

OLAER



for the perfect flow

Enclosure air conditioning

„Available **power range of 300 W, all my needs are met** with no ifs or buts.“

Engineer, Bumotec



ENCLOSURE AIR CONDITIONING

Before your modern technology gets overheated, you should talk to us

An adequate enclosure running temperature is the condition for a high operating safety and long durability of the electronic installation.

The electronics of today's control technology are becoming smaller and more powerful, with a resulting increase in power dissipation in the control panel. The sensitivity of the electronic parts in the control panel to temperature and external effects, such as dust and humidity, is also increasing.

It is therefore necessary to maintain a constant, stable temperature distribution in the control panel. A correct control panel operating temperature is the precondition for a long serviceable life of electronic components. Downtimes are also thereby prevented. Downtime of a system means production loss, which is inevitably associated with high costs.

The correct operating temperature in a control panel is between 30 °C and 50 °C depending on the components installed. As early as in the design and development phase, the designer or electrical engineer is concerned with the question of the temperature during later application.

1) Application of an air conditioner when $T_{\text{enclosure}} < T_{\text{outside}}$

If for example the environment temperature " T_{outside} " lies clearly over the desired enclosure inside temperature, air conditioner come to application.

They work after the principle of a compression chiller. A refrigerant is used as cooling medium. With this, the enclosure temperature can always be kept constantly, independently of the environment temperature. The factory set for air conditioners is 35 °C.

2) Application of an air-water heat exchanger when $T_{\text{enclosure}} < T_{\text{outside}}$

The enclosure inside air of these heat exchangers are cooled through a cooling medium. The conducted heat in the enclosure is not released to the environment, but transported away by a water return pipe. It can be reused, for example with a heat recovery installation.

This kind of enclosure is often used, if together with the electronics, other areas are cooled with water such as hydraulic oil, transmission oil or high frequency spindles. In most cases, the necessary cool water is generated through a water-cooling system in the "self contained circuit".

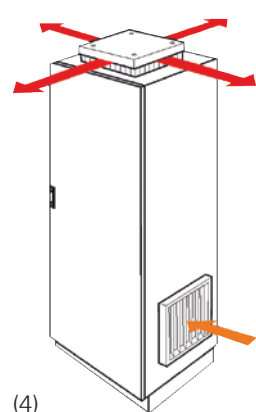
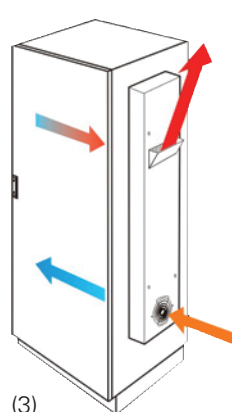
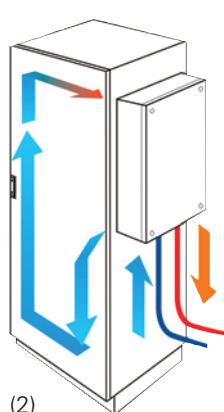
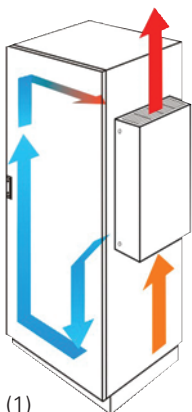
3) Application of an air-air heat exchanger when $T_{\text{enclosure}} > T_{\text{outside}}$

Air-air heat exchanger have got two completely divided air circulations. The installed components are protected from outside attacks. At these indirect enclosure air conditioner, a heat exchanger package assigns the heat out of the switchboard cabinet to the cooler environment.

4) Application of fan- and filter units or roof mounted fan- and filter units $T_{\text{enclosure}} > T_{\text{outside}}$

Fan- and filter units in combination with an identically constructed filter guarantee a consistent temperature allocation in a switchboard cabinet.

They are used especially when little heat capacities must be deviated. The limit of fan- and filter units are reached, when the environment of the enclosure is affected by humidity, chemical substances or high dust attack. In this case air-air heat exchanger come to application.



