

LASER Fan Coil Unit

2 & 4 pipe system

A complete range from 1.1 kW up to 9.9 kW



FX03 Terminal unit controller
BacNET and N2 Metasys network compatible

Thermostats



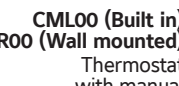
CSL00 (Built in)
CSR00 (Wall mounted)
Fan speed selector



CEL00 (Built in)
CER00 (Wall mounted)
Thermostat with manual fan speed and automatic change over



CEL20 (Built in)
CER20 (Wall mounted)
Thermostat with auto. fan speed and automatic change over



CML00 (Built in)
CMR00 (Wall mounted)
Thermostat with manual fan speed and S/W change over

CEL30 (Built in)
CER30 (Wall mounted)
Thermostat with auto. fan speed and automatic change over for modulating valve

Features

- Option front air intake
- 6 speed fan
- Cabinet factory fitted
- Valve factory fitted
- Electrical heater factory fitted
- Optional plenum
- Up to 110 pa static pressure
- Thermal or modulating valve
- Service valve

Technical features

		YLV, YLV-AF, YLH, YLH-AF, YLIV, YLIV-AF, YLIH, YLIH-AF									
Model		110	112	114	216	218	220	222	224	226	228
Cooling capacity (1)	W	1 169	1 746	2 291	3 467	3 804	4 664	5 570	6 789	7 599	9 974
Heating capacity (2)	W	1 628	2 296	2 981	4 514	5 076	6 013	7 304	8 677	9 800	12 739
Pressure drop (4)	kPa	3.9	7.6	6.5	13.8	13.6	23.1	31.6	18.8	20.9	37.1
Power supply	V/Ph/Hz	230 / 1 / 50 + E									
Input	W	46	48	57	81	86	89	119	145	156	200
Sound power level (3)	dB(A)	49	50	53	53	55	55	59	60	63	67
Sound pressure level at 3 m (3)	dB(A)	31	32	35	35	37	37	41	42	45	49
Water connections	inch	1/2"									

Dimensions indicated next pages

(1) Cooling capacities based on 7°C EWT Δt 5°C indoor temperature 27°C DB / 19°C WB (2 pipes - high speed fan) (3 rows)

(2) Heating capacities based on 50°C EWT at nominal flow rate indoor temperature 20°C (2 pipes - high speed fan) (3 rows)

