



### CHARGER SPECIFICATION

### CHARGER SELECTION TABLE

#### FILON FUTUR M Characteristics

Charging voltages: 12V, 24V, 36V or 48V  
 Max. rated output: 1,5 kW  
 Mains voltages: 207-253V 50/60Hz - also 100-120V and 100-253V optional  
 Protection category: IP 21 higher protection categories up to IP 54 on request  
 Protection class: I

<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">M</span>	Cabinet	Width	Height	Depth
	HF 180	260	164	93
	HF 190	260	164	113

#### FILON FUTUR M Options

- **ConVision** The compact programming and analysis package for mobile service applications, consisting of service module and software
- **Protection category IP44-IP54** With special cabinets for IP44-IP54 protection
- **On-Board** Customizable, individual implementations (incl. drive-off protection)
- **Temperature compensation** Temperature-controlled charge, e.g. for cold store applications
- **EUW\*** Electrolyte circulation for reducing charge time by up to 2.5 h
- **Pulse charge** Ionic electrolyte circulation for reducing charge time by up to 2 h and for very smooth and energy saving charging
- **Graphical display blue backlight\*** Detailed indication of charging settings, charging progress, and warning and malfunction messages, remote display available upon request
- **Battery Management System\* (BMS)** The central IEB monitoring system, ideal for battery charging stations
- **Battery Management Counter\* (BMC)** External, two-digit counter (up to 99), starts counting automatically after charging is finished
- **Control column\*** External indicator light to signal charging status, visible at a distance
- **Remote LED indicator** As LED control panel or DUO LED (up to 2 m)

