

HYTSU®

T&U®

S100 SERIES 1.6-2.0t



4 - WHEELS ELECTRIC FORKLIFT TRUCK

FE16SF 1600kg/500mm
FE20SF 2000kg/500mm

FE18SF 1800kg/500mm



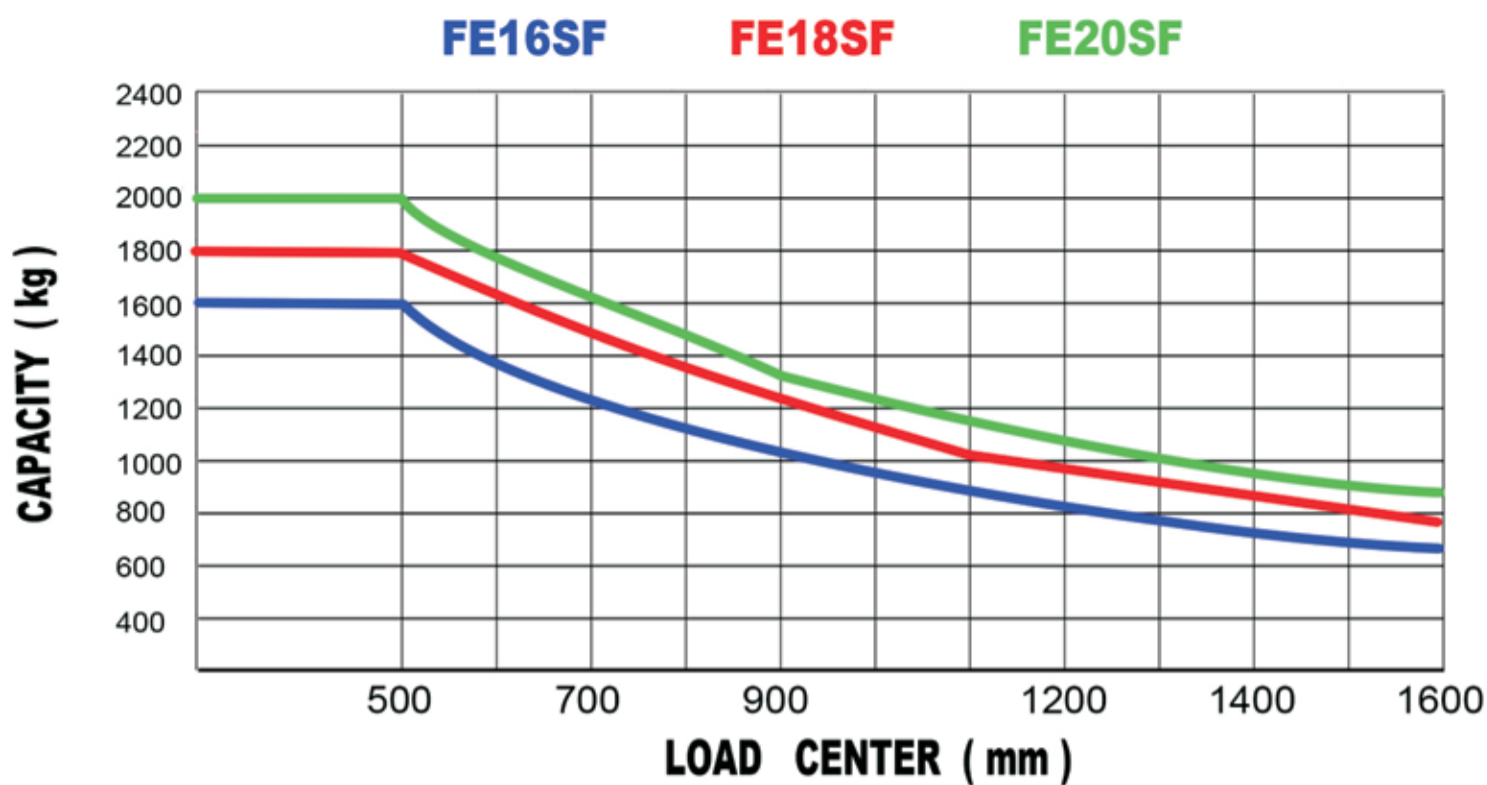
**AC LIFTING
+
AC DRIVING**



STANDARD SPECIFICATION

CHARACTERISTICS			HYTSU GROUP			
			FE16SF	FE18SF	FE20SF	
1	Manufacturer					
2	Model designation					
3	Power unit	V	48	48	48	
4	Type of operation		Drive seated	Drive seated	Drive seated	
5	Load capacity	kg/lb.	1600/3520	1800/3900	2000/4400	
6	Load center	mm/in.	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	
8	Wheelbase		mm/in.	1360/53.5	1360/53.5	
WEIGHTS	9	Service weight (with battery) ¹⁾		kg/lb.	3230/7106	
	10	Axle load with load, front/rear ¹⁾		kg/lb.	4312/518 (9486/1140)	
	11	Axle load without load, front/rear ¹⁾		kg/lb.	1540/1690 (3388/3718)	
WHEELS AND TYRES	12	Tyre size, front		18X7-8	200/50-10	
	13	Tyre size, rear		16X6-8	16X6-8	
	14	Wheels, number front/rear (x=driven)		2/2	2/2	
	15	Tread width, front	mm/in.	920/36	940/37	
	16	Tread width, rear	mm/in.	920/36	920/36	
DIMENSIONS	17	Mast/fork carriage tilt, forward/backward		deg	6°/12°	
	18	Height of mast, fork lowered		mm/in.	2135 / 84	
	19	Operation type options		Economic / Standard / High		
	20	Maximum fork height		mm/in.	3300 / 130	
	21	Height of mast, extended		mm/in.	4360/172	
	22	Height of overhead guard		mm/in.	2000/ 78.7	
	23	Height of seat		mm/in.	895/35	
	24	Tow coupling height		mm/in.	465/18	
	25	Overall length		mm/in.	2963/116.7	
	26	Length to fork face		mm/in.	2043/80.4	