(3) Sound level at high speed fan

(4) In cooling mode

For other conditions contact Johnson Controls

LASER Fan Coil Unit

1.1 to 9.9 kW



Compatibility table / Codes

Model		110	112	114	216	218	220	222	224	226	228
With Cabinet											
YLV-YLH	2 rows	•	•	•	•	•	•	•	•	•	•
	3 rows	•	•	•	•	•	•	•	•	•	•
	4 rows	•	•	•	•	•	•	•	•	•	•
YLV-YLH/AF Front air intake	2 rows	•	•	•	•	•	•	•	•	•	•
	3 rows	•	•	•	•	•	•	•	•	•	•
	4 rows	•	•	•	•	•	•	•	•	•	•
Without Cabinet											
YLIV-YLIH	2 rows	•	•	•	•	•	•	•	•	•	•
	3 rows	•	•	•	•	•	•	•	•	•	•
	4 rows	•	•	•	•	•	•	•	•	•	•
YLIV-YLIH/AF Front air intake	2 rows	•	•	•	•	•	•	•	•	•	•
	3 rows	•	•	•	•	•	•	•	•	•	•
	4 rows	•	•	•	•	•	•	•	•	•	•
Options (Factory fitted)											
Coil and heaters											
1 row heating	BA1	•	•	•	•	•	•	•	•	•	•
Kit electrical heater (with relay and safety switch)	KREL	•	•	•	•	•	•	•	•	•	•
Built in thermostat											
Fan speed selector	CSL00						•				
Thermostat with manual fan speed and S/W change over	CML00						•				
Thermostat with manual fan speed, dead band, automatic change over	CEL00						•				
Thermostat with automatic fan speed, dead band, automatic change over	CEL20						•				
Thermostat with automatic fan speed, dead band, automatic change over for modulating valve	CEL30						•				
Parallel connection											
For ON/OFF valve one/FCU	CBL20						•				
For modulating valve one/FCU	CBL30						•				
3 way valve factory fitted											
For 2 pipe systems ON/OFF	J3A2 (2p)						•				
For 4 pipe systems ON/OFF	J3A2 (4p)						•				
3 way modulating valve factory fitted											
For 2 pipe systems Modulating	J3AM (2p)						•				
For 4 pipe systems Modulating	J3AM (4p)						•				
Shut off valves factory fitted											
For 2 pipe systems	DT (2p)						•				
For 4 pipe systems	DT (4p)						•				
Condensate pump	PC						•				
WS sensor change over for CEL/CER	WS						•				
Minimum temperature thermostat	TM						•				
Accessories (Supplied loose)											
Remote controllers and thermostat (wall mounted)											
Fan speed selector	CSR00						•				
Thermostat with manual fan speed and S/W change over	CMR00						•				
Thermostat with manual fan speed, dead band, automatic change over	CER00						•				
Thermostat with automatic fan speed, dead band, automatic change over	CER20						•				
Thermostat with automatic fan speed, dead band, automatic change over for modulating valve	CER30						•				
Feet and panel (1)											
Set of painted feet	CP1	•	•	•	•	•	•	•	•	•	•
Set of painted feet + frontal socle	ZL1	•	•	•	•	•	•	•	•	•	•
Vertical painted back panel	PPV1	•	•	•	•	•	•	•	•	•	•
Horizontal painted back panel	PPH1	•	•	•	•	•	•	•	•	•	•
Plenums and air intake (1)											
Air intake plenum	PA	•	•	•	•	•	•	•	•	•	•
Air intake plenum with collars	PAS	•	•	•	•	•	•	•	•	•	•
90° air intake plenum	PA90	•	•	•	•	•	•	•	•	•	•
Air intake duct fitting	RCA	•	•	•	•	•	•	•	•	•	•
Air delivery plenum with collars	PM	•	•	•	•	•	•	•	•	•	•
90° air delivery plenum	PM90	•	•	•	•	•	•	•	•	•	•

(1) for check compatibility with the models of FCU see compatibility table

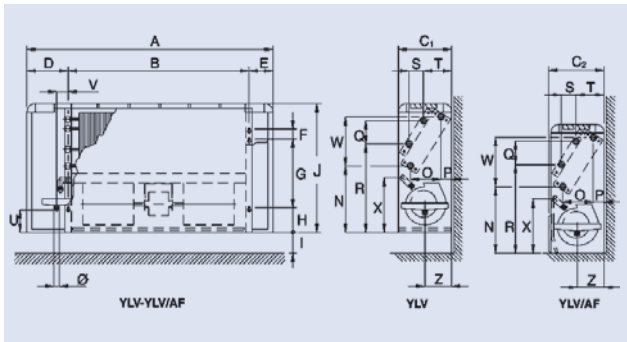


Dimensions

YLV & YLH ▸ V= vertical ▸ H= horizontal	YLV-AF & YLH-AF ▸ AF= front air intake ▸ V= vertical ▸ H= horizontal	YLIV & YLIH ▸ V= vertical ▸ H= horizontal ▸ I= without Cabinet	YLIV-AF & YLIH-AF ▸ AF= front air intake ▸ V= vertical ▸ H= horizontal ▸ I= without Cabinet
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LASER SERIES: YLV - YLV/AF

