

# HYTSU®

# T&U®

## S100 SERIES 1.2-2.0t



### 3 - WHEELS ELECTRIC FORKLIFT TRUCK

FE12S 1200kg/500mm  
FE18S 1800kg/500mm

FE15S 1500kg/500mm  
FE20S 2000kg/500mm

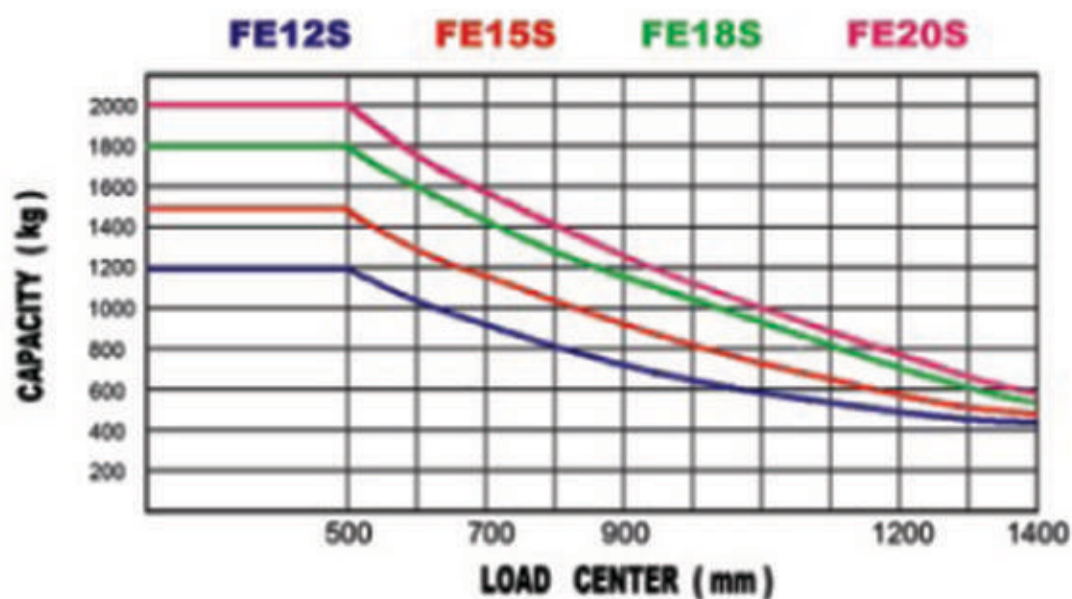


**AC LIFTING  
+  
AC DRIVING**

STANDARD SPECIFICATION

CHARACTERISTICS	HYTSU GROUP					
		FE12S	FE15S	FE18S	FE20S	
1	Manufacturer					
2	Model designation					
3	Power unit	V	48	48	48	48
4	Type of operation	Drive seated		Drive seated	Drive seated	Drive seated
5	Load capacity	kg/lb.	1200/2600	1500/3300	1800/3900	2000/4400
6	Load center	mm/in.	500/19.7	500/19.7	500/19.7	500/19.7
7	Fork overhang (Axle center to fork face)	mm/in.	368/14.5	368/14.5	368/14.5	368/14.5
8	Wheelbase	mm/in.	1250/49	1250/49	1360/53.5	1460/57.5
9	Service weight (with battery) <sup>1)</sup>	kg/lb.	3100/6828	3280/7225	3485/7676	3750/8260
10	Axle load with load, front/rear <sup>1)</sup>	kg/lb.	3770/530 (8300/1167)	4130/650 (9097/1430)	4530/750 (9978/1650)	4900/850 (10790/1870)
11	Axle load without load, front/rear <sup>1)</sup>	kg/lb.	1570/1530 (3458/3370)	1590/1690 (3500/3720)	1722/1763 (3790/3880)	1860/1890 (4095/4160)
12	Tyre size, front	18X7-8		18X7-8	18X7-8	200/50-10
13	Tyre size, rear	15X4.5-8		15X4.5-8	15X4.5-8	15X4.5-8
14	Wheels, number front/rear (x=driven)	2/2		2/2	2/2	2/2
15	Tread width, front	mm/in.	920/36	920/36	920/36	940/37
16	Tread width, rear	mm/in.	163 /6.4	163 /6.4	163 /6.4	163 /6.4
17	Mast/fork carriage tilt, forward/backward	deg	5°/6°	5°/6°	5°/6°	5°/6°
18	Height of mast, fork lowered	mm/in.	2135 / 84	2135 / 84	2135 / 84	2135 / 84
19	Operation type options	Economic / Standard / High				
20	Maximum fork height	mm/in.	3300 / 130	3300 / 130	3300 / 130	3300 / 130
21	Height of mast, extended	mm/in.	4360/172	4360/172	4360/172	4360/172
22	Height of overhead guard	mm/in.	1990 / 78	1990 / 78	1990 / 78	1990 / 78
23	Height of seat	mm/in.	885/35	885/35	885/35	885/35
24	Tow coupling height	mm/in.	465/18	465/18	465/18	465/18
25	Overall length	mm/in.	2750/108	2750/108	2860/112	3110/122
26	Length to fork face	mm/in.	1830/72	1830/72	1940/76	2040/80
27	Overall width	mm/in.	1070/42	1070/42	1070/42	1120/44
28	Fork dimensions (L x W x T)	mm/in.	920X100X35 (36X4X1.4)	920X100X35 (36X4X1.4)	920X100X38 (36X4X1.5)	1070X122X40 (42X4.8X1.6)
29	Fork carriage type/class	2A		2A	2A	2A
30	Width of fork carriage	mm/in.	1070 / 42	1070 / 42	1070 / 42	1070 / 42
