# Specifications of the SDS 4000

## Power loss data in accordance with EN 61800-9-2

| Type | Nominal current $I_{2N,PU}$ | Apparent power | Absolute losses $P_{V,CU}$ [1] | Operating points [2] | | | | | | | | | IE class [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (0/25) | (0/50) | (0/100) | (50/25) | (50/50) | (50/100) | (90/50) | (90/100) | (90/100) | |
| | | | | **Relative losses** | | | | | | | | Nominal efficiency | |
| | [A] | [kVA] | [W] | [%] | | | | | | | | [%] | |
| SDS 4021 | 3 | 2.1 | 10 | 1.94 | 2.17 | 2.67 | 1.95 | 2.37 | 3.07 | 2.65 | 3.56 | 95.2 | IE2 |
| SDS 4041 | 6 | 4.2 | 10 | 1.17 | 1.46 | 1.95 | 1.28 | 1.63 | 2.32 | 1.89 | 2.94 | 96.0 | IE2 |
| SDS 4071 | 10 | 6.9 | 10 | 1.04 | 1.31 | 1.80 | 1.14 | 1.47 | 2.17 | 1.74 | 2.80 | 96.2 | IE2 |
| SDS 4101 | 14 | 9.7 | 19 | 0.84 | 1.10 | 1.85 | 0.92 | 1.26 | 2.23 | 1.51 | 2.90 | 96.3 | IE2 |
| SDS 4141 | 20 | 13.9 | 19 | 0.70 | 0.94 | 1.67 | 0.76 | 1.08 | 2.01 | 1.31 | 2.62 | 96.7 | IE2 |

Tab. 1: Relative losses of SDS 4000 inverters according to EN 61800-9-2

[1] Absolute losses for a power unit that is switched off
[2] Operating points for relative motor stator frequency in % and relative torque current in %
[3] IE class in accordance with EN 61800-9-2

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| Type | Nominal current $I_{2N,PU}$ | Apparent power | Absolute losses $P_{V,CU}$[4] | Operating points[5] | | | | | | | | | IE class[6] | Comparison[7] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (0/25) | (0/50) | (0/100) | (50/25) | (50/50) | (50/100) | (90/50) | (90/100) | (90/100) | | |
| | | | | **Absolute losses $P_V$** | | | | | | | | Nominal efficiency | | |
| | [A] | [kVA] | [W] | [W] | | | | | | | | [%] | | [%] |
| SDS 4021 | 3 | 2.1 | 10 | 40.3 | 45.0 | 55.6 | 40.6 | 49.4 | 63.9 | 55.2 | 74.0 | 95.2 | IE2 | 39.3 |
| SDS 4041 | 6 | 4.2 | 10 | 48.8 | 60.6 | 81.1 | 53.2 | 67.7 | 96.3 | 78.7 | 122.3 | 96.0 | IE2 | 41.0 |
| SDS 4071 | 10 | 6.9 | 10 | 72.4 | 90.4 | 124.8 | 78.7 | 102.0 | 150.4 | 120.5 | 194.2 | 96.2 | IE2 | 40.7 |
| SDS 4101 | 14 | 9.7 | 19 | 81.8 | 107.0 | 179.8 | 89.0 | 122.0 | 216.1 | 146.9 | 281.2 | 96.3 | IE2 | 48.4 |
| SDS 4141 | 20 | 13.9 | 19 | 96.6 | 130.4 | 230.9 | 105.9 | 149.7 | 278.4 | 182.0 | 363.5 | 96.7 | IE2 | 46.5 |

Tab. 2: Absolute losses of SDS 4000 inverters in accordance with EN 61800-9-2

**General conditions**

The loss data applies to inverters without accessories.

The power loss calculation is based on a three-phase supply voltage with 400 $V_{AC}$/50 Hz.

The calculated data includes a supplement of 10% in accordance with EN 61800-9-2.

The power loss specifications refer to a clock frequency of 4 kHz.

The absolute losses for a power unit that is switched off refer to the 24 $V_{DC}$ power supply of the control electronics.

## EMC specifications

**Radio interference suppression**

Integrated line filter in accordance with EN 61800-3

- Interference emission class C3

[4] Absolute losses for a power unit that is switched off
[5] Operating points for relative motor stator frequency in % and relative torque current in %
[6] IE class in accordance with EN 61800-9-2
[7] Comparison of the losses for the reference inverter related to IE2 in the nominal point (90, 100)

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