-DIRECTION PROJECTION SPEAKER (WATERPROOF) CE model : CSP-106DWP Rated input : 6W (100/70/50V Line) Output power : 1.5W/3W/6W Input impedance Line 100V : 6.6KΩ/3.3KΩ/1.66KΩ 70V : 3.3KΩ/1.66KΩ/816Ω 50V : 1.66KΩ/816Ω/416Ω</p>	59.5 mm	<p>BI-DIRECTION PROJECTION SPEAKER (WATERPROOF) CE model : CSP-210DWP Rated input : 10W (100/70/50V Line) Output power : 2.5W/5W/10W Input impedance Line 100V : 4KΩ/2KΩ/1KΩ 70V : 2KΩ/1KΩ/490Ω 50V : 1KΩ/490Ω/250Ω</p>

59.5 mm	59.5 mm	59.5 mm
59.5 mm	59.5 mm	59.5 mm
<p>PENDANT SPEAKER CE model : CSP-106PT Rated input : 6W (100/70/50V Line) Output power : 1.5W/3W/6W Input impedance Line 100V : 6.6KΩ/3.3KΩ/1.66KΩ 70V : 3.3KΩ/1.66KΩ/816Ω 50V : 1.66KΩ/816Ω/416Ω</p>	59.5 mm	<p>PENDANT SPEAKER CE model : CSP-210PT Rated input : 10W (100/70/50V Line) Output power : 2.5W/5W/10W Input impedance Line 100V : 4KΩ/2KΩ/1KΩ 70V : 2KΩ/1KΩ/490Ω 50V : 1KΩ/490Ω/250Ω</p>



EN 60529

Clause	Requirement - Test	Result - Remark	Verdict
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Copy of rating label:



CSR-206Y
 OUTPUT POWER :
 20W/10W/5W
 IMPEDANCE :
 8Ω (BR)/245Ω (RE.D)/500Ω (OR)
 1KΩ (GR)/7KΩ (WT)/COM(BLK)
 RATED INPUT :
 20W(100/70V LINE)
 INPUT LINE
 100V:20W(OR)/10W(GR)/5W(WT)
 70V:20W(RE.D)/10W(OR)/5W(GR)
 8Ω:20W(BR)

COLUMN SPEAKER
 model : **CS-660**
 RATED INPUT : 60W (100/70/50V LINE)
 OUTPUT POWER : 15W / 30W / 60W
 INPUT IMPEDANCE: 100V:666Ω/333Ω/166.5Ω
 70V:333Ω/166.5Ω/81.5Ω
 50V:166.5Ω/81.5Ω/41.5Ω
 PROTECTION CLASS: IP44

59.5 mm
BI-DIRECTION PROJECTION SPEAKER
 model : **CSP-106D** CE
 Rated input : 6W (100/70/50V Line)
 Output power : 1.5W/3W/6W
 Input impedance
 Line 100V : 6.6KΩ/3.3KΩ/1.66KΩ
 70V : 3.3KΩ/1.66KΩ/816Ω
 50V : 1.66KΩ/816Ω/416Ω

59.5 mm
BI-DIRECTION PROJECTION SPEAKER
 model : **CSP-210D** CE
 Rated input : 10W (100/70/50V Line)
 Output power : 2.5W/5W/10W
 Input impedance
 Line 100V : 4KΩ/2KΩ/1KΩ
 70V : 2KΩ/1KΩ/490Ω
 50V : 1KΩ/490Ω/250Ω

59.5 mm
BI-DIRECTION PROJECTION SPEAKER
 model : **CSP-115D** CE
 Rated input : 15W (100/70/50V Line)
 Output power : 3.75W/7.5W/15W
 Input impedance
 Line 100V : 2.66KΩ/1.33KΩ/666Ω
 70V : 1.33KΩ/666Ω/326Ω
 50V : 666Ω/326Ω/166Ω

59.5 mm
BI-DIRECTION PROJECTION SPEAKER
 model : **CSP-220D** CE
 Rated input : 20W (100/70/50V Line)
 Output power : 5W/10W/20W
 Input impedance
 Line 100V : 2KΩ/1KΩ/500Ω
 70V : 1KΩ/500Ω/245Ω
 50V : 500Ω/245Ω/125Ω

PROJECTION SPE

model : **CSP-220F**

→ material of rating table

EN 60529			
Clause	Requirement - Test	Result - Remark	Verdict

Measuring and Test instrument list:

Kind of instrument	Model serial No.	Calibrated until
Spray water device	MD-77	25.06.2002
Access probe of IP4X	--	Can be used