31	Ground clearance, mast	mm/in.	100/4	100/4	100/4	100/4
32	Ground clearance, center of wheelbase	mm/in.	85/3.3	85/3.3	85/3.3	85/3.3
33	Aisle width with pallets 1000Lx1200W across forks(clearance=200mm)	mm/in.	3095/122	3095/122	3205/126	3305/130
34	Aisle width with pallets 800Wx1200L along forks(clearance=200mm)	mm/in.	3218/126	3218/126	3328/131	3428/135
35	Outside turning radius	mm/in.	1400 / 55	1400 / 55	1510/59	1610/63
36	Travel speed, with/without load <sup>2)</sup>	km/h	14.5/16.5	14.5/16.5	14.5/16.5	14.5/16.5
37	Lifting speed, with/without load <sup>2)</sup>	mm(in.)/s	420/460 (16.5/18)	410/460 (16/18)	400/460 (15.5/18)	380/460 (15/18)
38	Lowering speed, with/without load	mm(in.)/s	440/400 (17.3/15.5)	440/400 (17.3/15.5)	450/410 (17.7/16)	450/410 (17.7/16)
39	Maximum drawbar pull, with/without load <sup>2)</sup>	KN	9/11.5	9/11.5	6/11.5	6/11.5
40	Maximum gradeability, with load/without load <sup>2)</sup>	%	20/20	20/20	20/20	20/20
41	Acceleration, with/without load(first 10m) <sup>2)</sup>	sec.	5.2/4.8	5.2/4.8	5.2/4.8	5.2/4.8
42	Brake system	Service brake	Foot—Hydraulic wet disk			
		Parking brake	Lever-Hydraulic wet disk			
43	Steering system	Hydraulic power steering				
44	Drive motor, 60 minute rating	KW	6.5X2	6.5X2	65.5X2	65.5X2
45	Lift motor, 15% rating	KW	12	12	12	12
46	Battery (DIN43531A)	DIN43531A		DIN43531A	DIN43531A	DIN43531A
47	Battery voltage/rated capacity (5h) <sup>3)</sup>	V/Ah	48/400	48/400	48/400	48/560
48	Battery weight (±5%)	kg/lb.	800 / 1760	800 / 1760	800 / 1760	1000/2200
49	Type of drive control	SME		SME	SME	SME
50	Working pressure for attachments	kg/cm <sup>2</sup>	115	140	150	160
51	Tow coupling, type	S		S	S	S

NOTE: 1) Max. battery weight      2) Standard mode      3) Standard battery capacity



The front driving tyres with double motor which are two high performance, low noise, 3-way AC motors. Driving system is with strong traction and driving edit function, flexible driving, available to stop on the ramp when full load.

The advantages is with strong traction and acceleration from zero to max speed with the control of aptitude moment and speed, it with high speed when straight going and transfer to lower speed automatic when turing.



The management of aptitude power, in any conditions of operation, gurantee the best electric supply status, keep the performance of forklift and accumulator balanced.

