

TECHNICAL CHARACTERISTICS

Variable Speed Drive



SDRIVE 450
easy to drive

SD450 SERIES

1. TECHNICAL CHARACTERISTICS

INPUT	Power supply	380 to 480Vac (-15% to +10%) 3-Phase
	Input frequency	50±60 Hz ± 5%
	Input power factor	> 0.98 (of fundamental)
	Momentary power loss	> 15ms
OUTPUT	Motor output voltage	0Vac to V. Input (-3V at 100% load)
	Overload capacity	150% during 60 sec; 200% during 0,5 sec
	Frequency ratings	0.01Hz to ± 120Hz
	Efficiency (at full load)	>98%
	Control method	Space vector technology
	Carrier frequency	Maximum 15kHz
ENVIRONMENTAL CONDITIONS	Degree Protection	IP20
	Ambient temperature	-10°C to 50°C
	Storage temperature	-20°C to +65°C
	Ambient humidity	<90%, non-condensing
	Altitude	1000m
	Altitude de-rating (> 1000)	-1% per 100m; maximum 3000m
	Display degree protection	IP21
	Vibration	5,9m/sec ² (=0,6g)
	Installation site	Environment with no corrosive gas, combustible gas, oil mist or dust
CONTROL	Control method	V / Hz control, Vector control (Sensorless)
	Analogue inputs	1 input 0-12Vdc, ±12Vdc, 1 input 4-20mA/0-20mA
		1 input pulse (0-100kHz)
	Digital inputs	8 programmable inputs
	PTC input	1 input
	Analogue outputs	2 outputs 0-10V
	Relay outputs	1 switch over fault relay (AC250V, 1A; DC30V, 1A)
		4 normally open programmable relays (AC250V, 1A; DC30V, 1A)
	Display unit	Removable keypad, digitally programmable (independent memory)
	Communications port	RS232/485 ModBus RTU protocol, Device Net, Profibus (opt.)
	Dynamic braking unit	Optional
	Normative	CE, UL, cUL, cTick
MOTOR PROTECTIONS	Motor thermal model	
	Ground fault	
	Overload warning	
	Dynamic brake resistor thermal model	
	Torque limit and torque limit time (settable)	
	Low voltage	
	10% dynamic brake duty cycle	
	Input / output phase loss	
	Phases current imbalance	
	Motor stall protection	
	Short circuit	
	Speed limit and speed limit time (programmable)	
	Over voltage	
	Mean torque 100% of braking during 5sec	
SDRIVE 450 SETTINGS	Thermal model (software)	
	IGBTs overload	
	Over voltage fault	
	Hardware fault	
	Sink over temperature	
	Output current limit	
	Regeneration limit	