



FORM

Fancoil Units



FORM

About Form Group of Companies

Established in 1965, Form Group's core business is the production, sales, and after-sales services of commercial and residential air conditioning systems designed to enhance quality of life. The Group serves a wide range of customers including commercial buildings, shopping centers, hotels, hospitals, schools, factories, and residences. Form Group is composed of five companies.

FORM ENDUSTRI URUNLERI A.S.

Specializing in commercial and industrial central air conditioning solutions, the company manufactures fan coils, heat recovery units, air handling units, water-source heat pumps and rooftop packaged units (under license agreement with Lennox company) at its 20,000 m² production facility in İzmir. Also representing globally recognized brands such as Clivet, Dunham-Bush, Climate Master, and Montair; the company's main product portfolio includes rooftop units, chillers, fan coils, heat pumps, air handling units, cooling towers and other commercial HVAC equipment. It is one of the leading manufacturers, distributors and after sales service providers in the Turkish HVAC market.

FORM MHI KLIMA SISTEMLERİ A.S.

Form MHI, is a joint venture (JV) between Form Group and Japan's technology giant Mitsubishi Heavy Industries (MHI). Form VRF Systems Inc., founded in 2011, had consistently received the "Top VRF Sales Company of the Year" award every year since 2014. Building on this success, MHI and Form Group combined MHI's technological strength and innovative approach with Form's sales and engineering expertise to establish the Joint Venture company Form MHI Klima Sistemleri A.S. in 2019.

The company offers sales and after-sales services for VRF systems, split and multi-split air conditioners, residential heat pumps and professional air conditioning products for both commercial and residential applications. With a network of over 130 dealers and 350 service centers, Form MHI is among the top two suppliers in the Turkish VRF market. In addition to its domestic operations, the company also serves as a regional hub responsible for markets such as Azerbaijan, Libya, Algeria, Cyprus and Georgia.

FORM ENDUSTRI TESISLERİ A.S.

Form Endustri Tesisleri, produces natural ventilation systems for industrial roofs under a Gal license and represents world-renowned brands such as Lamilux and Roda in daylighting, smoke and heat exhaust systems. The company also manufactures Sunvia natural lighting systems and FES evaporative coolers at its Izmir facility.

FORM FREVA SOGUTMA SISTEMLERİ A.S.

Form Freva Sogutma Sistemleri, provides design, manufacturing and turnkey installation services for process water cooling equipment (Cooling Towers) in both comfort and industrial applications, supported by its dynamic engineering and production team. Its product range includes open and closed circuit cooling towers, hybrid (semi-wet/semi-dry) towers, dry and adiabatic coolers, evaporative and adiabatic condensers, and industrial-type thin-fan dry coolers.

MUNTERS FORM A.S.

Munters Form, is a joint venture (JV) between Form Group and Sweden's Munters, offering energy-efficient dehumidification solutions in Türkiye. It's the number one supplier of desiccant dehumidifiers for the pharma and food industry in Turkey.

FORM YONETİM DESTEK A.S.

Form Yönetim Destek, provides corporate support services—including marketing, human resources, accounting & finance, IT, and logistics—to the four group companies that focus solely on production, sales and after-sales operations.

Form Group's headquarters is located in Maslak, Istanbul with an additional office on the Asian side of Istanbul in Ataşehir. In addition to its Izmir production facility, the Group has regional offices for each sales company in Ankara, Antalya, İzmir, Adana, and Bursa separately.

As a founding member of ISKID and ISKAV associations and a member of ESSIAD, Form Group continues to uphold ethical business values across all its areas of operation and remains one of the most respected, reliable, and leading organization in the Turkish HVAC industry.

FORM Fancoil units preferred for high performance, efficiency, special design, quiet operation, durability, ergonomic dimensions and low maintenance costs. Application areas are hotels, offices, hospitals, business centers, administrative buildings, public buildings, residences, villas, residences and shopping malls.

