

FALCON

Technical Catalog

Automatic harmonic filter -2.4 kV - 34.5 kV



GENERAL DESCRIPTION

DIRAM's containerized solution offers plug and play harmonic mitigation and reactive power compensation.

These systems are designed for industrial and utility applications, where medium voltage power factor correction and harmonic mitigation is required.

The customer could decide the configuration as fixed or automatic and the number of states. Also protection and control may be customized.

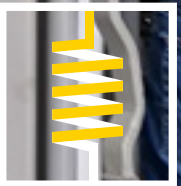
We have proven experience in many industrial process such as cement, mining, food, paper, chemical, wind farms and petroleum.

FALCON MT



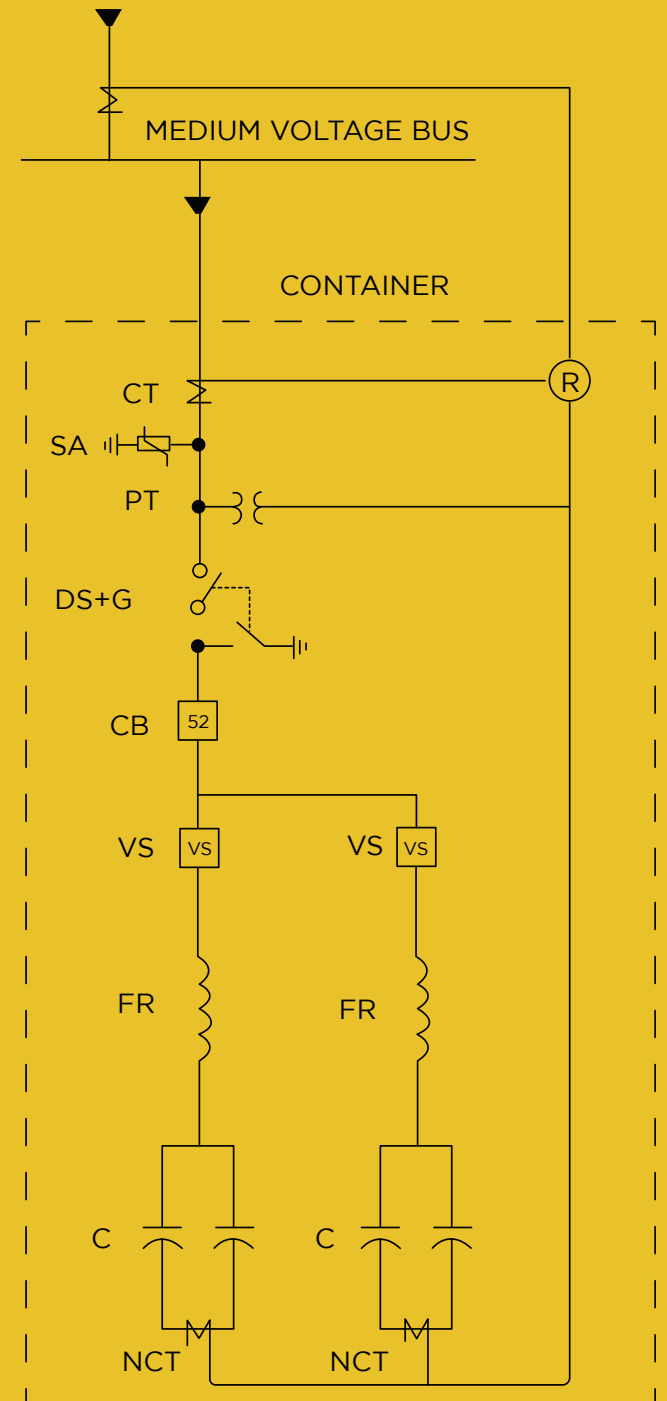
CHARACTERISTICS

- Operating voltage: 2.4 kV - 34.5 kV
- Reactive Power: 0.6-9.6 MVAR (per container)
- Filter Types: Notch, High Pass, Multi-Tuned
- Control Type: Fixed, Single Step, Multi-Step
- Impulse withstand voltage: 60 kV - 200 kV
- Enclosure: NEMA1, 3R
- Real time HMI monitoring system