VERTICAL



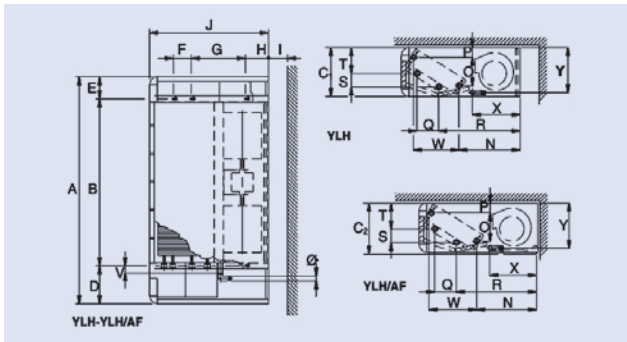
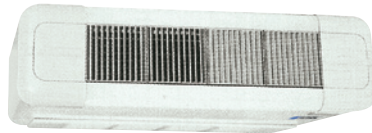
Dimensions and Weights

Dim	110	112	114	216	218	220	222	224	226	228
A	648	773	898	1023	1148	1273	1273	1523	1523	1773
B	374	499	624	749	874	999	999	1249	1249	1499
C1	224	224	224	224	224	254	254	254	254	254
C2	233	233	233	233	233	263	263	263	263	263
D	174	174	174	174	174	174	174	174	174	174
E	100	100	100	100	100	100	100	100	100	100
F	40	40	40	40	40	40	40	40	40	40
G	280	280	280	280	280	356	356	356	356	356
H	101	101	101	101	101	101	101	101	101	101
I	85	85	85	85	85	85	85	85	85	85
J	538	538	538	538	538	614	614	614	614	614
N	266	266	266	266	266	299	299	299	299	299
O	113	113	113	113	113	138	138	138	138	138
P	48	48	48	48	48	53	53	53	53	53
Q	87	87	87	87	87	87	87	87	87	87
R	355	355	355	355	355	409	409	409	409	409
S	50	50	50	50	50	50	50	50	50	50
T	117	117	117	117	117	135	135	135	135	135
U	90	90	90	90	90	116	116	116	116	116
V	47	47	47	47	47	47	47	47	47	47
W	195	195	195	195	195	238	238	238	238	238
X	219	219	219	219	219	252	252	252	252	252
Z	109	109	109	109	109	122	122	122	122	122
Ø	20	20	20	20	20	20	20	20	20	20
kg1	18	20	23	28	31	41	44	52	52	58
kg2	19	21	24	30	32	43	46	54	54	61

Notes: 1=YLV - 2=YLV/AF (All dimensions in mm)

LASER SERIES: YLH - YLH/AF

HORIZONTAL



Dimensions and Weights

Dim	110	112	114	216	218	220	222	224	226	228
A	648	773	898	1023	1148	1273	1273	1523	1523	1773
B	374	499	624	749	874	999	999	1249	1249	1499
C1	224	224	224	224	224	254	254	254	254	254
C2	233	233	233	233	233	263	263	263	263	263
D	174	174	174	174	174	174	174	174	174	174
E	100	100	100	100	100	100	100	100	100	100
F	40	40	40	40	40	40	40	40	40	40
G	280	280	280	280	280	356	356	356	356	356
H	101	101	101	101	101	101	101	101	101	101
I	85	85	85	85	85	85	85	85	85	85
J	538	538	538	538	538	614	614	614	614	614
N	266	266	266	266	266	299	299	299	299	299
O	113	113	113	113	113	138	138	138	138	138
P	48	48	48	48	48	53	53	53	53	53
Q	87	87	87	87	87	87	87	87	87	87
R	355	355	355	355	355	409	409	409	409	409
S	50	50	50	50	50	50	50	50	50	50
T	117	117	117	117	117	135	135	135	135	135
V	28	28	28	28	28	28	28	28	28	28
W	195	195	195	195	195	238	238	238	238	238
X	219	219	219	219	219	252	252	252	252	252
Y	205	205	205	205	205	235	235	235	235	235
Ø	20	20	20	20	20	20	20	20	20	20
kg1	18	20	23	28	31	41	44	52	52	58
kg2	19	21	24	30	32	43	46	54	54	61

