50Hz

Model			JASA-LMVED33LF7E	JASA-LMVED43LF5E	JASA-LMVED44NF4E	JASA-LMVED44NF2E	JASA-LMVED54NG2E
Cooling capacity		kW	820	905	940	1040	1150
Cooling power input		kW	262	288	292	334	364
COP		kW/kW	3.13	3.14	3.22	3.11	3.16
Rated power input		kW	314	346	350	401	437
Power		V/Ph/Hz	380V 3~50Hz				
Cooling adjustment range		kW	20%~100%				
Operating control			Automatic microcomputer control, operating status display, error alarms				
Safety protection			High pressure protection, low pressure protection, compressor over-load protection, phase loss/reversal protection, low oil level protection, water flow switch protection, low flow alarm, differential pressure protection, high oil pressure difference protection, fan over-current protection, freeze protection, sensor protection, low discharge superheating degree protection.				
Compressor	Type		High efficiency variable frequency variable volume screw compressor				
	Quantity		2	2	2	2	2
Refrigerant type			R134a	R134a	R134a	R134a	R134a
Air side heat exchanger	Heat exchanger type		Aluminum fin-copper tube				
	Fan rated power		12×2.2	14×1.8	16×1.5	16×1.8	18×1.8
Water side heat exchanger	Water flow	m^3/h	141.0	155.7	161.7	178.9	197.8
	Pressure drop	kPa	≤60	≤65	≤70	≤70	≤70
	Type				Flooded evaporator		
	Inlet/outlet tube diameter		DN150	DN150	DN150	DN200	DN200
Outline dimension	Width	mm	7490	8710	9930	9930	11150
	Depth	mm	2250	2250	2250	2250	2250
	Height	mm	2550	2550	2550	2550	2550
Package dimension	Width	mm	7540	8760	9980	9980	11200
	Depth	mm	2330	2330	2330	2330	2330
	Height	mm	2550	2550	2550	2550	2550
Net weight		kg	9350	9500	10780	11150	11930
Gross weight		kg	9390	9540	10820	11230	12010
Operating weight		kg	9537	9690	10996	11373	12169

LHE Series High-efficiency Water-cooled Screw Chiller

LHE series high-efficiency water-cooled screw chiller is specially desinged for improving efficiency and reducing operation cost. This chiller adopts Gree self-developed semi-hermetic twin screw compressor, high-efficiency flooded heat exchanger and eco-friendly R134a. Its EER can be up to 6.3. The cooling capacity under nominal working condition is 260~2100kW. LHE series high-efficiency water-cooled screw chiller can be applicable for offices, hospitals, schools, shopping malls, as well as factories.

Operating condition of nominal cooling (water temperature)				Operating range (water temperature)			
Chilled water		Cooling water		Chilled water		Cooling water	
Inlet(℃)	Outlet(℃)	Inlet(℃)	Outlet(℃)	Outlet(℃)	I/O difference(℃)	Inlet(℃)	I/O difference(℃)
-	7	30	-	4~15	2.5~8	18~35	3.5~8

Features

Semi-closed Dual Screw Compressor for High-efficiency Unit

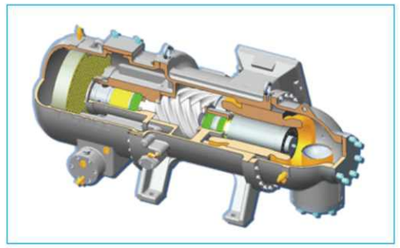
- Design for Jet-Air water-cooled screw chiller especially according to actual pressure ratio, high matching degree with the unit, reducing the overcompression and insufficient compression during the operation of compressor effectively, thus enhancing system energy efficiency.

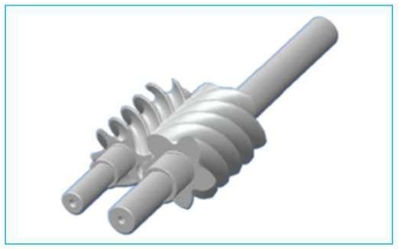
- Self-developed efficient rotor type line (Chinese patent for utility model No.ZL201120008270.9), interdigitation gap is optimized, connection cable is short and the efficiency is even higher.

- Thanks to three-level combined built-in oil separator, the efficiency is over 99.7%, making the system more stable with lower noise.

- Adopt self-made closed motor to avoid refrigerant leakage and built-in PTC temperature protector for the motor, motor winding temperature can be effectively detected.

