



AUTOMATIC BYPASS OF FAULTED MODULE

Continues charging process for
uninterrupted operations



UP TO 94% EFFICIENCY

For maximum performance
and energy savings

BEST-IN-CLASS HIGH FREQUENCY CHARGING FOR A WIDE RANGE OF APPLICATIONS

These light and compact units offer intelligent battery charging with advanced efficiency and flexibility for material handling equipment, Automated Guided Vehicles (AGV), floor cleaning machines and industrial electric vehicles.

Equipped with an LCD screen and customer programmable menu, IMPAQ™ chargers feature the latest technology to maximize charging performance while maintaining continued peak efficiency.

High-frequency and value-packed featuring a standard flooded lead acid battery charge profile and now includes the proprietary NexSys® bloc and standard charge profile.

IMPAQ™



Nominal Power	Battery voltage	Nominal input voltage	Frequency	Max current draw @ minVac	AC input cable section	AC input cable length	Max output current @ nominalVac	Battery cables section	Battery cables length	IP protection	Operating temperature	Power factor	Idle mode	Display	Weight	Dimensions (HxWxD)	Weight with airmix	Dimensions (HxWxD) With airmix	Cabinet
kW	Vdc	Vac	Hz	Aac	mm2	m	Adc	mm2	m		°C		W		kg	mm	kg	mm	
Stand Alone 1kW**	12V	230V +/-10% / 1ph	50/60	2.4	3 x 1.0	1.5	36	6	3	IP21	0°C to +45°C	0.99	≤10	2 line LCD	2.4	264 x 148 x 96.5	**Not available on stand alone 1kW	**Not available on stand alone 1kW	1 bay (Stand Alone)
Stand Alone 1kW**	24V	230V +/-10% / 1ph	50/60	4.8	3 x 1.0	1.5	36	6	3	IP21	0°C to +45°C	0.99	≤10	2 line LCD	2.4	264 x 148 x 96.5	**Not available on stand alone 1kW	**Not available on stand alone 1kW	2 bay (Stand Alone)
Stand Alone 1kW**	36/48V	230V +/-10% / 1ph	50/60	5.1	3 x 1.0	1.5	25/18	6	3	IP21	0°C to +45°C	0.99	≤10	2 line LCD	2.4	264 x 148 x 96.5	**Not available on stand alone 1kW	**Not available on stand alone 1kW	3 bay (Stand Alone)
2kW	24V	230V +/-10% / 1ph	50/60	9.6	3 x 1.5	1.5	72	25	3	IP21	0°C to +45°C	0.99	≤10	2 line LCD	6.7	344 x 250 x 182	10.0	435 x 286 x 185	3 bay (2 module)
2kW	36/48V	230V +/-10% / 1ph	50/60	10.2	3 x 1.5	1.5	50/36	25	3	IP21	0°C to +45°C	0.99	≤10	2 line LCD	6.7	344 x 250 x 182	10.0	435 x 286 x 185	4 bay (2 module)
3kW	24V	230V +/-10% / 1ph	50/60	14.4	3 x 1.5	1.5	108	25	3	IP21	0°C to +45°C	0.99	≤10	2 line LCD	7.7	344 x 250 x 182	11.0	435 x 286 x 185	3 bay (3 module)
3kW	36/48V	230V +/-10% / 1ph	50/60	15.3	3 x 1.5	1.5	75/54	25	3	IP21	0°C to +45°C	0.99	≤10	2 line LCD	7.7	344 x 250 x 182	11.0	435 x 286 x 185	4 bay (3 module)
3.5kW	24/36/48V	400V +/- 10% / 3Ph	50/60	5.6	4 x 2.5	2	70/65/60	35	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	26.0	508 x 335 x 352	28.0	508 x 335 x 352	2 bay cabinet (1 module)
3.5kW	72/80V	400V +/- 10% / 3Ph	50/60	5.6	4 x 2.5	2	40/36	35	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	26.0	508 x 335 x 352	28.0	508 x 335 x 352	2 bay cabinet (1 module)
3.5kW	96V	400V +/- 10% / 3Ph	50/60	5.6	4 x 2.5	2	30	35	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	26.0	508 x 335 x 352	28.0	508 x 335 x 352	2 bay cabinet (1 module)
7kW	24/36/48V	400V +/- 10% / 3Ph	50/60	11.2	4 x 2.5	2	140/130/120	35	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	29.5	508 x 335 x 352	31.5	508 x 335 x 352	2 bay cabinet (2 modules)
7kW	72/80V	400V +/- 10% / 3Ph	50/60	11.2	4 x 2.5	2	80/72	35	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	29.5	508 x 335 x 352	31.5	508 x 335 x 352	2 bay cabinet (2 modules)
7kW	96V	400V +/- 10% / 3Ph	50/60	11.2	4 x 2.5	2	60	35	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	29.5	508 x 335 x 352	31.5	508 x 335 x 352	2 bay cabinet (2 modules)
10.5kW	24/36/48V	400V +/- 10% / 3Ph	50/60	16.8	4 x 4.0	2	210/195/180	70	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	33.5	508 x 335 x 352	33.5	508 x 335 x 352	4 bay cabinet (3 modules)
10.5kW	72/80V	400V +/- 10% / 3Ph	50/60	16.8	4 x 4.0	2	120/108	70	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	33.5	508 x 335 x 352	33.5	508 x 335 x 352	4 bay cabinet (3 modules)
