

Series 2821

1.1 Series			2821-PU				2821-EL					
Characteristics	1.2	Model	Manufacturer's identification		M 15	M 20	M 25	M 30	M 15	M 20	M 25	M 30
	1.3	Capacity	Q at standard lift height	kg	1500	2000	2500	3000	1500	2000	2500	3000
	1.4	Loadcenter	lc = distance	mm	600	600	600	600	600	600	600	600
	1.6	Power supply	electric / Diesel / LPG		electric	electric	electric	electric	electric	electric	electric	electric
	1.7	Type of steering	V = fourway / M = multidirectional / 2 = twoway		M	M	M	M	M	M	M	M
	1.7.1	Position of seat	Q = cross / D = diagonal / L = lateral / SU = stand up		Q / D / L / SU	Q / D / L / SU	Q / D / L / SU	Q / D / L / SU	Q / D / L / SU	Q / D / L / SU	Q / D / L / SU	Q / D / L / SU
	1.8	Tyres	PU = Vulkollan / EL = elastic		PU	PU	PU	PU	EL	EL	EL	EL
	1.9	Wheels (X = powered)	number	pcs.	6 / 2X	6 / 2X	6 / 2X	6 / 2X	6 / 2X	6 / 2X	6 / 2X	6 / 2X
	2.1	Mast	h3 = lift height standard / max.	mm	3000 - 7500	3000 - 7500	3000 - 7500	3000 - 7500	3000 - 6000	3000 - 6000	3000 - 6000	3000 - 6000
Dimensions	2.2.1	Fork cross section	s / b = thickness / width	mm	40 / 120	40 / 120	45 / 120	45 / 120	40 / 120	40 / 120	45 / 120	45 / 120
	2.2.2	Fork length	l = NB from / to	mm	800 - 1600	800 - 1600	800 - 1600	800 - 1600	800 - 1600	800 - 1400	800 - 1400	800 - 1400
	2.2.3	Fork tilt	standard	degree	+5 / -3	+5 / -3	+5 / -3	+5 / -3	+5 / -3	+5 / -3	+5 / -3	+5 / -3
	2.3.1	Overall dimensions	L = truck length	mm	2760 (3050 / 3380)	2760 (3050 / 3380)	2760 (3050 / 3380)	2760 (3050 / 3380)	2760 (3050 / 3380)	2760 (3050 / 3380)	2760 (3050 / 3380)	2760 (3050 / 3380)
	2.3.2		Sh = height over cabin roof "Q"	mm	2470	2470	2470	2470	2490	2490	2490	2490
	2.3.3		b = width to edge of forks	mm	760 - 1030	760 - 1030	780 - 1030	780 - 1030	760 - 1030	760 - 1030	780 - 1030	780 - 1030
	2.3.4		NB = loadbed width from / to	mm	800 - 1600	800 - 1600	800 - 1600	800 - 1600	800 - 1600	800 - 1600	800 - 1600	800 - 1600
	2.3.5		B = truck width (at NB 1200 mm)	mm	1960 - 2230	1960 - 2230	1980 - 2230	1980 - 2230	1960 - 2230	1960 - 2230	1980 - 2230	1980 - 2230
	2.3.6		Rh = loadbed height	mm	375	375	375	375	500	500	500	500
	2.3.7		Ra = loadbed opening	mm	1340 (1630 / 1960)	1340 (1630 / 1960)	1340 (1630 / 1960)	1340 (1630 / 1960)	1340 (1630 / 1960)	1340 (1630 / 1960)	1340 (1630 / 1960)	1340 (1630 / 1960)
	2.4	Mast reach	V (at NB 1200 mm)	mm	1300	1300	1300	1300	1300	1300	1300	1300
	2.5.2	Aisle width	AST (at NB 1200 mm)	mm	2160 - 3230	2160 - 3230	2160 - 3230	2160 - 3230	2160 - 3230	2160 - 3230	2160 - 3230	2160 - 3230
	Wght	3.1	Empty weight (approx.)	incl. battery (with standard equipment)	kg	4500	4800	5000	5200	4700	5000	5200
3.2		Floor load (approx.)	incl. nominal load (static)	N/cm ²	430	450	460	480	290	295	300	300
Performance	4.1	Stability	according to CE-regulations	yes/no	yes	yes	yes	yes	yes	yes	yes	yes
	4.2.1	Speeds	travel speed with / without nominal load	km/h	10 / 10 (SU: 8 / 8)	10 / 10 (SU: 8 / 8)	10 / 10 (SU: 8 / 8)	10 / 10 (SU: 8 / 8)	10 / 10 (SU: 8 / 8)	10 / 10 (SU: 8 / 8)	10 / 10 (SU: 8 / 8)	10 / 10 (SU: 8 / 8)