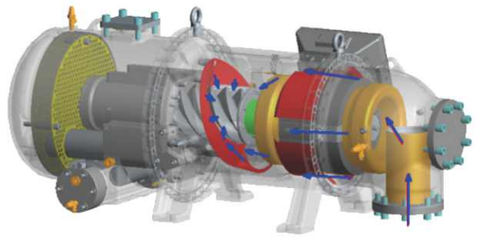
- Thanks to optimized cooling channel of the motor, cooling effect is better, which can enhance operation range of the compressor effectively.





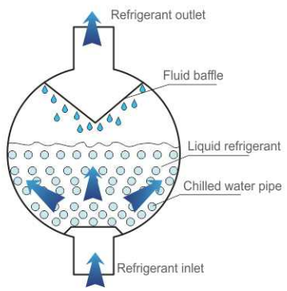
Low Pressure Loss Design

- Thanks to brand new design of “evaporation direct connection” air inlet structure, suction resistance is only 1kPa and cooling capacity of compressor will enhance by 2%.
- Thanks to spiral air inlet structure of low pressure loss, streamline air suction mouth design reduces the loss of suction resistance, increasing suction density of compressor and improving cooling capacity of compressor.
- Thanks to brand new air discharge low pressure loss pipeline design, resistance of the air discharge side is only 5kPa.

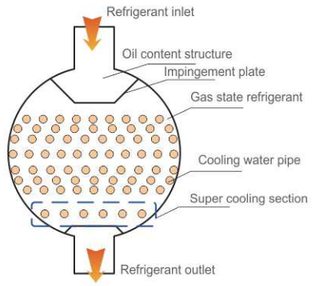


Heat Exchanger

- Flooded evaporator, built-in refrigerant uniform device and gas liquid separator device to make the refrigerant evenly distributed. During suction process, the liquid refrigerant quantity is less, enhancing heat efficiency of evaporation and improving unit energy efficiency.
- A device to prevent the high-speed and high-pressure gas from impacting the heat exchanger tube is set at the upper condenser, containing the vibration of heat exchanger tube and improving the operation reliability of condenser;the built-in subcooling device at the bottom can enhance subcooling degree and improve refrigeration circulation efficiency of water chiller.
- Efficient heat exchanger, intensifying the heat transfer efficiency of water side and refrigerant side at the same time, further enhances energy efficiency of water chiller. Adopting mechanical expanded tube joint as the sealing method for heat exchange tube and tube plate, 3 sealed grooves are designed in the expanded tube joint, improving the sealing reliability.



Flooded evaporator



Shell and tube condenser

Vertical Oil Separator

Adopt efficient vertical oil separator, the structure is tight, through cyclone separation, inertial impaction, natural settingand adsorption separation, oil and gas is separated thoroughly, oil separation efficiency is up to 99.98%.

New Throttling Structure

The high precision electronic expansion valve can adjust the flow of refrigerant accurately, keep track of the variation of evaporator liquid level timely; further optimizes the control logic, calculate the control liquid level automatically, and quickly adjust the actual value, realizing “output according to actual demand”, ensuring high energy efficiency of some loads of the unit, making the unit operation range wider.

Strict Tests

Components are strictly tested before entering the factory. Impellers are made of high-strength aluminum alloy, which is highly anti-corrosive. They must pass strict tests after manufacturing. Heat exchangers are designed in strict accordance with relevant codes of pressure vessels and tested in 1.5 times of working pressure. The unit will take complete performance tests and reliability tests before leaving the factory.

Multiple Protections

The unit has multiple protections function, such as high temperature protection for air discharge, overheat protection for frequency converter, safety valve protection, overheating protection for motor winding, low pressure protection, high pressure protection, anti-freezing protection, switch protection for water flow, phase loss and phase failure protection and electronic component protection, ensuring stable operation under all kinds of conditions and avoiding the damage incurred.

