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Cosel Co., Ltd.  
WS Design Section

EMI/EMS Test Result  
According to IEC60601-1-2 4th Edition (EMS)

Model Name : UMPS30F series

Approved : Takashi Kajii

The EUT is operated with following condition during EMI/EMS test.

Input Voltage : 230,240VAC / 50Hz  
Output Current : Rated Current  
Ambient Temperature : 25°C ± 10°C

Prepared : Yuya Sakai

#	Subject		Reference standard	Test Condition		Criteria *1	Result
1	EMI	Conducted Emission		EN55011, EN55032 CISPR11, CISPR32 FCC Part15, FCC Part18	Class B Class B Class B	-	Pass
2		Radiated Emission		EN55011, EN55032 CISPR11, CISPR32 FCC Part15, FCC Part18	Class B Class B Class B	-	Pass
3		Harmonic Current	IEC61000-3-2	Class A		-	Pass
4	EMS	Electrostatic discharge immunity test	IEC61000-4-2	Contact Discharge : Level 4 (8kV) Air Discharge : Level 4 (15kV)		A	Pass
5		Radiated, radio-frequency, electromagnetic field immunity test	IEC61000-4-3	10V/m : (80MHz~2.7GHz)  80% Amplitude modulated		A	Pass
6		Electrical fast transient / Burst immunity test	IEC61000-4-4	Level 4 (4kV) Repetition Rate : 5kHz and 100kHz		A	Pass
7		Surge immunity test	IEC61000-4-5	Line to Line : Level 4 (2kV)		A	Pass
8		Immunity to conducted disturbances, induced by radio-frequency fields	IEC61000-4-6	Voltage Level (e.m.f.) : Level 3 (10Vrms)		A	Pass
9		Power frequency magnetic field Immunity test	IEC61000-4-8	Magnetic Field Strength : Level 4 (30A/m)		A	Pass
10		Voltage dips, short interruptions and voltage variations immunity test	IEC61000-4-11	(1) 100% dip for 10ms, 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° (2) 100% dip for 20ms, 0° (3) 30% dip for 500ms, 0°		A A A	Pass *2 Pass Pass
	(4) 100% dip for 5 seconds (short interruption)			B	Pass		

\*1 Definition of Criteria  
Criteria A : (1) No output voltage drop with control circuit failure.  
(2) No protection circuit and other circuit malfunction.

Criteria B : (1) The output voltage is temporary degradation of performance.  
It recovers its normal performance without operator intervention.  
(2) No protection circuit and other circuit failure.

\*2 Output Current:70% or less of rated current(at 100VAC)

<Notes>  
Power supply shall not determine the final equipment performance against EMS test. Therefore we confirmed the output voltage performance only. EMS test should be performed as a final product.