

Powerfit™



Industrial Batteries – Network Power
Powerfit S500
High energy density for maximum security.

Specifications

If cost efficiency and high performance are requested.

Specifications

- Especially designed for safety power supplies and UPS, Powerfit S500 batteries with their reliable high current discharge character are perfect for these applications
- Perfect combination between energy storage and high current performance
- Maintenance-free (no topping up) during the whole service life
- Nominal capacity 25–185 Ah
- 7 years design life at 20°C ambient temperature (80% remaining capacity)
- Case material acc. to UL 94-HB
- In compliance with IEC 896-2
- Grid plate construction consisting of a lead calcium alloy
- Low gas emission due to internal gas recombination (99% efficient)
- Low self-discharge rate (about 3%/month at 20°C)
- Proof against deep discharge according to DIN 43 539 T5
- Completely recyclable



Applications

As well as its suitability for general applications in security systems, the Powerfit S500 can be a reliable energy source for UPS systems and emergency lighting.



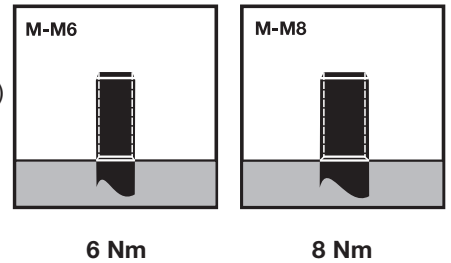
Valve regulated lead acid batteries	Grid plate	Nominal capacity 25-185 Ah	Block battery	
Design life: 7 years	Maintenance-free (no topping up)	Proof against deep discharge acc. to DIN 43 539 T5	Recyclable	Special high current performance

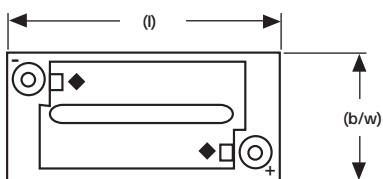
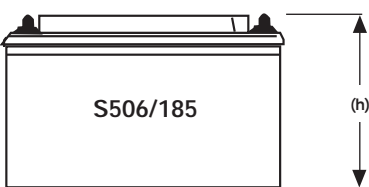
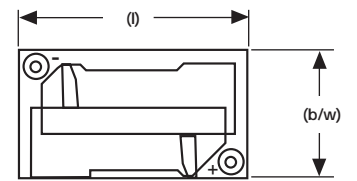
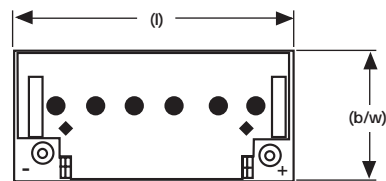
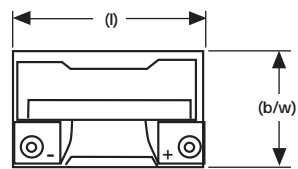
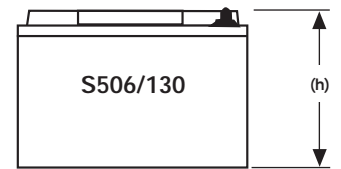
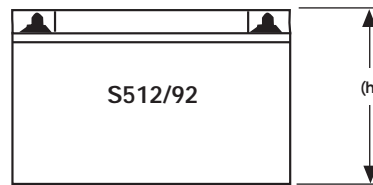
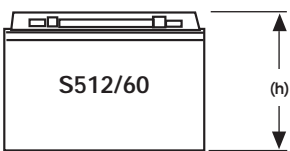
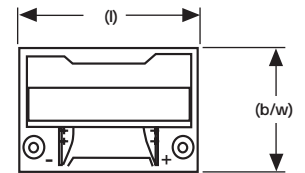
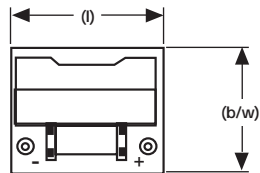
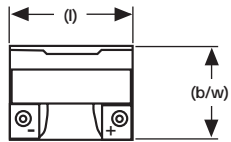
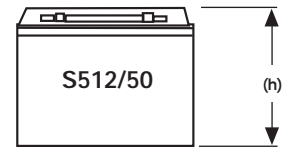
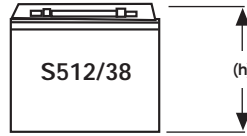
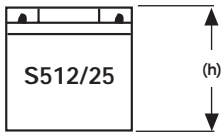
Type	Part number	Nominal voltage V	Capacity			Length* (l) mm	Width* (b/w) mm	Height* (h) mm	Weight approx. kg	Internal resistance acc. to IEC 60896-21 m Ω	Terminal
			C ₂₀ 1.75 V/C 20°C Ah	C ₁₀ 1.75 V/C 20°C Ah	C ₁ 1.60 V/C 20°C Ah						
S512/25	NAS5120025HW0MA	12	25.0	23.5	15.8	168	127	174	9.5	18.8	M-M6
S512/38	NAS5120038HW0MA	12	38.0	36.0	23.2	198	168	175	13.5	14.7	M-M6
S512/50	NAS5120050HW0MB	12	51.0	48.0	32.5	234	169	190	18.5	10.2	M-M6
S512/60	NAS5120060HW0MB	12	61.0	58.0	40.8	272	166	190	23.0	8.4	M-M6
S512/92	NAS5120092HW0MA	12	92.0	87.0	54.4	359	172	226	30.0	7.6	M-M8
S506/130	NAS5060130HW0MA	6	128.0	121.0	80.0	272	166	190	23.0	2.4	M-M8
S506/185	NAS5060185HW0MA	6	185.0	174.0	116.0	359	171	226	31.5	1.9	M-M8