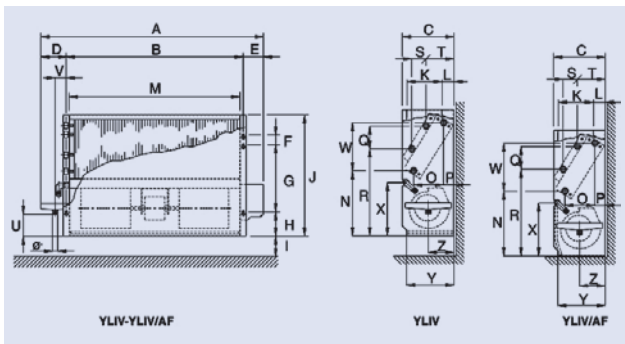
Notes: 1=YLH - 2=YLH/AF (All dimensions in mm)

Dimensions

YLV & YLH ▸ V= vertical ▸ H= horizontal	YLV-AF & YLH-AF ▸ AF= front air intake ▸ V= vertical ▸ H= horizontal	YLIV & YLIH ▸ V= vertical ▸ H= horizontal ▸ I= without Cabinet	YLIV-AF & YLIH-AF ▸ AF= front air intake ▸ V= vertical ▸ H= horizontal ▸ I= without Cabinet
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LASER SERIES: YLIV - YLIV/AF

VERTICAL



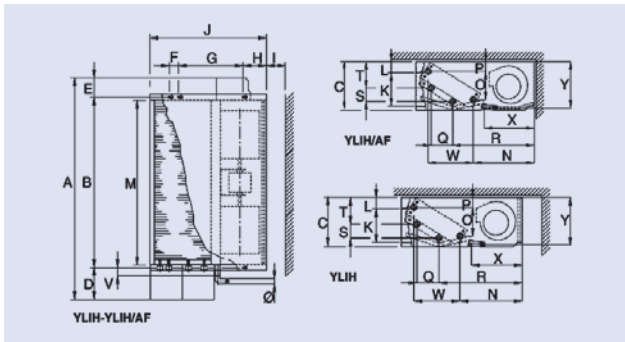
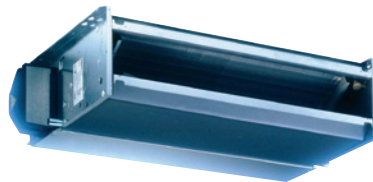
Dimensions and Weights

Dim	110	112	114	216	218	220	222	224	226	228
A	555	680	805	930	1055	1180	1180	1430	1430	1680
B	374	499	624	749	874	999	999	1249	1249	1499
C	215	215	215	215	215	245	245	245	245	245
D	109	109	109	109	109	109	109	109	109	109
E	72	72	72	72	72	72	72	72	72	72
F	40	40	40	40	40	40	40	40	40	40
G	280	280	280	280	280	356	356	356	356	356
H	101	101	101	101	101	101	101	101	101	101
I	85	85	85	85	85	85	85	85	85	85
J	505	505	505	505	505	581	581	581	581	581
K	110	110	110	110	110	125	125	125	125	125
L	55	55	55	55	55	60	60	60	60	60
M	349	474	599	724	849	974	974	1224	1224	1474
N	266	266	266	266	266	299	299	299	299	299
O	113	113	113	113	113	138	138	138	138	138
P	48	48	48	48	48	53	53	53	53	53
Q	87	87	87	87	87	87	87	87	87	87
R	355	355	355	355	355	409	409	409	409	409
S	50	50	50	50	50	50	50	50	50	50
T	117	117	117	117	117	135	135	135	135	135
U	90	90	90	90	90	116	116	116	116	116
V	47	47	47	47	47	47	47	47	47	47
W	195	195	195	195	195	238	238	238	238	238
X	219	219	219	219	219	252	252	252	252	252
Y	200	200	200	200	200	230	230	230	230	230
Z	109	109	109	109	109	122	122	122	122	122
Ø	20	20	20	20	20	20	20	20	20	20
kg	10	13	16	19	22	29	31	38	38	42

(All dimensions in mm)