10.5kW	96V	400V +/- 10% / 3Ph	50/60	16.8	4 x 4.0	2	90	70	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	33.5	508 x 335 x 352	33.5	508 x 335 x 352	4 bay cabinet (3 modules)
10.5kW	120V	400V +/- 10% / 3Ph	50/60	16.8	4 x 4.0	2	75	35	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	33.5	508 x 335 x 352	33.5	508 x 335 x 352	4 bay cabinet (3 modules)
14kW	24/36/48V	400V +/- 10% / 3Ph	50/60	22.4	4 x 4.0	2	280/260/240	70	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	37.0	508 x 335 x 352	39.0	508 x 335 x 352	4 bay cabinet (4 modules)
14kW	72/80V	400V +/- 10% / 3Ph	50/60	22.4	4 x 4.0	2	160/144	70	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	37.0	508 x 335 x 352	39.0	508 x 335 x 352	4 bay cabinet (4 modules)
14kW	96V	400V +/- 10% / 3Ph	50/60	22.4	4 x 4.0	2	120	70	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	37.0	508 x 335 x 352	39.0	508 x 335 x 352	4 bay cabinet (4 modules)
14kW	120V	400V +/- 10% / 3Ph	50/60	22.4	4 x 4.0	2	100	35	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	37.0	508 x 335 x 352	39.0	508 x 335 x 352	4 bay cabinet (4 modules)
17.5kW	24/36/48V	400V +/- 10% / 3Ph	50/60	28.0	4 x 6.0	2	320/320/300	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	44.5	508 x 485 x 352	46.5	508 x 485 x 352	6 bay cabinet (5 modules)
17.5kW	72/80V	400V +/- 10% / 3Ph	50/60	28.0	4 x 6.0	2	200/180	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	44.5	508 x 485 x 352	46.5	508 x 485 x 352	6 bay cabinet (5 modules)
17.5kW	96V	400V +/- 10% / 3Ph	50/60	28.0	4 x 6.0	2	150	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	44.5	508 x 485 x 352	46.5	508 x 485 x 352	6 bay cabinet (5 modules)
17.5kW	120V	400V +/- 10% / 3Ph	50/60	28.0	4 x 6.0	2	125	50	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	44.5	508 x 485 x 352	46.5	508 x 485 x 352	6 bay cabinet (5 modules)
21kW	24/36/48V	400V +/- 10% / 3Ph	50/60	29.8	4 x 6.0	2	320/320/320	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	48.0	508 x 485 x 352	50.0	508 x 485 x 352	6 bay cabinet (6 modules)
21kW	72/80V	400V +/- 10% / 3Ph	50/60	33.6	4 x 6.0	2	240/216	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	48.0	508 x 485 x 352	50.0	508 x 485 x 352	6 bay cabinet (6 modules)
21kW	96V	400V +/- 10% / 3Ph	50/60	33.6	4 x 6.0	2	180	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	48.0	508 x 485 x 352	50.0	508 x 485 x 352	6 bay cabinet (6 modules)
21kW	120V	400V +/- 10% / 3Ph	50/60	33.6	4 x 6.0	2	150	50	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	48.0	508 x 485 x 352	50.0	508 x 485 x 352	6 bay cabinet (6 modules)
24.5kW	24/36/48V	400V +/- 10% / 3Ph	50/60	43	4 x 10.0	2	490/455/420	70-2 plugs	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	91.0	960 x 410 x 400	93	960 x 410 x 400	8 bay cabinet (7 modules)
24.5kW	72/80V	400V +/- 10% / 3Ph	50/60	43	4 x 10.0	2	280/252	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	86.0	960 x 410 x 400	88	960 x 410 x 400	8 bay cabinet (7 modules)
24.5kW	96V	400V +/- 10% / 3Ph	50/60	43	4 x 10.0	2	210	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	86.0	960 x 410 x 400	88	960 x 410 x 400	8 bay cabinet (7 modules)
24.5kW	120V	400V +/- 10% / 3Ph	50/60	43	4 x 10.0	2	175	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	86.0	960 x 410 x 400	88	960 x 410 x 400	8 bay cabinet (7 modules)
28kW	24/36/48V	400V +/- 10% / 3Ph	50/60	50	4 x 10.0	2	560/520/480	70-2 plugs	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	95.0	960 x 410 x 400	97	960 x 410 x 400	8 bay cabinet (8 modules)
28kW	72/80V	400V +/- 10% / 3Ph	50/60	50	4 x 10.0	2	320/288	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	90.0	960 x 410 x 400	92	960 x 410 x 400	8 bay cabinet (8 modules)
28kW	96V	400V +/- 10% / 3Ph	50/60	50	4 x 10.0	2	240	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	90.0	960 x 410 x 400	92	960 x 410 x 400	8 bay cabinet (8 modules)
28kW	120V	400V +/- 10% / 3Ph	50/60	50	4 x 10.0	2	200	95	3	IP21	0°C to +45°C	0.95	≤10	2 line LCD	90.0	960 x 410 x 400	92	960 x 410 x 400	8 bay cabinet (8 modules)

