



# VAR 3005 DUAL VOLTAGE SOURCE FOR DIPS, INTERRUPTS AND VARIATIONS TESTING



- Full IEC 61000-4-11 compliant
- 2 power sources in one box
- 16 A continuous / 40 A short term
- Automatic 50/60 Hz detection and regulation
- Advanced regulation and self-test features

### NSG 3000 series accessory

Since more and more electric and electronic equipment is designed for universal power supply (ex: 85 to 265 V), EMC tests, and especially dips, interrupts and variations tests need to be realised for both of the higher and the lower rated supply voltage of the EUT (Equipment Under Test). To allow this the test system requires one supply source to generate the variable voltage of the dip, plus another supply source to set the test voltage.

VAR 3005 is a dual voltage source to be driven by Teseq NSG 3000 series of EMI test generators which provides the two supply sources required to test equipment with universal power supplies, one source providing the test voltage, the other providing the variable voltage required for dips and variation testing.

VAR 3005 is based on variac technologies as recommended by IEC 61000-4-11 (see fig 1). The 2 variacs are driven by a motor, the whole controlled by a processor based servo control which reaches great accuracy and adjusting speed performance.

VAR 3005 series are controlled by the user interfaces of the NSG 3000 series, per front panel display or via WIN 3000 PC software. VAR 3005 is plug and play technology, it auto configures and avoids the user to set voltages out of range.

Electrical performance parameters are in line with or exceed the requirements of the basic standard IEC 61000-4-11: 2004 and allow EMI dips, interrupts and variations tests for every type of equipment with current ratings below 16 A.

Thanks to internal advanced microprocessor based control electronics VAR 3005 features permanent self regulation, self check, mains voltage check, phase rotation check and informs the user or stops the test if the surrounding conditions are not given to guarantee a proper testing.

EUT power can be switched ON and OFF manually per switch on front panel, or remotely from NSG 3000 front panel or PC control software. EUT power can be switched off automatically at test end per sequencing program control. For safety reasons, EUT power will switch off automatically in case of overload.

VAR 3005 is also available as single source, providing best price performance for applications where dual source is not required (mains supply of equipment under test is fixed value).

Available models:

- VAR 3005-D16: Dual up to 265 VAC / 16 A source**
- VAR 3005-S16: Single up to 265 VAC / 16 A source**

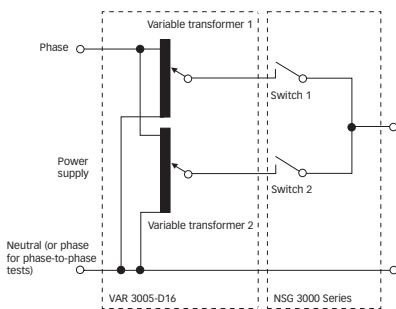


Figure 1: Dips and interrupts test equipment as recommended in IEC 61000-4-11

# VAR 3005 DUAL VOLTAGE SOURCE FOR DIPS, INTERRUPTS AND VARIATIONS TESTING



VAR 3005 with NSG 3040



VAR 3005 with NSG 3060 and CDN 3061

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## Technical specifications:

Parameter	Value
Specification:	Per IEC and EN 61000-4-11: 2004
Instrument supply:	85 to 265 VAC / 50/60 Hz
Power consumption:	max. 150 W
EUT supply input voltage:	10 to 250 VAC (not suited for DC voltages)
EUT supply input current:	16 A
EUT supply frequency:	45 to 65 Hz at 10 to 235 VAC 49 to 65 Hz at 236 to 250 VAC
EUT output voltage $U_{in}$ (test voltage):	Adjustable up to 265 VAC
EUT output voltage $U_{var}$ (dip voltage):	Adjustable up to 265 VAC or up to 115% of $U_{in}$
Adjusting accuracy:	< 2%
EUT output current:	16 A continuous for variac set to 100% $U_{in}$ 20 A for 5 sec for variac set to 80% $U_{in}$ 23 A for 3 sec for variac set to 70% $U_{in}$ 40 A for 3 sec for variac set to 40% $U_{in}$
Load regulation:	< 5% $U_{in}$ , variac set to 100% $U_{in}$ , 0 to 16 A < 5% $U_{in}$ , variac set to 80% $U_{in}$ , 0 to 20 A < 5% $U_{in}$ , variac set to 70% $U_{in}$ , 0 to 23 A < 5% $U_{in}$ , variac set to 40% $U_{in}$ , 0 to 40 A
Max. Motor speed for $U_{in}$ regulation: (only VAR 3005-D)	1,64 s $\pm$ 20% from 100% to 0%
Max. Motor speed for $U_{var}$ regulation:	1,64 s $\pm$ 20% from 100% to 0%
EUT Power ON/OFF:	Local or remote, manual or automatic
Dimensions:	W: 449 mm (17.7") - 19" (with rack mounting brackets) H: 328 mm (12.9", 7 HU) D: 565 mm (22.2")
Weight:	VAR 3005-D16: ca. 58 kg (approx. 127 lbs) VAR 3005-S16: ca. 40 kg (approx. 89 lbs)

# T ESEQ

Advanced Test Solutions for EMC