Still provide 3 mode of power management:

1) Economic mode

qualified the performance of accumulator control the limited performance of forklift

2) Standard mode

balanced the performance of accumulator and forklift

3) Qualified mode

qualified the performance of forklift control the limited performance of accumulator



With flexible hydraulic operation method, the system could be safer. The speed of hydraulic pump motor is controlled seriously. When change the control valve or steering wheel, the motor will control the rotate speed according to the volume of oil required, so as to reduce the energy and prolong the working time of accumulator.

Both steering system and hydraulic system are using the same motor and oil pump, using precession valve to gurantee the steering first and safty operation.

The forklift is equipped with electric brake, the mechanical brake is required only in the situation of parking and emergency. Any other situation, just loose the accelerator pedal, then it will brake automatic.



The accumulator are carried out using a hand pallet truck , electric pallet truck or forklift truck, this concept minimizes the risk of crushing and damage of any sort that could occur with a heavy swinging battery. This operation method is very convenient, fast, safty and reliable.

## BATTERY COMPARTMENT

(mm/inch)

Model	Battery compartment (Inner dimensions L x W x H)	Battery case size (Inner dimensions L x W x H)
FE12S	830X525X645 / 32.6X20.7X25.4	810X515X635 / 31.9X20.3X25
FE15S	830X525X645 / 32.6X20.7X25.4	810X515X635 / 31.9X20.3X25
FE18S	830X530X650 / 32.6X20.9X25.6	810X515X635 / 31.9X20.3X25
FE20S	830X525X645 / 32.6X20.7X25.4	810X515X635 / 31.9X20.3X25



**FORKLIFT TRUCK**



### STANDARD EQUIPMENT

- Wide view mast
- Class II (III) carriage
- Load backrest
- Lamp guard
- Back-up lamp
- Standard fork
- Full hydraulic power steering
- Overhead guard
- Standard seat
- Drawbar pin
- Lift and tilt levers
- Retaining rollers
- 2-spool control valve with pressure relief valve
- Power steering
- Dipstick for convertor oil
- Dipstick for hydraulic oil
- Lift circuit cut-off valve
- Charge indicator
- Operator tool kits
- Rear view mirrors
- Halogen head lights
- Electric horn
- Rear combination lights
- Tilt adjustable steering post
- Deluxe rubber floor mat
- Turn signal lights
- Back-up alarm

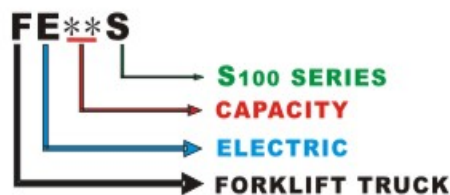
### OPTIONAL LOADING ATTACHMENTS

- Wide view 2-stage full free VFM masts
- Wide view 3-stage full free VFHM masts
- Wide carriage
- Long forks
- Fork extension sleeves
- Side shift
- Paper roll clamp
- Ram
- Crane arm
- Flash light

### OPTIONAL EQUIPMENT AND ACCESSORIES

- Solid tires
- Color tire
- Suspension seat
- Fire extinguisher
- Tilt cylinder boots
- Steering cylinder boot
- Rear working light
- Auxiliary hydraulic valve modules

### DESCRIPTION FOR THE MODEL OF FORKLIFT



### Note :

**HYTSU** industrial trucks are equipped with certain safety devices as standard equipment

**HYTSU** will not assume any liability for damage arising from or caused by the removal of any safety devices from any of its products



