ELTEK VALERE
always on

EMBEDDED-SYSTEMS

Power Supply System	Minipack 48 V / 3.2 kW	Minipack 48 V / 4.8 kW
Rectifier	Minipack 400 / 800	Minipack 400 / 800
Max. rectifier number	4	6
Control and monitoring unit	Smartpack	Smartpack
Input	1ph and 2ph possible	1ph and 3ph possible
Voltage	3 x (120 V / 230 V) ± 20 %	3 x (120 V / 230 V) ± 20 %
Max. current per phase	9.8 A (2ph), 19.6 A (1ph)	9.8 A (3ph), 29.4 A (1ph)
Frequency	45 – 66 Hz	45 – 66 Hz
Power factor	λ ≈ 1, EN61000-3-2	λ ≈ 1, EN61000-3-2
Output		
Voltage selectable	48 V	48 V
Max. current	66.7 A	100 A
Psophometric noise	< 2mV, ETSI 300 132-2/ITU-T	< 2mV, ETSI 300 132-2/ITU-T
General Data		
Load feeders	10 x circuit breaker 2 – 30 A	8 x circuit breaker 2 – 30 A
Protection class	IP20, EN 60529	IP20, EN 60529
Ambient temperature	−40 °C to +75 °C with derating > 55 °C	−40 °C to +75 °C with derating > 55 °C
Weight		
Without modules	4.38 kg	4.28 kg
Fully equipped	8.7 kg	10.76 kg
Dimensions H x W x D (in mm)	2 U x 19"x 250 plus connection space	2 U x 19" x 250 plus connection space
Options		
SNMP-adapter	yes	yes
Modem-signalling	yes	yes
Low voltage battery disconnection	yes (standard)	yes (standard)
Temperature compensation	yes	yes

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Power Supply System	HPU 3900 24 V, 48 V / 75 A (60 V / 63 A)	HPU 5200 24 V, 48 V / 100 A (60 V / 84 A)
Rectifier	HR 1300 (HR 1400)	HR 1300 (HR 1400)
Max. rectifier number	3	4
Control and monitoring unit	HPU-SM2	HPU-SM2
Input	1ph and 3ph possible	1ph and 3ph possible
Voltage	3 x (120 V / 230 V) ± 20 %	3 x (120 V / 230 V) ± 20 %
Max. current per phase	8 A (3ph), 24 A (1ph)	16 A (3ph), 32 A (1ph)
Frequency	45 – 66 Hz	45 – 66 Hz
Power factor	cos φ ≈ 1, EN 61000-3-2	cos φ ≈ 1, EN 61000-3-2
Output		
Voltage selectable	24 V / 48 V (48 V / 60 V)	24 V / 48 V (48 V / 60 V)
Max. current	75 A / 37.5 A [1]	100 A / 50 A [1]
Psophometric noise	< 2 mV, ETSI 300 132-2/ITU-T	< 2 mV, ETSI 300 132-2/ITU-T
General Data		
Load feeders	external	external
Protection class	IP20, EN 60529	IP20, EN 60529
Ambient temperature	−33 °C to +60 °C with derating > 45 °C	−33 °C to +60 °C with derating > 45 °C
Weight		
Without modules	6.8 kg	7.3 kg
Fully equipped	14.6 kg	17.7 kg
Dimensions H x W x D (in mm)	3 U x 19" x 310 plus connection space	3 U x 23" x 300 plus connection space
Options		
SNMP-adapter	yes	yes
Modem-signalling	yes	yes
Low voltage battery disconnection	no (external)	no (external)
Temperature compensation	yes	yes

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[1] reduced output current if mains voltage < 185 V

[2] three different product versions

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EMBEDDED-SYSTEMS

Power Supply System	MPSU 3000 2U 48 V / 60 A	MPSU 9000 6U 48 V / 180 A
Rectifier	Flatpack 700 / 1500 / 1800	Flatpack 700 / 1500 / 1800
Max. rectifier number	2	6
Control and monitoring unit	MCU controller	MCU controller
Input	1ph and 3ph possible	1ph and 3ph possible
Voltage	3 x (120 V / 230 V) ± 20 %	3 x (120 V / 230 V) ± 20 %
Max. current per phase	9.2 A (3ph), 18.4 A (1ph)	18.4 A (3ph)
Frequency	45 – 66 Hz	45 – 66 Hz
Power factor	cos φ ≈ 1, EN 61000-3-2	cos φ ≈ 1, EN 61000-3-2
Output		
Voltage selectable	24 V / 48 V / 60 V [2]	24 V / 48 V / 60 V [2]
Max. current	60 A / 30 A [1]	180 A / 90 A [1]
Psophometric noise	< 2 mV, ETSI 300 132-2/ITU-T	< 2 mV, ETSI 300 132-2/ITU-T
General Data		
Load feeders	6 x circuit breaker 2 – 32 A	11 x circuit breaker 2 – 63 A
Protection class	IP20, EN 60529	IP20, EN 60529
Ambient temperature	−40 °C to +70 °C with derating > 45 °C	−40 °C to +70 °C with derating > 45 °C
Weight		
Without modules	5.1 kg	15 kg
Fully equipped	15.8 kg	31.8 kg
Dimensions H x W x D (in mm)	2 U x 19" x 300 plus connection space	6 U x 19" x 300 plus connection space
Options		
SNMP-adapter	yes	yes
Modem-signalling	yes	yes
Low voltage battery disconnection	yes (standard)	yes (standard)
Temperature compensation	yes	yes

