



SLH-SERIES AIR COOLED CONDENSER FIN COILS



**PRZEDSIĘBIORSTWO PRODUKCJI URZĄDZEŃ
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Application:

SLH-series air cooled condenser fin coils with capacities between 3.6W and 104.0kW are dedicated to building and repair of condensing units. They may work with all currently available cooling agents except for NH3. The capacities in the tables are calculated for R 404A with ambient temperature at 25°C, condensation point at 40°C, and temperature difference $\Delta t = 15K$.

TYPE	Heat transfer surface [m ²]	Capacity Q _a =15K [kW]	Air flow [m ³ /h]	Air resistance [Pa]
SLH - 32	5,5	3,6	1750	42
SLH - 33	8	4,9	1710	59
SLH - 44	13,5	6,9	1840	58
SLH - 53	21,5	10,0	2528	46
SLH - 64	28,5	14,2	3884	60
SLH - 84	40,5	18,4	4577	42
SLH - 104	45,5	24,9	7248	80
SLH - 114	59	28,1	7804	56
SLH - 124	75,5	34,5	9100	48
SLH - 135	113	52,0	12650	78
SLH - 204	91	49,8	14496	80
SLH - 214	118	56,2	15608	56
SLH - 224	151	69	18200	48
SLH - 235	226	104	25300	78

Power calculation for the required working conditions:

$$Q_{rz} = Q_{st} * Wk * Wo * Wr * Wh * Wm$$

Q_{rz} – real capacity of the condenser in the required conditions

Q_{st} – condenser capacity from the table (standard working conditions)

Wk – correction coefficient for different cooling agents

Cooling agent			
R404A R507	R22	R134a	R407C
1,00	0,96	0,93	0,87

Wo - correction coefficient for different ambient temperatures

Ambient temperature							
15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
1,03	1,02	1	0,99	0,97	0,95	0,94	0,93

Wr - correction coefficient for the difference between the condensation point and ambient temperature

Wr \ $\Delta t(K)$	8	9	10	11	12	13	14	15	16	17	18	19	20
R22; R134a; R404A; R507	0,53	0,60	0,67	0,73	0,80	0,87	0,93	1,00	1,07	1,13	1,20	1,27	1,33
R407C	0,46	0,54	0,62	0,69	0,77	0,85	0,93	1,00	1,08	1,15	1,23	1,31	1,38

Wh - correction coefficient for different elevations above sea level

Elevation	0	600	800	1000	1200	1400	1600	1800	2000
Wh	1,00	0,96	0,94	0,93	0,91	0,90	0,88	0,87	0,85

Wm - correction coefficient for different fin materials

Material	Aluminium	Epoxy-coated aluminium	Copper
Wm	1,00	0,97	1,03

Design:

- the condenser coils are built with 5/16" internally finned copper tubes mechanically expanded inside aluminium fins which are equipped with flanges covering the whole fin spacing distance, thus ensuring perfect thermal contact. All coils are tested at 30 bar pressure and filled with dry nitrogen to a slight overpressure.
- geometry: G04 (25mm x 21.65mm)
- material: 3/8" copper tubes, high turbulence aluminium fins
- the number of passes is optimized for the provided working conditions
- galvanized steel covers (as an option, it may be painted with the required colour)
- the construction is designed to be mounted on frames of condenser units

Dimensions:

TYPE	No. of fans [pcs]	\varnothing_w [mm]	\varnothing_n [mm]	$\varnothing_{inl.}$ [mm]	$\varnothing_{outl.}$ [mm]	L [mm]	LT [mm]	H [mm]	S [mm]	S1 [mm]	Mounting				Weight [kg]
											A [mm]	B [mm]	B1 [mm]	B2 [mm]	
SLH-32	1	360	422	12	10	400	504	408	133	-	100	474	-	-	10
SLH-33	1	360	422	12	10	400	504	408	133	-	100	474	-	-	12
SLH-44	1	360	422	12	10	450	554	458	153	-	100	524	-	-	20
SLH-53	1	360	422	12	10	700	830	458	202	-	180	800	-	-	35
SLH-64	1	460	515	16	12	700	830	608	222	-	180	800	-	-	40
SLH-84	1	460	515	16	12	800	930	758	222	-	180	900	-	-	45
SLH-104	2	460	515	22	16	1040	1100	658	222	280	250	-	165	370	45
SLH-114	2	460	515	28	16	1250	1310	708	222	280	250	-	270	370	60
SLH-124	2	460	515	28	22	1490	1550	758	242	300	270	-	390	370	75
SLH-135	2	510	565	28	22	1490	1550	908	242	300	270	-	390	370	80
SLH - 204	4	460	515	28	22	1040	1100	1308	222	280	250	-	165	370	90
SLH - 214	4	460	515	28	22	1250	1310	1408	222	280	250	-	270	370	120
SLH - 224	4	460	515	35	28	1490	1550	1508	242	300	270	-	390	370	150
SLH - 235	4	510	565	42	35	1490	1550	1808	242	300	270	-	390	370	160