	4.2.2		lifting speed with / without nominal load	m/s	0,27 / 0,34	0,24 / 0,33	0,24 / 0,33	0,21 / 0,33	0,27 / 0,34	0,24 / 0,33	0,24 / 0,33	0,21 / 0,33
	4.2.3		lowering speed with / without nominal load	m/s	0,32 / 0,30	0,33 / 0,30	0,34 / 0,30	0,35 / 0,30	0,32 / 0,30	0,33 / 0,30	0,34 / 0,30	0,35 / 0,30
	4.2.4		mast travel speed with / without nominal load	m/s	0,20 / 0,20	0,20 / 0,20	0,20 / 0,20	0,20 / 0,20	0,20 / 0,20	0,20 / 0,20	0,20 / 0,20	0,20 / 0,20
4.3.1	Ramp capability	max. with / without nominal load	%	10 / 13	9 / 12	9 / 12	8 / 11	8 / 11	7 / 10	7 / 10	6 / 9	
Wheels + tyres	5.1.1	Tyres	number load side / drive side	pcs.	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
	5.1.2		dimensions load wheels	mm	250 x 80	250 x 80	250 x 80	250 x 80	381 x 127	381 x 127	381 x 127	381 x 127
	5.1.3		dimensions drive wheels	mm	343 x 114	343 x 114	343 x 114	343 x 114	365 x 160	365 x 160	365 x 160	365 x 160
	5.3	Ground clearance		mm	75	75	75	75	90	90	90	90
	5.4.1	Service brakes			via drive pedal / joystick activated electrical plugging brake							
5.4.2	Parking brake			spring-loaded brake with electromagnetic release								
Drive unit	6.1.1	Battery	capacity	V/Ah	48 V - 4 PzS - 620 Ah / 48 V - 5 PzS - 775 Ah / 48 V - 6 PzS - 930 Ah							
	6.1.2		minimum weight	kg	1005	1005	1005	1005	1005	1005	1005	1005
	6.2.1	Electric motors	drive motor rating (s2 = 60 min)	kW	2 x 4,0	2 x 4,0	2 x 4,0	2 x 4,0	2 x 4,0	2 x 4,0	2 x 4,0	2 x 4,0
	6.2.2		lifting motor rating	kW	1 x 8,0	1 x 8,0	1 x 8,0	1 x 8,0	1 x 8,0	1 x 8,0	1 x 8,0	1 x 8,0
	6.2.3		steering motor rating	kW	1 x 3,0	1 x 3,0	1 x 3,0	1 x 3,0	1 x 3,0	1 x 3,0	1 x 3,0	1 x 3,0
	6.3.1	Electric controls	type		AC controls	AC controls	AC controls	AC controls	AC controls	AC controls	AC controls	AC controls
	6.4	Transmission	gear type		straight bevel	straight bevel	straight bevel	straight bevel	straight bevel	straight bevel	straight bevel	straight bevel
6.5	Hydraulic pressure	for attachments	bar	180	180	180	180	180	180	180	180	

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1.1 Series			2821-PU1			2821-EL1			
Characteristics	1.2	Model	Manufacturer's identification		M 15	M 20	M 25	M 15	M 20
	1.3	Capacity	Q at standard lift height	kg	1500	2000	2500	1500	2000
	1.4	Loadcenter	lc = distance	mm	600	600	600	600	600
	1.6	Power supply	electric / Diesel / LPG		electric	electric	electric	electric	electric
	1.7	Type of steering	V = fourway / M = multidirectional / 2 = twoway		M	M	M	M	M
	1.7.1	Position of seat	Q = cross / D = diagonal / L = lateral / SU = stand up		Q / D / L / SU	Q / D / L / SU	Q / D / L / SU	Q / D / L / SU	Q / D / L / SU
	1.8	Tyres	PU = Vulkollan / EL = elastic		PU	PU	PU	EL	EL
	1.9	Wheels (X = powered)	number	pcs.	6 / 1X	6 / 1X	6 / 1X	6 / 1X	6 / 1X
	2.1	Mast	h3 = lift height standard / max.	mm	3000 - 7500	3000 - 7500	3000 - 7500	3000 - 6000	3000 - 6000
Dimensions	2.21	Fork cross section	s / b = thickness / width	mm	40 / 120	40 / 120	45 / 120	40 / 120	40 / 120
