

Variable Speed Drive**DF2****Features:**

- AC or PM/BLDC motor control
- Top-level energy efficiency
- Passive cooling design
- 0.75 to 15 kW output range
- 230V, 3x230V, 3x400V models
- IP65 ingress protection
- Analog or RS-485 Modbus control

Drive design

Simna DF2 is designed for controlling a fan, pump or compressor in HVAC applications. Top-level energy efficiency is achieved using best-in-class electronic components, passive cooling design and energy saving algorithms. Drive is intended to be mounted in the air flow to achieve maximum operation performance.

Flexible control options

Drive can be controlled using digital or analog control interface with automatic selection. In case of control by analog signal, default preset parameters can be used without need to configure the drive. Configuration and programming are managed via RS-485 serial connection using Modbus protocol.

Drive types

DF2 series consist of 21 standard types in 3 enclosure sizes for 0.75 kW to 15 kW power range. There are single and three phase types.

Motor control options

AC, PM or BLDC electric motor sensorless vector control is implemented. Motor electric parameters detection provided automatically without manual configuration.

CE marking

Thanks to integrated EMC filter and active PFC circuit, DF2 drive conforms to the requirements of the EMC directive through standard EN 61800-3.

Technical data

Ingress protection class	IP65
Ambient operating temp.	-40..+40°C (up to +60°C with additional cooling or reduced power)
Storage temp.	-40..+70°C
Ambient humidity	5..95%RH, non-condensing
Protections	Overload, Overheat, Short-circuit, Overvoltage
Output frequency	0..400 Hz
Supply power factor	0.9 (>0.99 for 1x230V types)
Output cable	Up to 3m shielded or up to 10m unshielded
Signal connectors	Up to 2.5mm ² wire
Analog input	0..10V / 4..20mA (wrong polarity and overload protection)
Digital input	Active high, 4,7k pull-down
Relay output	Dry contact, 230V 2A
10V output	Up to 10mA output current

400V types

DF2-	751M	112M	152M	222M	302M	402M	552M	752M	113M	153M
Power, kW	0.75	1.1	1.5	2.2	3.0	4.0	5.5	7.5	11	15
Supply, V	3x400Vac ±10% 50..60 Hz									
Supply, A	1.6	2.3	3.1	4.5	6.1	8.1	11.1	14.8	21.7	29.6
Output voltage, V	0 to Supply voltage, 3 phase									
Output current, A	2.1	3.0	4.0	5.5	7.3	9.7	13.5	18.7	25.9	34.0
Efficiency, %	97.0			97.5			97.5			
Power wires	Up to 2.5mm ²				Up to 6mm ²					
Enclosure	S1			S2			S3			
Weight	2.2 kg			3.7 kg			8.2 kg			
Dimensions	167x232x84 mm			202x260x100 mm			202x365x120 mm			

230V types

DF2-	751K	112K	152K	751L	112L	152L	222L	302L	402L	552L	752L
Power, kW	0.75	1.1	1.5	0.75	1.1	1.5	2.2	3.0	4.0	5.5	7.5
Supply, V	230Vac ±10% 50..60 Hz										
Supply, A	4.3	6.3	8.6	2.8	4.0	5.5	8.1	11.0	14.4	19.8	27.0
Output voltage, V	0 to Supply voltage, 3 phase			0 to Supply voltage, 3 phase							
Output current, A	3.7	5.3	7.0	3.7	5.3	7.0	9.6	12.7	16.8	23.4	32.4
Efficiency	94.0			94.5			95.0			95.5	
Power wires	Up to 6mm ²			Up to 2.5mm ²			Up to 6mm ²				
Enclosure	S2			S1			S2			S3	
Weight	3.9 kg			2.20 kg			3.7 kg			8.2 kg	
Dimensions	202x260x100 mm			167x232x84			202x260x100			202x365x120 mm	

