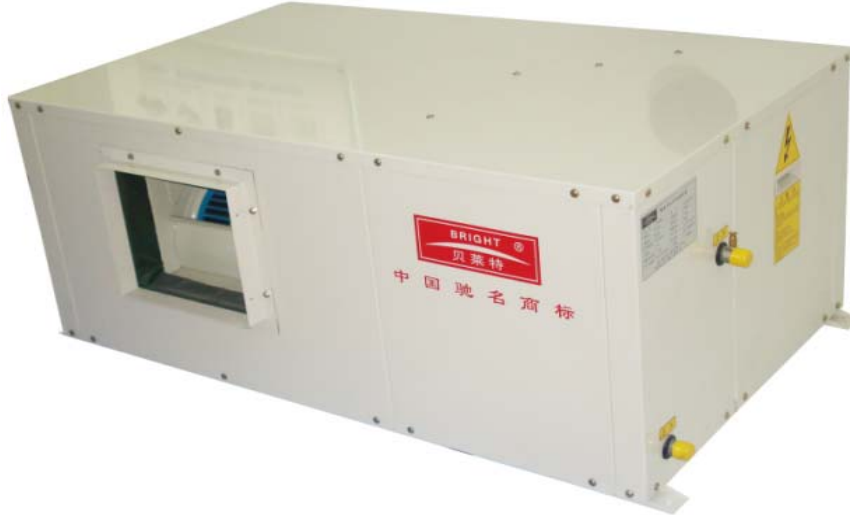


WLRF10AZDG ÷ 150AZDG

Cooling capacity: 1.91 ÷ 44 kW

Heating capacity: 2.08 ÷ 47 kW



R410a



FEATURES

STRUCTURE

Panels and frame are made from galvanized steel protected with polyester powder painting to ensure total resistance to atmospheric agents.

HERMETIC COMPRESSORS

Single phase rotary type (mod.10÷35),3-phase (mod.40÷150) scroll type compressors, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration dampers.

Mod. 40÷60 are available with single phase compressors.

CENTRIFUGAL FAN

High efficiency, double inlet centrifugal fan Protection level IP44. Low noise, low speed, big air flow and high ESP.

WATER SIDE HEAT EXCHANGER:

High efficiency coaxial heat exchanger, factory insulated with flexible close cell material.

REFRIGERANT CIRCUIT

Copper tube connection with charge valves, filter, capillary for mod. 10÷60(except Model 70 and above models, which use expansion valve) ; high pressure switch and low pressure switch.

The heat pump units are complete also with 4-way valve and one way valve.

ELECTRIC PANEL

consists of:

- Compressor contactor,
- Compressor protection breaker,
- Microprocessor with function display

OPTIONAL

Hot water coil

NOMENCLATURE

WLRF 10 C Z DGXSP

① ② ③ ④ ⑤

① WLRF: Water kit
 GWRF: Underground water
 GLRF: Underground water loops
 R: Heat pump

② Model
 ③ Refrigerant type
 --: R22
 A: R410a
 C: R407c

④ Structure:
 Z: Packaged
 W: Split

⑤ Installing type:
 DG: Ceiling mounted
 DGSP: With hot water coil
 DGX: Fresh air type
 DGXSP: Coil and fresh air type
 LG: Floor cabinet type
 LGQQ: Floor cabinet with cap