	2.22	Fork length	l = NB from / to	mm	800 - 1400	800 - 1400	800 - 1600	800 - 1600	800 - 1400
	2.23	Fork tilt	standard	degree	+5 / -3	+5 / -3	+5 / -3	+5 / -3	+5 / -3
	2.31	Overall dimensions	L = truck length	mm	2760 (3050 / 3380)	2760 (3050 / 3380)	2760 (3050 / 3380)	2760 (3050 / 3380)	2760 (3050 / 3380)
	2.32		Sh = height over cabin roof "Q"	mm	2470	2470	2470	2490	2490
	2.33		b = width to edge of forks	mm	760 - 1030	760 - 1030	780 - 1030	760 - 1030	760 - 1030
	2.34		NB = loadbed width from / to	mm	800 - 1400	800 - 1400	800 - 1600	800 - 1600	800 - 1600
	2.35		B = truck width (at NB 1200 mm)	mm	1960 - 2230	1960 - 2230	1980 - 2230	1960 - 2230	1960 - 2230
	2.36		Rh = loadbed height	mm	375	375	375	500	500
	2.37		Ra = loadbed opening	mm	1340 (1630 / 1960)	1340 (1630 / 1960)	1340 (1630 / 1960)	1340 (1630 / 1960)	1340 (1630 / 1960)
	2.4	Mast reach	V (at NB 1200 mm)	mm	1300	1300	1300	1300	1300
	2.52	Aisle width	AST (at NB 1200 mm)	mm	2160 - 3230	2160 - 3230	2160 - 3230	2160 - 3230	2160 - 3230
	Wght	3.1	Empty weight (approx.)	incl. battery (with standard equipment)	kg	4400	4700	5000	4700
3.2		Floor load (approx.)	incl. nominal load (static)	N/cm ²	420	440	460	290	295
Performance	4.1	Stability	according to CE-regulations	yes/no	yes	yes	yes	yes	yes
	4.21	Speeds	travel speed with / without nominal load	km/h	6 / 6	6 / 6	6 / 6	10 / 10	10 / 10
	4.22		lifting speed with / without nominal load	m/s	0,27 / 0,34	0,24 / 0,33	0,24 / 0,33	0,27 / 0,34	0,24 / 0,33
	4.23		lowering speed with / without nominal load	m/s	0,32 / 0,30	0,33 / 0,30	0,34 / 0,30	0,32 / 0,30	0,33 / 0,30
	4.24		mast travel speed with / without nominal load	m/s	0,20 / 0,20	0,20 / 0,20	0,20 / 0,20	0,20 / 0,20	0,20 / 0,20
4.31	Ramp capability	max. with / without nominal load	%	3 / 5	3 / 5	2 / 4	2 / 4	2 / 4	
Wheels + tyres	5.11	Tyres	number load side / drive side	pcs.	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
	5.12		dimensions load wheels	mm	250 x 80	250 x 80	250 x 80	381 x 127	381 x 127
	5.13		dimensions drive wheels	mm	343 x 114	343 x 114	343 x 114	365 x 160	365 x 160
	5.3	Ground clearance		mm	75	75	75	90	90
	5.41	Service brakes	via drive pedal / joystick activated electrical plugging brake						
5.42	Parking brake	spring-loaded brake with electromagnetic release							
Drive unit	6.11	Battery	capacity	V/Ah	48 V - 4 PzS - 620 Ah / 48 V - 5 PzS - 775 Ah / 48 V - 6 PzS - 930 Ah				
	6.12		minimum weight	kg	1005	1005	1005	1005	1005
	6.21	Electric motors	drive motor rating (s2 = 60 min)	kW	1 x 4,0	1 x 4,0	1 x 4,0	1 x 4,0	1 x 4,0
	6.22		lifting motor rating	kW	1 x 8,0	1 x 8,0	1 x 8,0	1 x 8,0	1 x 8,0
	6.23		steering motor rating	kW	1 x 3,0	1 x 3,0	1 x 3,0	1 x 3,0	1 x 3,0
	6.31	Electric controls	type		AC controls	AC controls	AC controls	AC controls	AC controls
	6.4	Transmission	gear type		straight bevel	straight bevel	straight bevel	straight bevel	straight bevel
6.5	Hydraulic pressure	for attachments	bar	180	180	180	180	180	