## WIDE VIEW MAST VM

Mast Model	Capacity at 500mm Load Center				Max. Fork Height	Overall Mast Height		Tilting Angel	Service Weight (with battery)				
	FE12S	FE15S	FE18S	FE20S		Lowered	Raised with Backrest		FWD/BWD	FE12S	FE15S	FE18S	FE20S
	kg/lb.	kg/lb.	kg/lb.	kg/lb.		mm/in.	mm/in.		deg	kg/lb.	kg/lb.	kg/lb.	kg/lb.
VM200	1200/2600	1500/3300	1800/3965	2000/4400	2000/78	1485/58	3060/121	5/6	2777/6116	2937/6469	3017/6645	3310/7290	
VM250	1200/2600	1500/3300	1800/3965	2000/4400	2500/98	1735/68	3560/140	5/6	2832/6238	2992/6590	3072/6766	3370/7423	
VM270	1200/2600	1500/3300	1800/3965	2000/4400	2700/106	1835/72	3760/148	5/6	2854/6286	3014/6639	3094/6815	3400/7489	
VM300	1200/2600	1500/3300	1800/3965	2000/4400	3000/118	1985/78	4060/160	5/6	2887/6359	3047/6710	3127/6887	3430/7555	
VM330	1200/2600	1500/3300	1800/3965	2000/4400	3300/130	2135/84	4360/170	5/6	2920/6432	3080/6784	3160/6960	3450/7599	
VM350	1200/2600	1500/3300	1800/3965	2000/4400	3500/138	2235/88	4560/180	5/6	2942/6480	3102/6832	3182/7008	3480/7665	
VM370	820/1800	1230/2709	1550/3414	1700/3745	3700/146	2335/92	4760/187	3/6	2964/6528	3124/6880	3204/7057	3505/7720	
VM400	700/1540	1200/2643	1500/3300	1600/3524	4000/158	2535/100	5060/200	3/6	2997/6600	3157/6954	3237/7130	3540/7797	
VM450	680/1497	1150/2533	1300/2863	1450/3194	4500/177	2785/110	5560/219	3/6	3052/6722	3212/7075	3292/7250	3590/7907	
VM475	650/1430	1100/2422	1200/2643	1300/2863	4750/187	2910/115	5810/229	3/6	3080/6784	3240/7136	3320/7312	3620/7973	
VM500	600/1320	1000/2200	1100/2422	1200/2643	5000/197	3035/120	6060/239	3/6	3108/6845	3267/7196	3347/7372	3650/8040	
VM550	500/1100	800/1762	900/1982	950/2093	5500/216	3335/130	6560/258	3/6	3162/6965	3322/7317	3402/7493	3700/8150	
VM600	400/880	600/1320	700/1540	750/1650	6000/236	3585/140	7060/278	3/6	3217/7086	3377/7438	3457/7614	3760/8282	

## WIDE VIEW FULL FREE 2-STAGE MAST VFM

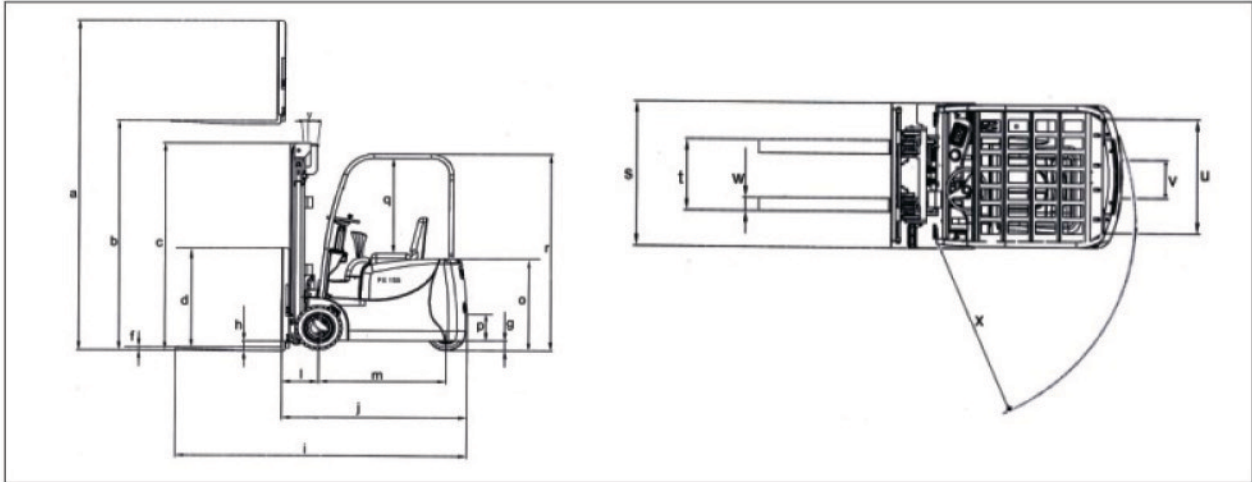
Mast Model	Capacity at 500mm Load Center				Max. Fork Height	Overall Mast Height			Tilting Angel	Service Weight (with battery)				
	FE12S	FE15S	FE18S	FE20S		Lowered	(1)Raised with Backrest	(2)Free lift with Backrest		FWD/BWD	FE12S	FE15S	FE18S	FE20S
	kg/lb.	kg/lb.	kg/lb.	kg/lb.		mm/in.	mm/in.	mm/in.		deg	kg/lb.	kg/lb.	kg/lb.	kg/lb.
VFM200	1200/2600	1500/3300	1800/3965	2000/4400	2000/78	1485/58	3060/121	465/18	5/6	2877/6337	3037/6690	3117/6865	3337/7350	
VFM250	1200/2600	1500/3300	1800/3965	2000/4400	2500/98	1735/68	3560/140	715/28	5/6	2932/6458	3092/6810	3172/6985	3390/7467	
VFM270	1200/2600	1500/3300	1800/3965	2000/4400	2700/106	1835/72	3760/148	815/32	5/6	2954/6500	3114/6860	3194/7035	3415/7522	
VFM300	1200/2600	1500/3300	1800/3965	2000/4400	3000/118	1985/78	4060/160	965/37	5/6	2987/6580	3147/6930	3227/7105	3445/7588	
VFM330	1200/2600	1500/3300	1800/3965	2000/4400	3300/130	2135/84	4360/170	1115/44	5/6	3020/6650	3180/7000	3260/7180	3480/7665	
VFM350	1200/2600	1500/3300	1800/3965	2000/4400	3500/138	2235/88	4560/180	1215/48	5/6	3042/6700	3202/7050	3282/7230	3500/7709	
VFM370	820/1800	1230/2709	1550/3414	1650/3634	3700/146	2335/92	4760/187	1315/52	3/6	3064/6750	3224/7100	3304/7275	3524/7762	
VFM400	700/1540	1200/2643	1500/3300	1600/3524	4000/158	2535/100	5060/200	1515/60	3/6	3097/6820	3257/7170	3337/7350	3557/7835	
VFM450	680/1497	1150/2533	1300/2863	1300/2863	4500/177	2785/110	5560/219	1765/69	3/6	3152/6940	3312/7295	3392/7470	3612/7955	
VFM500	600/1320	1000/2200	1100/2422	1100/2422	5000/197	3035/119	6060/239	2015/79	3/6	3208/7060	3367/7415	3447/7590	3667/8077	
VFM550	500/1100	800/1762	900/1982	900/1982	5500/216	3335/131	6560/258	2315/91	3/6	3262/7185	3422/7535	3502/7710	3722/8198	
VFM600	400/880	600/1320	700/1540	700/1540	6000/236	3585/141	7060/278	2565/101	3/6	3317/7300	3477/7660	3557/7835	3777/8319	