LASER SERIES: YLIH - YLIH/AF

HORIZONTAL



Dimensions and Weights

Dim	110	112	114	216	218	220	222	224	226	228
A	574	699	824	949	1074	1199	1199	1449	1449	1699
B	374	499	624	749	874	999	999	1249	1249	1499
C	215	215	215	215	215	245	245	245	245	245
D	128	128	128	128	128	128	128	128	128	128
E	72	72	72	72	72	72	72	72	72	72
F	40	40	40	40	40	40	40	40	40	40
G	280	280	280	280	280	356	356	356	356	356
H	101	101	101	101	101	101	101	101	101	101
I	85	85	85	85	85	85	85	85	85	85
J	505	505	505	505	505	581	581	581	581	581
K	110	110	110	110	110	125	125	125	125	125
L	55	55	55	55	55	60	60	60	60	60
M	349	474	599	724	849	974	974	1224	1224	1474
N	266	266	266	266	266	299	299	299	299	299
O	113	113	113	113	113	138	138	138	138	138
P	48	48	48	48	48	53	53	53	53	53
Q	87	87	87	87	87	87	87	87	87	87
R	355	355	355	355	355	409	409	409	409	409
S	50	50	50	50	50	50	50	50	50	50
T	117	117	117	117	117	135	135	135	135	135
V	28	28	28	28	28	28	28	28	28	28
W	195	195	195	195	195	238	238	238	238	238
X	219	219	219	219	219	252	252	252	252	252
Y	205	205	205	205	205	235	235	235	235	235
Ø	20	20	20	20	20	20	20	20	20	20
kg	10	13	16	19	22	29	31	38	38	42

(All dimensions in mm)

LASER and LOW BODY Compatibility tables



Thermostats



**CSL00 (Built in)
CSR00 (Wall mounted)**
Fan speed selector



**CEL00 (Built in)
CER00 (Wall mounted)**
Thermostat with manual fan speed and automatic change over



**CEL20 (Built in)
CER20 (Wall mounted)**
Thermostat with auto. fan speed and automatic change over

**CML00 (Built in)
CMR00 (Wall mounted)**
Thermostat with manual fan speed and S/W change over

**CEL30 (Built in)
CER30 (Wall mounted)**
Thermostat with auto. fan speed and automatic change over for modulating valve

Features CEL/CER

- Dead band for change over 5°C or 2°C (factory set 2°C)
- Manual fan speeds or automatic (models 20 and 30)
- Thermostated fan control or continuous fan running
- Option water sensor WS for change over on coil (for 2 pipes)
- Led indicated status summer, winter or dead band
- Temperature setting for 7 to 30°C (comfort 20–25°C)
- Plastic pins for limiting temperature range
- Input for window contact
- Input for Economy/ occupancy mode
- Output for remote alarm
- Filter alarm 600 or 1200 running hours (factory set 1200 hours)
- With electrical heater post ventilation
- With Air sensor in the air intake destratification function (CEL only)

Compatibility table Thermostats / Valves / Heaters / Parallel connection / Water sensor / Minimum temperature thermostat

Factory fitted thermostat (built in)	Valves for 2 pipes		Valves for 4 pipes		Heaters	Parallel connection		Water sensor	Min. Temp. Thermostat
	J3A2 (2p)	J3AM (2p)	J3A2 (4p)	J3AM (4p)		ON/OFF	Modulating		
CSL00 Fan speed selector						•			•
CML00 Thermostat with manual fan speed and S/W change over	•		•			•			•
CEL00 Thermostat with manual fan speed, dead band, automatic change over	•		•		•	•		•	•
CEL20 Thermostat with automatic fan speed, dead band, automatic change over	•		•		•	•		•	•
CEL30 Thermostat with automatic fan speed, dead band, automatic change over for modulating valve		•		•			•	•	•
Remote controllers and thermostats (wall mounted)									
CSR00 Fan speed selector						•			•
CMR00 Thermostat with manual fan speed and S/W change over	•		•			•			•
CER00 Thermostat with manual fan speed, dead band, automatic change over	•		•		•	•		•	•
CER20 Thermostat with automatic fan speed, dead band, automatic change over	•		•		•	•		•	•
CER30 Thermostat with automatic fan speed, dead band, automatic change over for modulating valve		•		•			•	•	•

