

H.Stars Integrated Dual-function Heating and Cooling Chiller



H.Stars (Guangzhou) Refrigerating Equipment Group Ltd.





Company Profile

H.Stars (Guangzhou) Refrigerating Equipment Group Ltd. is a foreign invested enterprise founded in 1992. Based in Guangzhou Economic & Technological Development District, it is an important member of H. Stars (Hong Kong) Group and a professional producer of refrigeration equipment, air-conditioner, and industrial cooling and heating equipment, with the capacity of designing and manufacturing a whole range of special equipment. The company has established itself as a leader in the industry with its long history and rich experience.

The company's main products include refrigeration equipment, air-conditioning equipment, industrial cooling equipment, air handling equipment

and various customized equipment (explosion-proof equipment, anti-corrosion equipment, purification equipment, ultra-low temperature equipment, high temperature hot water equipment, heat recovery equipment, cold recovery equipment, and energy-saving equipment).

From the very beginning of its establishment, the company adopted American standards and manufacturing technology and focused on industrial refrigeration equipment. With sophisticated machinery and high quality services, it created the brand of H Stars, has gained recognition and support of the clients, and enjoys high brand reputation and technological leadership in the trade.

- *30+ years of experience in intelligent manufacturing of special equipment*
- *Four major factories and industry chains*
- *Professionally Dedicated to industrial air conditioners*



What is an integrated dual-function heating and cooling chiller?

- An equipment that supplies both cold and hot water at the same time; it will not shut down when there is demand for only one kind of water, instead it will operate until both demands are met;
- An easy to use integrated equipment that combines watering cooling and heating, intelligent control of water pump, and water storage tank.

Function of the machine

- Designed for supplying both hot and cold water at the same time; however, it can also work to supply either hot or cold water only;
- Standard models can supply hot water from 50°C to 65°C and cold water from 5°C to 20°C .
- Non-standard or oversize machine are available by customization.



Water-cooled scroll type combined dual-function heating and cooling chiller

Advantages

- One machine for two purposes; one investment for two returns. Save equipment investment and operating costs;
- Save energy and reduce emission, with an integrated part-load value (IPLV) of 8.0+; greatly lower operating costs;
- All-in-one design that integrates all engineering controls; switch on/off with only one key, intelligent operation, easy to use.