	27	Overall width		mm/in.	1070/42	
	28	Fork dimensions (L x W x T)		mm/in.	920X100X35 (36X4X1.4)	
	29	Fork carriage type/class		2A	2A	
	30	Width of fork carriage		mm/in.	1070 / 42	
	31	Ground clearance, mast		mm/in.	100/4	
	32	Ground clearance, center of wheelbase		mm/in.	90/3.5	
	33	Aisle width with pallets 1000Lx1200W across forks(clearance=200mm)		mm/in.	3634/143	
34	Aisle width with pallets 800Wx1200L along forks(clearance=200mm)		mm/in.	3758/148		
35	Outside turning radius		mm/in.	1940 / 76.3		
PERFORMANCE	36	Travel speed, with/without load ²⁾		km/h	13.5/14.5	
	37	Lifting speed, with/without load ²⁾		mm(in.)/s	410/460 (16/18)	
	38	Lowering speed, with/without load		mm(in.)/s	440/400 (17.3/15.5)	
	39	Maximum drawbar pull, with/without load ²⁾		KN	9/11.5	
	40	Maximum gradeability, with load/without load ²⁾		%	15/20	
	41	Acceleration, with/without load(first 10m) ²⁾		sec.	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			
DRIVE	44	Drive motor, 60 minute rating		KW	6.5X2	
	45	Lift motor, 2 minute rating		KW	12	
	46	Battery voltage/rated capacity (5h) ³⁾		V/Ah	48/460	
	47	Battery weight (±5%)		kg/lb.	800 / 1760	
OTHER	48	Type of drive control		SME	SME	
	49	Working pressure for attachments		kg/cm ²	140	
	50	Tow coupling, type		S	S	

NOTE: 1) Max. battery weight 2) Standard mode 3) Max. 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 seriouly. 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)
FE16SF	830X525X645	810X515X635
FE18SF	830X525X645	810X515X635
FE20SF	830X625X645	810X615X635

