

TEST REPORT – ROUTINE VERIFICATION

Assembly Manufacturer		Drawing Reference	
Client Name		Test Date	
Project Name		Assembled by	
DB Designation		Tested by	

Note: This report was created using the information from AS/NZS 61439.1 only as a guideline for Assembly Manufacturers' Routine Verification. Assembly Manufacturer should make sure all requirements for an assembly have been fulfilled.

Findings Guide: Pass – P, Fail – F, Not Applicable – NA, Not Tested – NT.		
Clause	Brief requirement	Finding
11.2	Degree of protection of the enclosure	
	A visual inspection is necessary to confirm that the prescribed measures to achieve the designated degree of protection are maintained.	
11.3	Clearances and creepage distances	
	Clearance must be more than 4.5mm (1.5 x 3mm) between phases. (Table 1)	
	Creepage distances must be more than 6.3mm (Table 2)	
11.4	Protection against electric shock and integrity of protective circuits	
	The prescribed protective measures with regard to basic protection and fault protection (see 8.4.2 and 8.4.3) shall be subject to a visual inspection.	
	The protective circuits shall be checked by visual inspection to ascertain that the measures prescribed in 8.4.3 are verified.	
	Screwed and bolted connections shall be checked for the correct tightness on a random basis.	
11.5	Incorporation of built-in components	
	The installation and identification of built-in components shall be in accordance with the ASSEMBLY manufacturing instructions.	
11.6	Internal electrical circuits and connections	
	The connections, especially screwed and bolted connections, shall be checked for the correct tightness on a random basis.	
	Conductors shall be checked in accordance with the ASSEMBLY manufacturing instructions.	
11.7	Terminals for external conductors	
	The number, type and identification of terminals shall be checked in accordance with the ASSEMBLY manufacturing instructions.	
11.8	Mechanical Operation	
	Effectiveness of mechanical actuating elements, interlocks and locks including those associated with removable parts should be checked.	
11.9	Dielectric properties (This is not required for AS/NZS 61439.3)	
	A power-frequency withstand test shall be performed on all circuits in accordance with 10.9.1 and 10.9.2 (Test voltage = 1890 V AC for Rated insulation voltage (U_i) between 300V - 690V AC) but for a duration of 1 s. This test need not be made on auxiliary circuits: – which are protected by a short-circuit protective device with a rating not exceeding 16A. – if an electrical function test has been made previously at the rated operational voltage for which the auxiliary circuits are designed.	
	As an alternative for ASSEMBLIES with incoming protection rated up to 250 A the verification of insulation resistance may be by measurement using an insulation measuring device at a voltage of at least 500 V D.C. In this case, the test is satisfactory if the insulation resistance between circuits and exposed conductive parts is at least 1000Ω/V per circuit referred to the supply voltage to earth of these circuits.	
11.10	Wiring, operational performance and function	
	It shall be verified that the information and markings specified in Clause 6 are complete.	
	Depending on the complexity of the ASSEMBLY, it may be necessary to inspect the wiring and to carry out an electrical function test. The test procedure and the number of tests depend on whether or not the ASSEMBLY includes complicated interlocks, sequence control facilities, etc.	

Having passed the above tests, the switchgear assembly under consideration results in compliance with the Standard AS/NZS 61439.2/ AS/NZS 61439.3.

Signature

Routine Verification, May 2021