



ACP Protected 6000



Frequency Inverter ACP 1 - 70 kVA

New inverter Data

ACP Protected
6000

The ACP 6000 series inverters from Berges Electronic set new technological standards in control technology and automation of electrical drives.

The universal ACP

The ACP series spanning the power range 0,75 to 45 Kw are used in all fields of mechanical and systems engineering. The digital control and multi parameter facility adjustment allows the inverter to be easily adapted to suit an extremely wide range of applications.

The flexible ACP

The ACP range of frequency inverters can operate with a supply voltage range from 400V (-15%) to 460V (+10%) without any adjustment to the inverter being necessary.

The intelligent ACP

Parameter setting and local drive control are conducted via the ACP inverter's keyboard which has a 2 x 16 super-twist LCD display. More than 80 parameters and hundreds of possible combinations allow the user to make adjustments to give optimum performance for his specific application.

Displayed information is available in four languages-German, English, French and Spanish. The keyboard settings can be protected against unauthorized access by way of a programmable security code. Listed below are some of the major adjustments and control functions.

- Drive control from an external control system via the serial interface RS 485 or alternatively through control terminals.
- Resetting of parameters to customers standard settings or to the original works settings.
- 8 programmable fixed speeds.
- Switchable acceleration and deceleration ramps.
- V/F characteristic curve selection (e.g. pumps, fans, linear).
- Freely programmable torque limitations in all four quadrants.
- Automatic restart function.
- Frequency range programmable between 0,5 and 400 Hz.

- Autoboot (automatic torque adjustment to optimum setting).
- 4 skip frequencies with adjustable bandwidths to avoid resonance problems.
- Error history
- Electronic slip compensation
- Electronic motor potentiometer function.
- Master slave operation with digital setpoint.
- Flywheel restart circuit.
- Crane control option.
- Programmable carrier frequency.
- Programmable current limiting.

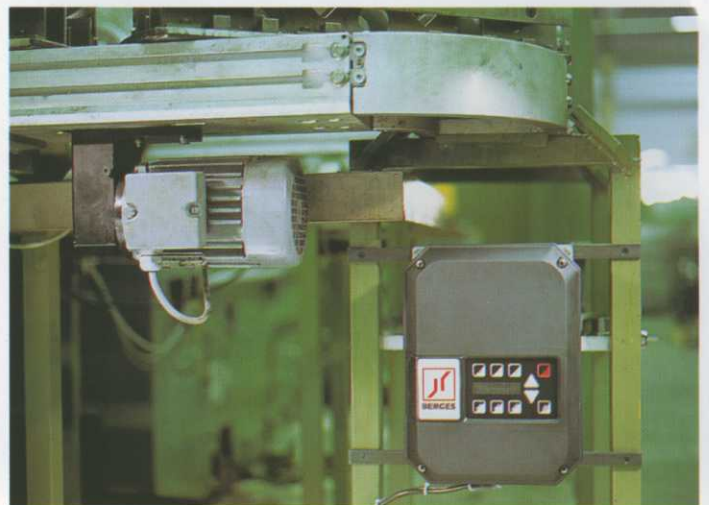
- S - shaped adjustable high low ramp function.

The reliable ACP

The comprehensive monitoring and protection functions of the ACP inverter guarantee optimum operational reliability for the drive and entire machine or process in all operating conditions. The ACP even "thinks" in advance and warns the operator of possible adjustment errors.

The robust and compact ACP

The housing of the ACP inverter is impact resistant and is available in protection classes IP00, IP22 or IP54. This means that the ACP can be used under extreme environmental conditions.



IP54 Application

The figure shown indicates 85% of actual size.

Microprocessor Control

Versatile, intelligent software offers exceptional flexibility, precision, diagnostics, and easy use.

Expansion Port

This connector allows quick plug-in addition of such extended capabilities as relays, additional analog outputs, line transfer functions, process control board etc..

Keypad

Simple pushbutton programming from the clearly labeled keypad. ACP 6000 goes beyond most inverters to include such extended functions as forward/reverse, jog, function increase/decrease, and multilevel programming. Each membrane key is sealed and offers positive tactile feel. The keypad is removable, either for replacement or for access below.

32-Character Display

Easy-to-read alphanumeric display simplifies programming and puts an end to cryptic error messages. Multilingual capability in English, Spanish, French and German.