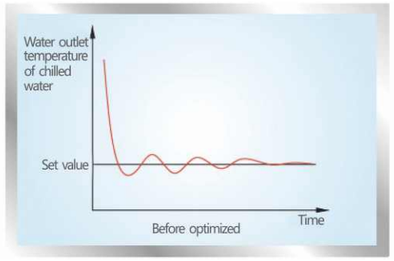
Convenient Installation and Maintenance

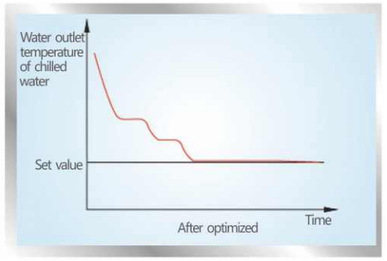
- Dual units and dual circuits design for unit maintenance.
- Tight structure design with small floor space.
- Parallel arrangement of evaporator and condenser to lower unit gravity center, ensuring transportation safety.
- Before leaving the factory, sufficient refrigerant and refrigerant oil has been charged, on-site charging is needless.
- Before leaving the factory, tests have been conducted according to national standard and the designated working conditions of the user; just connect the water pipe and power on site for operation.

Auto-adjusting Technology, Stable Output

The control system can not only adjust load according to cold water leaving temperature but also predict and compensate the change of air conditioning load based on the change rate of cold water entering temperature. The unit can achieve faster load adjustment and stable water leaving temperature.

When the unit is under bad working condition, it will adjust the running parameters to keep itself running rather than frequently stop. The unit can operate stably and reliably to satisfy customers' refrigerating demand.





Color Touch Screen Display Control Center

Control: It's with intelligent control system and friendly human-machine interaction interface; If the display screen is damaged accidentally, the unit can be operated manually through the equipped switch.

- Color touch screen of 12 inches
- Visual and dynamic information
- Intelligent image data
- Auto backup of parameter and synchronization
- Dual system control logic
- Auto detection protection

High-performance Digital Single Processing Platform

The control system adopts high-performance 32-bit CPU and DSP digital signal processor. The excellent data collection accuracy and data processing capability ensure timely and precise system control. The unit also adopts the intelligent Fuzzy-PID compound control algorithm, which is a control method comprising the intelligent technology, fuzzy technology and PID control algorithm, ensuring fast response and stable performance.

Authority Classification with Passwords

Control center has access passwords for operators so that set values won't be changed without authorization. Access authority is classified to user access and manufacturer access. User password is used to start up unit and enter the interface of user parameter setting. It is managed and can be changed by the user. Manufacturer password is used to enter the interface of manufacture parameter setting. Any change of the manufacture parameters may affect unit's reliability; therefore it must be kept by professional engineering and debugging personnel.

50Hz R134A

Model JASA-LHE			353CE5AE2	353CE4AE1E	533CE3CE3	553CE2CE2	553CE1CE1E	643EE7EE7
Cooling capacity		kW	261.6	294.7	341.3	367.9	425.8	455.3
		RT	74.4	83.8	97.0	104.6	121.1	129.4
Capacity adjustment range		%	25%-100%					
EER		W/W	5.89	5.94	6.01	6.05	6.06	6.02
IPLV		W/W	6.94	7.04	7.11	7.16	7.11	7.04
Power supply		V/Ph/Hz	380V 3~ 50Hz					
Power input		kW	44.4	49.6	56.8	60.8	70.3	75.6
RLA		A	78.4	87.6	100.4	107.4	124.2	133.6
Compressor	Type	-	Semi-closed permanent magnetic synchronous inverter screw compressor					
	Starting mode	-	Y— /Soft start					
	Quantity	-	1	1	1	1	1	1
Refrigerant charge volume		kg	85	100	105	110	115	130
Refrigeration oil	Type	-	CPI-Solest-170					
	Charge volume	L	20	20	20	23	23	23
Evaporator	Type	-	Flooded shell and tube evaporator					
	Fouling factor	m·℃/kW	0.018	0.018	0.018	0.018	0.018	0.018
	Water flow rate	m^3/h	41	46	53	58	125	71
		GPM	180	203	235	253	549	313
	Pressure drop	kPa	36.6	37.8	32.5	35.6	32.1	33.7
		$ft.H_2O$	12.0	12.4	10.7	11.7	10.5	11.1
	Connection pipe	mm	DN100	DN100	DN100	DN100	DN100	DN125
Condenser	Type	-	Horizontal shell and tube condenser					
	Fouling factor	m·℃/kW	0.044	0.044	0.044	0.044	0.044	0.044
	Water flow volume	m^3/h	51	57	66	71	83	88
		GPM	224	252	292	314	363	389
	Pressure drop	kPa	41.9	44.7	42.2	42.3	46.1	40.9
		$ft.H_2O$	13.7	14.7	13.8	13.9	15.1	13.4
	Connection pipe	mm	DN100	DN100	DN125	DN125	DN125	DN125
Sound pressure level(Max.)		dB(A)	81	81.2	82	82.5	82.8	83
Dimension	Outline(W×D×H)	mm	3170×1188×1850	3170×1188×1850	3175×1365×1959	3175×1365×1959	3175×1365×1959	3240×1465×2040
	Package(W×D×H)	mm	3400×1350×1900	3400×1350×1900	3400×1550×2050	3400×1550×2050	3400×1550×2050	3400×1600×2200
Net/Gross/Operating weight		kg	2300/2400/2450	2330/2430/2450	2730/2850/2900	2780/2880/2950	2800/2900/2950	3350/3450/3550
Loading quantity	40'GP/40'HQ	set	1	1	1	1	1	1