TECHNICAL DATA

Model			10ZDG	15ZDG	18ZDG	20ZDG	25ZDG	28ZDG	30ZDG	35ZDG	
WL(R)F	Cooling capacity*	kW	1.91	2.40	3.13	4.76	5.80	6.91	7.66	8.12	
	Heating capacity**	kW	2.08	2.61	3.41	5.17	6.31	7.52	8.33	8.84	
GW(R)F	Cooling capacity*	kW	2.29	2.88	3.76	5.71	6.96	8.29	9.19	9.75	
	Heating capacity**	kW	2.32	2.91	3.80	5.76	7.03	8.38	9.28	9.84	
GL(R)F	Cooling capacity*	kW	2.20	2.76	3.60	5.47	6.67	7.95	8.80	9.34	
	Heating capacity**	kW	1.94	2.44	3.19	4.83	5.90	7.03	7.78	8.26	
Hot water coil		kW	2.80	3.20	4.50	5.80	7.10	8.30	7.66	8.12	
Power supply		V/PH/Hz	220V/1PH/50HZ							-----	
Air flow rate	High	m ³ /h	550	720	980	1120	1200	1560	1560	1700	
	Medium	m ³ /h	440	570	780	890	960	1200	1200	1450	
	Low	m ³ /h	330	420	580	670	720	930	930	1000	
External static pressure		Pa	40	50	60	70	70	70	40	70	
Fan motor power		W	70	100	150	165	191	220	70	220	
Fan motor power with hot coil		W	100	133	192	195	220	264	100	264	
Water side heat exchanger	Type	--	Coaxial heat exchanger								
	WL(R)F water flow	m ³ /h	0.43	0.54	0.70	1.01	1.24	1.48	1.64	1.78	
	GW(R)F water flow	m ³ /h	0.34	0.43	0.54	0.83	1.03	1.20	1.34	1.44	
	GL(R)F water flow	m ³ /h	0.47	0.58	0.74	1.13	1.40	1.64	1.81	1.96	
	Pressure drop	kPa	4	4	4	4	7	7	12	16	
Pipe size		Inch	R ₁ 3/4								
Hot water coil	Water flow	m ³ /h	0.47	0.58	0.76	0.97	1.20	1.40	1.51	1.68	
	Pressure drop	kPa	8	10	16	19	24	29	24	24	
	Pipe size		Inch	R ₁ 3/4							
Compressor	Type	--	Rotary type								
	WL(R)F cool power	kW	0.514	0.633	0.831	1.014	1.298	1.577	1.767	2.088	
	GW(R)F cool power	kW	0.435	0.503	0.581	0.955	1.278	1.390	1.559	1.843	
	GL(R)F cool power	kW	0.449	0.521	0.601	0.987	1.32	1.437	1.611	1.904	
	WL(R)F heat power	kW	0.534	0.663	0.871	1.064	1.358	1.697	1.807	2.138	
	GL(R)F heat power	kW	0.524	0.606	0.698	1.188	1.752	1.763	1.876	2.220	
Condensate drain pipe size		Inch	R ₁ 3/4								
Refrigerant charge		kg	0.45	0.5	0.6	0.8	1.1	1.3	1.2	1.5	
Physical Dimensions	Length	mm	800	943	943	943	1113	1113	1113	1113	
	Width	mm	553	734	734	734	794	794	794	794	
	Height	mm	350	410	410	410	450	530	530	530	
Unit weight	Heat pump	kg	40	57	60	68	90	110	110	115	
	Cool only	kg	38	55	58	66	88	108	108	112	
	Hot water coil	kg	45	60	63	73	97	119	119	125	
Noise level***		dB(A)	32	40	42	42	45	45	46	46	

Performance values refer to the following conditions:

*Nominal Cooling capacity test condition:

Water kit conditions: Water side water inlet/outlet temperature 30°C/35°C, Indoor temperature DB 27 °C, WB 19 °C.

Underground water conditions: Water side water inlet/outlet temperature 18°C/25°C, Indoor temperature DB 27 °C, WB 19 °C.

Underground loops conditions: Water side water inlet/outlet temperature 25°C/30°C, Indoor temperature DB 27 °C, WB 19 °C.

**Nominal Heating capacity test condition:

Water kit conditions: Water side water inlet 20°C/, Indoor temperature DB 20 °C, WB 15 °C .

Underground water conditions: Water side water inlet 15°C/, Indoor temperature DB 20 °C, WB 15 °C .

Underground loops conditions: Water side water inlet 7.5°C/, Indoor temperature DB 20 °C, WB 15 °C .

Hot water coil test conditions: Indoor temperature DB 20 °C, Water side water inlet/outlet 45°C/40°C

