iQdata Edge Computing – Flexible solutions for complex data

The Edge Data Centre systems from SCHÄFER IT-Systems are flexible micro data centre solutions for quickly and easily creating a robust infrastructure environment directly on site where the data originates. Coordinated components such as the rack, cooling unit, UPS power supply, rack power distribution, power box, security door locking, monitoring and early fire detection are fully assembled and commissioned at the plant and on site. This leads to the creation of a ready-made IT infrastructure solution with various expansion stages in a very short time without any major planning effort. As standard, you can choose between a 1-, 2-, 3- or 4-cabinet solution, from 5 kW to maximum 30 kW. Extensive service offers in various options are also available.

Technical data

Edge Rack Type	5 kW	10 kW	15 kW	20 kW	30 kW
Rack					
Number of racks	1	1	2	3	4
Dimensions W x H x D (mm)	1,100 x 2,000 / 2,200 x 1,200 optional base 100 / 200	800 x 2,000 / 2,200 x 1,200 optional base 100 / 200	1,600 x 2,000 / 2,200 x 1,200 optional base 100/200	2,400 x 2,000 / 2,200 x 1,200 optional base 100 / 200	3,500 x 2,000 / 2,200 x 1,200 optional base 100 / 200
Nutzhöhe	H 2.000 = 27HE / H 2.200 = 31HE + 4HE vertical	H 2.000 = 26HE / H 2.200 = 30HE + 4HE vertical	H 2.000 = 63HE / H 2.200 = 71HE + 8HE vertical	H 2.000 = 104HE / H 2.200 = 116HE + 16HE vertical	H 2.000 = 139HE / H 2.200 = 155HE + 32HE vertical
Access control					
System	SCHÄFER e-lock stand-alone system	SCHÄFER e-lock stand-alone system	SCHÄFER e-lock stand-alone system	SCHÄFER e-lock wireless system	SCHÄFER e-lock wireless system
Rack cooling					
Kühlleistung	5 kW	10 kW	15 kW	20 kW	30 kW
Bauart	WallCooler, max. 1,850 m^3/h	Slot-InCooler, max. 4,000 m^3/h	2 x Slot-InCooler, max. 4,000 m^3/h each	2 x Slot-InCooler, max. 4,000 m^3/h each	SideCooler, max. 6,000 m^3/h
UPS					
Technology	Online USV VFI-SS acc. IEC 62040-3	Online USV VFI-SS acc. IEC 62040-3	Online USV VFI-SS acc. IEC 62040-3	Online USV VFI-SS acc. IEC 62040-3	Online USV VFI-SS acc. IEC 62040-3
Power/run time (at 100 % load)	6 kVA / 6 kW (power factor 1) / 12 min.	10 kVA /10 kW (power factor 1) / 15 min.	20 kVA / 20 kW (power factor 1) / 15 min.	20 kVA / 20 kW (power factor 1) / 15 min.	30 kVA / 30 kW (power factor 1) / 15 min.
Input / output	1ph 230 Vac / 1ph 230 Vac	3ph 400 Vac / 1ph 230 Vac	3ph 400 Vac / 3ph 400 Vac	3ph 400 Vac / 3ph 400 Vac	3ph 400 Vac / 3ph 400 Vac
Power box					
Supply	230 Vac 1ph fixed connection	230/400 Vac 3ph fixed connection	230/400 Vac 3ph fixed connection	230/400 Vac 3ph fixed connection	230/400 Vac 3ph fixed connection
Residual current measurement	Type B	Type B	Type B	Type B	Type B
Recommended back-up fuse	MCB 40A	MCB C63A	MCB C63A	MCB C63A	MCB C80A
Rack PDUs					
2 x basic rack PDU per user rack (1 x UPS mains, 1 x normal mains)	230 Vac 32 A 1ph, each PDU 24 x C13 & 4 x C19, 2 PDUs	230 Vac 32 A 1ph, each PDU 24 x C13 & 4 x C19, 2 PDUs	230/400 Vac 16 A 3ph, each PDU 30 x C13 & 6 x C19, 4 PDUs	230/400 Vac 16 A 3ph, each PDU 30 x C13 & 6 x C19, 6 PDUs	230/400 Vac 16 A 3ph, each PDU 30 x C13 & 6 x C19, 6 PDUs
Rack extinguisher					
Extinguishing agent	NOVEC 1230	NOVEC 1230	NOVEC 1230	NOVEC 1230	NOVEC 1230
Monitoring					
Input / output	8 analogue sensors, 76 x digital sensors / 2 x relays		16 analogue sensors, 76 x digital sensors / 2 x relays	24 analogue sensors, 76 x digital sensors / 2 x relays	32 analogue sensors, 76 x digital sensors / 2 x relays
Protocols	DHCP, HTTP, HTTPs, SNMP v1, SNMP v2c, SNMP v3, SNMP TRAP, SNMP GET, SMTP, SSL, FTP, Syslog, TLS, RADIUS				