**Charging times (-/+ 0.5 h)
from 80% DOD @ 30°C.**

**** Output currents set at different values
to match specific capacities**

		Heavy duty flooded PzS, PzB, PzQ			Standard flooded PzS, PzB, PzM (WL8)			Airmix with PzS, PzB, PzM (WL13), PzQ			Slow Charge PzS,PzB, PzM			Gel PzV, PzVB		Opportunity charge PzQ		NexSys® TPPL Battery STND			NexSys® TPPL Bloc							
		7h	8h	9h	6h	7h	8h	5.5h	6.5h	7.5h	9h	10.5h	12h	@60% 8 h @80% 11 h	@60% 9 h @80% 12 h	7h	8h	5.5h	6h	6.25h	4h	6h	6.25h					
		Configuration		Volt	I Out	C5 MIN		C5 MAX	C5 MIN		C5 MAX	C5 MIN		C5 MAX	C5 MIN		C5 MAX	C5 MIN		C5 MAX	C5 MIN		C5 MAX	C5 MIN		C5 MAX		
SINGLE PHASE																												
TC1 Impaq 12V 1kW	Contr POUT**	12	27	108	164	208	208	245	290	123	165	108	135	108	123	150	39	68	150									
	MAX POUT		36	144	218	277	327	387	164	220	277	327	135	180	144	164	200	51	90	200								
	Contr POUT**		24	27	108	164	208	208	245	290	123	165	108	135	108	123	150	39	68	150								
	MAX POUT			36	144	218	277	327	387	164	220	277	135	180	144	164	200	51	90	200								
	Contr POUT**			49	196	297	377	445	527	223	300	377	445	180	245	196	272	70	123	272								
	MAX POUT			72	288	436	554	655	774	327	440	554	655	360	475	380	432	400	103	180	400							
	Contr POUT**	95		380	576	731	864	1022	432	581	731	864	360	475	380	432	528	136	238	528								
	MAX POUT	108		432	655	831	982	1161	491	661	831	982	475	600	491	600	154	270	600									
	TC1 Impaq 36V 1kW	Contr POUT**	36	16	64	97	123	123	145	172	73	98	64	80	64	73	89	23	40	89								
		MAX POUT		25	100	152	192	192	227	269	114	153	80	125	100	114	139	36	63	139								
		Contr POUT**		48	34	136	206	262	262	309	366	155	208	125	170	136	155	189	49	85	189							
		MAX POUT			48	192	291	369	369	436	516	218	294	170	240	192	218	267	69	120	267							
		Contr POUT**			60	240	364	462	462	545	645	273	367	240	300	240	273	333	86	150	333							
		MAX POUT			75	300	455	577	577	682	806	341	459	300	375	300	341	417	107	188	417							
	Contr POUT**	18	72	109	138	138	164	194	82	110	72	90	72	82	100	26	45	100										
	MAX POUT	25	98	148	188	188	223	263	111	150	90	123	98	111	136	35	61	136										
	TC1 Impaq 48V 1kW	Contr POUT**	48	36	144	218	277	277	327	387	164	220	123	180	144	164	200	51	90	200								
		MAX POUT		43	172	261	331	331	391	462	195	263	180	215	172	195	239	61	108	239								
Contr POUT**		54		216	327	415	415	491	581	245	330	215	270	216	245	300	77	135	300									
MAX POUT																												
THREE PHASE																												
TC3 Impaq 24V 3,5kW		MAX POUT		24	70	280	424	538	538	636	753	318	428	280	350	280	318	389	100	175	389							
