

**Features:**

- ❑ compact design / fully digital control
- ❑ PTC - input
- ❑ simple copying of parameters (optional unit)
- ❑ automatic self-optimization
- ❑ detachable operating unit
- ❑ dynamic tor control range 1:1200
- ❑ high breakaway torque (200% nominal torque at 0,5Hz output frequency)
- ❑ extensive control functions and options (incremental encoder card, digital I/O-card, analog I/O-card, relay card)
- ❑ max. rotating field frequency CT: 400Hz VT: 120Hz
- ❑ flying restart function in both directions
- ❑ integrated PID-controller
- ❑ DC brake
- ❑ degree of protection IP00
- ❑ integrated RS 485



Frequency Inverters  
**FUS ... /3G11S**  
**30kW bis 220kW**  
CE 

**Function:**

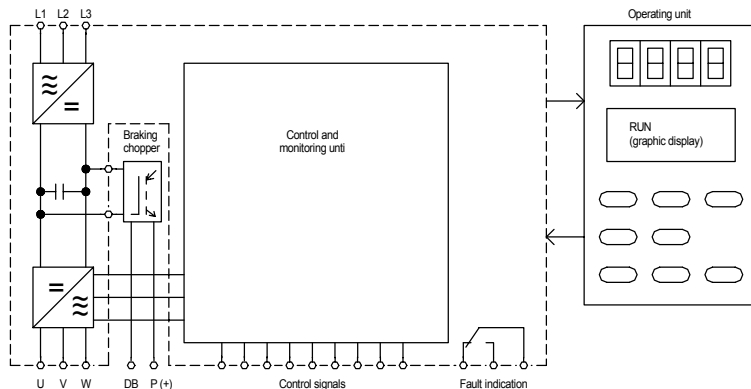
- ❑ control and setpoint entry via terminals and operating unit
- ❑ PWM clock frequency stepped by power
- ❑ DC braking (duration, intensity, operating frequency)
- ❑ potential-free control and signalling contacts
- ❑ automatic restart after voltage dip

**Typical Applications:**

- pumps
- grinding machines
- ventilators
- printing machinery
- conveying machinery
- wood working machines
- textile machinery
- vibrators
- packaging machines
- lifts and hoisting gear
- centrifuges
- drives requiring high torques at low speed (torque control)

**Upon Request:**

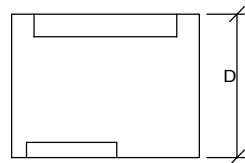
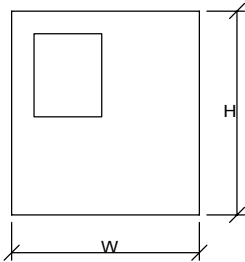
- ❑ Customized Enclosures



Technical Data	FUS ... /3G11S											
	3000	3700	4500	5500	7500	9000	11000	13200	16000	20000	22000	
Motor shaft power (CT) /kW	30	37	45	55	75*	90*	110*	132*	160*	200*	220*	
Motor shaft power (VT) /kW	37	45	55	75	90	110	132	160	200	220	280	
Mains voltage	three-phase 380-440V, +10%, -15%; 50Hz ±5% 380-480V, +10%, -15%; 60Hz ±5%											
Output current (CT) /A	60	75	91	112	150	176	210	253	304	377	415	
Output current (VT) /A	75	91	112	150	176	210	253	304	377	415	520	
Peak current (CT) /A	150% I <sub>N</sub> for 1 min. , 180% I <sub>N</sub> for 0,5s											
Peak current (VT) /A	110% I <sub>N</sub> for 1 min.											
Control Functions												
Frequency setting range	CT: 0.2 - 400 Hz VT: 0.2 - 120Hz											
Ramp-up and ramp-down time	0.01 - 3600s											
DC brake	operating frequency 0.1 - 60Hz, braking time 0 - 30s, intensity 0-100%											
Frequency setpoint	keypad, poti 1-5kΩ, 0-10V, 0-5V, 4-20mA, fixed frequencies, RS485											
Ambient/Storage temperature	-10°C ... +50°C / -25°C ... +65°C											
Weight/kg	31	36	41	42	50	73	73	104	104	145	145	
Order number	28200. 40030	28200. 40037	28200. 40045	28200. 40055	28200. 40075	28200. 40090	28200. 40110	28200. 40132	28200. 40160	28200. 40200	28200. 40220	
Recommended mains filters	CT:100	180					CT:180	280	CT:280	400		CT:400
Order number 27107.48...	VT:180						VT:280	280	VT:400			VT:880

CT - constant torque  
VT - variable torque  
\* up to 75kW intermediate circuit coil is necessary  
please refer to page 4.29

Dimensions:



	W [mm]	H [mm]	D [mm]
FUS 3000/3G11S	340	645	255
FUS 3700/3G11S	375	645	270
FUS 4500/3G11S	375	770	270
FUS 5500/3G11S	375	770	270
FUS 7500/3G11S	375	835	270
FUS 9000/3G11S	530	828	315
FUS 11000/3G11S	530	828	315
FUS 13200/3G11S	530	1088	360
FUS 16000/3G11S	530	1088	360
FUS 20000/3G11S	680	1088	360
FUS 22000/3G11S	680	1088	360

Connection Diagram:

