

Requirements for delivery of ENERGY-CONSUMING SYSTEMS and DEVICES

Within the framework of the Wallstabe & Schneider energy management system certified according to ISO 50001, the following requirements apply for delivery of energy-consuming systems and devices:

1. We prefer energy-efficient solutions and take this into account for selection of suppliers and offers. In this respect, we expect our suppliers to provide active support regarding possible optimization of our energy efficiency.
2. Besides the quality and acquisition costs, the life cycle costs of energy-consuming systems and devices are taken into account for procurement.
3. Applicable energy-related data must be specified in the respective offers. This particularly includes:
 - Nominal power during full and partial-load operation
 - Efficiency during full and partial-load operation
4. For the following product categories, we expect the minimum requirements specified in the table:

Product category	Efficiency requirement
Electric motors	IE 3
Pumps Circulation pump	Minimum efficiency rating > 0.70 Energy efficiency index < 0.20 Variable speed control obligatory
Lamps	Luminous efficiency > 100 lm/W
Coolants	GWP < 1500
Axial fans Radial fans with forward-curved blades Radial fans with backward-curved blades	N > 60 N > 50 N > 65 Variable speed control obligatory
Vacuum pumps	< 1 KW per m ³ /min at final pressure of 0.1 hPa (mbar)
Air compressors	Depending on the rated motor power and rated pressure: see attached table

Please take into account our energy efficiency requirements for all future offers including energy-consuming systems and devices.

In case of any questions, please contact our responsible energy management representative directly (T 0049 9962 201-0).

Attachment on air compressors

Air compressors should not exceed the following specific performance values:

Rated motor power in kW	Power output in kW per (m ³ /min)							
	Rated pressure in bar overpressure							
	5	6	7	8	9	10	11	12
4	6.75	6.99	7.40	7.90	8.65	9.35	9.97	10.79
5.5	6.33	6.74	7.13	7.61	8.29	8.91	9.51	10.24
7.5	6.15	6.56	6.92	7.40	8.02	8.59	9.17	9.83
9	6.01	6.41	6.76	7.23	7.81	8.34	8.91	9.51
11	5.90	6.29	6.62	7.09	7.63	8.13	8.69	9.24
15	5.80	6.18	6.50	6.97	7.48	7.96	8.50	9.02
18.5	5.71	6.09	6.40	6.86	7.35	7.80	8.34	8.83
22	5.63	6.01	6.32	6.77	7.24	7.67	8.19	8.66
25	5.57	5.94	6.24	6.69	7.14	7.55	8.07	8.51
30	5.51	5.88	6.17	6.62	7.05	7.44	7.95	8.38
37	5.45	5.82	6.10	6.55	6.96	7.35	7.85	8.26
45	5.40	5.77	6.04	6.49	6.89	7.26	7.76	8.15
55	5.35	5.72	5.99	6.43	6.82	7.18	7.67	8.05
75	5.31	5.67	5.94	6.38	6.75	7.10	7.59	7.95
90	5.27	5.63	5.89	6.33	6.69	7.03	7.52	7.87
110	5.23	5.59	5.84	6.28	6.64	6.97	7.45	7.78
132	5.19	5.55	5.80	6.24	6.58	6.90	7.38	7.71
160	5.16	5.51	5.76	6.20	6.53	6.85	7.32	7.64
200	5.13	5.48	5.73	6.16	6.49	6.79	7.26	7.57
250	5.10	5.45	5.69	6.12	6.44	6.74	7.21	7.51