# **GENERAL INFORMATION**

# **EXPLODED VIEWS**

## **PARTS LISTS**

DSR SERIES DSR-20 DSR-12





# ATTENTION!

There is a time delay on all units fitted with 'DFC 1' Controller. When starting or restarting the unit, it could take up to 3 minutes for the fan and compressor to start running.

### SAFETY



For safety reasons, read this information carefully before operating. Persons who are not familiar with this type of product must not use it. We strongly recommend keeping this information in a safe place for future reference.



















This appliance must be earthed. The unit is designated for indoor operation.

Refer to the rating plate for voltage and power input. The installation must be in accordance with regulations of the country where the installation is performed.

The minimum distance between air inlet(s) and/ or air outlet(s) and any object must be 40 cm.

- The unit is safe. It has been approved by many safety institutions around the world. However, as with other electrical appliances, use it with care.
- Keep out of reach of children.
- Do not clean the unit by spraying it or immersing it in water.







- Do not insert any object into an opening of the unit.
- Disconnect from the mains before cleaning the unit or any of its components.
- Never connect to an electrical outlet using an extension cord. If an outlet is not available, one should be installed by a licenced electrician.
- Any service other than regular cleaning or filter replacement should be performed by an authorized service representative. Failure to do so could result in a loss of warranty.
- When the unit is placed in a (swimming) pool, connect to the mains via a transformer or a breaking switch, conform to the regulations regarding electrical installations.

### **DSR DEHUMIDIFIERS**

You can't control humidity and haze outdoors. But in an indoor swimming pool and other humid interior spaces where hot stuffy air, steamy windows and walls are frequent phenomena, you can.

#### That's why you need a DSR dehumidifier.

Our dehumidifiers clear the air in damp interior spaces.

Condensation is removed from windows, walls and ceilings.

Vaporous stuffy air is drawn off, clean air is pumped back in.

You simply set the dial and the air humidity remains at the required level.

Water evaporating from a swimming pool, bathroom, archive, store or from wet objects and surfaces increases the humidity of the air and creates the hazy and stuffy air often found in the hall.

At the same time water condenses on the cooler parts in the hall: windows, walls, ceilings, etc.

Water condensation is not only an aesthetic defect, it can, in the long run, cause structural damage.

There are two methods for drying the air in humid spaces:

- by ventilation,
- by heat pumps.

Our dehumidifier is designed as a heat pump and has, through energy saving, a considerable advantage over a ventilation system.

### **HOW THE DSR DEHUMIDIFIER WORKS**



The fan (1) sucks the humid air through the evaporator. There the air is cooled and the moisture in the air condenses into water. This water is collected in the tray and drained away through the sump and piping.

The compressor (5) pumps the heat, which has been extracted from the air, into the condenser (6).

There, this heat is once again released, and absorbed by the dry air. The ready wired control box monitors and controls the operation.

### **ELECTRICAL WIRING**

The unit can be supplied with a cord and an earthed plug. If it ever becomes necessary to replace this plug, be sure to use an earthed plug suitable for the power supply in your area and conform to your national safety standard. The wires of the cable are coloured in accordance with the standard electrical code.

Blue	Neutral
Brown	Live
<b>Green/Yellow</b>	Earth

The blue (neutral) wire should be connected to the terminal in the plug marked N or coloured black.

The brown (live) wire should be connected to the terminal in the plug marked L or coloured red.

The green/yellow (earth) wire should be connected to the terminal in the plug marked E or coloured green or marked with this symbol:

The unit must be connected to the power supply with the appropriate leads.

The cord should pass through holes with rubber grommets.

Properly fused disconnect switches must be installed between the unit and the power source.

The unit must be wired with an isolation (mains) switch accessible from outside the wet area in which the unit is installed, to comply with IEE regulations.

### **MAINTENANCE**

The appliance is actually maintenance free, except in cases of soiling.