* +/-1mm

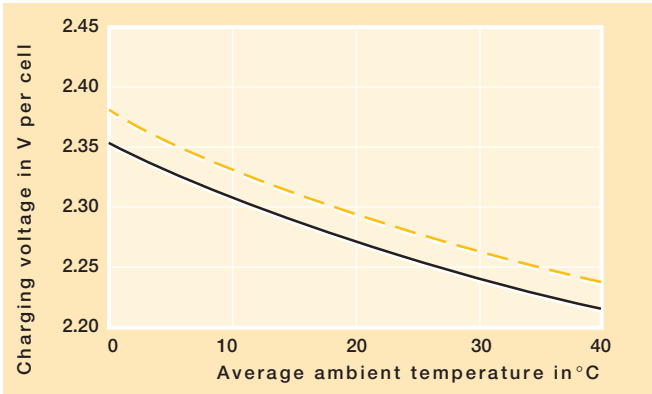
Container, terminal and torque

Container: UL 94-HB
=Polypropylene (PP)





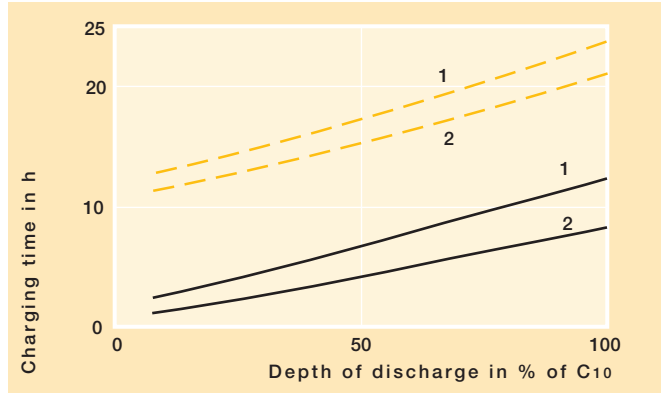
Not to scale!



--- max. permissible voltage for continuous charging

— optimum voltage for continuous charging

For continuous charging we recommend a voltage of 2.27 V/cell at 20°C. The charging voltage must be compensated to the curve for a continuously different battery ambient temperature.

