

| Variant | KEA 3X0 Series | | KEA 3X0 Series | | | |
|-----------------------------------------------------------------------------------|-----------------------------|-------------------|----------------------|--------------------|---------|---------|
| | 320 RP | 320 | 350 RP | 350 RP | 350 | 350 |
| Package | P1 | P1 (-LT) | P1 | P2 | P1 | P2 |
| Measuring | | | | | | |
| Generator voltage (3-phase/4-wire) | 120 / 480 V AC | | 120 / 480 / 690 V AC | | | |
| Generator current (3x true r.m.s.) | 1 / 5 A | | 1 / 5 A | | | |
| Mains voltage (3-phase/4-wire) | 120 / 480 V AC | | 120 / 480 / 690 V AC | | | |
| Mains or ground current (1x true r.m.s.); Mains or ground current (selectable) | 1 / 5 A | | 1 / 5 A | | | |
| Busbar voltage | 2-phase / 120 / 480 V AC | | 2-phase | 3-phase | 2-phase | 3-phase |
| | | | 120 / 480 / 690 V AC | | | |
| Control | | | | | | |
| Generator breaker control | ✓ | | ✓ | | | |
| Mains breaker control | ✓ | | ✓ | | | |
| Generator group breaker | - | | ✓ | | | |
| Run-Up Synchronization | - | | ✓ | | | |
| No of supported LS-5-devices #5 (1 or 2 breaker controls) | - | | 16 | | | |
| Breaker control logic (open and closed transition <100 ms) | 2 | | 3 | | | |
| Automatic, Manual, Stop, and test operating modes | ✓ | | ✓ | | | |
| Single and multiple-unit operation | ✓ | | ✓ | | | |
| Mains parallel multiple-unit operation (up to 32 units) | ✓ | | ✓ | | | |
| AMF (auto mains failure) and stand-by operation | ✓ | | ✓ | | | |
| Critical mode operation | ✓ | | ✓ | | | |
| GCB and MCB synchronization (±slipping / phase matching) | ✓ | | ✓ | | | |
| Import / export control (kW and kvar) | ✓ | | ✓ | | | |
| Load-dependent start/stop | ✓ | | ✓ | | | |
| n/f, V, P, Q, and PF control via analog input or interface | ✓ | | ✓ | | | |
| Load/var sharing for up to 32 gensets | ✓ | | ✓ | | | |
| Freely configurable PID controllers | 3 | | 3 | | | |
| HMI | | | | | | |
| Display | remote | integrated | remote | integrated | | |
| Color Display with Softkey operation | - | ✓ | - | ✓ | | |
| Start/stop logic for diesel / gas engines | ✓ | | ✓ | | | |
| Counters for operating hours / starts / maintenance / active/reactive energy | ✓ | | ✓ | | | |
| Configuration via PC (serial connection and ToolKit software (included)) | ✓ | | ✓ | | | |
| Event recorder entries with real time clock (battery backup) | 1000 | | 1000 | | | |
| Operating Temperature | -40 to 70 °C | (-40/-)20 to 70°C | -40 to 70 °C | (-40/-)20 to 70 °C | | |

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| Package | | P1 | P1 (-LT) | P1 | P2 | P1 | P2 |
| Protection | ANSI | | | | | | |
| Generator: voltage / frequency | 59/27/81O/81U | ✓ | | | ✓ | | |
| Generator: overload, reverse/reduced | 32/32R/32F | ✓ | | | ✓ | | |
| Generator: Synch Check | 25 | ✓ | | | ✓ | | |
| Generator: unbalanced load | 46 | ✓ | | | ✓ | | |
| Generator: instantaneous overcurrent | 50 | ✓ | | | ✓ | | |
| Generator: time-overcurrent (IEC 255 compliant) | 51/51V | ✓ | | | ✓ | | |
| Generator: ground fault (measured ground current) | 50G | ✓ | | | ✓ | | |
| Generator: power factor | 55 | ✓ | | | ✓ | | |
| Generator: rotation field | | ✓ | | | ✓ | | |
| Engine: overspeed / underspeed | 12/14 | ✓ | | | ✓ | | |
| Engine: speed / frequency mismatch | | ✓ | | | ✓ | | |
| Engine: D+ auxiliary excitation failure | | ✓ | | | ✓ | | |
| Engine: Cylinder temperature | | ✓ | | | ✓ | | |
| Mains: voltage / frequency / synch check | 59/27/81O/81U/25 | ✓ | | | ✓ | | |
| Mains: phase shift / rotation field / ROCOF (df/dt) | 78 | ✓ | | | ✓ | | |
| Busbar: voltage/frequency/rotation field | | - | | ✓/✓/- | ✓/✓/✓ | ✓/✓/- | ✓/✓/✓ |
| I/Os | | | | | | | |
| Internal digital I/O expansion board | | - | | - | ✓ | - | ✓ |
| Speed input: magnetic / switching; Pickup | | ✓ | | | ✓ | | |
| Battery voltage monitor | | 1 | | | 1 | | |
| Discrete alarm inputs (configurable) | | 12 (10) | | 12 (9) | 23 (20) | 12 (9) | 23 (20) |
| Discrete outputs, configurable | | max. 12 | | max. 12 | max. 22 | max. 12 | max. 22 |
| External discrete inputs / outputs via CANopen | | 32/32 | | 32/32 | | | |
| Analog inputs #1, configurable | | 3 | | 3 | 10 | 3 | 10 |
| Analog outputs: +/- 10V, +/- 20mA, PWM; configurable | | 2 | | 2 | 2 | 2 | 2 |
| Analog outputs: 0-20mA, (0-10V with external 500 Ω resistor) | | - | | - | 4 | - | 4 |
| External analog inputs / outputs via CANopen | | 16 / 4 | | 16 / 4 | | | |
| Display and evaluation of J1939 analog values, "supported SPNs" | | 100 | | 100 | | | |
| CANbus communication interfaces #2, #3 | | 2 | | 3 | | | |
| Ethernet Modbus TCP Slave interface #3 | | 1 | | 3 | | | |
| USB Serial interface | | 1 | | 1 | | | |
| RS-485 Modbus RTU Slave interface | | 1 | | 1 | | | |

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| Listings/Approvals | | | | | | |
| CE Marked, VDE-AR-4105/4110, EAC | ✓ | | ✓ | | | |
| Part Numbers | | | | | | |
| Front panel mounting with display #4 | - | 2A320CS100 | - | - | 2A350CS100 | 2A350CS200 |
| Cabinet back mounting without display | 2A320RS100 | - | 2A350RS100 | 2A350RS200 | - | - |
| Spare connector kit | 2A320PS100 | 2A320PS100 | 2A350PS100 | 2A350PS200 | 2A350PS100 | 2A350PS200 |

- #1 selectable senders: VDO (0 to 180 Ohm, 0 to 5 bar), VDO (0 to 180 Ohm, 0 to 10 bar), VDO (0 to 380 Ohm, 40 to 120°C), VDO (0 to 380 Ohm, 50 to 150°C), Pt100, Pt1000, resistive input (one- or two-pole, 2pt. linear or 9pt. user defined)
- #2 CAN#2 freely selectable during configuration between CANopen or J1939; please feel free to request more information
- #3 KEA 320: It is possible to toggle between CAN and Ethernet load share line in STOP mode ("warm redundancy")
- #4 a screw and a clamp kit are delivered with the unit for fastening
- #5 The KEA 350/LS5 communication system allows up to 48 members on the bus. If the KEA count is reduced from 32, the LS-5 count can be increased (up to 32).