• Compatible Not compatible

LASER and LOW BODY Compatibility tables



Compatibility Options / Accessories / Models

Code	Designation	STANDARD								LOW BODY	
		LASER				CONCEALED				YLVR	YLIVR
		YLV	YLH	YLV-AF	YLH-AF	YLIV	YLIIH	YLIV-AF	YLIIH-AF		
Coils and heaters**											
BA1**	Additional 1 row heating	•	•	•	•	•	•	•	•	•	•
KREL**	Kit electrical heater with safety thermostat and relay	•	•	•	•	•	•	•	•		
Factory fitted thermostat (built in)											
CSL00	Fan speed selector (built in)	•		•		•		•		•	•
CML00	Thermostat with manual fan speed and S/W change over	•		•		•		•		•	•
CEL00	Thermostat with manual fan speed, dead band, automatic change over	Compatible with electrical heaters								•	•
CEL20	Thermostat with automatic fan speed, dead band, automatic change over	Compatible with electrical heaters								•	•
CEL30	Thermostat with automatic fan speed, dead band, automatic change over for modulating valves	•		•		•		•		•	•
Remote controllers and thermostats (wall mounted)											
CSR00	Fan speed selector (wall mounted)	•	•	•	•	•	•	•	•	•	•
CMR00	Thermostat with manual fan speed and S/W change over	•	•	•	•	•	•	•	•	•	•
CER00	Thermostat with manual fan speed, dead band, automatic change over	Compatible with electrical heaters								•	•
CER20	Thermostat with automatic fan speed, dead band, automatic change over	Compatible with electrical heaters								•	•
CER30	Thermostat with automatic fan speed, dead band, automatic change over for modulating valves	•		•		•		•		•	•
CBL20	Parallel connection for ON/OFF valve	•	•	•	•	•	•	•	•	•	•
CBL30	Parallel connection for modulating valve	•	•	•	•	•	•	•	•	•	•
Valves / Condensate pump / Water sensor / Minimum temperature thermostat (Factory fitted)											
J3A2 (2p)	3-way 4-ports on/off valves for 2-pipe systems	•	•	•	•	•	•	•	•	•	•
J3A2 (4p)	3-way 4-ports on/off valves for 4-pipe systems	•	•	•	•	•	•	•	•	•	•
J3AM (2p)	3-way 4-ports modulating valves for 2-pipe systems	•	•	•	•	•	•	•	•	•	•
J3AM (4p)	3-way 4-ports modulating valves for 4-pipe systems	•	•	•	•	•	•	•	•	•	•
DT (2p)	Shut-off valves for 2-pipe systems (in addition to J3A2/J3AM valves)	•	•	•	•	•	•	•	•	•	•
DT (4p)	Shut-off valves for 4-pipe systems (in addition to J3A2/J3AM valves)	•	•	•	•	•	•	•	•	•	•
PC	Condensate pump	•	•	•	•	•	•	•	•	•	•
WS	Water sensor	Compatible with CEL/CER									
TM	Minimum temperature thermostat	•	•	•	•	•	•	•	•	•	•
Feet and panels											
CP1	Set of painted feet	•				•					
ZL1	Set of feet + frontal socle	•				•					
PPV1	Vertical painted back panel	•		•						•	
PPH1	Horizontal painted back panel		•		•						
External air intake											
PA	Air intake plenum						•				
PAS	Air intake plenum collars						•				
PA90	90° air intake plenum						•				
RCA	Air intake duct fitting						•				
PM	Air delivery plenum with collars					•	•	•	•		•
PM90	90° air delivery plenum					•	•	•	•		•

- Compatible
- ◻ Compatible with conditions
- ◻ Not compatible

** Maximum of rows is indicated in the documentation, the maximum number of rows includes the heating row or electrical heater.