50Hz R134A

Model JASA-LHE			653EE6EE6	653EE5EE5E	822EE4EE4	832EE3EE3	832EE2EE2E	862EE1EE1E
Cooling capacity		kW	484.6	544.7	593.7	663	698.0	744.9
		RT	137.8	154.8	168.8	188.5	198.5	211.8
Capacity adjustment range		%	25%-100%					
EER		W/W	6.05	6.03	6.02	6.02	6.02	6.03
IPLV		W/W	7.17	7.02	7.06	7.05	7.10	7.11
Power supply		V/Ph/Hz	380V 3~ 50Hz					
Power input		kW	80.1	90.3	98.6	110.1	116.0	123.6
RLA		A	141.5	159.5	174.2	194.5	204.8	218.4
Compressor	Type	-	Semi-closed permanent magnetic synchronous inverter screw compressor					
	Starting mode	-	Y— /Soft start					
	Quantity	-	1	1	1	1	1	1
Refrigerant charge volume		kg	140	150	180	190	180	180
Refrigeration oil	Type	-	CPI-Solest-170					
	Charge volume	L	23	23	28	28	28	28
Evaporator	Type	-	Flooded shell and tube evaporator					
	Fouling factor	m·℃/kW	0.018	0.018	0.018	0.018	0.018	0.018
	Water flow rate	m^3/h	76	85	93	104	109	116
		GPM	334	375	409	456	481	513
	Pressure drop	kPa	36.5	40.7	36.2	39.6	36.4	35.6
		$ft.H_2O$	12.0	13.3	11.9	13.0	11.9	11.7
	Connection pipe	mm	DN125	DN125	DN150	DN150	DN150	DN150
Condenser	Type	-	Horizontal shell and tube condenser					
	Fouling factor	m·℃/kW	0.044	0.044	0.044	0.044	0.044	0.044
	Water flow volume	m^3/h	94	106	115	129	135	144
		GPM	414	465	507	566	596	636
	Pressure drop	kPa	43.1	45.3	41.8	44.2	43.1	36.3
		$ft.H_2O$	14.1	14.9	13.7	14.5	14.1	11.9
	Connection pipe	mm	DN125	DN125	DN150	DN150	DN150	DN150
Sound pressure level(Max.)		dB(A)	83.5	83.8	85	86	86.8	87
Dimension	Outline(W×D×H)	mm	3240×1465×2040	3240×1465×2040	3240×1508×2100	3240×1508×2100	3240×1508×2100	3240×1508×2100
	Package(W×D×H)	mm	3400×1600×2200	3400×1600×2200	3400×1650×2250	3400×1650×2250	3400×1650×2250	3400×1650×2250
Net/Gross/Operating weight		kg	3370/3470/3550	3400/3500/3600	3830/3930/4050	3880/3980/4100	3930/4030/4150	3980/4080/4200
Loading quantity	40'GP/40'HQ	set	1	1	1	1	1	1

Note: These models are not for EU.