*** Sound pressure measured at a distance of 1 m and a height of 1.5 m above the ground in a dear field.

TECHNICAL DATA

Model			40ZDG	45ZDG	50ZDG	60ZDG	70ZDG	100ZDG	125ZDG	150ZDG
WL(R)F	Cooling capacity*	kW	9.15	10.06	12.74	16.65	22.00	29.50	37.00	44.00
	Heating capacity**	kW	9.95	10.94	13.87	18.12	23.50	31.50	39.50	47.00
GW(R)F	Cooling capacity*	kW	10.98	12.07	15.29	19.98	24.44	35.40	44.40	52.80
	Heating capacity**	kW	11.09	12.19	15.45	20.18	24.80	35.75	44.84	53.33
GL(R)F	Cooling capacity*	kW	10.52	11.56	14.66	19.15	23.40	33.93	42.55	50.60
	Heating capacity**	kW	9.30	10.22	12.96	16.93	20.70	29.99	37.61	44.73
Hot water coil		kW	11.00	13.7	15.8	20	23.7	32.7	42.9	49.4
Power supply		V/PH/Hz	-----				380V/3PH/50Hz			-----
Air flow rate	High	m3/h	1900	2400	2500	3800				
	Medium	m3/h	1520	1950	2000	3200	3200	5100	6500	7500
	Low	m3/h	1140	1480	1500	2800				
External static pressure		Pa	100	100	100	100	100	100	150	150
Fan motor power		W	350	420	460	560	750	1100	1450	2000
Fan motor power with hot coil		W	401	540	540	540	930	1360	1720	2200
Water side heat exchanger	Type	--	Coaxial heat exchanger							
	WL(R)F water flow	m3/h	2.06	2.21	2.75	3.68	4.76	6.24	7.84	9.33
	GW(R)F water flow	m3/h	1.65	1.79	2.24	2.98	3.63	5.09	6.40	7.61
	GL(R)F water flow	m3/h	2.25	2.43	3.04	4.05	4.93	6.91	8.68	10.32
	Pressure drop	kPa	20	20	20	27	27	27	36	36
Pipe size		Inch	R ₁ 5/4							
Hot water coil	Water flow	m3/h	1.89	2.54	2.71	3.43	4.06	5.6	6.78	8.47
	Pressure drop	kPa	24	24	24	28	32	34	36	38
	Pipe size		Inch	R ₁ 5/4						
Compressor	Type	--	Scroll type							
	WL(R)F cool power	kW	2.652	2.634	3.090	4.205	4.950	2 X 2.85	7.16	8.28
	GW(R)F cool power	kW	2.341	2.326	2.730	3.696	4.345	2 X 2.53	6.37	7.37
	GL(R)F cool power	kW	2.418	2.403	2.820	3.823	4.496	2 X 2.61	6.57	7.60
	WL(R)F heat power	kW	2.612	2.734	3.270	4.225	4.974	2 X 2.97	7.48	8.64
	GW(R)F heat power	kW	2.716	2.838	3.394	4.392	5.173	2 X 3.07	7.75	8.95
	GL(R)F heat power	kW	2.349	2.333	2.739	3.709	4.360	2 X 2.54	6.39	7.39
Condensate drain pipe size		Inch	R ₁ 3/4							
Refrigerant charge		kg	1.6	1.7	2.2	3.2	3.5	2 X 2.4	4.8	7.0
Physical Dimensions	Length	mm	1113	1113	1343	1343	1513	1763	1923	1113
	Width	mm	864	864	864	934	934	1084	1084	794
	Height	mm	530	530	530	630	685	685	685	530
Unit weight	Heat pump	kg	135	145	160	200	270	280	320	115
	Cool only	kg	132	140	156	190	265	275	315	112
	Hot water coil	kg	145	160	171	210	284	306	350	125
Noise level***		dB(A)	47	47	47	47	49	51	54	54

Performance values refer to the following conditions:

*Nominal Cooling capacity test condition:

Water kit conditions: Water side water inlet/outlet temperature 30°C/35°C, Indoor temperature DB 27 °C, WB 19 °C.

Underground water conditions: Water side water inlet/outlet temperature 18°C/25°C, Indoor temperature DB 27 °C, WB 19 °C.

Underground loops conditions: Water side water inlet/outlet temperature 25°C/30°C, Indoor temperature DB 27 °C, WB 19 °C.

**Nominal Heating capacity test condition:

Water kit conditions: Water side water inlet 20°C/, Indoor temperature DB 20 °C, WB 15 °C .

Underground water conditions: Water side water inlet 15°C/, Indoor temperature DB 20 °C, WB 15 °C .

Underground loops conditions: Water side water inlet 7.5°C/, Indoor temperature DB 20 °C, WB 15 °C .

