# CONTROL DEVICES & ACCESSORIES











# **MVS**

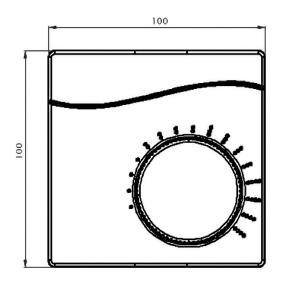
### **ANALOG MONO-PHASE CONTROL DEVICES**

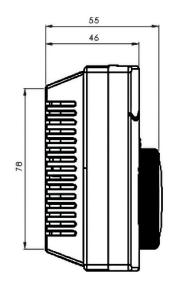
MVS Serie Analog Mono-phase control devices are designed for proportional control of singlephase Fan Motors. Can be used in many fan speed control applications such as heat recovery devices where resistive and inductive loads at small powers are manually controlled proportionally, kitchen hoods, aspirators and ventilators. Maximum load capacity from 2.5 A to 7.5 A.



## Technical Information

Operating Temperature	0 +40°C / -25 +70°C (No Icing and Condensation conditions)		
Protection Class	EN 60529 according to IP 20		
Mounting Type	Wall Mounted		
Dimensions	G100xY100xD56 mm		
Weight	130 gr		
Control	Internal Potency		
Voltage Feed	230 VAC ± %10, 50/60 Hz		
Output	Phase Break Voltage		
Güç Power	1 VA		
Connection	1,5 mm² klemens		





Weight 125 g.

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## **MFS**

#### **ANALOG MONO-PHASE CONTROL DEVICES**

MFS-M Serie Monophase Frequency Invertor's general purpose, for wide range applications as in the industries of process-automation, machinetools, fanpumps, building automation, material handling, automotive, textile, dyeing, printing, packaging, robotics, centrifugal, woodprocessing, foodbeverage, cemical industry, oilgas, public-community, steel-mill, miningretrofit. All products are compliant with international standards. CE,UL individual approvals. Flexible inverter control, dual high resolution analogue inputs, free mapping for all I/O channels. Intelligent AUTOTUNING functions for easy setup.

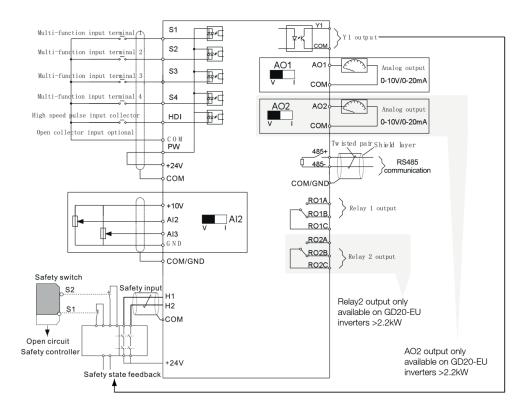


#### Technical Information

Model Type	Max m³/h	w	rpm d/d	Hz	Voltage	Sound dB
MAW-S 200	680	70	2650	50	230	50
MAW-S 250	1500	100	2700	50	230	52
MAW-S 300	2025	163	2550	50	230	54
MAW-S 350	3110	240	2250	50	230	58

#### Main Features

- V/F and Sensorless Vector Control
- · External keypad for parameters copy
- · Common DC bus solution (400V;≥4kW)
- Starling torque up to 0,5Hz/150%
- · Buint-in DC reactor for inverters ≥ 18,5kW
- Buint-in braking unit (Standard ≤ 37kW, optiaonal ≥ 45kW)
- · Standard C3 filter (≥4kW), optional C3 filter (≤2,2kW) and C2 filter





FUNCTION		SPECIFICATION				
POWER INPUT	Input Voltage (V)	1 PH 220 V (-15%) ~ 240 V (+10%) 3 PH 220 V (-15%) ~ 240 V (+10%) 3 PH 380 V (-15%) ~ 440 V (+10%)				
	Input Current (A)	Refer to the rated value				
	Input Frequency (Hz)	50Hz or 60Hz, allowed range: 47 ~ 63Hz				
	Outpot Motor Capacity (kW)	Refer to the rated value				
POWER INPUT	Outpot Current (A)	Refer to the rated value				
	Outpot Voltage (V)	0~input voltage, error<5%				
	Outpot Frequency (Hz)	0~400Hz				
	Control Mode	SVPWM, SVC				
	Adjustable-Speed Ratio	0:100				
TECHNICAL CONTROL FEATURE	Speed Control Accuracy	±0,2% (SVC)				
	Speed Fluctuation	±0,3% (SVG)				
	Torque Response	<20ms (SVC)				
	Torque Control Accuracy	10%				
	Starting Torque	0,5HZ/150% (SVC)				
	Overload Capability	150 of rated current: 1 minute 180 of rated current: 10 minute 200 of rated current: 1 second				
RUNNING CON- TROL FEATURE	Frequency Setting Method	Digital setting, analog setting, pulse frequencysetting, multi-step speed running setting, simple PLC setting, PID setting, MODBUS communication setting.  Shift between the set combination and set channel				
	Auto-adjustment of the Voltage	Keep a stable voltage automatically when the grid voltage transients				
	Fault Protection	Provide comprehensive fault protection functions: over-current, over-voltage, under-voltage, over-heating, phase loss and overload etc.				
	Analog Input	1 (Al2) 0~10V/0~20mA and 1 (Al3) - 10~10V				
PERIPHERAL INTERFACE	Analog Output	2 (AO1,AO2) 0~10V/0~20mA (Only 1 AO for inverters ≤2,2kW)				
	Digital Input	4 common inputs, the Max. frequency: 1kHz; 1 high speed input, the Max. frequency: 50kHz				
	Digital Output	1 Y1 termianl output				
	Relay Output	2 programmable relay outputs (Only 1 Relay output for inverters ≤2,2kW) RO1A NO, RO1B NC, RO1C common terminal RO2A NO, RO2B NC, RO2C common terminal Contactor capacity: 3A/AC250V				
OTHERS -	Mountable Method	Wall and rail mountable				
	Braking Unit	≤35kW Standard built-in. 45~110kW Optional built-in (model "-B")				
	EMI Filter	Optional filter: meet the degree requirement of IEC61800-3 C2, IEC61800-3 C3				
	Temperature of the Running Envi- ronment	-10~50°C , Above 40°C, derate 1% for every additional 1°C				
	Altitude	<1000m , Above 1000m, derate 1% for every additional 100m.				
	Protective Degree	IP20				
	Safety	Meet the requirement of CE				
	Cooling	Fan cooling				