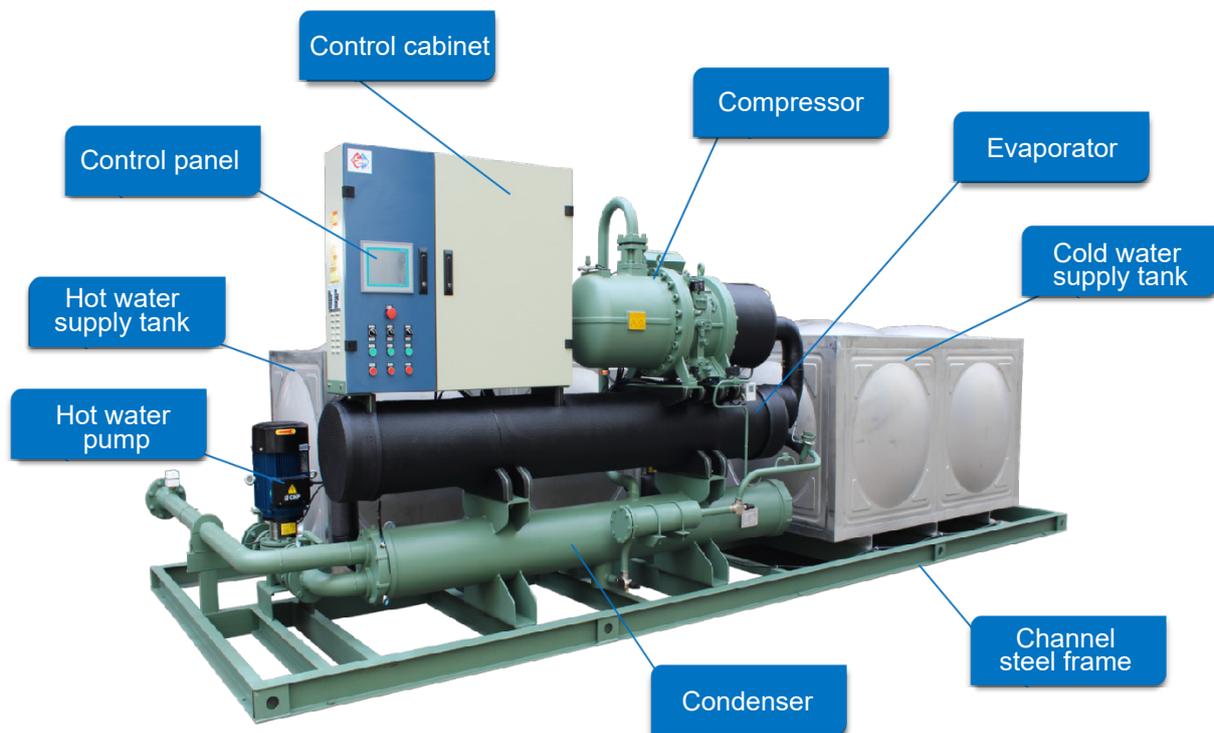
Applicable fields

- Industrial manufacturing processes that use both hot and cold water;
- Industrial and commercial places that needs hot and cold water (schools, hospitals, dormitories, gymnasiums, washing and bathing places, canteens, hotels).

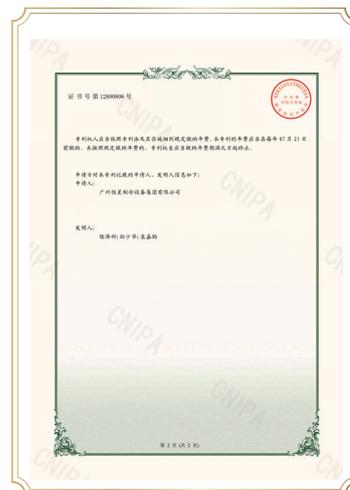


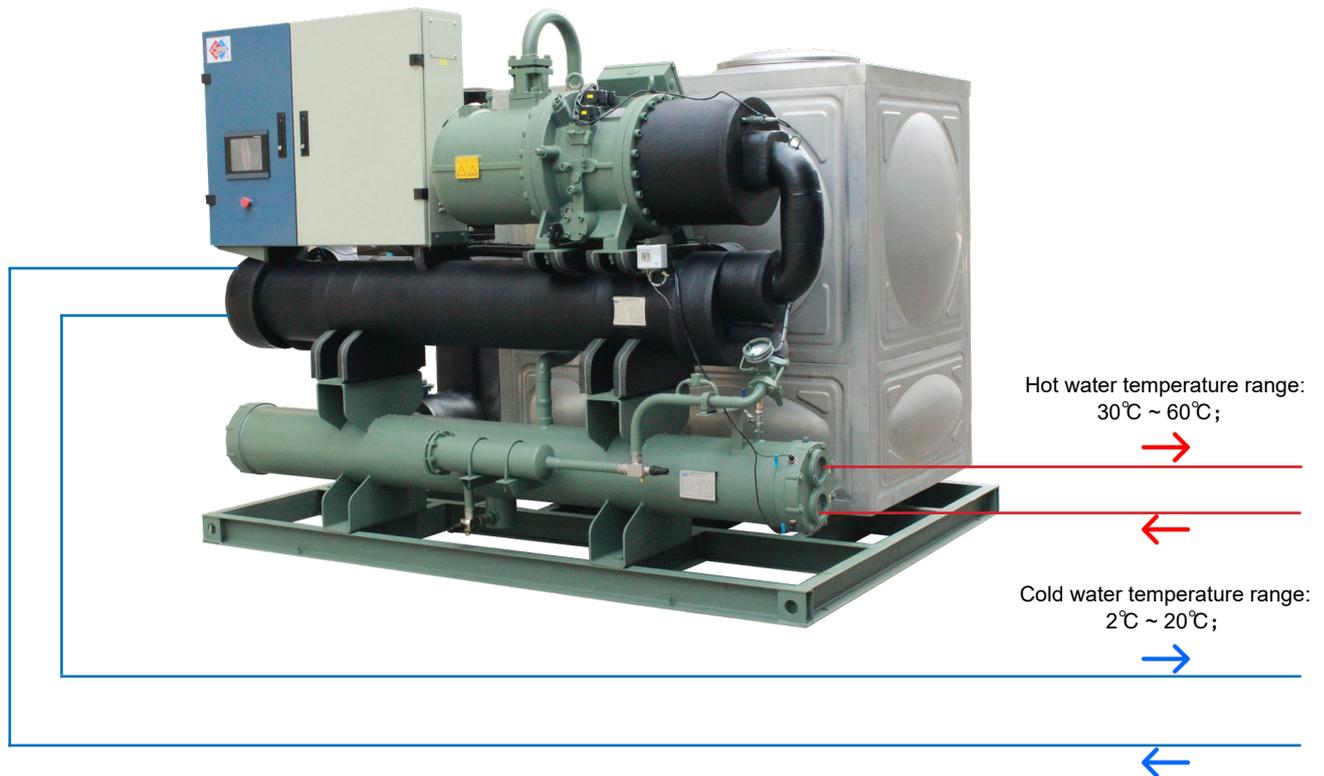
Air-cooled screw type combined dual-function heating and cooling chiller