Surface-Mount Components

Latest IC and assembly technology increases reliability while decreasing size.

Control Terminals

The electrically isolated terminals allow control by man or machine. 2 and 3-wire operation, programmable digital and analog inputs and outputs, and remote torque limit control give unsurpassed flexibility.

Fault Relay

Programmable for any of 10 different functions.

Bus Charge Safety Feature

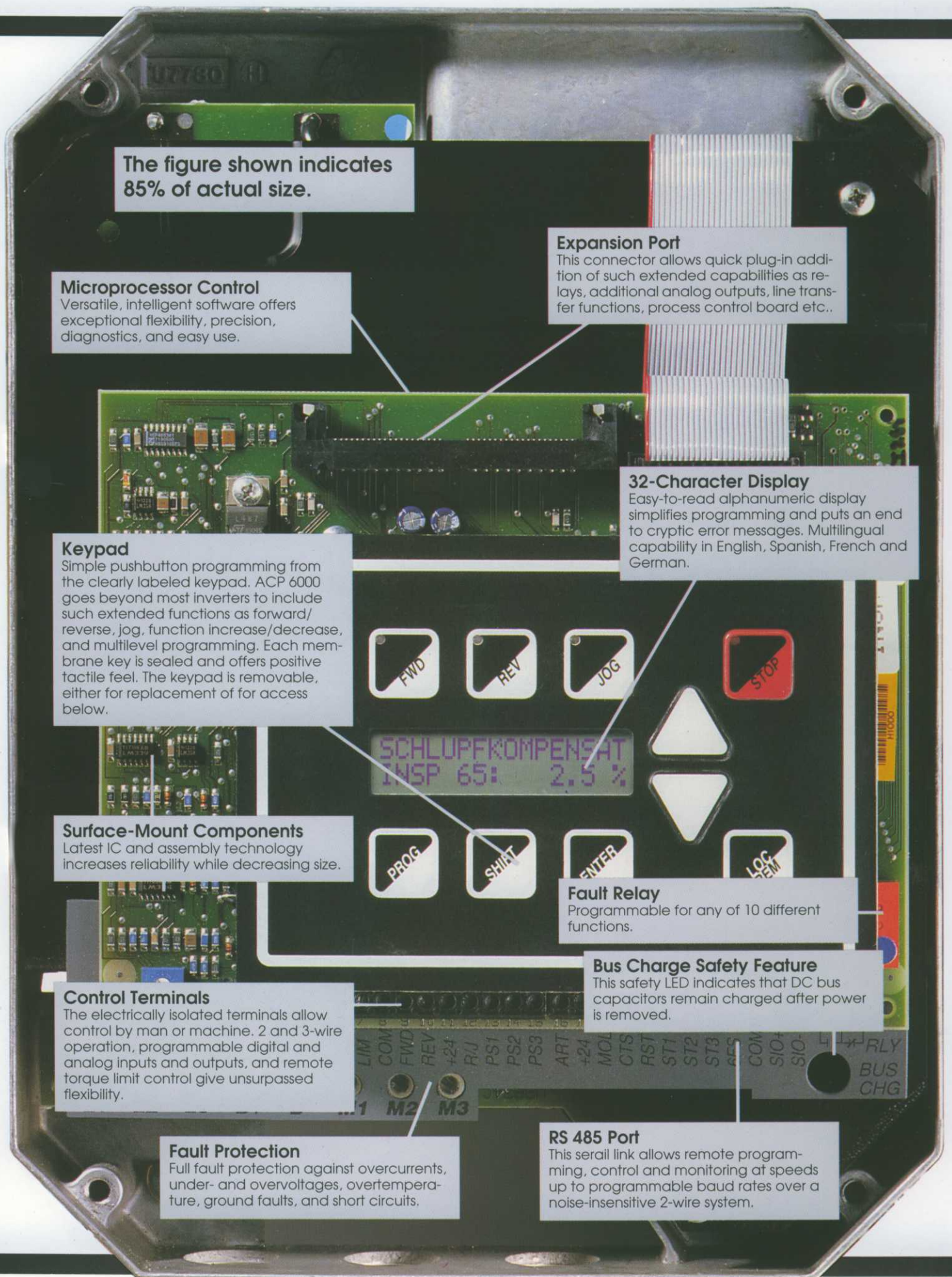
This safety LED indicates that DC bus capacitors remain charged after power is removed.