\*Only possible with cabinet HF 450

Output Voltage	Charger Type	Nominal Current [A]	Charging Curve/Charging Time/Battery Capacity K <sub>ch</sub> [Ah]					IUla (P2V)	Current [A]	Cabinet	Weight [kg]	Type No.
			IUIa	IUIa	IUIa	IUIa	IUIa (GIV)					
12 V	E 230 G 12 / 6 B50-FP	6	30 - 37	37 - 48	48 - 60	60 - 75	33 - 50	40 - 50	0,5	HF 180	3	76006
	E 230 G 12 / 8 B50-FP	8	40 - 50	50 - 64	64 - 80	80 - 100	44 - 67	54 - 67	0,6	HF 180	3	76008
	E 230 G 12 / 10 B50-FP	10	50 - 62	63 - 80	80 - 100	100 - 125	56 - 83	67 - 83	0,7	HF 180	3	76010
	E 230 G 12 / 12 B50-FP	12	60 - 75	75 - 96	96 - 120	120 - 150	67 - 100	80 - 100	0,9	HF 180	3	76012
	E 230 G 12 / 15 B50-FP	15	75 - 93	94 - 120	120 - 150	150 - 187	83 - 125	100 - 125	1,1	HF 180	3	76015
	E 230 G 12 / 20 B50-FP	20	100 - 125	125 - 160	160 - 200	200 - 250	111 - 167	133 - 167	1,4	HF 180	3	76020
	E 230 G 12 / 25(22) B50-FP	25(22)	125 - 156	157 - 200	200 - 250	250 - 312	139 - 208	167 - 208	1,7(1,6)	HF 180	3	76025
	E 230 G 12 / 30 B50-FP	30	150 - 187	188 - 240	240 - 300	300 - 375	167 - 250	200 - 250	2,1	HF 180	3	76030
	E 230 G 12 / 35 B50-FP	35	175 - 218	219 - 280	280 - 350	350 - 437	194 - 292	233 - 292	2,4	HF 180	3	76035
	E 230 G 12 / 40 B50-FP	40	200 - 250	250 - 320	320 - 400	400 - 500	222 - 333	267 - 333	2,8	HF 180	3	76040
E 230 G 12 / 50(45) B50-FP	50(45)	250 - 312	313 - 400	400 - 500	500 - 625	278 - 417	333 - 417	3,5(3,1)	HF 180	3	76050	
24 V	E 230 G 24 / 6 B50-FP	6	30 - 37	37 - 48	48 - 60	60 - 75	33 - 50	40 - 50	0,9	HF 180	3	76106
	E 230 G 24 / 8 B50-FP	8	40 - 50	50 - 64	64 - 80	80 - 100	44 - 67	54 - 67	1,2	HF 180	3	76108
	E 230 G 24 / 10 B50-FP	10	50 - 62	63 - 80	80 - 100	100 - 125	56 - 83	67 - 83	1,4	HF 180	3	76110
	E 230 G 24 / 12 B50-FP	12	60 - 75	75 - 96	96 - 120	120 - 150	67 - 100	80 - 100	1,7	HF 180	3	76112
	E 230 G 24 / 15 B50-FP	15	75 - 93	94 - 120	120 - 150	150 - 187	83 - 125	100 - 125	2,1	HF 180	3	76115
	E 230 G 24 / 20 B50-FP	20	100 - 125	125 - 160	160 - 200	200 - 250	111 - 167	133 - 167	2,8	HF 180	3	76120
	E 230 G 24 / 25(22) B50-FP	25(22)	125 - 156	157 - 200	200 - 250	250 - 312	139 - 208	167 - 208	3,5(3,1)	HF 180	3	76125
	E 230 G 24 / 30 B50-FP	30	150 - 187	188 - 240	240 - 300	300 - 375	167 - 250	200 - 250	4,2	HF 180	3	76130
	E 230 G 24 / 35 B50-FP	35	175 - 218	219 - 280	280 - 350	350 - 437	194 - 292	233 - 292	4,9	HF 190	3,5	76135
	E 230 G 24 / 40 B50-FP	40	200 - 250	250 - 320	320 - 400	400 - 500	222 - 333	267 - 333	5,6	HF 190	3,5	76140
E 230 G 24 / 50(45) B50-FP	50(45)	250 - 312	313 - 400	400 - 500	500 - 625	278 - 417	333 - 417	7,0(6,3)	HF 190	3,5	76150	
36 V	E 230 G 36 / 10 B50-FP	10	50 - 62	63 - 80	80 - 100	100 - 125	56 - 83	67 - 83	2,1	HF 180	3	76310
	E 230 G 36 / 12 B50-FP	12	60 - 75	75 - 96	96 - 120	120 - 150	67 - 100	80 - 100	2,6	HF 180	3	76312
	E 230 G 36 / 15 B50-FP	15	75 - 93	94 - 120	120 - 150	150 - 187	83 - 125	100 - 125	3,2	HF 180	3	76315
	E 230 G 36 / 20 B50-FP	20	100 - 125	125 - 160	160 - 200	200 - 250	111 - 167	133 - 167	4,2	HF 180	3	76320
	E 230 G 36 / 25(22) B50-FP	25(22)	125 - 156	157 - 200	200 - 250	250 - 312	139 - 208	167 - 208	5,2(4,6)	HF 190	3,5	76325
	E 230 G 36 / 30 B50-FP	30	150 - 187	188 - 240	240 - 300	300 - 375	167 - 250	200 - 250	6,3	HF 190	3,5	76330
48 V	E 230 G 48 / 10 B50-FP	10	50 - 62	63 - 80	80 - 100	100 - 125	56 - 83	67 - 83	2,7	HF 180	3	76510
	E 230 G 48 / 12 B50-FP	12	60 - 75	75 - 96	96 - 120	120 - 150	67 - 100	80 - 100	3,5	HF 180	3	76512
	E 230 G 48 / 15 B50-FP	15	75 - 93	94 - 120	120 - 150	150 - 187	83 - 125	100 - 125	4,2	HF 180	3	76515
	E 230 G 48 / 20 B50-FP	20	100 - 125	125 - 160	160 - 200	200 - 250	111 - 167	133 - 167	5,6	HF 190	3,5	76520
	E 230 G 48 / 25(22) B50-FP	25(22)	125 - 156	157 - 200	200 - 250	250 - 312	139 - 208	167 - 208	7,0(6,3)	HF 190	3,5	76525
	E 230 G 48 / 30 B50-FP	30	150 - 187	188 - 240	240 - 300	300 - 375	167 - 250	200 - 250	8,3	HF 190	3,5	76530

<sup>1</sup>PzS, PzB, GIS, CSM, etc. <sup>2</sup>pulse/ionic mixing