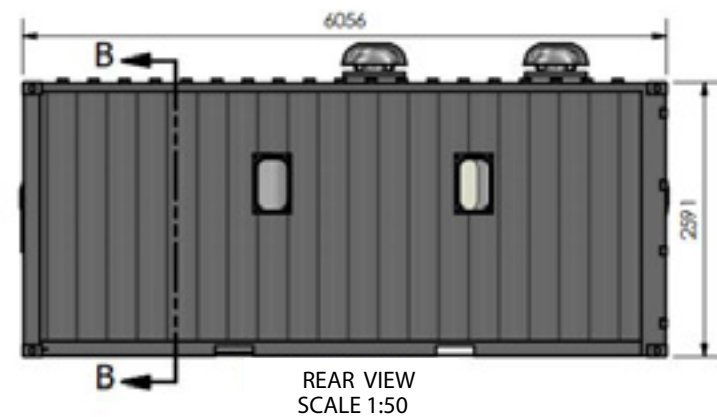
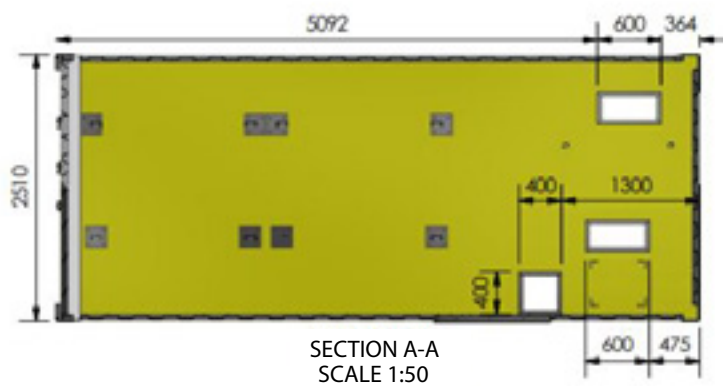
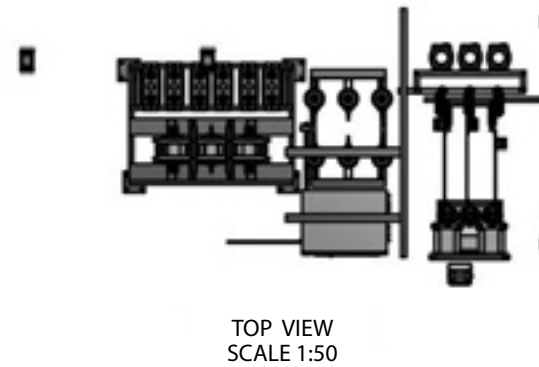
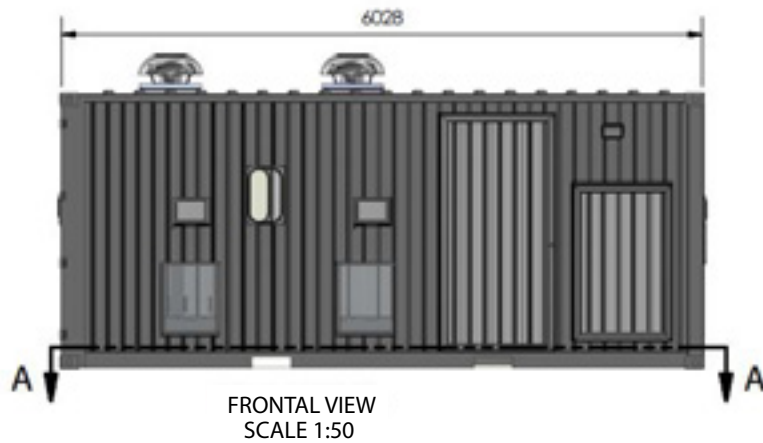
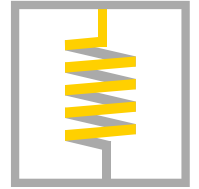


MAIN COMPONENTS

ITEM	DESCRIPTION
CT	Current Transformer
SA	Surge Arrester
PT	Potential Transformer
DS+G	Disconnect Switch + Ground
CB	Circuit Breaker
VS	Vacuum Switch
FR	Filter Reactor
C	Capacitors
NCT	Neutral Current Transformer



DIMENSIONS



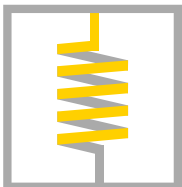
SELECTION CODE

Example of equipment selection:

Automatic 3.6 MVAR 5th harmonic filter designed for a 13.8 KV system. Consists in 3 steps of 1.2 MVAR and protected by circuit breaker.

FANHCB-E-3.6-17.25-H5/H5-1.2/2.4

Contact diram to meet options and voltages not shown.



FANHCB	B	E				P1/P2	P1/P2	
								NOMINAL POWER PER GROUP 0.6 MVar 1.2 MVar 1.8 MVar 2.4 MVar 3.0 MVar 3.6 MVar 4.8 MVar
								TUNING H2: Tuned to the 2nd harmonic H3: Tuned to the 3rd harmonic H4: Tuned to the 4th harmonic H5: Tuned to the 5th harmonic H6: Tuned to the 6th harmonic H7: Tuned to the 7th harmonic
								NUMBER OF GROUPS 1:1-step automatic system 2:3-steps automatic system
								NOMINAL VOLTAGE 4.15 kV: System of 2.4 kV 4.79 kV: System of 4.16 kV 7.20 kV: System of 6.9 kV 17.25 kV: System of 13.8 kV 27.57 kV: System of 23 kV 43.19 kV: System of 34.5 kV
								TOTAL NOMINAL POWER 0.6 MVar 1.2 MVar 1.8 MVar 2.4 MVar 3.0 MVar 3.6 MVar 4.2 MVar 4.8 MVar 5.4 MVar 6.0 MVar 7.2 MVar 7.8 MVar 8.4 MVar 9.6 MVar
								TYPE I: Inside, Protection Nema 1 E: Outside, Protection Nema 3R
								PROTECTION C: Without protection F: Fuses B: Circuit Breaker

PLUG & PLAY

- Small footprint
- Stacking solution for smaller footprint
- Ready to plug and play
- Customizable incoming compartment



