HITZINGER

MONOBLOC ROTARY

FREQUENCY CONVERTER

100 kVA

50/60 Hz

Hitzinger GmbH.
Helmholtzstraße 56
A-4021 Linz

Telefon +43((0)732) / 381 681 - 0
Telefax +43((0)732) / 381 681 - 4

HITZINGER ROTARY FREQUENCY CONVERTER

Type	USES060C1012

MAIN DATA

Output	100 kVA
Speed	600 rpm
Input frequency	50 Hz
Output frequency	60 Hz

Design:
- compact mono-block design with common shaft for motor and alternator
- wear-free because of the two-bearing design
- low maintenance because of brushless exciter and because of no coupling is used.
- design according to EN 600034
- high quality due to careful selection of materials and supervision of our quality assurance department
- high availability

Technical Data:

Altitude	1000 m
Ambient temperature	0 to + 40 °C
Rel. humidity	up to 95 %
Enclosure	IP21
Insulation class	F
Form	B3
Radio interference suppression	N acc. to VDE
Dimensions WxHxD (mm)	see dimension drawing
Weight	see dimension drawing
Finish	RAL 5007
Design acc. to	VDE 0530, ÖVEM10 EN 60034

Overload at	110 %	60 min.
	125 %	5 min.

Mains supply:

mains voltage (other mains voltage upon request)	3 x 400 V
mains frequency	50 Hz

Synchronousmotor:

Nominal output	87 kW
Nominal current	140 A
Nominal voltage	3 x 400 V
Power factor	0,95
Connection	Star - Delta
Frequency	50 Hz
suitable for max 5 start-ups / hour	

Synchronous Alternator:

Nominal output	100 kVA
Nominal voltage	3 x 200/115 V
Voltage constancy steady state	1,0 %
Voltage adjustment range	+/- 5 %
Voltage constancy transient at 100% load-change	< 20 %
Connection	Star
Nominal current	289 A
Power factor	0,8
Frequency	60 Hz
Stat. frequency constancy	< 1%
Total harmonic content	less then 3% ph/ph
Distortion factor at 30% full load in one phase	5%

Equipped with:

- Automatic voltage regulator
- Thermistors in the stator windings (motor and alternator)
- Vibration dampers
- Protection degree IP21
- Cable outlet standard (alu blind - plate)
- Automatic anti condensation heater

HITZINGER SWITCH PANEL

DESIGN

Mounted switch panel

The switchpanel is mounted on the converter. The operation devices and the Powercon control unit are on the front side of the swing door.
The cable connection is placed on the back of the mounted switch panel.

Protection IP 40

POWER PART

Motor

Start/Delta start (I_A = approx. ~3 x I_N)

- 1 pc. CB (mains)
- 1 pc. Contactor (mains)
- 2 pcs. Contactor (Star, Delta)
- 3 pcs. current transformers
- Clamps for mains and motor

Alternator

- 1 pc. CB
- 3 pcs. current transformer
- Clamps for consumer cable

CENTRAL CONTROL UNIT - HITZINGER ACON

The Hitzinger ACON has been developed as a compact control unit under application of the most modern micro-processor technology. It contains all control-, supervision and measurements facilities which are required for ground power supply.

In- and output units are situated decentralised and connected via a bus system (CAN-bus). Consequently a more simple and safer mounting within the switch panel can be achieved. Due to the high current capacity of the outlets there are only few external relays required, except the power components.

The Hitzinger ACON is very simple to operate and easy to attend, for instance, all failure and operation indications are clearly displayed on the touch display and stored in an internal memory of the Hitzinger ACON.
A failure recorder stores the last 256 errors, which are shown on the display and which can be printed anytime on an external printer. Remote supervision resp. control by means of a modem can be done via an interface.

Regarding failure protection best precautions have been taken and all in-, outputs and interfaces of the control unit are isolated galvanically by relays or optocouplers to the microprocessor.

All necessary software-parameters for supervision and control of the ground power supply can be adapted very comfortably via the interface by means of a personal computer and can also be changed easily.

All the above mentioned advantages of the Hitzinger ACON guarantee a high degree of safety, availability and flexibility of the ground power supply.

Operation part with push buttons on touch display
- Converter start / stop
- Output on / off
- Reset (failure)

Measuring values - indication on touch display
- Values such as, voltage, current, frequency, KW, KVAr, power factor, total operation hours and operation hours for maintenance are displayed on the touch display.

Failure indications
- Emergency stop
- Mains failure
- Starting failure
- Motor over temperature
- Motor over current
- Alternator under voltage
- Alternator over voltage
- Alternator under frequency
- Alternator over frequency
- Alternator over current
- Alternator over temperature

Operation indications
- ACON ready
- Ready for start
- Operation
- Output ready for switch on
- Output switched on

Devices on switch panel door
- Emergency stop
- Operation mode selector switch (position: Off - Local - Remote)

Additional
- 1 pc. auxilliary power supply unit
- Auxilliary contactor for excitation
- 1 pc. transformer for control voltage

FUNCTION

Start of Converter

Activity/Status	**Display**
Shut down	„Converter ready for start“
Push button „Start“	„Converter in operation“ „Output ready for switch on“
Push button „Output on“	„Converter output on“
Failure	„Converter failure“ The indicated failure can be selected with push button
Push button „Reset“	„Converter ready for start“
Operation	The operation values can be interrogated with push button (motor/alternator: current, voltage, frequency, output, operation hours)
Push button „Output off“	„Output ready for switch on“
Push button „Stop“	„Converter in operation“ „Converter ready for start“

Additional equipment:

- All labels in English
- Terminals for external emergency off push button
- Automatic preheating
- Voltage free contacts for:
  - set connected
  - set common fault