H.Stars Integrated Dual-function Heating and Cooling Chiller



Proprietarily developed modern product
 Provide hot and cold water at the same time for
 better economic benefits
 Integrated part-load value (IPLV) 8.0+





Usage instructions

This machine is designed to integrate in one piece all components and functions. Its intelligent control system enables one-button start and stop, fully automatic operation, and automatic adjustment according to load demand.

For an air source machine, it is better to place it outdoors, because heat or cold air will be generated when the machine is running; and for a water source machine, cooling tower and water pump shall be provided for it.

The integrated dual-function heating and cooling chiller is specially designed to offer two functions at the same time. When the two functions are required at different times or there is unbalanced cooling and heating requirements, the machine will resort to energy storage until both the two needs are met; and when the machine is in the standby mode, excess heat or cold energy will be discharged.

Integrated dual-function heating and cooling chiller of special temperature and of extra size are also available for inquiry.

Standard chiller model parameter table

Air-cooled Screw Integrated Dual-function Heating and Cooling Chiller Parameters (R22)

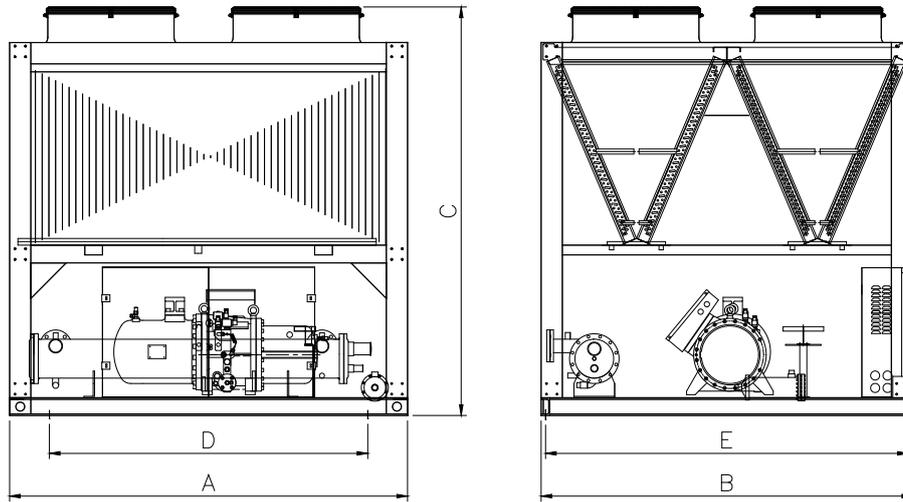
Refrigerant: R22 Power Supply: 3 φ -380V-50Hz

