| Rating (kVA) | 10 | 15 | 20 |
|---|---|---|---|
| Nominal power (kW) | 9 | 13.5 | 18 |
| UPS dimensions WxHxD (mm) | 450x1200x670 | | |
| UPS weight (kg) | 100 | 110 | 110 |
| UPS weight with internal battery (kg) | Min.175 Max.285 | Min.260 Max.275 | Min.260 Max.275 |
| External battery module dimensions WxHxD | 500x1200x670 | | |
| Battery configuration | Internal or external, 360÷372 cells, VRLA (other options) | | |

**Input**

| | | | |
|---|---|---|---|
| Connection type | Hardwired 4w (rectifier), 2w (bypass) | | |
| Nominal voltage | 380/400/415 Vac 3-phase with neutral (rectifier) 220/230/240 Vac 1-phase (bypass) | | |
| Voltage tolerance | -20%, +15% | | |
| Frequency and range | 50/60 Hz (45÷65 Hz) | | |
| Power factor | 0.99 | | |
| Current distortion (THDi) | <3% | | |

**Output**

| | | | |
|---|---|---|---|
| Connection type | Hardwired 2w | | |
| Nominal voltage | 220/230/240 Vac 1-phase | | |
| Frequency | 50/60 Hz | | |
| Voltage regulation | ±1% static; dynamic: IEC EN 62040-3 Class 1 | | |
| Power factor | up to 0.9, lagging or leading without power derating | | |
| Overload capacity | Inverter: 101÷125% for 10 min, 126÷150% for 30 s, >150% for 10 s; bypass: 150% continuous, 1000% for 1 cycle | | |
| Efficiency (AC/AC)* | up to 98% | | |
| Classification as per IEC EN 62040-3 | VFI-SS-111 | | |

**Connectivity and function extensions**

| | | | |
|---|---|---|---|
| Front panel | Graphic display, mimic LED panel and keyboard, local EPO | | |
| Remote communication | Serial RS232 and USB; terminal block for battery breaker auxiliary contact. Optional: input terminal block (remote emergency power off, battery circuit breaker aux. cont., external maintenance bypass circuit breaker aux. cont., diesel mode aux. cont.); SNMP adapter (Ethernet), Web interface (Ethernet), ModBus-TCP/IP (Ethernet); ModBus-RTU (RS485); ModBus-RTU to PROFIBUS DP adapter; SPDT contact relay board; remote system monitoring panel; UPS managing and server shutdown software | | |
| Optional function extensions | Isolation transformer; transformers/autotransformers for voltage adjustment; external maintenance bypass; custom battery cabinets; wall-mounted battery fuse switch box; battery thermal probe; parallel kit | | |

**System**

| | | | |
|---|---|---|---|
| Protection degree | IP 20 | | |
| Colour | RAL 7016 | | |
| Installation layout | 10 cm wall-gap, side by side installation allowed | | |
| Accessibility | Front and top access, bottom cable entry | | |

*according to IEC EN 62040-3

# Other features

**Environmental**

| | | | |
|---|---|---|---|
| Operating temperature range | 0 °C ÷ +40 °C | | |
| Storage temperature range | -10 °C ÷ +70 °C | | |
| Altitude | <1000 m | | |
| Audible noise at 1m (dBA) | <62 | | |

**Standards and certifications**

| | | | |
|---|---|---|---|
| Quality assurance, environment, health and safety | ISO 9001:2008, ISO 14001:2004, GOST, BS OHSAS 18001:2007 | | |
| Safety | IEC EN 62040-1 | | |
| EMC | IEC EN 62040-2 | | |
| Test and performance | IEC EN 62040-3 (VFI-SS-111) | | |
| Protection degree | IEC 60529 | | |
| Marking | CE | | |