## WIDE VIEW FULL FREE 3-STAGE MAST VFHM

Mast Model	Capacity at 500mm Load Center				Max. Fork Height	Overall Mast Height			Tilting Angel	Service Weight (with battery)				
	FE12S	FE15S	FE18S	FE20S		Lowered	(1)Raised with Backrest	(2)Free lift with Backrest		FWD/BWD	FE12S	FE15S	FE18S	FE20S
	kg/lb.	kg/lb.	kg/lb.	kg/lb.		mm/in.	mm/in.	mm/in.		deg	kg/lb.	kg/lb.	kg/lb.	kg/lb.
VFHM360	1000/2200	1300/2860	1600/3520	1800/3965	3600/140	1820/72	4660/183	800/31	3/6	3114/6860	3270/7200	3354/7388	3580/7885	
VFHM400	850/1870	1100/2420	1500/3300	1700/3745	4000/157	1945/76	5060/200	925/36	3/6	3147/6930	3307/7285	3387/7460	3617/7967	
VFHM435	600/1320	1000/2200	1300/2860	1500/3300	4350/170	2070/81	5410/213	1050/41	3/6	3150/6938	3347/7372	3422/7537	3752/8264	
VFHM450	550/1210	800/1762	1200/2643	1300/2863	4500/177	2120/83	5560/219	1100/43	3/6	3180/7004	3360/7400	3445/7588	3675/8095	
VFHM470	500/1100	700/1540	1100/2420	1100/2420	4700/185	2185/86	5760/227	1165/46	3/6	3200/7048	3380/7445	3460/7620	3695/8139	
VFHM480	500/1100	700/1540	1100/2420	1100/2420	4800/189	2220/87	5860/230	1200/47	3/6	3206/7060	3390/7466	3470/7643	3700/8150	
VFHM500	400/880	650/1430	900/1980	950/2090	5000/197	2320/91	6060/238	1300/51	3/6	3258/7175	3417/7526	3497/7700	3727/8209	
VFHM550	350/770	580/1275	750/1650	800/1762	5500/216	2485/98	6560/258	1465/58	3/6	3312/7295	3472/7648	3552/7824	3782/8330	
VFHM600	300/660	500/1100	600/1320	650/1430	6000/236	2670/105	7060/278	1650/65	3/6	3367/7415	3527/7768	3607/7945	3837/8450	