STANDARD EQUIPMENT

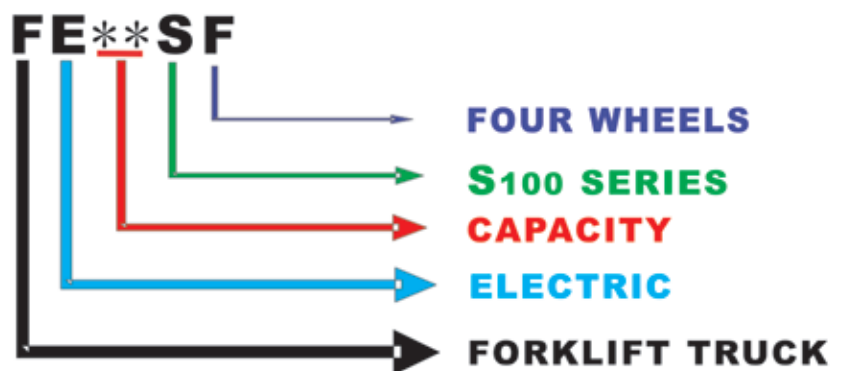
- Wide view mast
- Class II (III) carriage
- Load backrest
- Lamp guard
- Back-up lamp
- Standard fork
- Full hydraulic power steering
- Overhead guard
- Standard seat
- Drawbar pin
- Lift and tilt levers
- Retaining rollers
- 2-spool control valve with pressure relief valve
- Power steering
- Dipstick 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 GROUP industrial trucks are equipped with certain safety devices as standard equipment.

HYTSU GROUP 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)		
	FE16SF	FE18SF	FE20SF		Lowered	Raised with Backrest		FWD/BWD	FE16SF	FE18SF
	kg/lb.	kg/lb.	kg/lb.		mm/in.	mm/in.	mm/in.	deg	kg/lb.	kg/lb.
VM200	1600/3520	1800/3960	2000/4400	2000/78	1485/58	3060/121	6/12	2937/6469	3017/6645	3310/7290
VM250	1600/3520	1800/3960	2000/4400	2500/98	1735/68	3560/140	6/12	2992/6590	3072/6766	3370/7423
VM270	1600/3520	1800/3960	2000/4400	2700/106	1835/72	3760/148	6/12	3014/6639	3094/6815	3400/7489
VM300	1600/3520	1800/3960	2000/4400	3000/118	1985/78	4060/160	6/12	3047/6710	3127/6887	3430/7555
VM330	1600/3520	1800/3960	2000/4400	3300/130	2135/84	4360/170	6/12	3080/6784	3160/6960	3450/7599
VM350	1600/3520	1800/3960	2000/4400	3500/138	2235/88	4560/180	6/12	3102/6832	3182/7008	3480/7665
VM370	1600/3520	1800/3960	2000/4400	3700/146	2335/92	4760/187	6/6	3124/6880	3204/7057	3505/7720
VM400	1600/3520	1800/3960	2000/4400	4000/158	2535/100	5060/200	6/6	3157/6954	3237/7130	3540/7797
VM450	1400/3080	1650/3630	1850/3850	4500/177	2785/110	5560/219	6/6	3212/7075	3292/7250	3590/7907
VM475	1250/2750	1550/3410	1700/3740	4750/187	2910/115	5810/229	6/6	3240/7136	3320/7312	3620/7973
VM500	1050/2310	1500/3300	1550/3410	5000/197	3035/120	6060/239	3/6	3267/7196	3347/7372	3650/8040
VM550	950/2090	1300/2860	1400/3080	5500/216	3335/130	6560/258	3/6	3322/7317	3402/7493	3700/8150
VM600	800/1760	1100/2420	1200/2640	6000/236	3585/140	7060/278	3/6	3377/7438	3457/7614	3760/8282

