

# EEI COGENERATION

## 8YH COGEN

### MAIN COMPONENTS INCLUDED INSIDE ENCLOSURE

- Automatic circuit breaker or disconnector with fuses
- EMI Filter
- Mains contactor
- LC Filter
- Tree-phase IGBT AFE/Inverter
- Dv/Dt filter generator side (only full converter)
- Contactor generator side (only full converter)
- D.c.-link precharge generator side
- OPTIONAL COMPONENTS
- Grid feed monitoring according to CEI 0-21
- D.c. current control system

### MAIN CHARACTERISTICS OF EEI CONVERTER:

- Efficiency: IGBT Active Front End
- Reliability: only thin film DC link capacitors and modular design for easier maintenance operations
- Safety: self-protection functions
- Quality Energy: low THD(I), adjustable power factor
- Flexibility: stat

### AUXILIARY AND CONTROL CIRCUITS:

- Power supply for 24Vdc auxiliary services
- Power supply for 400Vac 3Ph+N auxiliary services
- Circuit breakers for internal fan protections
- Circuit breakers for auxiliary circuits
- Terminal block for power cables and signal cables
- State of the art solution, developed and designed according to customer needs

### INTERFACE AND COMMUNICATION

The 8YE series converters could be equipped with a data-logger unit and a touch-screen display that provides storage of past log files and alarm list.

Communication protocol available: RS-485, CAN Open, MODBUS TCP/IP, ProfiNet ect.

Additional parts provided:

- Manually operated switches
- Signal lights for voltage presence
- Emergency push-button





MODEL	8YH110Q3AF00	8YH130S03WF00
Topology	FULL CONVERTER	FULL CONVERTER
<b>GENERATOR SIDE PARAMETERS</b>		
Rated power	100/175kW	220/275kW
Rated current @40°C	200A	400A
Rated voltage	400/630V	400/450V
Rated frequency	200Hz	300Hz
Overload	110% for 1' every 10'	110% for 1' every 10'
<b>GRID SIDE PARAMETERS</b>		
Rated power	110kVA	245/305kVA
Rated current @40°C	160A	375A
Rated voltage	400V ± 15%	400/480V ± 15%
Rated frequency	50Hz±4%	50Hz±4%
Type grid	IT/ TN	IT/ TN
THD(I)	< 3%	< 3%
Power Factor	Adjustable according to CEI 0-21/ other upon request	Adjustable according to CEI 0-16/ UL 1741 / other upon request
<b>EFFICIENCY</b>		
Maximum	> 97,5 %	> 97,5 %
<b>GENERAL DATA</b>		
Efficiency	>96%	>96%
Operating temperature	-5°C / +40°C	-5°C / +45°C
Storage Temperature	-5°C / +55°C	-5°C / +55°C
Max humidity (non-condensing) / Max altitude	95 %@20°C/ <1000m asl	95 %@20°C/ <1000m asl
Colour	RAL 7035 (light grey)	RAL 7035 (light grey)
Protection degree	IP21	IP21
Dimensions (W / H / D)	1200 / (2200+300) / 600 mm	1360 / 2200 / 750 mm
Cooling Type	Air forced	Water
External auxiliary supply	24Vdc / 400Vac 3PH+N	24Vdc / 400Vac 3PH+N
Communication protocol	MODBUS TCP/IP, RS-485, CAN Open, PROFINET Other protocols upon request	MODBUS TCP/IP, RS-485, CAN Open, PROFINET Other protocols upon request
<b>PROTECTIONS</b>		
Self-protections	Included Overcurrent, short circuit, current leakage, voltage out of range , thermal protection over temperature. Other functions upon request	Included Overcurrent, short circuit, current leakage, voltage out of range , thermal protection over temperature. Other functions upon request
EMC and safety standards	EN 60204-1, EN 61800-2, EN 6180-3, EN 61800-5-1	EN 60204-1, EN 61800-2, EN 6180-3, EN 61800-5-1



MODEL	8YH110S03WF00	8YH115S03WF00	8YH117S03WF00
-------	---------------	---------------	---------------

Topology	DDR + AFE	DDR + AFE	DDR + AFE
----------	-----------	-----------	-----------

#### GENERATOR SIDE PARAMETERS

Rated power	100kW	150kW	175kW
Rated current @40°C	130A	194A	226A
Rated voltage	525V	525V	525V
Rated frequency	500Hz	500Hz	500Hz
Overload	110% for 1' every 10'	110% for 1' every 10'	110% for 1' every 10'

#### GRID SIDE PARAMETERS

Rated power	105kVA	158kVA	184kVA
Rated current @40°C	152A	228A	266A
Rated voltage	400V ± 15%	400V ± 15%	400V ± 15%
Rated frequency	50Hz±4%	50Hz±4%	50Hz±4%
Type grid	IT/ TN	IT/ TN	IT/ TN
THD(I)	< 3%	< 3%	< 3%
Power Factor	Adjustable according to CEI 0-16/ VDE-AR-N 4105/ other upon request CEI 0-16/ other upon re-quest	Adjustable according to CEI 0-16, other upon re-quest	MODBUS TCP/IP, RS-485, CAN Open, PROFINET Other protocols upon request

#### GENERAL DATA

Efficiency	>96%	>96%	>96%
Operating temperature	-5°C / +40°C	-5°C / +40°C	-5°C / +40°C
Storage Temperature	-5°C / +55°C	-5°C / +55°C	-5°C / +55°C
Max humidity (non-condensing) / Max altitude	95 %@20°C/ <1000m asl	95 %@20°C/ <1000m asl	95 %@20°C/ <1000m asl
Colour	RAL 7035 (light grey)	RAL 7035 (light grey)	RAL 7035 (light grey)
Protection degree	IP21	IP21	IP21
Dimensions (W / H / D)	1200 / (2200+300) / 600 mm	1200 / (2200+300) / 600 mm	1200 / (2200+300) / 600 mm
Cooling Type	Air forced	Air forced	Air forced
External auxiliary supply	24Vdc / 400Vac 3PH+N	24Vdc / 400Vac 3PH+N	24Vdc / 400Vac 3PH+N
Communication protocol	MODBUS TCP/IP, RS-485, CAN Open, PROFINET Other protocols upon request	MODBUS TCP/IP, RS-485, CAN Open, PROFINET Other protocols upon request	MODBUS TCP/IP, RS-485, CAN Open, PROFINET Other protocols upon request

#### PROTECTIONS

Self-protections	Included Overcurrent, short circuit, current leakage, voltage out of range , thermal protection over temperature. Other functions upon request	Included Overcurrent, short circuit, current leakage, voltage out of range , thermal protection over temperature. Other functions upon request	Included Overcurrent, short circuit, current leakage, voltage out of range , thermal protection over temperature. Other functions upon request
EMC and safety standards	EN 60204-1, EN 61800-2, EN 6180-3, EN 61800-5-1	EN 60204-1, EN 61800-2, EN 6180-3, EN 61800-5-1	EN 60204-1, EN 61800-2, EN 6180-3, EN 61800-5-1