Model	Nominal cooling		Nominal heating		Energy control %	Refrigerant charge kg	Condenser			Evaporator				Operating sound dB(A)	Shipping weight kg	Operating weight kg
	Capacity kW	Input Power kW	Capacity kW	Input Power kW			Structure Type	Air Volume x1000 m ³ /h	Power x Unit	Pipe connection inch	Water flow m ³ /h	Water Side MAX. Pressure Mpa	Water pressure drop kPa			
40STE-110AHSY4	113	36	121	35	0 66 100	33	Copper tube with corrugated aluminum fins	40	2.0 × 2	2-1/2"	21	1	28	68	1550	1660
40STE-160AHSY4	160	50	169	48		45		57	1.2 × 4	3"	29	1	33	68	1960	2140
40STE-210AHSY4	214	65	225	63		51		80	2.0 × 4	3"	39	1	48	68	2940	3160
40STE-240AHSY4	252	74	263	71	0 50 75 100	73		85	1.2 × 6	3"	45	1	55	68	3120	3340
40STE-280AHSY4	297	86	308	82		82		121	2.0 × 6	4"	53	1	61	72	3300	3550
40STE-310AHSY4	319	93	333	89		89		121	2.0 × 6	4"	57	1	64	72	3480	3730
40STE-340AHSY4	347	103	363	98		98		161	2.0 × 8	4"	62	1	66	72	3660	3980
40STE-380AHDY4	397	120	417	115	0 25 50 62.5 75 87.5 100	114		161	2.0 × 8	5"	72	1	68	73	5620	6040
40STE-420AHDY4	428	130	450	126		122		161	2.0 × 8	5"	77	1	68	73	5800	6280
40STE-480AHDY4	504	148	526	142		146		170	1.2 × 12	5"	90	1	70	73	6240	6680

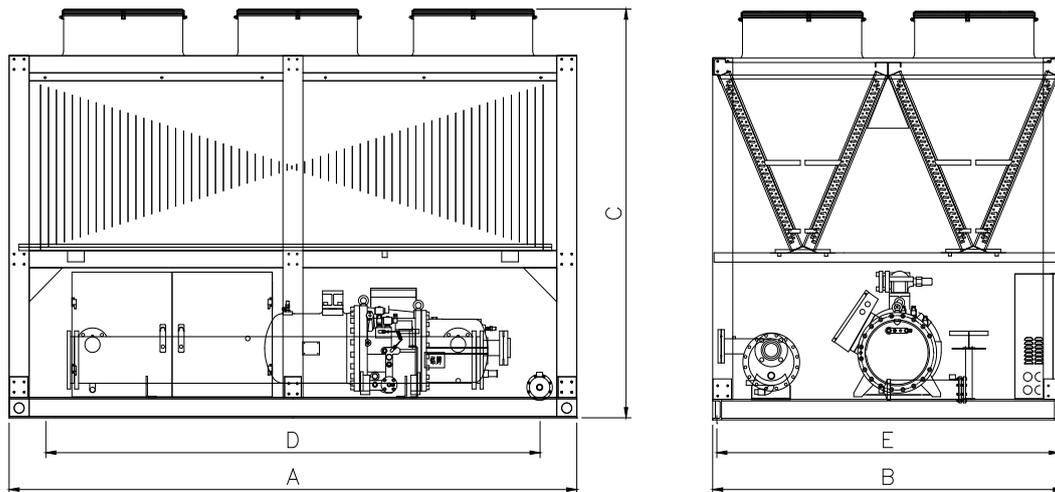
Note:

- Nominal cooling capacity reference: DB/WB ambient temperature 35°C /24°C , chilled water inlet and outlet temperature 12°C /7°C ; fouling factor 0.088 m² · °C /kW;
- Chilled water temperature range: 5°C -20°C ;
- Nominal cooling capacity reference: DB/WB ambient temperature 7°C /6°C , hot water inlet and outlet temperature 40°C/45°C;
- Hot water temperature range: 35°C ~50°C ;
- Refrigeration ambient temperature range: 15°C ~43°C ; Heating ambient temperature range: -10°C ~43°C ;
- Specifications and dimensions will be subject to improvement change without notice.

