DATASHEET

Power Factor Correction – Varmatic Harmonic Filter Bank

VARMATIC HARMONIC FILTER BANK automatically controlled 3 phase detuned power factor correction unit

Rating: **50 KVAr (2 stages of 25KVAr) 415V 50Hz**

Equipped with: 6 stage Regulator, isolator and Red-Phase Split-Core Multi-Ratio Current Transformer (supplied loose)

The new generation of Varmatic Harmonic Filter Bank incorporates the latest standards for capacitor and reactor manufacture (IEC 831/1 BS EN 60831, IEC 70/70A IEC 289) for detuned power factor correction equipment today.

The Varmatic Harmonic Filter Bank offers a high specification of equipment with an extensive range of options, in order to specifically cater for individual site requirements, together with value for money, which makes the Varmatic Harmonic Filter Bank range unparalleled in today's marketplace.

The basic package includes:

- Door interlocked triple pole isolator
- Multi-stage power factor control regulator with integral digital power factor display
- Stage switching contactors (415V ac control)
- 500V ac HRC fuses complete with triple pole fuse bases
- Detuned reactors - specifically sized and tuned to the site requirements and size of switching stages
- Hand-off-auto selector switches with integral stage on indication
- Control mcbs/fuses
- Red-Phase Split-Core Multi-Ratio Current Transformer (supplied loose)
- Thermal cut-out/reset facility with indication
- Forced air ventilation system

Enclosed in a single/double free-standing, beige RAL 7035, indoor cubicle suitable for an ambient temperature between 0-35ºC, with heat resistant cabling used throughout, with control wiring for the current transformer to be placed round the premises' supply red phase.

In addition the Varmatic Harmonic Filter Bank contains SDC Industries own Varcap capacitors with features including self healing metallised polypropylene dielectric, two part electrical and mechanical protection for element fault conditions and internal discharge resistors.
The various optional extras available with the Varmatic Harmonic Filter Bank include:

- Circuit breaker in lieu of isolator (for units exceeding 50KVAr)
- Stage off indication
- Automatic loss of voltage reset
- Power factor target alarm facility
- Master spare stages on Regulator (include slave terminals)
- Summation transformer fitted
- Voltmeter
- Ammeter with own current transformer
- Mains healthy indication
- Remote stage indication facility
- Anti-condensation heater system
- Specialised/harmonic regulator
- Different paint specification available
- Cubicle size and cable entry box position available to customer specification
- Service/maintenance contract
- Commissioning (UK mainland only)

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Remote Alarm/ Alert Function	The VHFB has the option to include a TX-SMS remote alarm/ alert function. This device, which is included within the unit itself, will send automatic alerts to your mobile phone (by SMS), instaneously indicating and alerting the user of any faults or issues which have occurred. Up to 4 separate faults/warnings can be sent. Features include : - 4 inputs report user definable SMS messages (2 x standard DC and 2 x optically isolated) - Full Contact ID reporting to your mobile phone - 2 relay outputs – SPDT relays - 16 independent daily timers for relay operations - Missed call function for relay operation (500 numbers) - Programmable unit with PC software or by SMS - Low voltage AC monitoring - Power monitoring with warnings and restorals - Battery backed time and date - Dual SIM support - Vibration-tamper monitoring. Alternatively, remote monitoring can be set up here at SDC Industries, whereby any fault or issue code alerts will appear directly on your specified Project Engineer's PC or mobile phone.

SAVINGS ON CO2 EMISSIONS

EXAMPLE : Based on typical operational hours of 300 per month (savings will obviously increase if your monthly usage is higher than average), your CO_2 savings will be as follows :

Amount of hours in use x months per year x kw losses x CO_2 for each kWh generated*
300 x 12 x 0.05962W* x 0.537kg* = 115.26kg/CO_2 per kvar per annum

Multiply this amount by the amount of KVAr on the unit supplied
50KVAr x 115.26kg

TOTAL CO_2 SAVINGS PER ANNUM = 5,763kg