In this case the filter has to be cleaned.

Models DSR-12 and DSR-20 see page 4

Contains Flouronated Greenhouse gasses covered by the Kyoto Protocol

R410A

Charge:

DSR-12= 1.25kg

DSR20= 1.5kg

### **DSR INDOOR SWIMMING POOL ROOM DEHUMIDIFIERS**



Our swimming pool dehumidifier is a ready to install, transportable, appliance. It can be mounted on a wall or ceiling console in the pool room or even over a shower booth. It may be mounted in adjoining rooms and connected by ducts to the pool room.

We have not adapted normal room air-conditioners for use in indoor swimming pools, we have developed pool dehumidifiers particularly for this purpose. The compressor therefore matches exactly the capacity of the evaporator, thus achieving the optimal balance between efficiency and power consumption. The pool dehumidifier is controlled by a humidistat which operates at a low (=safety) voltage of 24V.

# The relative humidity in an indoor swimming pool can be adjusted between 50-80% when an external hygrostat is used.

### **INSTALLING THE DSR**

The minimum distance between inlet(s) and/or outlet(s) and any object must be 40 cm. Installation of the dehumidifier is easy, as the unit is built on a base and slides out of the housing. The individual parts are logically arranged and can be inspected. First, remove the screws of the frame with louvers. Remove the screws on the base. Now the unit can be taken out the housing.

Prepare a suitable console and mount it on the wall.

Mount the housing on the console and attach it by fastening its base with screws to the legs (which should preferably be lagged with a vibration dampening material). Insert the unit into the housing, fasten the housing to the base and attach the louvered frame in front of the housing. Attach a 3/4" I.D. flexible pipe to the drain nipple located at the back of the dehumidifier.



### MAINTENANCE

The appliance is actually maintenance free, except in cases of soiling. In this case the filter has to be cleaned.

To remove the filter, slide open the 2 latches that hold the filter grille, located at the back of the unit. Swing the grille towards you and upwards to access the filter. Remove the filter. Use a vacuum cleaner to remove dust and debris. The filter can then be flushed clean with a stream of water. Let any trapped water drip off the filter fabric and allow to

dry. Replace the dried filter in reverse order.

### **OPERATING RANGE**

Max. working temperature	35°C
Nin. working temperature	5°C
Relative humidity	40-100%

# **MOISTURE REMOVAL / DSR-12**

### DSR-12 - MOISTURE REMOVAL AT DIFFERENT ROOM TEMP. EN R.H.%

			(liter wat	er/24h)				
		REI	ATIVE H	UMIDITY	%			
ROOM TEMP. °C	85	80	75	70	65	60	55	50
15	41	37	34	31	28	25	23	17
20	57	52	48	43	38	34	30	27
24	73	66	60	55	49	43	39	34
25	77	70	63	58	51	46	41	36
26	80	73	67	60	54	48	43	38
27	84	77	70	63	56	50	45	40
28	88	80	73	66	59	52	47	42
29	92	84	76	69	62	55	49	43
30	96	87	79	72	64	57	51	45
32	100	91	82	75	67	59	53	47
35	104	94	86	78	69	62	55	49