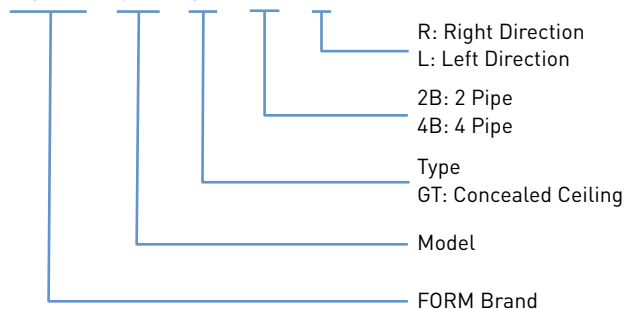


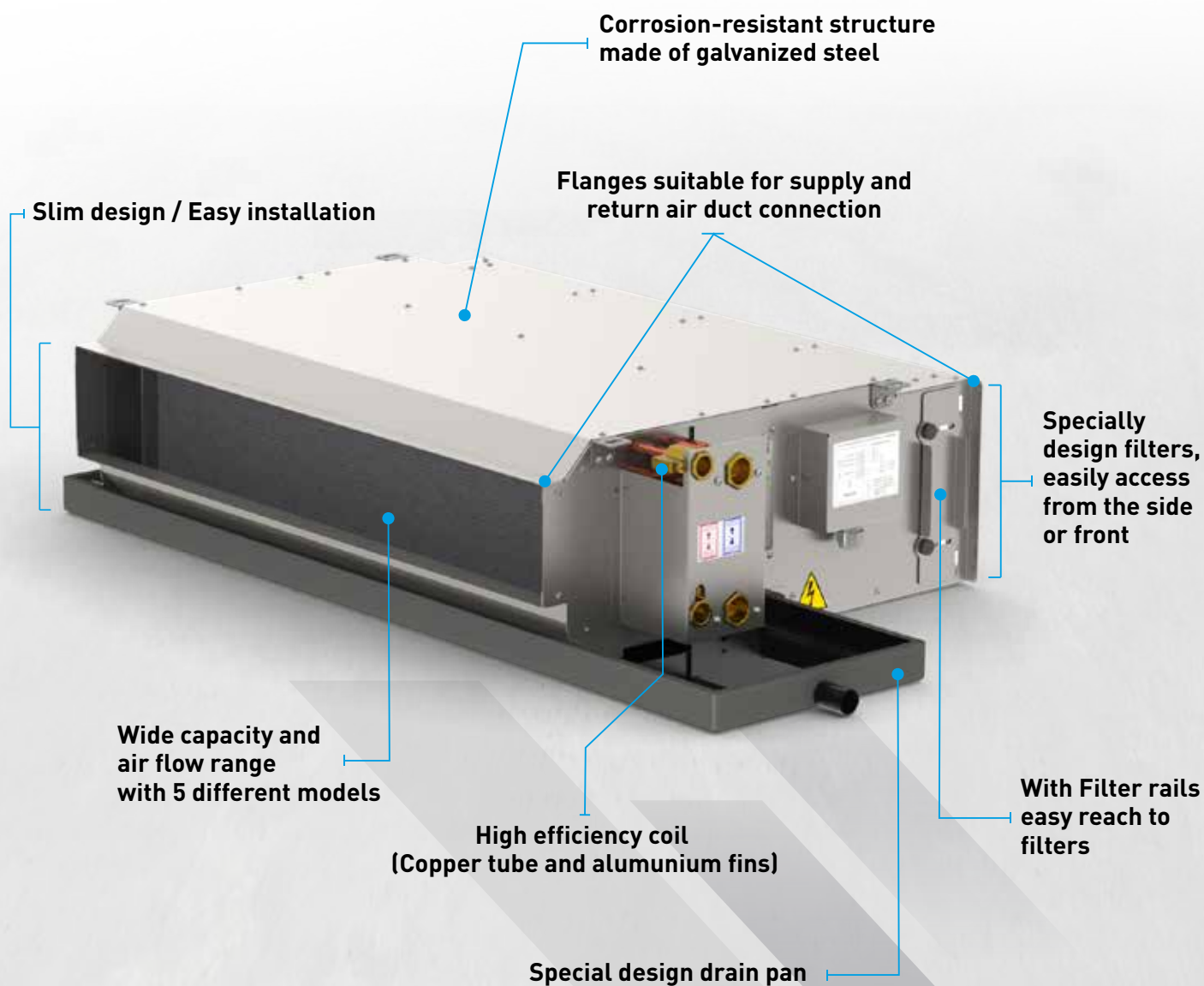
Features

- FORM Fan-Coil Units are available in 2 or 4 pipes configuration with 5 different models in each configuration.
- All units have CE certification.
- Special heat exchanger structure, it produces high efficiency solutions and low operating cost.
- In order to meet customer needs, a Windows operating system based selection software is used to determine the appropriate model for the desired indoor climate conditions and the capacity requirements.
- Form fancoils have elegant design thanks to their ergonomic dimensions and provide easy installation.
- It has flanges suitable for supply and return air duct connection.
- Silent operation with 3-speed adjustable fan and high-efficiency motor.
- Specially designed filters are offered as standard. It can be easily reach from the side or front, cleanable and long life.
- Drain pan is painted and there is 6 mm insulation. with Optionel extended drain pan for easy installation.
- The drain pan has bevel to prevent water from filling.
- Special air vent design that allows the air in the coil to be removed.
- The electrical connection is enclosed in a special box to prevent electrical leakage. All CE electrical tests of the units are done by factory.