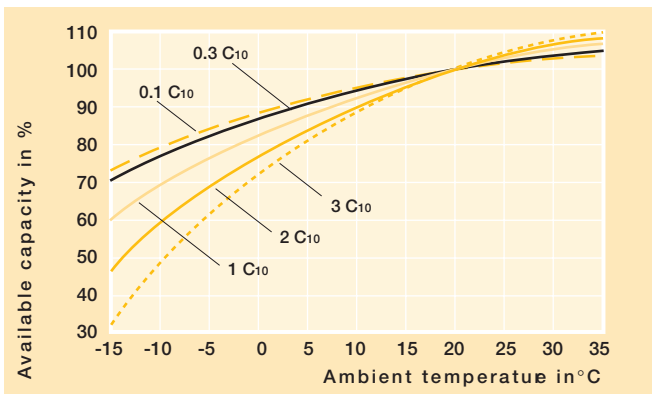


1: 0.1 C₁₀
2: 0.2 C₁₀

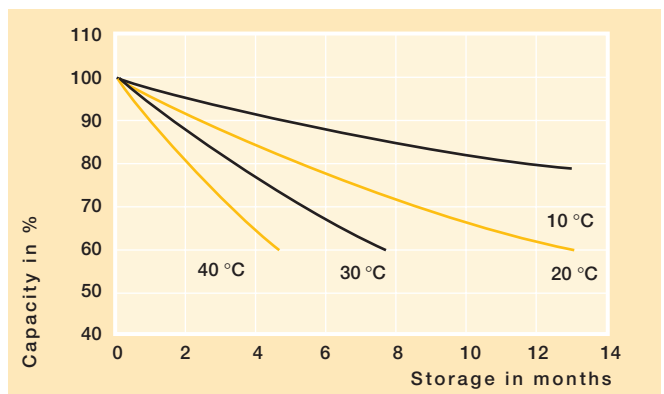
--- State of charge 100%

— State of charge 90%

Recharging time in relation to initial charging current. For 2.27 V/cell at 20°C.



Available capacity in relation to the ambient temperature.



Self-discharge in relation to the storage temperature.

1.95 V/C – Discharge in A at 20°															
Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
S512/25	NAS5120025HWOMA	35.0	34.0	29.0	25.0	22.0	17.3	13.1	10.7	6.3	4.6	3.1	2.1	1.8	1.0
S512/38	NAS5120038HWOMA	48.0	47.0	41.0	35.0	31.0	25.0	19.0	15.3	9.0	6.5	4.5	3.0	2.6	1.4
S512/50	NAS5120050HWOMB	68.0	66.0	58.0	50.0	43.0	35.0	27.0	22.0	12.5	8.9	6.1	4.2	3.6	1.9
S512/60	NAS5120060HWOMB	102.0	95.0	79.0	65.0	55.0	43.0	31.5	24.7	14.9	11.0	7.3	4.9	4.2	2.2
S512/92	NAS5120092HWOMA	106.0	100.0	87.0	75.0	68.0	56.5	44.0	36.0	22.0	16.2	10.5	7.2	6.4	3.4
S506/130	NAS5060130HWOMA	152.0	149.0	133.0	118.0	105.0	86.0	66.0	54.0	30.8	23.5	15.3	10.4	9.1	4.8
S506/185	NAS5060185HWOMA	186.0	184.0	180.0	163.0	148.0	123.0	95.0	78.0	46.0	32.0	21.0	14.3	13.0	6.9

1.90 V/C – Discharge in A at 20°															
Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
S512/25	NAS5120025HWOMA	56.0	50.0	39.0	31.0	26.0	20.1	15.4	12.6	7.7	5.8	3.7	2.4	2.1	1.1
S512/38	NAS5120038HWOMA	78.0	70.0	54.0	44.0	37.0	29.0	22.0	18.0	11.3	8.4	5.6	3.7	3.2	1.7
S512/50	NAS5120050HWOMB	111.0	99.0	77.0	63.0	53.0	41.0	31.5	26.3	15.3	10.7	7.6	5.0	4.3	2.3
S512/60	NAS5120060HWOMB	152.0	136.0	103.0	81.0	67.0	51.0	37.5	29.7	18.5	13.6	9.0	5.9	4.9	2.6
S512/92	NAS5120092HWOMA	156.0	141.0	113.0	94.0	82.0	66.0	50.5	42.0	26.0	19.0	12.5	8.7	7.7	4.1
S506/130	NAS5060130HWOMA	232.0	220.0	182.0	151.0	130.0	103.0	78.5	64.0	37.8	28.0	18.8	12.4	10.8	5.7
S506/185	NAS5060185HWOMA	285.0	272.0	241.0	209.0	184.0	146.0	112.0	91.0	52.7	37.4	24.5	16.8	15.4	8.2