Air-cooled chiller dimensions

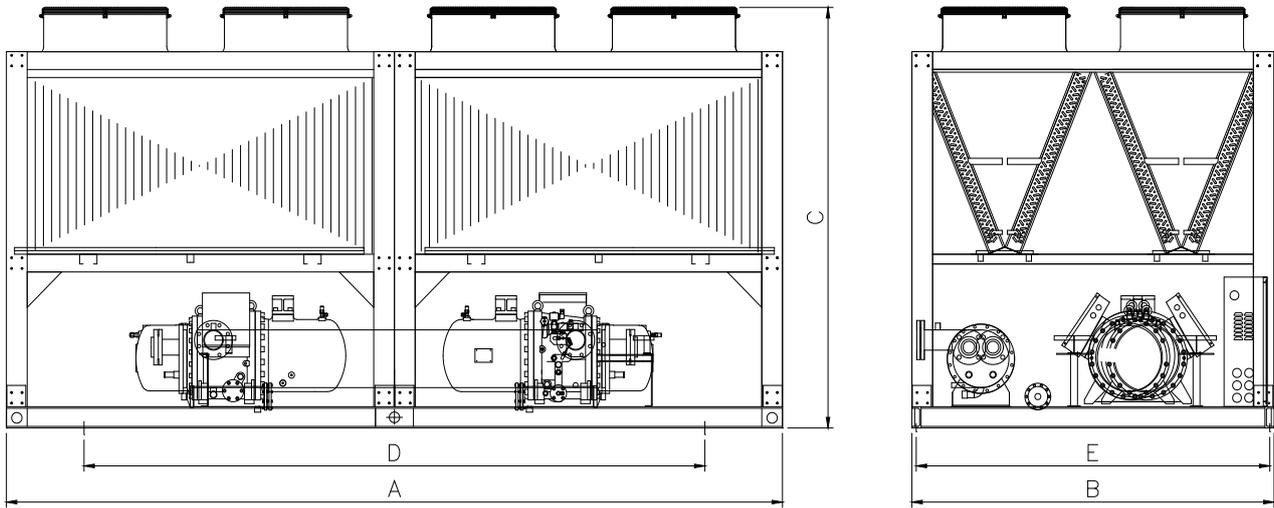


Model	A	B	C	D	E
40STE-110A(H)SY4	2210	1300	2050	1600	1260
40STE-160A(H)SY4	2250	2100	2300	1800	2050
40STE-210A(H)SY4	2480	2100	2400	1880	2050
40STE-240A(H)SY4	3400	2100	2400	1400	2050

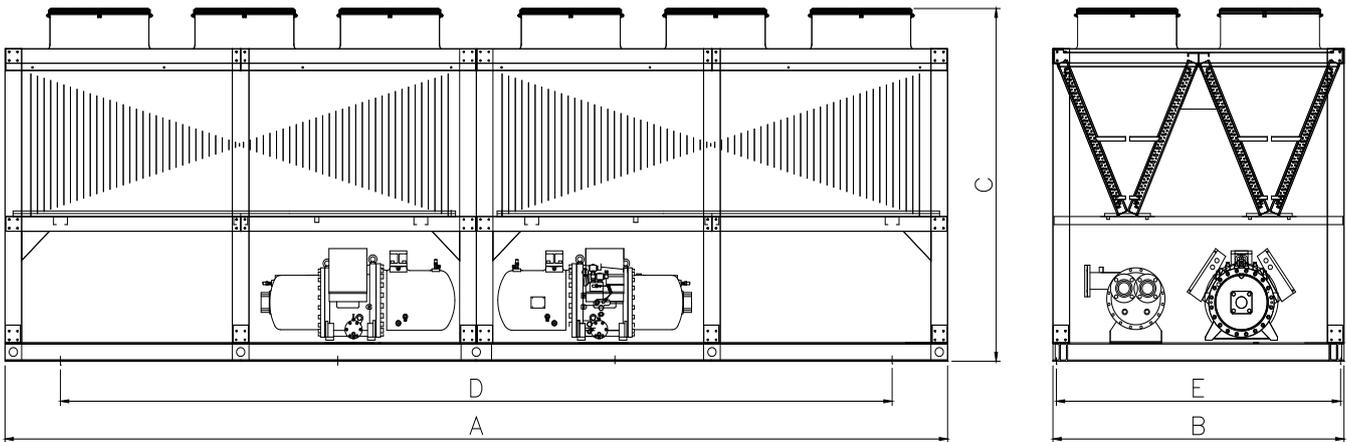


Model	A	B	C	D	E	U
40STE-280A(H)SY4	3400	2100	2400	1400	2050	200
40STE-310A(H)SY4	3400	2100	2400	1400	2050	200
40STE-340A(H)SY4	4500	2100	2400	3600	2050	200

Air-cooled chiller dimensions



Model	A	B	C	D	E
40STE-380A(H)DY4	4500	2100	2400	3600	2050
40STE-420A(H)DY4	4960	2100	2400	4000	2050



Model	A	B	C	D	E
40STE-480A(H)DY4	6800	2100	2400	6000	2050

Standard chiller model parameter table

Water-cooled Screw Integrated Dual-function Heating and Cooling Chiller Parameters(R22)