50Hz

R134A

Model JASA-LHE			932EE9EE9E	942HE3GE3	952HE2GE2	952HE1GE1E	533GF2EF2-2	553GF2EF2-2
Cooling capacity		kW	842.0	911.8	971.7	1052.0	697.5	744.1
		RT	239.4	259.2	276.5	299.1	198.3	211.5
Capacity adjustment range		%	25%-100%				12.5%-100%	
EER		W/W	5.78	5.79	5.83	5.90	6.02	6.03
IPLV		W/W	7.72	7.65	7.50	7.56	7.10	7.14
Power supply		V/Ph/Hz	380V 3~ 50Hz					
Power input		kW	145.8	157.4	166.8	178.4	115.9	123.5
RLA		A	257.6	278.1	294.2	315.2	204.8	218.2
Compressor	Type	-	Semi-closed permanent magnetic synchronous inverter screw compressor					
	Starting mode	-	Y— /Soft start					
	Quantity	-	1	1	1	1	2	2
Refrigerant charge volume		kg	240	260	260	280	200	220
Refrigeration oil	Type	-	CPI-Solest-170					
	Charge volume	L	35	35	35	35	40	46
Evaporator	Type	-	Flooded shell and tube evaporator					
	Fouling factor	m·℃/kW	0.018	0.018	0.018	0.018	0.018	0.018
	Water flow rate	m^3/h	132	143	152	164	109	116
		GPM	580	628	670	724	480	512
	Pressure drop	kPa	36.7	29.5	29.2	29.5	36.1	40.5
		$ft.H_2O$	12.0	9.7	9.6	9.7	11.8	13.3
	Connection pipe	mm	DN150	DN150	DN150	DN150	DN150	DN150
Condenser	Type	-	Horizontal shell and tube condenser					
	Fouling factor	m·℃/kW	0.044	0.044	0.044	0.044	0.044	0.044
	Water flow volume	m^3/h	164	178	189	205	135	144
		GPM	723	783	834	901	596	635
	Pressure drop	kPa	41.0	32.9	32.5	32.6	41.1	46.0
		$ft.H_2O$	13.4	10.8	10.7	10.7	13.5	15.1
	Connection pipe	mm	DN150	DN200	DN200	DN200	DN150	DN150
Sound pressure level(Max.)		dB(A)	88	88.5	88.8	89	82.3	82.8
Dimension	Outline(W×D×H)	mm	3260×1740×2370	3390×1830×2370	3390×1830×2370	3390×1830×2370	3485×1530×2185	3485×1530×2185
	Package(W×D×H)	mm	3450×1850×2550	3450×1850×2550	3450×1850×2550	3450×1850×2550	3600×1700×2300	3600×1700×2300
Net/Gross/Operating weight		kg	4800/4950/5100	5400/5550/5700	5500/5650/5750	5600/5750/5950	5250/5450/5500	5330/5530/5600
Loading quantity	40'GP/40'HQ	set	1	1	1	1	1	1

50Hz

R134A

Model JASA-LHE			832HJ4GJ4E-2	842HJ4GJ4E-2	932KK3JK3-2	932KK4JK4-2	942KK2JK2-2	952KK1JK1E-2	952LK1JK5E-2
Cooling capacity		kW	1386.0	1467.0	1583.0	1682.0	1832.0	1982.0	2102
		RT	394.1	416.8	450.1	478.2	520.9	563.5	597.4
Capacity adjustment range		%	12.5%-100%						
EER		W/W	6.12	6.15	5.78	5.80	5.82	5.85	5.91
IPLV		W/W	7.15	7.14	7.72	7.68	7.69	7.63	7.54
Power supply		V/Ph/Hz	380V 3~ 50Hz						
Power input		kW	226.5	238.5	273.7	289.9	314.6	338.9	355.6
RLA		A	400.2	421.4	483.0	511.8	556.0	559.1	629.0
Compressor	Type	-	Semi-closed permanent magnetic synchronous inverter screw compressor						
	Starting mode	-	Y— /Soft start						
	Quantity	-	2	2	2	2	2	2	2
Refrigerant charge volume		kg	420	420	550	550	580	600	600
Refrigeration oil	Type	-	CPI-Solest-170						
	Charge volume	L	56	56	70	70	70	70	70
Evaporator	Type	-	Flooded shell and tube evaporator						
	Fouling factor	m·℃/kW	0.018	0.018	0.018	0.018	0.018	0.018	0.018
	Water flow rate	m^3/h	217	229	248	263	286	310	329
		GPM	954	1010	1090	1158	1261	1365	1447
	Pressure drop	kPa	72.8	80.5	54.2	53.7	56.8	54.1	52.2
		$ft.H_2O$	23.9	26.4	17.8	17.6	18.6	17.7	17.1
	Connection pipe	mm	DN200	DN200	DN250	DN250	DN250	DN250	DN250
Condenser	Type	-	Horizontal shell and tube condenser						
	Fouling factor	m·℃/kW	0.044	0.044	0.044	0.044	0.044	0.044	0.044
	Water flow volume	m^3/h	267	283	309	328	357	386	409
		GPM	1177	1245	1360	1444	1572	1699	1799
	Pressure drop	kPa	84.4	93	35.3	35.4	37.5	36.2	37.2
		$ft.H_2O$	27.7	30.5	11.6	11.6	12.3	11.9	12.2
	Connection pipe	mm	DN200	DN200	DN250	DN250	DN250	DN250	DN250
Sound pressure level(Max.)		dB(A)	87	87.3	88.3	88.8	89	89.3	89.5
Dimension	Outline(W×D×H)	mm	4550×1800×2200	4550×1800×2200	4600×1770×2490	4600×1770×2490	4720×1900×2530	4720×1900×2530	4720×1900×2530
	Package(W×D×H)	mm	4550×1800×2200	4550×1800×2200	4650×1900×2650	4650×1900×2650	4750×2000×2700	4750×2000×2700	4750×2000×2700
Net/Gross/Operating weight		kg	7900/8150/8400	7950/8200/8450	9450/9760/10050	9600/9910/10200	9700/10010/10250	9750/10060/10400	9800/10110/10500
Loading quantity	40'GP/40'HQ	set	1	1	1	1	1	1	1