MODEL OVERVIEW ENCLOSURE AIR CONDITIONING

Cooling units

Model	Cooling capacity W L35/L35	Dimensions mm		
		B	H	T

FLY Cooling units extra flat for door or wall mounting

FLY 11	1100	495	1697	195
FLY 15	1500	495	1697	195
FLY 20	2000	495	1697	195
FLY 25	2500	495	1697	235
FLY 32	3200	495	1697	235

SKY Cooling units for door or wall mounting

SKY 10	1050	400	950	233
SKY 15	1550	400	950	233
SKY 20	2050	400	1265	236

EGO Cooling units for door or wall mounting

EGO S3	300	525	345	136
EGO 04	380	285	450	176
EGO 06	640	316	606	212
EGO 08	820	348	783	216
EGO 10	1000	348	783	216
EGO 12	1250	405	999	237
EGO 16	1600	405	999	237
EGO 20	2000	405	999	237
EGO 30	2900	500	1270	336
EGO 40	3850	500	1270	336
EGO 60	5800	600	2000	387
EGO 80	7600	800	2000	387
EGO A0	9400	800	2000	387
EGO A5	15150	800	2000	550

DEK Cooling units for roof mounting

DEK 04	410	259	260	481
DEK 08	820	341	339	600
DEK 12	1150	401	415	572
DEK 15	1550	401	415	572
DEK 20	2050	401	415	572
DEK 30	2900	492	496	784
DEK 40	3850	492	496	784

Cooling units Outdoor



Model	Cooling capacity W L35/L35	Dimensions mm		
		B	H	T

EMO Outdoor cooling units for door or wall mounting

EMO 04	380	300	572	205
EMO 06	640	331	718	235
EMO 08	820	363	895	239
EMO 10	1000	363	895	239
EMO 12	1250	415	1109	261
EMO 16	1600	415	1109	261
EMO 20	2000	415	1109	261
EMO 30	2900	512	1417	365
EMO 40	3850	512	1417	365
EMO 60	5800	600	2000	387
EMO 80	7600	800	2000	387
EMO A0	9400	800	2000	387

Air-water heat exchangers

Model	Cooling capacity W W10/L35	Dimensions mm		
		B	H	T

BLU - BIT Air-water heat exchangers for vertical or roof mounting

BIT 25	2500	400	270	540
BLU 10	1000	311	453	115
BLU 18	1750	398	901	137
BLU 25	2500	398	901	137
BLU 35	3500	398	1148	163
BLU 45	4500	398	1148	163
BLU 60	6000	450	1502	163
BLU A0	10000	797	1935	206
BLU A5	15000	797	1935	206

Air-air heat exchangers

Model	Specific cooling power W / K	Dimensions mm		
		B	H	T

MIX Air-air heat exchangers

MIX 22	22	189	413	149
MIX 36	36	316	771	103
MIX 50	50	316	771	103
MIX 80	80	317	1260	148

FAN Ventilation units with filter

Model	Fan air flow rate m³/h (with filter)	Dimensions mm		
		B	H	T

FAN 08	36/41	114	114	64
FAN 12	57/61	150	150	67
FAN 23	115/125	250	250	102
FAN 25	230/262	250	250	114
FAN 28	400/440	250	250	98
FAN 35	520/580	325	325	153
FAN 39	920/940	325	325	118

DLK Ventilating towers

Model	Fan air flow rate m³/h (with filter)	Dimensions mm		
		B	H	T

DLK 19	600/625	375	122	375
DLK 22	1050/1085	375	122	375
DLK 42	2300/2530	637	315	637
DLK 45	3000/3370	637	315	637
DLK 48	4000/4520	637	315	637

All models available with different supply voltages. Please inquire at OLAER.



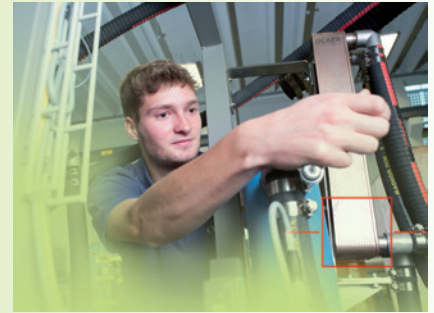
Supplies

OLAER offers you at all devices various supplies. Please ask us.

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