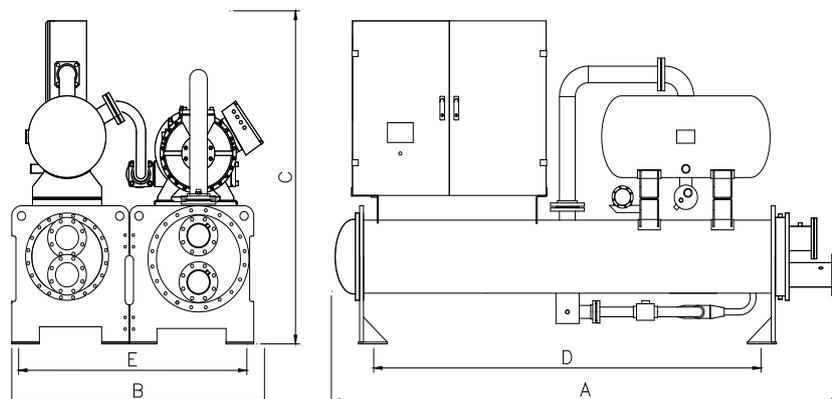
Refrigerant: R22 Power Supply: 3 φ –380V–50Hz

Model	Nominal cooling		Nominal heating		Energy control %	Refrigerant charge kg	Condenser				Evaporator				Operating sound dB(A)	Shipping weight kg	Operating weight kg
	Capacity kW	Input Power kW	Capacity kW	Input Power kW			Pipe connection inch	Water flow m ³ /h	Water Side MAX. Pressure Mpa	Water pressure drop kPa	Pipe connection inch	Water flow m ³ /h	Water Side MAX. Pressure Mpa	Water pressure drop kPa			
40STD-100WHSY4	101	20	119	28	0 66 100	17	2"	25	1	37	2"	20	1	20	73	880	970
40STD-130WHSY4	139	27	163	37		24	2-1/2"	34	1	43	2-1/2"	28	1	25	74	910	1010
40STD-180WHSY4	183	34	212	46		30	3"	44	1	41	3"	36	1	29	75	1080	1220
40STD-260WHSY4	262	49	283	66	0 50 75 100	44	3"	60	1	48	3"	49	1	41	75	1390	1530
40STD-350WHSY4	364	64	419	87		59	3"	87	1	45	3"	72	1	55	76	1620	1780
40STD-F440WHSY4	466	75	500	101		92	5"	103	1	53	4"	86	1	68	76	2840	3060
40STD-F530WHSY4	566	89	606	121		109	5"	125	1	56	5"	104	1	70	77	3100	3380
40STD-F610WHSY4	655	103	700	139		126	5"	144	1	54	5"	120	1	69	77	4100	4410
40STD-F690WHSY4	736	115	786	155		140	5"	162	1	56	5"	135	1	70	77	4520	4890
40STD-F800WHSY4	857	131	912	177		163	5"	187	1	58	5"	157	1	72	78	4740	5180

Note:

1. Nominal cooling capacity reference: groundwater inlet and outlet temperature 18° C/29° C, chilled water inlet and outlet temperature 12° C /7° C ; fouling factor 0.088 m² · °C /kW;
2. Minimum chilled water outlet temperature: 5° C ;
3. Nominal heating capacity reference: the groundwater inlet temperature is 15° C, the hot water inlet temperature is 40° C, and the outlet water temperature adopts the water flow determined by the nominal cooling condition;
4. Maximum hot water temperature: 50° C ;
5. Specifications and dimensions will be subject to improvement change without notice.

Water-cooled chiller dimensions



Model	A	B	C	D	E
40STD-F100WSY4	2400	1000	1500	1550	800
40STD-F140WSY4	2400	1000	1500	1550	800
40STD-F190WSY4	2400	1000	1500	1550	800
40STD-F260WSY4	3000	1150	1650	2200	900
40STD-F280WSY4	3000	1150	1650	2200	900
40STD-F440W(H)SY4	3500	1600	1750	2800	1400
40STD-F530W(H)SY4	3600	1700	1850	2800	1400
40STD-F610W(H)SY4	3600	1700	1950	2800	1400
40STD-F690W(H)SY4	3600	1800	1950	2800	1500
40STD-F800W(H)SY4	3800	1800	2150	2800	1600

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