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**Reference**

301938

**Your reference**

Claes Söderström

## Examination of test report according to the Low Voltage Directive

We have examined the test report covering safety for:

### Cable Distribution Cabinet (CDC), types CDC 420, CDC 440, CDC 460

The products have been tested in accordance with applicable parts of EN 60439-1 and EN 60439-5.

The documentation consist of report and CD from ABB Kabeldon.  
(A summary of the report 2 pages are put together in enclosure (11 pages).

With regard to the essential requirements for CE-marking the test reports demonstrate that the tested products cover the essential parts of 72/23EEC including amendment 93/68.

Yours faithfully

SEMKO AB  
Components and Installation Accessories

  
Pär Zetterberg

**Product:**

Low voltage switchgear and kontrolgear assemblies intended to be installed outdoors in public places – Cable Distribution Cabinets ( CDCs) for power distribution in networks.

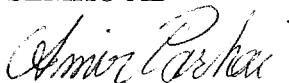
Types: CDC 420, CDC 440 and CDC 460

IEC 60439-1 IEC 60439-5	Test	Test value / requirement	Test value / result	Test report
Materials (§ 8.2.9)	Mechanical strength (§ 8.2.9)	all tests shall be carried out with the CDC fixed at its normal service, figures 4-6	Pass	See attached test report and CD, issued by ABB kabeldon
	Structural strength (§ 8.2.9.1)	-----	-----	-----
	Static load withstand (§ 8.2.9.1.1)	8 500 N/m <sup>2</sup> , 5 min to roof of the enclosure. 1200 N, 5 min in turn to the front and back	Pass	Kabeldon No. 8.2.9.1.1
	Shock load withstand (§ 8.2.9.1.2)	A bag acc. To fig. 3. 15 kg. IP34D shall remain after the test.	Pass	Kabeldon No. 8.2.9.1.2
	Torsional stress withstand (ground-mounted CDC) (§ 8.2.9.1.3)	Horizontally rotatable frame 60mm x 600mm x 5mm angle iron. 2x1000N, 30s, fig. 5	Pass	Kabeldon No. 8.2.9.1.3
	Impact strength (§ 8.2.9.2)	-----	-----	-----
	Impact force withstand (§ 8.2.9.2.1)	A pendulum of a tube 9 mm ex. Diameter, 1m long. Ball of 2 kg, 1m, dropp and impact surface of the CDC.	Replaced by 8.2.9.2.2 Test 3 Pass	Kabeldon No. 8.2.9.2.2 (Test 3)
	Impact and pressure forc withstand for arctic climate (§ 8.2.9.2.2)	Temperature of -50°C Not less than 12 h 1500N, 30s. Degree of protection remains IP34D, doors operate.	Pass	Kabeldon No. 8.2.9.2.2 Empty enclosure (test1) & Kabeldon No. 8.2.9.2.2 Equipped enclosure (test2)
	Door strength (§ 8.2.9.3)	Doors fully open, 50N at 300mm, 3s. doors are not unhinged. Degree of protection remains.	Not applicable	Not applicable on this type of enclosure.
	Metal inserts strength (§ 8.2.9.4)	500N, 10s No damage.	Not applicable	Not applicable on this type of enclosure.

**Product:**
**Low voltage switchgear and kontrolgear assemblies intended to be installed outdoors in public places – Cable Distribution Cabinets ( CDCs) for power distribution in networks.**
**Types: CDC 420, CDC 440 and CDC 460**

Resistance to mechanical shock impacts induced by sharp-edged objects (§ 8.2.9.5)	5kg, 0,4m acc. Fig. 8. Inspection	Pass	Kabeldon No. 8.2.9.2.5
Mechanical strength of the base (§ 8.2.9.6)	$F = 3,5 \text{ N/mm} * L$	Pass	Kabeldon No. 8.2.9.2.6
Insulating materials, enclosures and barriers (§ 8.2.10)	-----	Not applicable	Not applicable on this type of enclosure.
Resistance to abnormal heat (§ 8.2.10.1)	Steel plate 5mm thickness, a ball 5mm diameter, force 20N.	Not applicable	Not applicable on this type of enclosure.
Verification of flammability category (§ 8.2.10.2)	In acc. To FH, IEC 707 Checked by inspection FH 2-40mm	Not applicable	Not applicable on this type of enclosure.
Dry heat test (§ 8.2.10.3)	CDC in an oven temp. raised to 100°C in 2-3h And maintained 5h	Not applicable	Not applicable on this type of enclosure.
Verification of resistance to corrosion and ageing, internal parts (§ 8.2.11.1)	Damp heat cycling test Severity temp. 55°C, 6 cycles, visual inspection No rust, cracking.	Not applicable	Not applicable on this type of enclosure.
Verification of resistance to corrosion and ageing, external parts (§ 8.2.11.2)	17 cycles with Xenon lamp, 500h; spray cycle	Not applicable	Not applicable on this type of enclosure.
Verification of the degree of protection EN 60 439-1, § 8.2.7	IPX4, 10 L /min, 5 min	Pass	Kabeldon page 9

SEMKO AB



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Components and Installation Accessories