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EMBEDDED-SYSTEMS

Power Supply System	MPSU 8000 2U 48 V / 167 A	MPSU 24000 7U 48 V / 500 A
Rectifier	FP2 2000 (FP2 2000 HE)	FP2 2000 (FP2 2000 HE)
Max. rectifier number	4	12
Control and monitoring unit	Smartpack	Smartpack
Input	1ph and 3ph possible	1ph and 3ph possible
Voltage	3 x (120 V / 230 V) ± 20 %	3 x (120 V / 230 V) ± 20 %
Max. current per phase	25 A (3ph)	50 A (3ph)
Frequency	45 – 66 Hz	45 – 66 Hz
Power factor	cos φ ≈ 1, EN 61000-3-2	cos φ ≈ 1, EN 61000-3-2
Output		
Voltage selectable	48 V	48 V
Max. current	167 A / 83 A [1]	500 A / 250 A [1]
Psophometric noise	< 2 mV, ETSI 300 132-2/ITU-T	< 2 mV, ETSI 300 132-2/ITU-T
General Data		
Load feeders	6 x circuit breaker 2 – 32 A	17 x circuit breaker 2 – 63 A
Protection class	IP20, EN 60529	IP20, EN 60529
Ambient temperature	−40 °C to +75 °C with derating > 45 °C	−40 °C to +75 °C with derating > 45 °C
Weight		
Without modules	6 kg	11 kg
Fully equipped	12 kg	37 kg
Dimensions H x W x D (in mm)	2 U x 19" x 370 plus connection space	7 U x 19" x 380 plus connection space
Options		
SNMP-adapter	yes	yes
Modem-signalling	yes	yes
Low voltage battery disconnection	yes (standard)	yes (standard)
Temperature compensation	yes	yes

MPSU 8000 and **MPSU 24000** also as High Efficiency Version available. Efficiency factor > 96 %!

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[2] three different product versions

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EMBEDDED-SYSTEMS

CONTROL- AND MONITORING UNITS

Type of control- and monitoring unit	HPU-SM11/-SM12	HPU-SM2/-SM3	Flatpack MCU	Smartpack
System rated voltages	24 / 48 / 60 V	24 / 48 / 60 V	24 / 48 / 60 V	24 / 48 / 60 V
Buttons for data request and adjustments	X	X	X	X
Display				
Display of measured values	X	X	X	X
Display of error reports	X	X	X	X
Communication interfaces				
Internal (controller)	RS485 / CAN / RS232	RS 485	analog	CAN
External (service laptop)	USB / RS232	RS 232	RS 232	USB [2]
Remote alarm (Modem, SNMP, TCP/IP)	optional, upon request	X [3]	X [3]	X [3]
Event storage	X	X	X	X
Characteristics Float charging / Boost charging	X	X	X	X
Load voltage regulation	X	X	X	X
Temperature compensation battery voltage	X	X	X	X
DC-Voltage / Current displays	X	X	X	X
Voltage monitors Battery/Load, Overvoltage/Undervoltage	X	X	X	X
Battery discharge protection control	X	X	X	X
Battery charging current limit	X	X	X	X
Battery availability test (total battery)	X	X	X	X
Battery symmetry monitoring	X	X	X [3]	X
System data Serial number / rated voltage / others	X	X	X	X
LCD display / buttons				
Integrated into the module assembly	HPU-SM11	HPU-SM2	X	X
Externally built	HPU-SM12	HPU-SM3	–	–
Expandable by means of external signalling modules	X	X	–	X
Operating status signals				
LED	X	X	X	X
Telecommunications signals	2 expandable up to 20	2 expandable up to 20	6 expandable up to 11	6 expandable upon request
Faults				
System malfunction (centralized signal)	X	X	X	X
Rectifier fault	X	X	X	X
Redundancy monitoring	X	X	X [1]	X
Battery/Load voltage fault	X	X	X	X
Battery availability test fault	X	X	X	X
Battery asymmetry	X	X	X [3]	X
Battery deep discharge	X	X	X	X
Temperature fault	X	X	X	X
Mains failure	X	X	X	X
Voltage monitoring	X	X	X	X
Fuse monitoring	X	X	X	X
Others	X	X	X	X
Signalling of site-based signals (freely available)	optionally expandable up to 12	optionally expandable up to 14	5 not expandable	6 expandable upon request
Internal clock / calendar	X	X	X	X
Potential free contacts				
Fault	X	X	X	X
Mains failure	X	X	X	X
Boost charging characteristic (ventilator control)	X	X [3]	–	–
Others	optionally expandable	optionally expandable	optionally expandable	optionally expandable

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[1] only if system is redundant

[2] RS 232 optional

[3] optional

The corresponding supplementary modules are available for measured value displays (e.g. current), as well as for data transfer by means of modem or SNMP adapter.

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