TEST REPORT FOR COMPLIANCE WITH EN 60204-1: 1997

Safety of machinery- Electrical equipment of machines, part 1: General requirement

Report No.	EZ/2007/80024	
Applicant		
Name	Ya De Li Technology Co., Ltd.	
Address	1F, No. 5, Alley 39, Lane 64, Sec. 1, Beisin Road, Sindian City, Taipei County 231, Taiwan (R.O.C.)	
Machinery		
Name	Frequency Conversion Saving System of Compressor in the outside type	
Model	VR2220A、VR2220、VR3820A、VR3820、VR4420A、VR4420、VR2215A、VR2215、VR3815A、VR3815、VR4415A、VR4415、VR2210A、VR2210、VR3810A、VR3810、VR4410A、VR4410、VR2275A、VR2275、VR3875A、VR3875、VR4475A、VR4475、OP2220、OP3820、OP4420、OP2215、OP3815、OP4415、OP2210、OP3810、OP4410、OP2275、OP3875、OP4475	
Testing Laboratory : SGS Taiwan Ltd.		
Date of Test	Sep. 05, 2007	
Test Site	134, Wu Kung Road WuKu Industrial Zone, Taipei County, Taiwan 24803	
Tested by	Gary Huang	Gary Huang
Approved by	Jason Lin	

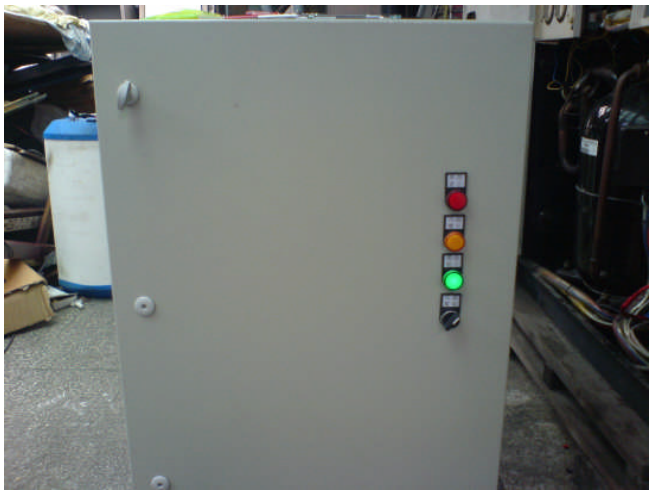
Note:

1. The test results only responds to the tested sample, and is invalid as separately used.

2. Reproduction of this report without a written approval is strictly prohibited.

1-1 Machine under test

- Name : Frequency Conversion Saving System of Compressor in the outside type
- MODEL : VR2220
- SUPPLY : AC 3ϕ , 220V, 50/60Hz



Front view of machine

Side view of machine

Back view of machine

Control panel of machine

2-1 Earth continuity test

Criteria:

Inject a current of at least 10A at 50Hz or 60Hz derived from a PELV source between the PE terminal and relevant points that are of the protective bonding circuit. The measured voltage between the PE terminal and the points of test shall not exceed the values in the table shown below.

Minimum effective protective conductor cross-sectional area of the branch under test *mm²*	*Maximum measured voltage drop (values are given for a test current of 10A)* *V*
1.0	3.3
1.5	2.6
2.5	1.9
4.0	1.4
>6.0	1.0

Test instruments

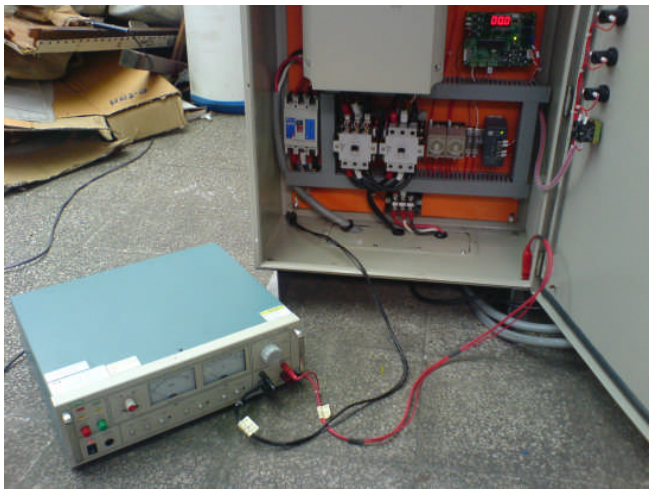
Item	Brand	Model/SER. No.	Calibration Due
Earth continuity tester	CHYNG HONG	CG-503	Aug 6,2008

Description of the test:

a. Inject a current 10A at 50/60Hz derived from the earth continuity tester between the PE terminal and test points, then read the voltage drops of them.
b. The relevant point is considered to have passed the test, when its voltage drop is below the value shown in the above table.

Test results

Test points		Cross-sectional Area of the branch under test (mm^2)	Voltage drop	Result
1	PE to Enclosure	--	--	Pass



Earth continuity test

2.2 Insulation resistance tests

Criteria: *The insulation resistance measured at 500 V d.c. between the power circuit conductors and the protective bonding circuit shall not less than 1 MΩ*

Test instruments

Item	Brand	Model/SER. No.	Calibration Due
Insulation tester	EXTECH	7120	Jul. 10, 2008

Test results

Test points		Insulation resistance (MΩ)	Result
1	Enclosure to mains supply wiring L1 (3ϕ , 220V)	1.29 MΩ	Pass
2	Enclosure to mains supply wiring L2 (3ϕ , 220V)	1.19 MΩ	Pass
3	Enclosure to mains supply wiring L3 (3ϕ , 220V)	1.11 MΩ	Pass

Insulation resistance test

2.3. High voltage tests

Criteria:

The electrical equipment shall withstand a test voltage applied for a period of at least one second between the conductors of all circuits and protective bonding circuit, except for those circuits intended to operate at or below PELV voltages. The test voltage shall:

- have a value of twice the rated supply voltage of the equipment or 1000V, whichever is the greater;
- be at a frequency of 50/60 Hz;
- be supplied from a transformer with a minimum rating of 500 VA.

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Test instruments

Item	Brand	Model/SER. No.	Calibration Due
Insulation tester	EXTECH	7120	Jul. 10, 2008

Description of the test:

a. Inject a voltage of 1000V at 50/60Hz derived from the voltage tester for 10s between the PE terminal and test points

b. The relevant point is considered to have passed the test, when there is no flash over or breakdown occurred during the tests.

Test results

Test points		Applied Voltage	Result
1	Enclosure to mains supply wiring L1 (3ϕ , 220V)	2000V	Pass
2	Enclosure to mains supply wiring L2 (3ϕ , 220V)	2000V	Pass
3	Enclosure to mains supply wiring L3 (3ϕ , 220V)	2000V	Pass

High voltage test

2.4. Residual voltage tests

Criteria:

Live parts having a residual voltage greater than 60V after the supply has been disconnected shall be discharged to 60V or less within a time period of 5s after disconnection of the supply voltage.

Test instruments

Item	Brand	Model/SER. No.	Calibration Due
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Description of the test:

The residual voltage between each phase of the supply conductors was measured after supply voltage was switched off.

Test results

Measured points	Residual Voltage	Discharge time(second)	Result
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Note : EUT is a fixed equipment, no residual voltage tests needed.