1.85 V/C – Discharge in A at 20°															
Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
S512/25	NAS5120025HWOMA	76.0	64.0	47.0	36.5	30.0	22.7	17.1	14.0	8.3	6.3	4.0	2.6	2.2	1.2
S512/38	NAS5120038HWOMA	108.0	90.0	65.0	52.0	43.0	32.0	24.5	20.0	12.5	9.4	6.1	4.0	3.4	1.8
S512/50	NAS5120050HWOMB	153.0	129.0	94.0	73.0	61.0	46.0	35.0	28.5	16.9	12.2	8.3	5.5	4.5	2.4
S512/60	NAS5120060HWOMB	198.0	168.0	122.0	95.0	78.0	57.0	41.5	33.6	20.4	15.1	9.8	6.4	5.3	2.8
S512/92	NAS5120092HWOMA	201.0	176.0	136.0	111.0	94.0	74.0	56.0	47.0	28.5	21.0	13.8	9.4	8.1	4.3
S506/130	NAS5060130HWOMA	312.0	283.0	225.0	181.0	150.0	113.0	86.0	71.0	43.0	31.4	20.8	13.8	11.4	6.0
S506/185	NAS5060185HWOMA	381.0	354.0	296.0	250.0	214.0	166.0	123.5	100.0	57.8	41.0	27.8	18.8	16.2	8.6

1.80 V/C – Discharge in A at 20°															
Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
S512/25	NAS5120025HWOMA	92.0	76.0	52.0	40.0	32.5	24.7	18.2	14.9	9.0	6.8	4.2	2.7	2.3	1.2
S512/38	NAS5120038HWOMA	131.0	108.0	75.0	58.0	48.0	36.0	27.0	21.8	13.4	10.2	6.5	4.2	3.5	1.9
S512/50	NAS5120050HWOMB	181.0	151.0	107.0	83.0	68.0	51.0	38.0	30.5	18.4	13.6	8.7	5.7	4.7	2.5
S512/60	NAS5120060HWOMB	231.0	190.0	134.0	104.0	84.0	61.5	45.0	36.4	21.8	16.0	10.5	6.8	5.6	3.0
S512/92	NAS5120092HWOMA	236.0	205.0	155.0	123.0	104.0	80.0	60.0	49.7	29.5	21.9	14.5	9.9	8.5	4.5
S506/130	NAS5060130HWOMA	382.0	336.0	257.0	199.0	163.0	122.0	91.0	74.0	45.0	33.7	21.8	14.3	11.8	6.2
S506/185	NAS5060185HWOMA	468.0	417.0	333.0	272.0	231.0	179.0	133.0	106.0	61.2	44.2	29.2	19.7	17.0	9.0

1.75 V/C – Discharge in A at 20°

Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
S512/25	NAS5120025HWOMA	104.0	83.0	56.0	43.0	34.5	25.7	18.8	15.1	9.2	6.9	4.3	2.8	2.4	1.3
S512/38	NAS5120038HWOMA	147.0	118.0	82.0	62.0	50.0	37.0	27.5	22.3	13.6	10.4	6.6	4.3	3.6	1.9
S512/50	NAS5120050HWOMB	206.0	168.0	116.0	88.0	71.0	53.0	39.0	31.0	18.9	13.9	8.9	5.8	4.8	2.6
S512/60	NAS5120060HWOMB	256.0	208.0	145.0	109.0	89.0	64.5	47.0	38.3	22.4	16.5	10.7	7.0	5.8	3.1
S512/92	NAS5120092HWOMA	269.0	226.0	164.0	130.0	108.0	82.0	62.0	51.0	30.5	22.6	14.9	10.2	8.7	4.6
S506/130	NAS5060130HWOMA	440.0	384.0	276.0	215.0	174.0	128.0	94.0	77.0	46.4	34.8	22.3	14.6	12.1	6.4
S506/185	NAS5060185HWOMA	529.0	467.0	362.0	291.0	245.0	187.0	139.0	110.0	63.3	45.5	30.0	20.2	17.4	9.3