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SCHÄFER IT-SYSTEMS

Secure, sustainable and highly available

- Rack
- Monitoring
- Cooling
- Security
- Power distribution (rack PDUs)
- Power distribution (power box)
- Power distribution (USV)
- Early fire detection with extinguishing system

Benefits

High availability and security with the provision of a compact edge IT infrastructure, exclusively with high-quality products that are also used in standard data centres
Low deployment costs and space requirements on site; the solutions can be set up in an ordinary room; no special IT room with cooling, fire detection or power distribution is needed
Special knowledge or experts on site are not required; the individual types are completely planned and easy to install
Short delivery time because the standardised solutions are planned, developed and manufactured in Germany
Compliance with legal requirements (F-gas Regulation) thanks to 100 % water cooling, certified according to the German Blue Angel environmental label for data centres
Reduced maintenance and operating costs through use of natural refrigerant. In addition, a water cooling system simplifies waste heat recovery and feed-in into a heating network
Highest availability for your IT resources; the integrated UPS supplies power to the built-in servers and the IT infrastructure devices (e.g. rack cooling). In addition, the servers can be shut down in a controlled manner in the event of a power failure
Highest availability of the system; the power supply to the servers is maintained even in the event of individual device failure
Redundant supply for the servers through two independent rack PDUs
Integrated fire detection and extinguishing system that also functions in the event of a power failure
The system does not have to be switched off during the electrical repeat test according to DGUV A3 because the residual current is constantly monitored
Access to the rack is protected accordingly, only selected persons can open the rack, the processes are logged accordingly
No system downtime when replacing the UPS for service and maintenance purposes
Low installation costs thanks to quick and easy on-site installation
Easy control of the system and compliance with energy efficiency requirements through system monitoring and observation
Longer service life thanks to the system's flexibility and cooling technology
Low operating costs, error-free operation and a long service life thanks to comprehensive maintenance and service offers

Features

Stable **IP54** rack IS-1, max. **load 1,800 kg, online VFI SS** UPS power supply, power box with integrated residual current measurement, **rack PDUs** for power distribution in the rack, regulated **integrated cooling**, easy **monitoring** of the entire solution, **access control** via RFID swivel lever, **rack extinguishing system**
Complete cell solution with defined interfaces for cooling, power and data
Predefined micro data centre rack with a capacity of 5 kW to 30 kW
Standard solutions with **certified** products
Reliable **air conditioning** (WallCooler, Slot-InCooler or SideCooler) with **natural refrigerant**
100 % water cooling
Compact 19" UPS with max. 15 minutes of backup time at **100% load**
Selective individual protection of the infrastructure devices in the rack (extinguishing system, rack PDU, cooling and monitoring)
2 **independent PDUs** (1 x UPS supported, 1x normal mains) are installed per user rack, each with mixed outputs (IEC60320 C13 or C19)
2U WAGNER Titanus Rack Sens extinguishing system with integrated rechargeable battery
Power box with integrated **type B residual current measurement**
Access control via SCHÄFER e-lock **RFID** stand-alone system (type 1 +2) or **wireless** system
Manual bypass integrated in power box for repair and maintenance purposes
Only **one predefined interface** each to the outside for data, power and cooling
Rack monitoring system with monitoring of all important parameters
Racks, PDUs and even cooling can be **flexibly expanded** if required, and the cooling system also adapts easily to increasing IT loads
Project support for on-site planning, **commissioning** of the system, **training courses** for the equipment, **warranty extensions, maintenance contracts**

SCHÄFER IT-SYSTEMS

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