Fault Protection




Full fault protection against overcurrents, under- and overvoltages, overtemperature, ground faults, and short circuits.

RS 485 Port

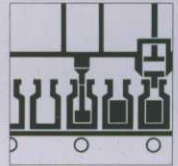
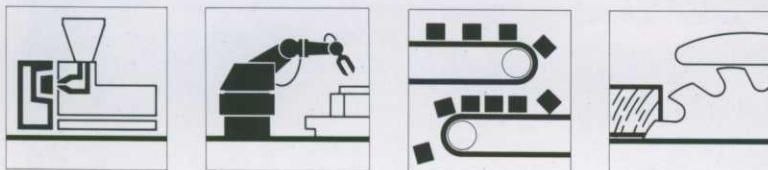
This serial link allows remote programming, control and monitoring at speeds up to programmable baud rates over a noise-insensitive 2-wire system.



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BERGES electronic Frequency Inverter ACP 6000		Typ	6000-7	6001-5	6002-2	6003-0	6004-0	6005-5	6007-5	6011-0	6015-0	6022-0	6030-0	6037-0	6045-0	6055-0	
Inverter output ratings	Rated motor output power	kW	0,75	1,5	2,2	3,0	4,0	5,5	7,5	11,0	15,0	22,0	30,0	37,0	45,0	55,0	
	Electrical output power	kVA	1,4	2,7	3,8	5,5	6,1	8,8	12,5	16,7	21,5	33,0	45,0	55,0	71,0	88,0	
	Continuous output current	A	2,0	3,9	5,5	7,0	9,0	13,0	18,0	24,0	30,0	45,0	61,0	75,0	89,0	110,0	
	Overload capacity	s	150 % - 60 s / 120 % - 90 s														
	Output voltage	V	3 x 0 - 460 V														
	Output frequency	Hz	0,5 - 400 Hz (Programmable)														
	Frequency resolution	Hz	0,05 Hz														
	Torque limit	%	Selective 4 quadrant programming 30 - 150 % in the forward motoring mode / 30 - 110 % in the reverse motoring mode														
Inverter input ratings	Starting torque	%	> 100 % (Programmable) + autoboot														
	Input voltage	V	400 V / 460 V + 10 % - 15 %														
	Input frequency	Hz	50 / 60 Hz + 10 %														
General specifications	Dynamic braking	%	55 % intermittent (10 sec. maximum) / 150 % with optional external module														
	Efficiency at rated output	%	≥ 95 %														
	Mode of operation	•	Four quadrant operation														
Control specifications	Frequency command selections	•	0 - 10 V DC or 0 - 2 V DC (100 k - Ohm) / 4 - 20 mA (237 Ohm) / 0 - 1 kHz or 0 - 10 kHz Pulse train input / Digital keypad / Serial communication link RS 485														
	Acceleration/Deceleration ramps	sec	0,1 - 600 sec. (Programmable)														
	Minimum frequency range	Hz	0,5 - 400 Hz (Programmable, in 0,1 Hz-steps)														
	Maximum frequency range	Hz	20 - 400 Hz (Programmable, in 0,1 Hz-steps)														
	Local control mode	•	Keyboard: Forward, Reverse, Jog, Stop, Program, Shift, Enter, Local/Remote, up/down														
Ambient conditions	Remote control mode	•	Terminals, see connection diagrams														
	SIO control mode	•	Serial communication link RS 485														
	Fault indication/Fault storage	•	19 Fault codes / 6 warning displays / Last three faults stored. Most recent displayed														
	Operating temperature	°C	IP 00 0 °C to 50 °C IP 21 / IP 54 0 °C to 40 °C														
	Storage temperature	°C	- 20 °C to + 60 °C														
Construction	Humidity	%	0...90 % noncondensing														
	Vibration	g	0,6 g max.														
	Enclosure protection	IP	IP 00 / IP 21 / IP 54														
	Dimensions (B x H x T)	mm	227 x 307 x 142				228 x 449 x 210				365 x 619 x 306				416 x 733 x 306		
	Weight IP 00	Kg	5,5				11,5				35,0				39,0		
Weight IP 54	Kg	6,0				12,5				44,0				51,0			
Certification	Certification	•	  														

* Option



BERGES

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