Nomenclature

FORM - 021- GT - 2B - R

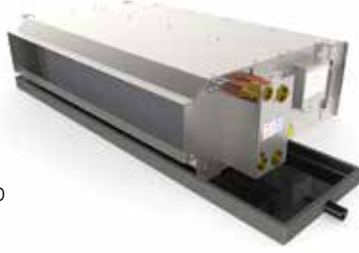




Technical Specifications

STRUCTURE

- The structure consists of 0.8 - 1 mm thick galvanized steel and is resistant to corrosion.
- The interior of the unit is covered with 3 mm thick polyethylene based insulation material. This material is it also provides sound insulation.
- The unit have factory installed mounting brackets.



EXTENDED DRAIN PAN (Optional)

- Extended drain pan accessory should be used to ensure that condensation on the installation elements such as valves and strainers is collected into the drain pan.
- The width of extended drain pan is the same as the width of the original pan and its length is 24 cm.



COIL

- The coil consisting of copper pipes and aluminum fins is designed for 2 and 4 pipe systems and has high thermal efficiency.
- Coils are tested at 35 bar pressure.
- Water inlet-outlet connections are suitable for 3/4" pipe connection for cooling and 1/2" pipe connection for heating.
- There is a protection plate on the collector side of the coils to prevent damage to copper pipes.



FAN

- In FORM Fancoil, double suction, forward curved blades, high efficiency fans are used.
- Depending on the unit size, 1 to 4 fans are used in one unit.



MOTOR

- Monophase and 3 speed motors are used in all units.
- Sound level is low, energy efficiency is high.
- The shafts of the motors are specially coated against corrosion.



YOĞUŞMA TAVASI

- The "inside" of the condensation tray, which is manufactured as a single piece by pressing in a press made of 1 mm thick sheet metal material, is coated in a way to prevent rust.
- The interior of the "U" shaped ceiling is inclined to prevent water accumulation and provides easy evacuation of the accumulated water.
- The bottom of the ceiling is completely covered with 6mm thick rubber-based insulation material to prevent condensation to form on the outer surface.



FILTER

- Specially designed slider filters can be easily removed and installed from the side covers or the front by applying them through the slides.
- In large models, 2 or 3 pieces of filters are used and they are attached to each other by special interlocking pieces.



2 Pipe Duct Type Fancoil



MODEL			FORM-011	FORM-021	FORM-032	FORM-042	FORM-062	FORM-083	FORM-094	FORM-104
Total Cooling Capacity		kW	1,63	2,45	3,18	4,57	5,45	7,52	8,65	11,18
Sensible Cooling Capacity			1,51	2,03	2,67	3,79	4,37	6,14	7,07	9,32
Total Heating Capacity			4,55	5,95	7,96	11,06	12,83	17,63	21,26	27,42
Power Usage		W	64,5	64,5	113	113	137	160,8	226	259
Air volume	L	m³/h	396	396	752	752	908	1119	1610	1768
	M		500	500	966	966	1168	1443	1800	2260
	H		598	598	1160	1160	1400	1660	2360	2640
Water Flow	Cooling	m³/h	0,28	0,42	0,55	0,78	0,93	1,29	1,48	1,92
	Heating		0,40	0,52	0,70	0,97	1,13	1,55	1,87	2,41
Sound Pressure Level	L	db(A)	35,3	35,3	37,9	37,9	40,5	45,9	49,3	49,3
	M		42,7	42,7	45,1	45,1	47,2	54,1	56,3	56,3
	H		47,4	47,4	49,7	49,7	52,2	57,3	57,8	57,8
NR	L		30	30	29	29	30	35	38	38
	M		35	35	38	38	39	44	46	46
	H		38	38	42	42	44	48	49	49
NC	L		27	27	27	27	29	34	36	36
	M		34	34	36	36	38	43	45	45
	H		37	37	40	40	43	49	50	50
Water Pressure Drop	Cooling	kPa	4,22	12,82	19,69	20,59	31,34	28	17,9	28,73
	Heating		6,88	16,15	25,51	25,76	30,61	31,69	22,47	29,5
Number of Rows			2	3	2	3	3	3	3	3
Water Connection Size			3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Voltage / Frequency /Phase			230 V/ 50 Hz / 1 ph							
Weight		kg	14,4	14,8	21,3	22,1	23,6	33,4	45,1	46,2

L : Fan Low

M: Fan Medium

H: Fan High

* All air volumes according to 0 PA External Pressure.