Note: These models are not for EU.

50Hz

R134A

Model JASA-LHE			553GF1EF1E-2	643GH3GH6-2	653GH2GH5-2	653GH1GH4E-2	822HJ6GJ6-2	832HJ5GJ5-2
Cooling capacity		kW	842.0	911.1	969.6	1090.0	1188.0	1287.0
		RT	239.4	259.0	275.7	309.9	337.8	365.9
Capacity adjustment range		%	12.5%-100%					
EER		W/W	6.10	6.03	6.05	6.16	6.11	6.11
IPLV		W/W	7.20	7.04	7.16	7.19	7.19	7.20
Power supply		V/Ph/Hz	380V 3~ 50Hz					
Power input		kW	138.1	151.2	160.2	176.9	194.3	210.8
RLA		A	244.0	267.1	282.9	312.5	343.3	372.4
Compressor	Type	-	Semi-closed permanent magnetic synchronous inverter screw compressor					
	Starting mode	-	Y— /Soft start					
	Quantity	-	2	2	2	2	2	2
Refrigerant charge volume		kg	240	270	280	310	360	380
Refrigeration oil	Type	-	CPI-Solest-170					
	Charge volume	L	46	46	46	46	56	56
Evaporator	Type	-	Flooded shell and tube evaporator					
	Fouling factor	m·℃/kW	0.018	0.018	0.018	0.018	0.018	0.018
	Water flow rate	m^3/h	132	142	152	170	186	201
		GPM	580	627	668	750	818	886
	Pressure drop	kPa	45.3	50.1	49.1	53.6	74.8	74.2
		$ft.H_2O$	14.9	16.4	16.1	17.6	24.5	24.3
	Connection pipe	mm	DN150	DN150	DN150	DN150	DN200	DN200
Condenser	Type	-	Horizontal shell and tube condenser					
	Fouling factor	m·℃/kW	0.044	0.044	0.044	0.044	0.044	0.044
	Water flow volume	m^3/h	163	177	188	211	229	248
		GPM	718	778	827	928	1009	1093
	Pressure drop	kPa	48.1	60	59.3	63	85	85.7
		$ft.H_2O$	15.8	19.7	19.5	20.7	27.9	28.1
	Connection pipe	mm	DN150	DN200	DN200	DN200	DN200	DN200
Sound pressure level(Max.)		dB(A)	83	83.3	83.8	84	85.3	86.3
Dimension	Outline(W×D×H)	mm	3485×1530×2185	4020×1600×2200	4020×1600×2200	4020×1600×2200	4550×1800×2200	4550×1800×2200
	Package(W×D×H)	mm	3600×1700×2300	4150×1750×2300	4150×1750×2300	4150×1750×2300	4650×1850×2400	4650×1850×2400
Net/Gross/Operating weight		kg	5380/5580/5700	6350/6550/6700	6380/6580/6750	6420/6620/6800	7790/8040/8250	7850/8100/8300
Loading quantity	40'GP/40'HQ	set	1	1	1	1	1	1

Note: These models are not for EU.