

Compact ready-to-install self-adjusting equipment complete with microprocessor based controller, capacitors, control gear and protection devices. RAM 9200 is especially designed for central or sub-department PF correction of medium power systems with high harmonic content.

TECHNICAL SPECIFICATION

Rated voltage:	415 V (other rated voltages and frequencies)
Rated frequency:	50 Hz (60 Hz on request)
Temperature:	-10 + 40°C
Cabinet:	Epoxy powder coated sheet steel (RAL7035 colour) Free standing type, hinged door with screw lock Modular design with up to 2 removable capacitor chassis Top cable entry (neutral not required)
Protect. degree:	IP30 with closed cabinet
Cooling:	Forced ventilation controlled by thermostat built-into the controller.
Controller:	Microprocessor type Varactor V650 (or V650S), size 144*144mm.
Capacitors:	Standard duty types: self-healing metallised polypropylene dielectric, 3-phase capacitors rated 440V, temperature class -25/D (55°C), aluminium can with overpressure disconnecter and discharge resistor Heavy duty types: heavy duty gas-filled (nitrogen) self-healing metallised polypropylene dielectric, 3-phase capacitors rated 440V, temp. class -25/D (55°C), aluminium can with overpressure disconnecter and discharge resistors
Inductors:	Low-loss, high linearity 3-phase detuned inductors rated to a 189 Hz (p=7%) detuning factor complete with built-in temperature sensor.
Contactors:	With inrush current suppressors (soft switching system)
Protections:	Load break isolating switch with door interlock and contactors pre-release micro switch. HRC (NH00) fuses
Losses:	Equipment: < 5 W/kvar
Installation:	Indoor, R.H. < 90% (non condensing), altitude < 2000 m.
Standards:	EN60439-1/2, EN 61921-1, EN 60831-1/2



Qn (kvar)	Banks (kvar)				Steps	In (A) at 400V	Weight (kg)	P.N.
	1	2	3	4				

Standard duty inductor protected types

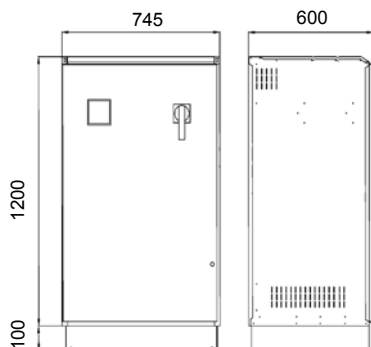
Un = 415V

67,5	7,5	15	15	30	9	90	120	RAM 9200 67,5-415
82,5	7,5	15	30	30	11	110	135	RAM 9200 82,5-415
90	15	15	30	30	6	120	138	RAM 9200 90-415
105	15	30	60		7	140	140	RAM 9200 105-415
120	30	30	60		4	160	145	RAM 9200 120-415
135	15	30	30	60	9	180	150	RAM 9200 135-415
150	30	60	60		5	200	155	RAM 9200 150-415
165	15	30	60	60	11	220	165	RAM 9200 165-415
180	30	30	60	60	6	240	175	RAM 9200 180-415
210	30	60	60	60	7	280	185	RAM 9200 210-415
240	60	60	60	60	4	322	195	RAM 9200 240-415

Heavy-duty inductor protected types

Un = 415V

67,5	7,5	15	15	30	9	90	116	RAM 9200-HG 67,5-415
82,5	7,5	15	30	30	11	110	131	RAM 9200-HG 82,5-415
90	15	15	30	30	6	120	134	RAM 9200-HG 90-415
105	15	30	60		7	140	136	RAM 9200-HG 105-415
120	30	30	60		4	160	140	RAM 9200-HG 120-415
135	15	30	30	60	9	180	146	RAM 9200-HG 135-415
150	30	60	60		5	200	152	RAM 9200-HG 150-415
165	15	30	60	60	11	220	160	RAM 9200-HG 165-415
180	30	30	60	60	6	240	170	RAM 9200-HG 180-415
210	30	60	60	60	7	280	180	RAM 9200-HG 210-415
240	60	60	60	60	4	322	190	RAM 9200-HG 240-415



VARACTOR V650 microprocessor controller

- Microprocessor operation
- 3-digit led display with 5 readings (PF, V, Δkvar, THC% over-current, °C) + alarms indication
- alarms and automatic equipment shutdown for over-Volt, over current (harmonics) and over-temperature.
- low PF level warning indicator
- alarm output contact
- built-in thermostat for cooling fan control
- two manual working modes (bank summation and banks distinctly)
- automatic CT orientation and C/K setting
- 20 sec. switching interval (others on demand).



VARACTOR 650S controller (available on demand)

Same features of the standard V650 controller but built-in Supertec system with solid-state outputs and contactors' electronic control ensuring:

- stabilised contactors supply over extreme line variations
- 90 % reduction of contactor heat dissipation
- comprehensive extension of contactor and capacitor life



Special versions on request:

- Other rated voltages and frequencies
- 14% (134 Hz) or 5,67% (210 Hz) detuning factors
- Expandable equipment
- Cabinet with bottom cable entry
- IP54 cabinet (size 800 x 600 x 1500 mm.)
- Equipment for cogeneration systems