Hot water coil test conditions: Indoor temperature DB 20 °C, Water side water inlet/outlet 45°C/40°C

*** Sound pressure measured at a distance of 1 m and a height of 1.5 m above the ground in a dear field.

TECHNICAL DATA for fresh air type

Model			28ZDGX	40ZDGX	50ZDGX	60ZDGX	70ZDGX	100ZDGX	125ZDGX	150ZDGX
WL(R)F	Cooling capacity*	kW	7.05	9.33	12.99	16.98	22.44	30.09	37.74	44.88
	Heating capacity**	kW	7.67	10.15	14.15	18.48	23.97	32.13	40.29	47.94
GW(R)F	Cooling capacity*	kW	8.46	11.20	15.60	20.38	24.93	36.11	45.29	53.86
	Heating capacity**	kW	8.55	11.31	15.76	20.58	25.30	36.47	45.74	54.40
GL(R)F	Cooling capacity*	kW	8.11	10.73	14.95	19.53	23.87	34.61	43.40	51.61
	Heating capacity**	kW	7.17	9.49	13.22	17.27	21.11	30.59	38.36	45.62
Hot water coil		kW	10.10	12.90	16.00	20.00	24.50	33.00	41.60	49.30
Power supply		V/PH/Hz	220V/1PH/50	-----			380V/3PH/50Hz			-----
Air flow rate		m ³ /h	900	1100	1500	1900	2300	3200	3800	4600
External static pressure		Pa	150	200	200	200	200	250	250	300
Fan motor power		W	360	350	500	550	730	1220	1320	1650
Fan motor power with hot coil		W	450	401	550	605	770	1400	1490	2080
		Type	--		Coaxial heat exchanger					
Water side heat exchanger	WL(R)F water flow	m ³ /h	1.54	2.12	2.85	3.73	4.83	5.87	7.94	9.41
	GW(R)F water flow	m ³ /h	1.26	1.71	2.32	3.04	3.70	4.90	6.52	7.74
	GL(R)F water flow	m ³ /h	1.76	2.37	3.24	4.20	5.11	6.68	9.01	10.68
	Pressure drop	kPa	7	20	20	27	27	27	36	36
	Pipe size	Inch	R ₁ 3/4		R ₁ 1				R ₁ 5/4	
Hot water coil	Water flow	m ³ /h	1.69	2.21	2.74	3.43	4.20	5.66	7.13	8.45
	Pressure drop	kPa	16	24	28	36	40	42	46	50
	Pipe size	Inch	R ₁ 3/4	-----	R ₁ 1	----	-----		R ₁ 3/2	-----
		Type	--	Rotary	-----			Scroll type		-----
Compressor	WL(R)F cool power	kW	1.56	2.63	3.06	4.16	4.90	2.82	7.09	8.20
	GW(R)F cool power	kW	1.38	2.32	2.70	3.66	4.30	2.50	6.31	7.30
	GL(R)F cool power	kW	1.42	2.39	2.79	3.79	4.45	2.58	6.50	7.52
	WL(R)F heat power	kW	1.68	2.59	3.24	4.18	4.92	2.94	7.41	8.55
	GW(R)F heat power	kW	1.75	2.69	3.36	4.35	5.12	3.04	7.67	8.86
	GL(R)F heat power	kW	1.38	2.33	2.71	3.67	4.32	2.51	6.33	7.32
Condensate drain pipe size		Inch	R ₁ 3/4							
Refrigerant charge		kg	1.5	1.9	2.2	2.8	3.5	2x2.4	4.8	7.0
Physical Dimensions	Length	mm	1113	1113	1343	1343	1343	1513	1763	1923
	Width	mm	794	864	864	864	934	934	1084	1084
	Height	mm	530	530	530	530	630	685	685	685
Unit weight	Heat pump	kg	113	138	165	175	189	281	294	337
	Cool only	kg	111	135	161	169	185	276	289	332
	Hot water coil	kg	122	148	176	189	205	295	320	367
Noise level***		dB(A)	48	50	50	52	52	53	54	54

Performance values refer to the following conditions:

*Nominal Cooling capacity test condition:

Water kit conditions: Water side water inlet/outlet temperature 30°C/35°C, Outdoor temperature DB 35 °C, WB 28 °C.