* Cooling Air Inlet Conditions 27°C/19 °C KT/YT, Water Inlet at 7°C/12 °C

* Heating Air Inlet Conditions 20°C/15 °C KT/YT, Water Inlet at 70°C/60 °C

4 Pipe Duct Type Fancoil



MODEL			FORM-011	FORM-021	FORM-032	FORM-042	FORM-062	FORM-083	FORM-094	FORM-104
Total Cooling Capacity		kW	1,6	2,41	3,09	4,42	5,33	7,36	8,47	10,85
Sensible Cooling Capacity			1,48	1,99	2,59	3,65	4,27	5,99	6,91	9
Total Heating Capacity			2,6	2,52	4,25	4,63	4,96	7,76	8,49	11,71
Power Usage		W	64,5	64,5	113	113	137	160,8	226	259
Air volume	L	m³/h	383	383	720	720	872	1050	1592	1652
	M		488	488	926	926	1126	1338	1904	2128
	H		580	580	1100	1100	1350	1604	2280	2510
Water Flow	Cooling	m³/h	0,27	0,41	0,53	0,76	0,91	1,26	1,45	1,86
	Heating		0,23	0,22	0,37	0,41	0,44	0,68	0,75	1,03
Sound Pressure Level	L	db(A)	35,3	35,3	37,9	37,9	40,5	45,9	49,3	49,3
	M		42,7	42,7	45,1	45,1	47,2	54,1	56,3	56,3
	H		47,4	47,4	49,7	49,7	52,2	57,3	57,8	57,8
NR	L		30	30	29	29	30	35	38	38
	M		35	35	38	38	39	44	46	46
	H		38	38	42	42	44	48	49	49
NC	L		27	27	27	27	29	34	36	36
	M		34	34	36	36	38	43	45	45
	H		37	37	40	40	43	49	50	50
Water Pressure Drop	Cooling	kPa	4,07	12,37	18,65	19,42	30,1	26,94	17,24	27,17
	Heating		7,75	7,32	25,99	30,47	6,53	17,53	25,57	46,41
Number of Rows			2+1	3+1	2+1	3+1	3+1	3+1	3+1	3+1
Water Connection Size			3/4"+1/2"	3/4"+1/2"	3/4"+1/2"	3/4"+1/2"	3/4"+1/2"	3/4"+1/2"	3/4"+1/2"	3/4"+1/2"
Voltage / Frequency /Phase			230 V/ 50 Hz / 1 ph							
Weight		kg	15	15,3	22,1	22,9	24,7	34,3	46,8	48,1

