



5289

Mobile Resonating Inductor 100kVA, 15kV

Datasheet



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Designed by



General Description

The 5289 provides a motorized tunable 15 kV, 100 kVA inductor coil to be used together with the MIDAS 2881 system and increase its test object capacitance range, typically used on large rotating machines or other high capacitive load while testing on-site.

The variable inductor is connected in parallel with the capacitive test object CX forming a parallel resonant circuit. By adjusting the inductance the resonant point can be reached. At this resonance point the inductor

compensates the reactive power required by the DUT capacitance and only the small portion of real power (ohmic losses) is needed to be fed by the Midas 2881.

This arrangement enables measurement of capacitances up to 1.41 μF at 15 kV .

Features

- Max. Operating Voltage 15 kV rms (50 Hz/60 Hz)
- Frequency 50/60 Hz
- Output Power up to 100 kVA
- Reduced PD level (< 500pC)
- Mobile

Applications

Combined with MIDAS 2881 it can be used for.

- Measuring power factor (capacitance and $\tan \delta$) of rotating machines on site
- Measuring partial discharges of large rotating machines on site (requires DDX9121b and 9230)

Scope of Supply

- 5289 resonating inductor
- Base load capacitor 400 nF
- Connection cable set MIDAS (3 m)
- Connection cable base load capacitor (20 m)

Technical Data

Measurement	
Max. Operating Voltage	15 kV rms (50 Hz / 60 Hz)
Frequency	50 / 60 Hz
Max. Output Current	6.7 A @ 50Hz
Max. Output Power	100 kVA
Resistance	22.5 Ω @ 20 °C
Load tuning range ⁽¹⁾	0 .. 1.41 μ F @ 50 Hz * 0 .. 1.18 μ F @ 60 Hz *
PD level	< 500 pC
Duty cycle at full load	50 % at rated output power over a 16 h period. Max. ON time: 15 minutes.

* use additional base load capacitor if load < 250nF

Environmental	
Operating temperature	-10 °C +50 °C
Storage temperature	-20 °C +70 °C
Humidity	5 .. 95 % r.h.

Mechanical	
Dimensions (W x D x H)	55 x 71 x 108 cm (22 x 28 x 43 ")
Weight	376 kg (825 lb)

Global Presence

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