	Contr POUT**	96	384		582	738	738	873	1032	436	587	350	480	384	436	533	137	240	533									
	Contr POUT1**	128	512		776	985	985	1164	1376	582	783	480	640	512	582	711	183	320	711									
	MAX POUT	140	560		848	1077	1077	1273	1505	636	856	640	700	560	636	778	200	350	778									
	Contr POUT**	163	652		988	1254	1254	1482	1753	741	997	700	815	652	741	906	233	408	906									
	MAX POUT	210	840		1273	1615	1615	1860	2200	955	1120	815	1050	840	955	1167	300	525	1167									
	MAX POUT	280	1120		1697	2064	2064	2432	2916	1120	1496	1050	1400	1120	1273	1400	400	570	1400									
	MAX POUT	320	1280		1939					1280	1600	1280	1600	1280	1400	1400	457	570	1400									
	MAX POUT	320	1280		1939					1280	1600	1280	1600	1280	1400	1400	457	570	1400									
	MAX POUT	490	1960		2064					1960	2064	1400					570	570										
	MAX POUT	560	2064																									
	TC3 Impaq 36V 3,5kW	MAX POUT	36		65	260	394	500	500	591	699	295	398	260	325	260	295	361	93	163	361							
		MAX POUT			130	520	788	1000	1000	1182	1398	591	795	325	435	260	295	361	117	205	361							
		MAX POUT			195	780	1182	1500	1500	1773	2088	886	1120	435	580	361	435	533	147	255	533							
		MAX POUT			260	1040	1576	2000				1120	975	1300	1040	1182	1400	1400	371	570	1400							
		MAX POUT			320	1280	1939					1280	1600	1280	1600	1400	1400	457	570	570								
		MAX POUT			320	1280	1939					1280	1600	1280	1600	1400	1400	457	570	570								
		MAX POUT			455	1820	2064					1820	2064	1400					570	570								
MAX POUT		520		2064						2064																		
TC3 Impaq 48V 3,5kW		MAX POUT		48	60	240	364	462	462	545	645	273	367	240	300	240	273	333	86	150	333							
		Contr POUT**			82	328	497	631	631	745	882	373	502	300	410	328	373	456	117	205	456							
		Contr POUT1**			110	440	667	846	846	1000	1183	500	673	410	550	440	500	611	157	275	611							
		MAX POUT			120	480	727	923	923	1091	1290	545	734	550	600	480	545	667	171	300	667							
	Contr POUT**	140	560		848	1077	1077	1273	1505	636	856	600	700	560	636	778	200	350	778									
	MAX POUT	180	720		1091	1385	1385	1636	1860	818	1101	700	900	720	818	1000	257	450	1000									
	MAX POUT	240	960		1455	1846	1846	2160	2496	1091	1120	900	1200	960	1091	1333	343	570	1333									
	MAX POUT	300	1200		1818					1200	1500	1200	1500	1200	1364	1400	429	570	1400									
	MAX POUT	320	1280		1939					1280	1600	1280	1600	1280	1400	1400	457	570	1400									
	MAX POUT	420	1680		2064					1680	2064	1400					570	570										
	MAX POUT	480	1920		2064					1920	2064																	