L : Fan Low

M : Fan Medium

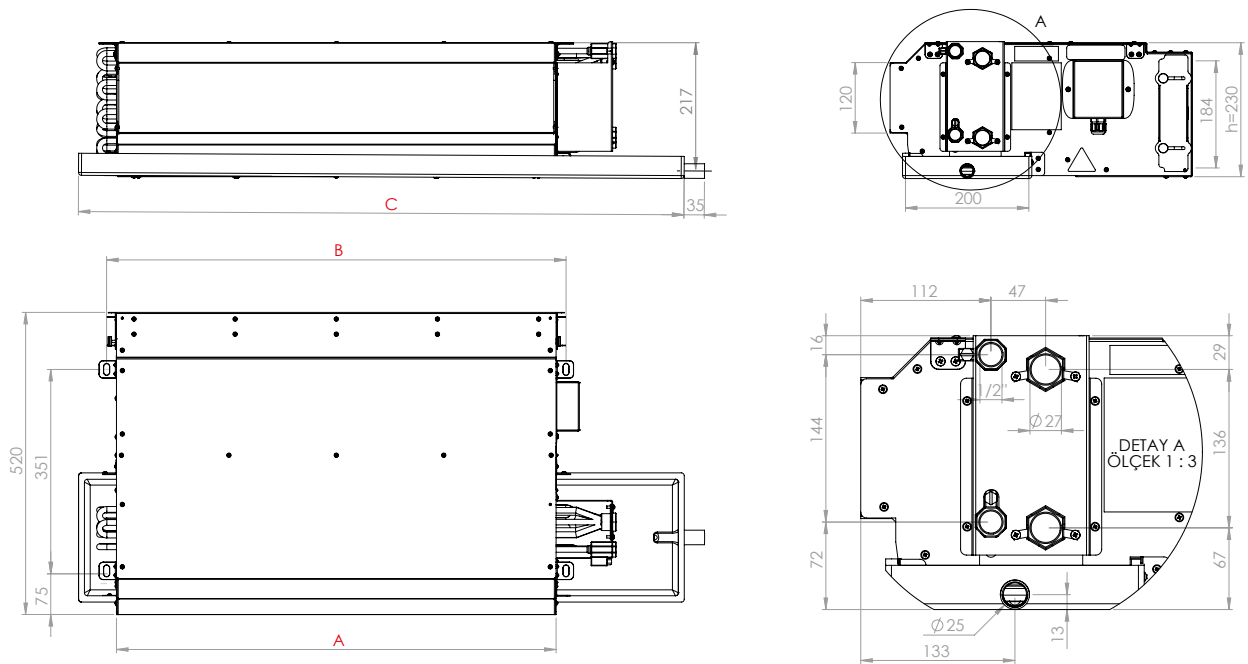
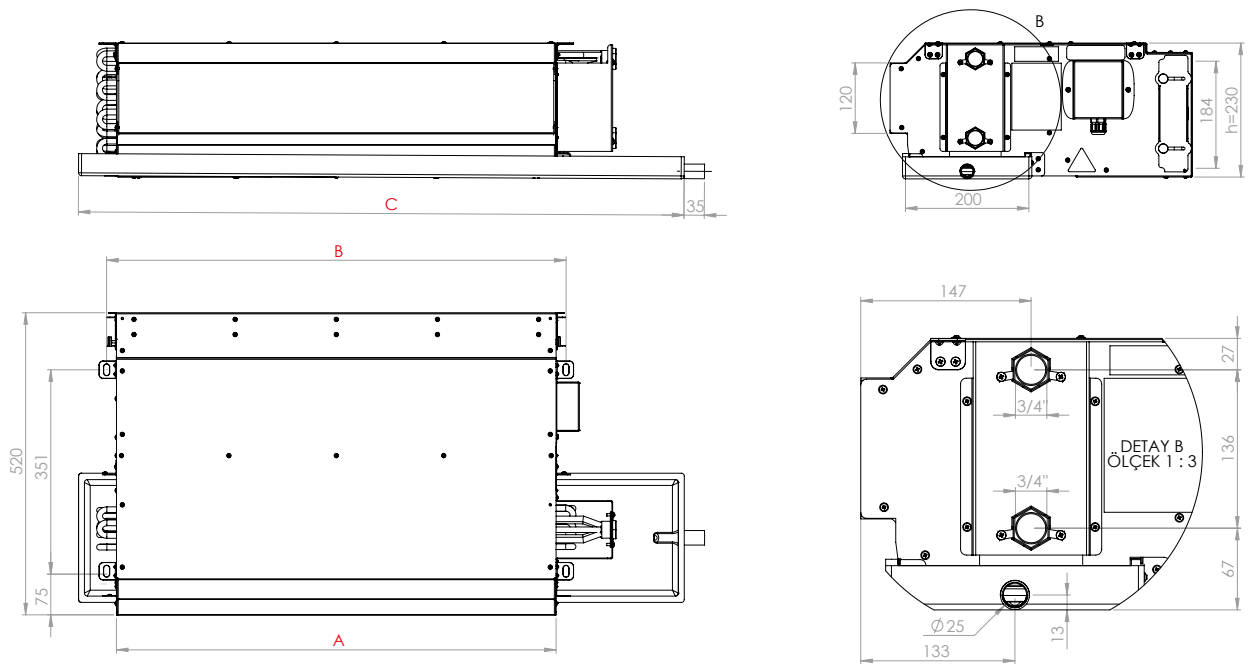
H : Fan High

* All air volumes according to 0 PA External Pressure.