1.70 V/C – Discharge in A at 20°

Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
S512/25	NAS5120025HWOMA	112.0	89.0	60.0	45.0	36.5	26.5	19.2	15.3	9.3	7.0	4.4	2.9	2.4	1.3
S512/38	NAS5120038HWOMA	160.0	128.0	86.0	65.0	52.0	38.0	28.0	22.7	13.8	10.5	6.7	4.4	3.7	2.0
S512/50	NAS5120050HWOMB	223.0	181.0	121.0	92.0	74.0	54.5	40.0	31.5	19.1	14.1	9.0	5.9	4.9	2.6
S512/60	NAS5120060HWOMB	276.0	223.0	152.0	114.0	92.0	66.5	49.0	39.2	23.0	17.0	10.8	7.1	5.9	3.2
S512/92	NAS5120092HWOMA	309.0	253.0	175.0	136.0	112.0	84.0	63.5	52.3	31.3	23.2	15.3	10.3	8.8	4.7
S506/130	NAS5060130HWOMA	479.0	412.0	293.0	223.0	179.0	133.0	97.0	78.0	47.2	35.6	22.7	14.8	12.3	6.6
S506/185	NAS5060185HWOMA	583.0	512.0	389.0	308.0	253.0	192.0	142.0	112.0	64.6	46.3	30.7	20.6	17.8	9.4

1.65 V/C – Discharge in A at 20°

Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
S512/25	NAS5120025HWOMA	119.0	94.0	62.0	46.0	37.5	27.2	19.6	15.5	9.4	7.0	4.4	2.9	2.4	1.3
S512/38	NAS5120038HWOMA	169.0	134.0	88.0	66.0	53.0	39.0	28.5	23.0	14.0	10.6	6.8	4.4	3.7	2.0
S512/50	NAS5120050HWOMB	238.0	190.0	126.0	95.0	76.0	55.5	40.5	32.0	19.3	14.3	9.1	5.9	4.9	2.6
S512/60	NAS5120060HWOMB	297.0	237.0	158.0	119.0	95.0	68.5	50.0	39.8	23.3	17.3	10.9	7.1	5.9	3.2
S512/92	NAS5120092HWOMA	347.0	279.0	185.0	141.0	115.0	86.0	65.0	53.6	32.0	23.6	15.4	10.4	8.8	4.7
S506/130	NAS5060130HWOMA	506.0	432.0	303.0	230.0	186.0	136.0	99.0	79.0	47.8	36.2	22.9	14.9	12.9	6.7
S506/185	NAS5060185HWOMA	643.0	555.0	404.0	316.0	260.0	196.0	144.0	114.0	65.8	47.3	30.9	20.8	17.9	9.5

1.60 V/C – Discharge in A at 20°

Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h	20h
S512/25	NAS5120025HWOMA	123.0	97.0	64.0	47.0	38.5	27.9	19.9	15.8	9.5	7.0	4.4	2.9	2.4	1.3
S512/38	NAS5120038HWOMA	174.0	138.0	90.0	67.0	54.0	40.0	29.0	23.2	14.1	10.7	6.8	4.4	3.7	2.0
S512/50	NAS5120050HWOMB	248.0	197.0	130.0	97.0	77.0	56.5	41.0	32.5	19.5	14.4	9.1	5.9	4.9	2.6
S512/60	NAS5120060HWOMB	311.0	247.0	162.0	122.0	97.0	70.5	51.0	40.8	23.5	17.4	10.9	7.1	5.9	3.2
S512/92	NAS5120092HWOMA	370.0	292.0	192.0	145.0	117.0	87.5	66.0	54.4	32.3	23.8	15.4	10.4	8.8	4.7
S506/130	NAS5060130HWOMA	519.0	441.0	312.0	237.0	190.0	138.0	100.0	80.0	48.4	26.6	23.1	15.0	12.5	6.7
S506/185	NAS5060185HWOMA	678.0	581.0	419.0	328.0	267.0	199.0	146.0	116.0	66.3	47.6	31.0	20.9	17.9	9.5

1.90 V/C – Discharge in W/block at 20°														
Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h
S512/25	NAS5120025HWOMA	660.0	588.0	448.0	362.0	305.0	240.0	185.0	153.0	92.0	68.0	44.0	29.0	25.0
S512/38	NAS5120038HWOMA	927.0	818.0	627.0	515.0	436.0	340.0	263.0	216.0	133.0	100.0	67.0	44.0	37.0
S512/50	NAS5120050HWOMB	1338.0	1170.0	896.0	727.0	610.0	481.0	375.0	313.0	185.0	134.0	90.0	59.0	50.0
S512/60	NAS5120060HWOMB	1806.0	1593.0	1197.0	958.0	798.0	605.0	446.0	359.0	220.0	160.0	107.0	71.0	60.0
S512/92	NAS5120092HWOMA	1836.0	1643.0	1272.0	1090.0	965.0	778.0	606.0	505.0	313.0	230.0	152.0	105.0	90.0
S506/130	NAS5060130HWOMA	1365.0	1282.0	1078.0	890.0	764.0	609.0	466.0	385.0	231.0	168.0	113.0	75.0	63.0
S506/185	NAS5060185HWOMA	1636.0	1580.0	1404.0	1222.0	1081.0	869.0	667.0	535.0	313.0	222.0	148.0	103.0	91.0