### WIRING DIAGRAM DSR-12





1	PART	DESCRIPTION	TYPE	۲I
1	No			
	DH02-A001	BASE PANEL ASSY	ASSEMBLY	1
2	DH02-A003	DRAIN TRAY ASSY	ASSEMBLY	1
3	DH02-C017	FAN HOUSING MOUNTING BRACKET	PART	1
4	DH02-A004	FAN	PART	1
5	DH02-C012	INNER PANEL RH	PART	7
6	DH02-C011	INNER PANEL LH	PART	1
7	DH02-P021	COMPRESSOR	PART	1
8	DH02-P004	CONDENSER COIL	PART	7
6	DH02-C006	EVAP MOUNT BRACKET LEFT	PART	7
10	DH02-C049	EVAP MOUNT BRACKET RIGHT	PART	1
11	DH02-P003	EVAPORATOR COIL	PART	7
12	DH02-C008	EVAP TOP COVER	PART	7
13	DH02-C013	FAN HOUSING	PART	1
14	DH02-A010	PCB	ASSEMBLY	T
15	DH02-A009	COVER ASSY	ASSEMBLY	7
16	DH02-P029	COMPRESSOR CAPACITOR	PART	1
17	DH02-P021	FILTER MATERIAL	PART	7
18	DH01-P003	ROCKER SWITCH	ASSEMBLY	1
19	DH02-C047	COIL BRACE RIGHT	PART	1
20	DH02-C048	COIL BRACE LEFT	PART	1
21	DH02-P033	JACK SOCKET	PART	1
22	DH02-P032	ROCKER SWITCH SMALL	ASSEMBLY	1
	ļ	618	651	1
482			., 1)	
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## **MOISTURE REMOVAL / DSR-20**



			(liter wat	<u>er/24h)</u>				
		REI	LATIVE H	UMIDITY	%			
ROOM TEMP. °C	85	80	75	70	65	60	55	50
15	69	62	57	52	46	41	23	17
20	96	87	79	72	64	57	51	45
24	121	110	100	91	81	72	64	57
25	128	116	106	96	85	76	68	60
26	134	122	111	101	90	80	71	63
27	141	128	116	106	94	84	74	66
28	147	134	121	110	98	87	78	69
29	153	139	127	115	103	91	81	72
30	160	145	132	120	107	95	85	75
32	166	151	137	125	111	99	88	78
35	173	157	143	130	116	103	92	82

### WIRING DIAGRAM DSR-20



# **EXPLODED VIEW DSR-20**



QN	PART	DESCRIPTION	TVPF	OTV
	No		1	- 7
<b>–</b>	DH02-A001	BASE PANEL ASSY	ASSEMBLY	1
2	DH02-A003	DRAIN TRAY ASSY	ASSEMBLY	1
e	DH02-C017	FAN HOUSING MOUNTING BRACKET	PART	1
4	DH02-A004	FAN	PART	1
5	DH02-C012	INNER PANEL RH	PART	1
9	DH02-C011	INNER PANEL LH	PART	1
7	DH02-P021	COMPRESSOR	PART	1
8	DH02-P001	CONDENSER COIL	PART	1
6	DH02-C006	EVAP MOUNT BRACKET LEFT	PART	1
10	DH02-C007	EVAP MOUNT BRACKET RIGHT	PART	1
11	DH02-P002	EVAPORATOR COIL	PART	1
12	DH02-C008	EVAP TOP COVER	PART	1
13	DH02-C013	FAN HOUSING	PART	1
14	DH02-A010	PCB	ASSEMBLY	1
15	DH02-A009	COVER ASSY	ASSEMBLY	1
16	DH02-P013	COMPRESSOR CAPACITOR	PART	1
17	DH02-P021	FILTER MATERIAL	PART	1
18	DH01-P003	ROCKER SWITCH	ASSEMBLY	1
19	DH02-C047	COIL BRACE RIGHT	PART	1
20	DH02-C048	COIL BRACE LEFT	PART	1
21	DH02-P033	JACK SOCKET	PART	1
22	DH02-P032	ROCKER SWITCH SMALL	ASSEMBLY	1



No.	PART	DESCRIPTION	TYPE	ΟTY
	No			,
4	DH02-C030	COVER	PART	1
2	DH02-C021	COVER OUTLET END PANEL	PART	1
e	DH02-A007	REAR PANEL ASSY	ASSEMBLY	1
4	DH02-C026	FILTER DOOR	PART	1
5	DH02-P027	HANDLE	PART	4
6	DH01-P004	LATCH	PART	2
7	DH02-P021	FILTER MATERIAL	PART	1



CONTACT