Underground water conditions: Water side water inlet/outlet temperature 18°C/25°C, Outdoor temperature DB 35 °C, WB 28 °C.

Underground loops conditions: Water side water inlet/outlet temperature 25°C/30°C, Outdoor temperature DB 35°C, WB 28°C.

**Nominal Heating capacity test condition:

Water kit conditions: Water side water inlet 20°C/, Outdoor temperature DB 7 °C.

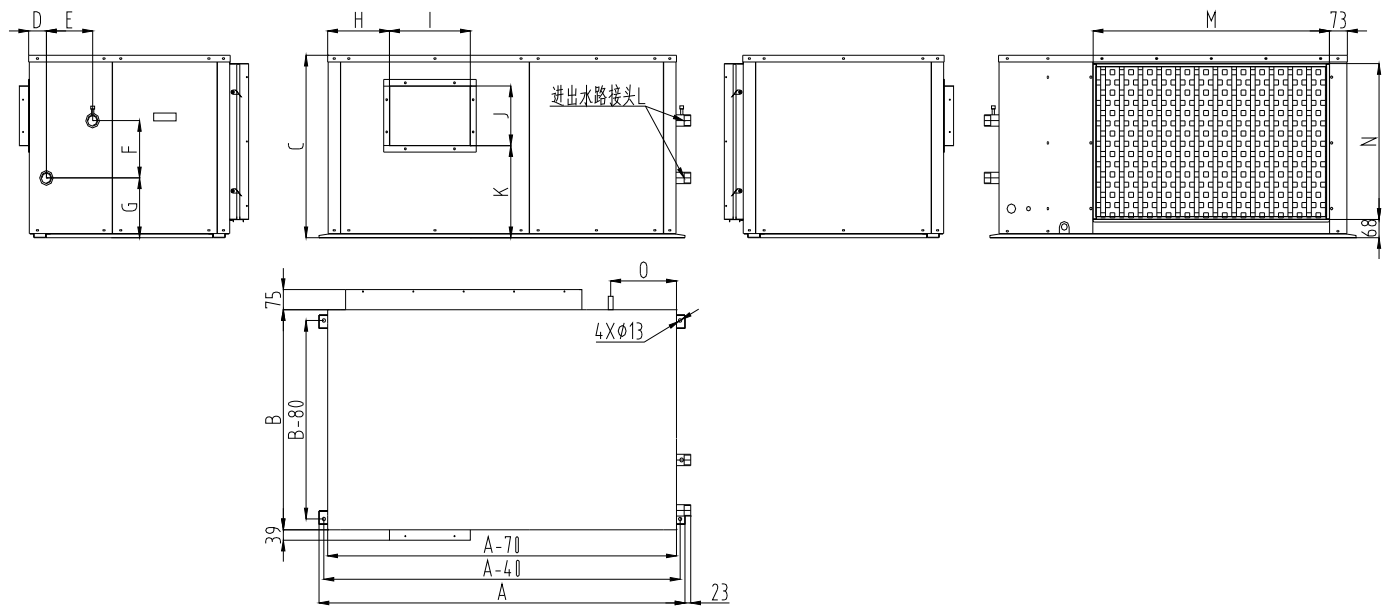
Underground water conditions: Water side water inlet 15°C/, Outdoor temperature DB 7 °C.

Underground loops conditions: Water side water inlet 7.5°C/, Outdoor temperature DB 7 °C.

Hot water coil test conditions: Indoor temperature DB 20 °C, Water side water inlet/outlet 45°C/40°C

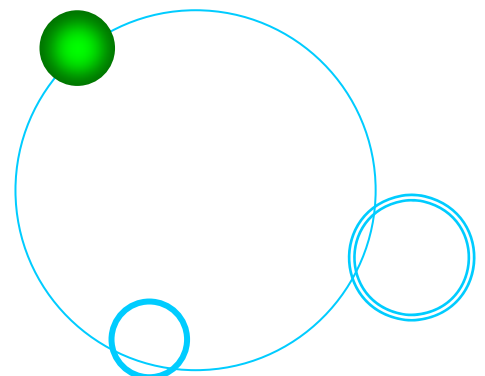
*** Sound pressure measured at a distance of 1 m and a height of 1.5 m above the ground in a dear field.