1.85 V/C – Discharge in W/block at 20°														
Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h
S512/25	NAS5120025HWOMA	859.0	732.0	529.0	419.0	348.0	267.0	205.0	167.0	100.0	73.0	48.0	31.0	26.0
S512/38	NAS5120038HWOMA	1220.0	1025.0	747.0	598.0	498.0	382.0	291.0	240.0	149.0	112.0	73.0	48.0	40.0
S512/50	NAS5120050HWOMB	1719.0	1456.0	1064.0	846.0	706.0	543.0	411.0	337.0	202.0	147.0	99.0	64.0	54.0
S512/60	NAS5120060HWOMB	2228.0	1909.0	1390.0	1097.0	904.0	672.0	492.0	399.0	246.0	180.0	116.0	77.0	64.0
S512/92	NAS5120092HWOMA	2258.0	1960.0	1505.0	1263.0	1100.0	859.0	666.0	556.0	343.0	250.0	167.0	115.0	97.0
S506/130	NAS5060130HWOMA	1806.0	1617.0	1281.0	1035.0	861.0	665.0	511.0	420.0	255.0	188.0	124.0	81.0	68.0
S506/185	NAS5060185HWOMA	2141.0	2010.0	1677.0	1414.0	1232.0	970.0	732.0	596.0	343.0	242.0	165.0	113.0	97.0

1.80 V/C – Discharge in W/block at 20°														
Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h
S512/25	NAS5120025HWOMA	1013.0	845.0	597.0	459.0	378.0	286.0	216.0	176.0	104.0	78.0	50.0	32.0	27.0
S512/38	NAS5120038HWOMA	1440.0	1195.0	855.0	664.0	548.0	415.0	313.0	257.0	159.0	120.0	77.0	50.0	41.5
S512/50	NAS5120050HWOMB	2004.0	1697.0	1210.0	941.0	778.0	588.0	442.0	358.0	216.0	158.0	104.0	67.0	56.0
S512/60	NAS5120060HWOMB	2540.0	2128.0	1523.0	1197.0	978.0	718.0	525.0	426.0	259.0	190.0	124.0	80.0	66.5
S512/92	NAS5120092HWOMA	2605.0	2202.0	1717.0	1414.0	1202.0	929.0	710.0	588.0	359.0	260.0	176.0	120.0	101.0
S506/130	NAS5060130HWOMA	2100.0	1911.0	1463.0	1148.0	945.0	714.0	536.0	439.0	267.0	198.0	130.0	84.0	70.0
S506/185	NAS5060185HWOMA	2565.0	2353.0	1899.0	1566.0	1343.0	1040.0	777.0	626.0	363.0	257.0	173.0	117.0	101.0

1.75 V/C – Discharge in W/block at 20°														
Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h
S512/25	NAS5120025HWOMA	1112.0	915.0	635.0	486.0	400.0	297.0	221.0	178.0	106.0	80.0	51.0	33.0	28.0
S512/38	NAS5120038HWOMA	1585.0	1300.0	909.0	706.0	577.0	432.0	320.0	261.0	161.0	122.0	79.0	51.5	42.5
S512/50	NAS5120050HWOMB	2212.0	1837.0	1288.0	997.0	818.0	610.0	454.0	364.0	220.0	162.0	107.0	69.0	56.5
S512/60	NAS5120060HWOMB	2746.0	2288.0	1623.0	1264.0	1026.0	752.0	552.0	446.0	264.0	194.0	126.0	82.0	68.0
S512/92	NAS5120092HWOMA	2899.0	2485.0	1840.0	1475.0	1242.0	958.0	730.0	605.0	364.0	265.0	181.0	122.0	102.0
S506/130	NAS5060130HWOMA	2352.0	2100.0	1554.0	1218.0	994.0	749.0	551.0	448.0	273.0	203.0	133.0	86.0	71.0
S506/185	NAS5060185HWOMA	2838.0	2570.0	2040.0	1656.0	1414.0	1087.0	810.0	652.0	373.0	264.0	178.0	120.0	102.0