* Cooling Air Inlet Conditions 27°C/19 °C KT/YT, Water Inlet at 7°C/12 °C

* Heating Air Inlet Conditions 20°C/15 °C KT/YT, Water Inlet at 70°C/60 °C

Dimensions



MODEL			FORM-011	FORM-021	FORM-032	FORM-042	FORM-062	FORM-083	FORM-094	FORM-104
Dimensions	A	mm	455		755		885	1155	1605	
	B	mm	489		789		919	1189	1639	
	C	mm	660		960		1090	1360	1810	
	h	mm	230		230		230	230	230	

Accessories

THERMOSTAT

- 220 V AC
- Temperature range from 10°C-30°C
- Cool / Heat / Off selector switch
- 3 stage fan speed
- Integrated NTC type temperature sensor
- Valve outlet suitable for 2 and 4 pipe systems
- Thermostatic fan control



DIGITAL THERMOSTAT

- 220 V AC
- Stylish design, digital LCD display
- Blue backlight
- Surface mounting
- Temperature range from 5°C to 35°C
- Cool / Heat / Auto selection setting
- Manual / Automatic 3 stage fan speed
- Valve outlet suitable for 2 and 4 pipe systems
- Continuous or thermostatic models for fan
- Low temperature protection
- Hotel card or window contact application
- Working in case the energy is cut off and coming back
- Two different working options for heating output



DIGITAL TOUCH THERMOSTAT

- 220 V AC
- Stylish design, digital LCD display
- Touch screen
- Energy saving mode
- Flush mounting
- Temperature range from 5°C to 35°C
- Cool / Heat / Auto selection setting
- Keylock
- Weekly programming feature
- Manual / Automatic 3 stage fan speed
- Valve outlet suitable for 2 and 4 pipe systems
- Working in case the energy is cut off and coming back
- Low temperature protection



DIGITAL TOUCH THERMOSTAT (MODBUS)

- 220 V AC
- Stylish design, digital LCD display
- Touch screen
- 5 digital outputs
- 1 passive input
- MODBUS communication
- NTC external sensor connection
- Door or window contact connection
- Electric heater control
- Hotel card contact
- Led lighting
- Surface mounting
- Temperature range from 5°C to 35°C
- Cool / Heat / Auto selection setting
- Keylock
- Weekly programming feature
- Manual / Automatic 3 stage fan speed
- Valve outlet suitable for 2 and 4 pipe systems
- Working in case the energy is cut off and coming back
- Low temperature protection



MOTORIZED VALVES

WT-2131

- 2 way
- DN15 connection diameter for 1/2 "
- DN20 connection diameter for 3/4 "
- External thread connection
- PN16
- Brass body
- Maximum fluid temperature 100°C
- KVS value for 1/2 "1.7
- KVS value for 3/4 "2.8



WT-3131

- 3 way
- DN15 connection diameter for 1/2 "
- DN20 connection diameter for 3/4 "
- External thread connection
- PN16
- Brass body
- Maximum fluid temperature 100°C
- KVS value for 1/2 "1.7
- KVS value for 3/4 "2.8



WT-4131

- 3-way, 4-port
- DN15 connection diameter for 1/2 "
- DN20 connection diameter for 3/4 "
- External thread connection
- PN16
- Brass body
- Maximum fluid temperature 100°C
- KVS value for 1/2 "1.7
- KVS value for 3/4 "2.8
- Bypass in itself



Vana Motoru:

- 220V
- ON / OFF control
- Valve open / closed indicator
- Thermal actuator

- Normally closed (NC)
- 1.8 Watt
- IP54



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FORM GROUP COMPANIES

FORM Group Companies, established in 1965, manufacture, import, sell and service Air Conditioning and Industrial systems equipment, to improve the life and manufacturing quality of people and products. FORM Group Companies, offering high energy efficiency and environment friendly system solutions, is one of the leading companies in its field, respecting the environment and the ethical values.

Form Endüstri Ürünleri

- Rooftop Packaged Units
- Chiller & Heat Pumps
- Water Source Heat Pump Units
- Air Handling Units & Fancoils
- Heat Recovery Units
- Cooling Towers
- Santrifuge Chillers

Form MHI Klima Sistemleri

- VRF Systems
- Split Units
- Multi Split Units
- Professional Units
- Heat Pump Units
- Air to Water Heat Pump Units
- DX Air Handling Units

Form Endüstri Tesisleri

- Smoke Evacuation Systems
- Natural Ventilation Systems
- Evaporative Cooling Units
- Daylighting Systems
- Roof Access Hatches

Form Freza Soğutma Sistemleri

- Open Circuit Cooling Towers
- Close Circuit Cooling Towers
- Hybrid Cooling Towers
- Evaporative Condensers
- Adiabatic & Dry Cooling Units