## LIFTING AND LOWERING SPEED

Speed	m/s (inch/s)	Mast Type	VM				VFM			VFHM		
			Model	FE12S/15S	FE18S	FE20S	FE12S/15S	FE18S	FE20S	FE12S/15S	FE18S	FE20S
Lifting speed (48V)	without load.	High	580 (23)	580 (23)	580 (23)	580 (23)	580 (23)	580 (23)	580 (23)	580 (23)	580 (23)	580 (23)
		Standard	462 (18)	462 (18)	462 (18)	462 (18)	462 (18)	462 (18)	462 (18)	462 (18)	462 (18)	462 (18)
		Economy	275 (11)	275 (11)	275 (11)	275 (11)	275 (11)	275 (11)	275 (11)	275 (11)	275 (11)	275 (11)
	with load.	High	410 (16)	400 (15.8)	390 (15.4)	410 (16)	400 (15.8)	390 (15.4)	410 (16)	400 (15.8)	390 (15.4)	390 (15.4)
		Standard	362 (14.2)	345 (13.5)	335 (13)	360 (14)	345 (13.5)	335 (13)	362 (14.2)	345 (13.5)	325 (12.8)	325 (12.8)
		Economy	228 (9)	200 (7.9)	180 (7)	228 (9)	210 (8.2)	190 (7.5)	210 (8.2)	200 (7.9)	190 (7.5)	190 (7.5)
Lowering speed	without load.	—	400 (15.7)			360 (14)			360 (14)			
	with load.	—	440 (17.3)			430 (17)			430 (17)			



### STANDARD DIMENSIONS (Front Single Tire)

model	FE12S	FE15S	FE18S	FE20S
unit	mm/in.	mm/in.	mm/in.	mm/in.
a	Height of mast, extended	4360/172	4360/172	4360/172
b	Maximum fork height	3300/130	3300/130	3300/130
c	Height of mast, fork lowered	2135/84	2135/84	2135/84
d	Backrest height	1020/40	1020/40	1020/40
f	Fork thickness	35/1.4	35/1.4	40/1.6
g	Ground clearance, center of wheelbase	85/3.3	85/3.3	85/3.3
h	Ground clearance, mast	100/3.9	100/3.9	100/3.9
i	Overall length	2750/108	2750/108	2860/112
j	Length to fork face	1830/72	1830/72	1940/76
k	Fork length	920/36	920/36	920/36
l	Fork overhang	368/14.5	368/14.5	368/14.5
m	Wheelbase	1250/49	1250/49	1360/54
n	Rear overhang	212/8.3	212/8.3	212/8.3
o	Counter weight height	925/36	925/36	925/36
q	Overhead clearance	1000/39	1000/39	1000/39
r	Overhead guard height	1990/78	1990/78	1990/78
s	Overall width	1070/42	1070/42	1070/42
t	Lateral fork adjustment (outside)	950/37.3	950/37.3	950/37.3
u	Tread (front)	920/36.2	920/36.2	920/36.2
v	Tread (rear)	185/7.3	185/7.3	185/7.3
w	Fork width	100/3.9	100/3.9	100/3.9
x	Outside turning radius	1400/55	1400/55	1510/59
y	Mast / fork carriage tilt, forward / backward	5°/6°	5°/6°	5°/6°

### RIGHT ANGLE STACKING AISLE

(mm/inch)

Pallet Size	Length	800/32	800/32	800/32	1000/39	1000/39	1000/39	1100/43	1100/43	1200/47
	Width	1000/39	1100/43	1200/47	1000/39	1100/43	1200/47	1100/43	1200/47	1200/47
FE12S		2870/113	2890/114	2915/115	3056/120	3075/121	3095/122	3168/124	3185/125	3279/129
FE15S		2870/113	2890/114	2915/115	3056/120	3075/121	3095/122	3168/124	3185/125	3279/129
FE18S		2980/117	3000/118	3025/119	3166/124	3185/125	3205/126	3278/129	3295/130	3389/133
FE20S		3080/121	3100/122	3125/123	3266/128	3285/129	3305/130	3378/133	3395/134	3489/137

HYTSU GROUP products and specifications are subject to improvement and change without notice.



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