OVERALL DIMENSIONS



Unit: mm

Model	10ZDG	15ZDG	18ZDG	20ZDG	25ZDG	28ZDG	30ZDG	35ZDG	40ZDG
	10ZDGSP	15ZDGSP	18ZDGSP	20ZDGSP	25ZDGSP	28ZDGSP	30ZDGSP	35ZDGSP	40ZDGSP
A	840	920	920	920	1090	1090	1090	1090	1090
B	478	620	620	620	680	680	680	680	750
C	350	410	410	410	450	450	530	530	530
D	73.5	73.5	72	72	72.5	72	72	72	73
E	200	200	140	140	140	170	170	170	188
F	59	59	104	104	162	158	158	158	175
G	90	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
H	170	172	172	172	214	214	214	214	231
I	220	233.5	233.5	233.5	236	236	236	236	236
J	108	132	132	132	213	213	213	213	265
K	145	189.5	189.5	189.5	162.5	162.5	162.5	162.5	174.5
L	R ₁ 3/4	R ₁ 3/4	R ₁ 3/4	R ₁ 3/4	R ₁ 3/4	R ₁ 3/4	R ₁ 3/4	R ₁ 3/4	R ₁ 3/4
M	360	282	332	442	522	602	522	562	582
N	205.5	320.5	320.5	320.5	360.5	360.5	440.5	440.5	440.5
O	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5	296.5

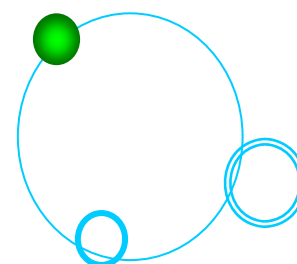


Unit: mm

Model	45ZDG	50ZDG	60ZDG	70ZDG	100ZDG	125ZDG	150ZDG
	45ZDGSP	50ZDGSP	60ZDGSP	70ZDGSP	100ZDGSP	125ZDGSP	150ZDGSP
A	1090	1320	1320	1320	1490	1740	1900
B	750	750	750	820	820	970	970
C	530	530	530	630	685	685	685
D	73	73	73	86	72	80.5	80.5
E	188	188	188	296	188	296	296
F	175	253	253	207	214	161	161
G	90.5	90.5	90.5	90.5	222.5	203.5	191.5
H	231	281	248	152	252	321	378
I	236	236	302	329	329	391	432
J	265	265	262	223	223	334	366
K	174.5	174.5	179	343.5	342.5	249	243.5
L	R ₁ 1	R ₁ 1	R ₁ 1	R ₁ 5/4	R ₁ 5/4	R ₁ 5/4	R ₁ 5/4
M	582	722	802	782	962	1202	1422
N	440.5	440.5	440.5	440.5	590.5	590.5	590.5
O	296.5	326.5	326.5	226.5	265.5	344.5	296.5

Unit: mm

Model	28ZDGX	40ZDGX	50ZDGX	60ZDGX	70ZDGX	100ZDGX	125ZDGX	150ZDGX
	28ZDGXSP	40ZDGXSP	50ZDGXSP	60ZDGXSP	70ZDGXSP	100ZDGXSP	125ZDGXSP	150ZDGXSP
A	1090	1090	1320	1320	1320	1490	1740	1900
B	680	750	750	750	820	820	970	970
C	530	530	530	530	630	685	685	685
D	72	73	73	73	86	72	80.5	80.5
E	170	188	188	188	296	188	296	296
F	158	175	253	253	207	214	161	161
G	90.5	90.5	90.5	90.5	90.5	222.5	203.5	191.5
H	178	138	248	248	145.5	252	352	396.5
I	232	271	271	302	342	329	329	395
J	207	232	232	262	152	223	223	223
K	154.5	288.5	288.5	179	290.5	342.5	342.5	342.5
L	R ₁ 3/4	R ₁ 1	R ₁ 1	R ₁ 1	R ₁ 5/4	R ₁ 5/4	R ₁ 5/4	R ₁ 5/4
M	522	582	722	802	782	962	1202	1422
N	440.5	440.5	440.5	440.5	440.5	590.5	590.5	590.5
O	296.5	296.5	326.5	326.5	226.5	265.5	344.5	296.5



The technical data in this document are not binding.
Bright A/C reserves all the right to make whatever modifications if
necessary to improve the product at any time without previous notice.

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