**Charging times (-/+ 0.5 h)
from 80% DOD @ 30°C.**

**** Output currents set at different values
to match specific capacities**

Heavy duty flooded PzS, PzB, PzQ			Standard flooded PzS, PzB, PzM (WL8)			Airmix with PzS, PzB, PzM (WL13), PzQ			Slow Charge PzS,PzB, PzM			Gel PzV, PzVB		Opportunity charge PzQ		NexSys® TPPL Battery STND			NexSys® TPPL Bloc		
7h	8h	9h	6h	7h	8h	5.5h	6.5h	7.5h	9h	10.5h	12h	@60% 8 h @80% 11 h	@60% 9 h @80% 12 h	7h	8h	5.5h	6h	6.25h	4h	6h	6.25h
C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX

THREE PHASE (CONTINUED)																					
Configuration	Volt	I Out	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	C5 MIN	C5 MAX	
TC3 Impaq 72V 3.5kW MAX POUT	72	40	160	242	308	308	364	430	182	245	160	200	160	182	222	57	100	222			
			60	240	364	462	462	545	645	273	367	200	300	240	273	333	86	150	333		
			80	320	485	615	615	727	860	364	489	300	400	320	364	444	114	200	444		
			100	400	606	769	769	909	1075	455	612	400	500	400	455	556	143	250	556		
			120	480	727	923	923	1091	1290	545	734	500	600	480	545	667	171	300	667		
			160	640	970	1231	1231	1455	1720	727	979	600	800	640	727	889	229	400	889		
			200	800	1212	1538	1538	1818	1860	909	1120	800	1000	800	909	1111	286	500	1111		
			240	960	1455	1846	1846	1860		1091	1120	960	1200	960	1091	1333	343	570	1333		
			280	1120	1697	2064	1860					1120	1400	1120	1273	1400	400	570	1400		
			320	1280	1939							1280	1600	1280		1400	457	570	1400		
			36	144	218	277	277	327	387	164	220	144	180	144	164	200	51	90	200		
			72	288	436	554	554	655	774	327	440	180	288	180	288	400	103	180	400		
90	360	545	692	692	818	968	409	550	360	450	360	409	500	129	225	500					
108	432	655	831	831	982	1161	491	661	450	540	432	491	600	154	270	600					
144	576	873	1108	1108	1309	1548	655	881	540	720	576	655	800	206	360	800					
180	720	1091	1385	1385	1636	1860	818	1101	720	900	720	818	1000	257	450	1000					
216	864	1309	1662	1662	1860		982	1120	864	1080	864	982	1200	309	540	1200					
252	1008	1527	1938	1860					1008	1260	1008	1145	1400	360	570	1400					
288	1152	1745	2064						1152	1440	1152	1309	1400	411	570	1400					
30	120	182	231	231	273	323	136	183	120	150	120	136	167	43	75	167					
60	240	364	462	462	545	645	273	367	240	300	240	273	333	86	150	333					
90	360	545	692	692	818	968	409	560	360	450	360	409	500	129	225	500					
120	480	727	923	923	1091	1290	545	734	480	600	480	545	667	171	300	667					
150	600	909	1154	1154	1364	1613	682	917	600	750	600	682	833	214	375	833					
180	720	1091	1385	1385	1636	1935	818	1101	720	900	720	818	1000	257	450	1000					
210	840	1273	1615	1615	1909	2064	955	1284	840	1050	840	955	1167	300	525	1167					
240	960	1455	1846	1846	1846	2064	1091	1468	960	1200	960	1091	1333	343	570	1333					
75	300	455	577	577	682	806	341	459	300	375	300	341	417	107	188	417					
100	400	606	769	769	909	1075	455	612	400	500	400	455	556	143	250	556					
125	500	758	962	962	1136	1344	568	765	500	625	500	568	694	179	313	694					
150	600	909	1154	1154	1364	1613	682	917	600	750	600	682	833	214	375	833					
175	700	1061	1346	1346	1591	1882	795	1070	700	875	700	795	972	250	438	972					
200	800	1212	1538	1538	1818	2064	909	1223	800	1000	800	909	1111	286	500	1111					