1.70 V/C – Discharge in W/block at 20°

Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h
S512/25	NAS5120025HWOMA	1188.0	972.0	664.0	505.0	411.0	305.0	224.0	180.0	107.0	81.0	52.0	34.0	28.0
S512/38	NAS5120038HWOMA	1697.0	1378.0	950.0	730.0	597.0	440.0	324.0	264.0	163.0	124.0	80.0	52.0	43.0
S512/50	NAS5120050HWOMB	2374.0	1954.0	1344.0	1030.0	846.0	627.0	460.0	370.0	223.0	165.0	108.0	70.0	57.0
S512/60	NAS5120060HWOMB	2920.0	2418.0	1689.0	1297.0	1052.0	765.0	565.0	456.0	268.0	197.0	128.0	83.0	69.0
S512/92	NAS5120092HWOMA	3272.0	2730.0	1940.0	1525.0	1263.0	969.0	740.0	613.0	369.0	269.0	183.0	123.0	103.0
S506/130	NAS5060130HWOMA	2541.0	2230.0	1624.0	1260.0	1029.0	763.0	559.0	455.0	277.0	207.0	134.0	87.0	72.0
S506/185	NAS5060185HWOMA	3101.0	2778.0	2161.0	1727.0	1454.0	1101.0	818.0	659.0	378.0	268.0	182.0	123.0	103.0

1.65 V/C – Discharge in W/block at 20°

Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h
S512/25	NAS5120025HWOMA	1239.0	1007.0	680.0	513.0	419.0	311.0	226.0	181.0	108.0	81.0	52.0	34.0	28.0
S512/38	NAS5120038HWOMA	1755.0	1428.0	971.0	743.0	605.0	446.0	328.0	267.0	165.0	125.0	80.0	52.0	43.0
S512/50	NAS5120050HWOMB	2475.0	2022.0	1378.0	1053.0	857.0	632.0	463.0	373.0	225.0	167.0	108.0	70.0	57.0
S512/60	NAS5120060HWOMB	3092.0	2520.0	1729.0	1323.0	1071.0	778.0	572.0	461.0	271.0	199.0	129.0	84.0	69.0
S512/92	NAS5120092HWOMA	3616.0	2969.0	2040.0	1566.0	1283.0	980.0	750.0	621.0	372.0	271.0	184.0	124.0	104.0
S506/130	NAS5060130HWOMA	2639.0	2296.0	1666.0	1281.0	1050.0	770.0	564.0	460.0	279.0	209.0	135.0	88.0	72.0
S506/185	NAS5060185HWOMA	3343.0	2959.0	2215.0	1767.0	1474.0	1112.0	824.0	664.0	382.0	271.0	184.0	124.0	104.0

1.60 V/C – Discharge in W/block at 20°

Type	Part number	3min	5min	10min	15min	20min	30min	45min	1h	2h	3h	5h	8h	10h
S512/25	NAS5120025HWOMA	1266.0	1026.0	691.0	520.0	424.0	313.0	227.0	181.0	108.0	81.0	52.0	34.0	28.0
S512/38	NAS5120038HWOMA	1793.0	1453.0	984.0	750.0	610.0	450.0	332.0	269.0	166.0	125.0	80.0	52.0	43.0
S512/50	NAS5120050HWOMB	2554.0	2061.0	1400.0	1060.0	868.0	638.0	465.0	375.0	226.0	168.0	108.0	70.0	57.0
S512/60	NAS5120060HWOMB	3212.0	2600.0	1756.0	1340.0	1084.0	791.0	579.0	466.0	273.0	200.0	129.0	84.0	69.0
S512/92	NAS5120092HWOMA	3808.0	3070.0	2091.0	1600.0	1303.0	990.0	758.0	626.0	374.0	273.0	185.0	124.0	104.0
S506/130	NAS5060130HWOMA	2674.0	2324.0	1694.0	1300.0	1057.0	777.0	567.0	462.0	280.0	210.0	135.0	88.0	72.0
S506/185	NAS5060185HWOMA	3495.0	3060.0	2262.0	1800.0	1485.0	1121.0	828.0	667.0	384.0	273.0	185.0	124.0	104.0