WIDE VIEW FULL FREE 2-STAGE MAST VFM

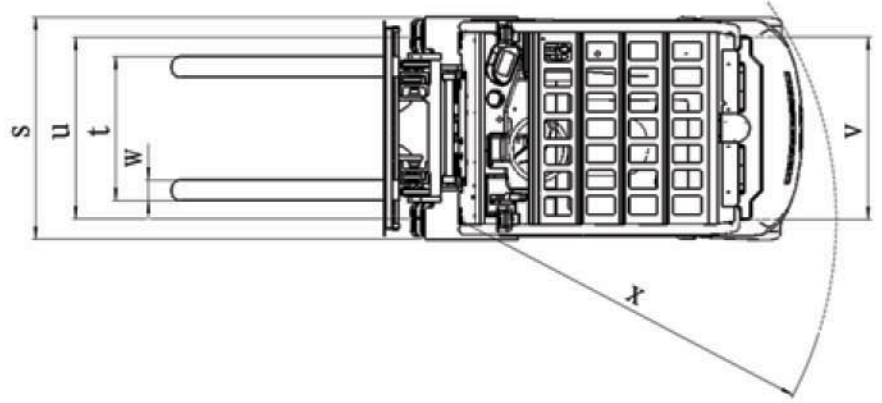
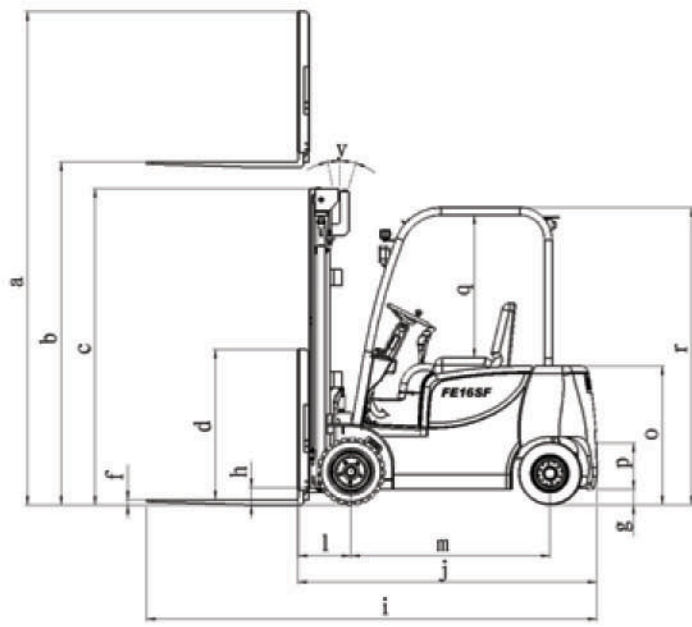
Mast Model	Capacity at 500mm:Load Center			Max. Fork Height	Overall Mast Height			Tilting Angel	Service Weight (with battery)		
	FE16SF	FE18SF	FE20SF		Lowered	(1)Raised with Backrest	(2)Free lift with Backrest		FWD/BWD	FE16SF	FE18SF
	kg/lb.	kg/lb.	kg/lb.		mm/in.	mm/in.	mm/in.	mm/in.	deg	kg/lb.	kg/lb.
VFM200	1600/3520	1800/3965	2000/4400	2000/78	1485/58	3060/121	465/18	6/12	3037/6690	3117/6865	3337/7350
VFM250	1600/3520	1800/3965	2000/4400	2500/98	1735/68	3560/140	715/28	6/12	3092/6810	3172/6985	3390/7467
VFM270	1600/3520	1800/3965	2000/4400	2700/106	1835/72	3760/148	815/32	6/12	3114/6860	3194/7035	3415/7522
VFM300	1600/3520	1800/3965	2000/4400	3000/118	1985/78	4060/160	965/37	6/12	3147/6930	3227/7105	3445/7588
VFM330	1600/3520	1800/3965	2000/4400	3300/130	2135/84	4360/170	1115/44	6/12	3180/7000	3260/7180	3480/7665
VFM350	1600/3520	1800/3965	2000/4400	3500/138	2235/88	4560/180	1215/48	6/12	3202/7050	3282/7230	3500/7709
VFM370	1600/3520	1800/3965	2000/4400	3700/146	2335/92	4760/187	1315/52	6/6	3224/7100	3304/7275	3524/7762
VFM400	1500/3299	1700/3740	1700/3740	4000/158	2535/100	5060/200	1515/60	6/6	3257/7170	3337/7350	3557/7835
VFM450	1250/2750	1600/3520	1600/3520	4500/177	2785/110	5560/219	1765/69	6/6	3312/7295	3392/7470	3612/7955
VFM500	1050/2310	1500/3300	1550/3410	5000/197	3035/119	6060/239	2015/79	3/6	3367/7415	3447/7590	3667/8077
VFM550	950/2090	1300/2860	1400/3080	5500/216	3335/131	6560/258	2315/91	3/6	3422/7535	3502/7710	3722/8198
VFM600	800/1760	1100/2420	1200/2640	6000/236	3585/141	7060/278	2565/101	3/6	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)		
	FE16SF	FE18SF	FE20SF		Lowered	(1)Raised with Backrest	(2)Free lift with Backrest		FWD/BWD	FE16SF	FE18SF
	kg/lb.	kg/lb.	kg/lb.		mm/in.	mm/in.	mm/in.	mm/in.	deg	kg/lb.	kg/lb.
VFHM360	1500/3300	1700/3740	1800/3960	3600/140	1820/72	4660/183	800/31	6/6	3270/7200	3354/7388	3580/7885
VFHM400	1450/3190	1600/3520	1700/3740	4000/157	1945/76	5060/200	925/36	6/6	3307/7285	3387/7460	3617/7967
VFHM435	1300/2860	1600/3520	1650/3630	4350/170	2070/81	5410/213	1050/41	6/6	3347/7372	3422/7537	3652/7975
VFHM450	1150/2530	1550/3410	1600/3520	4500/177	2120/83	5560/219	1100/43	6/6	3360/7400	3445/7588	3675/8095
VFHM470	1150/2530	1500/3300	1550/3410	4700/185	2185/86	5760/227	1165/46	6/6	3380/7445	3460/7620	3695/8139
VFHM480	1100/2420	1500/3300	1550/3410	4800/189	2220/87	5860/230	1200/47	6/6	3390/7466	3470/7643	3700/8150
VFHM500	1000/2200	1450/3490	1500/3300	5000/197	2320/91	6060/238	1300/51	3/6	3417/7526	3497/7700	3727/8209
VFHM550	900/1980	1200/2640	1350/2970	5500/216	2485/98	6560/258	1465/58	3/6	3472/7648	3552/7824	3782/8330
VFHM600	700/1540	1000/2200	1150/2530	6000/236	2670/105	7060/278	1650/65	3/6	3527/7768	3607/7945	3837/8450

LIFTING AND LOWERING SPEED

Speed	mm/s (inch/s)	Mast Type	VM			VFM			VFHM		
		Model	FE16SF	FE18SF	FE20SF	FE16SF	FE18SF	FE20SF	FE16SF	FE18SF	FE20SF
Lifting speed (48V)	without load.	High	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)
		Economy	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)	380 (15)	410 (16)	400 (15.8)	390 (15.4)	410 (16)	400 (15.8)	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)
		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)
Lowering speed	without load.	—	400 (15.7)			400 (15.7)			400 (15.7)		
	with load.	—	400(15.7)			400(15.7)			400(15.7)		



STANDARD DIMENSIONS (Front Single Tire)

model		FE16SF	FE18SF	FE20SF
unit		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	38/1.5	40/1.6
g	Ground clearance, center of wheelbase	90/3.5	90/3.5	90/3.5
h	Ground clearance, mast	100/3.9	100/3.9	100/3.9
i	Overall length	2963/116.7	2970/117	3125/123
j	Length to fork face	2043/80.4	2050/80.5	2055/81
k	Fork length	920/36	920/36	1070/42
l	Fork overhang	368/14.5	368/14.5	368/14.5
m	Wheelbase	1360/53.5	1360/53.5	1360/53.5
n	Rear overhang	315/12.4	315/12.4	315/12.4
o	Counter weight height	925/36	925/36	925/36
q	Overhead clearance	1000/39	1000/39	1000/39
r	Overhead guard height	2000/78.7	2000/78.7	2000/78.7
s	Overall width	1090/43	1090/43	1120/44
t	Lateral fork adjustment (outside)	950/37.3	950/37.3	950/37.3
u	Tread (front)	920/36.2	920/36.2	940/37
v	Tread (rear)	920/36.2	920/36.2	920/36.2
w	Fork width	100/3.9	100/3.9	122/4.8
x	Outside turning radius	1940 / 76.3	1945/76.4	1950/76.4
y	Mast / fork carriage tilt, forward / backward	6°/12°	6°/12°	6°/12°

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
FE16SF		3410/134.2	3431/135	3458/136	3596/141.6	3614/142	3634/143	3707/146	3725/146.6	3816/150.2
FE18SF		3415/134.4	3436/135.2	3463/136.3	3601/141.8	3619/142.5	3639/143.2	3712/146	3730/146.8	3821/150.4
FE20SF		3420/134.6	3441/135.5	3468/136.5	3606/142	3624/142.8	3644/143.4	3716/146.3	3735/147	3826/151

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



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