



## eMpulse Test Systems – seaPLUS Load Frame Specifications

SPECIFICATIONS	UNITS	sea <sup>+</sup> 13	sea <sup>+</sup> 26	sea <sup>+</sup> 41	sea <sup>+</sup> 53	sea <sup>+</sup> 107
<b>Peak Dynamic Force</b> Motor Peak Force (not including Air Support)	N (lbF)	13468 (3028)	26910 (6050)	40326 (9066)	53820 (12100)	107640 (242000)
<b>Continuous Dynamic Force**</b> Moto Continuous Force (not including Air Support)	N (lbF)	5018 (1128)	10530 (2367)	21060 (4735)	21060 (4735)	42120 (9469)
<b>Maximum Static Air Support</b> Air support maximum force @100 psi (6.9 bar)	N (lbF)	8900 (2000)	17800 (4000)	17800 (4000)	17800 (4000)	35600 (8000)
<b>Continuous Force</b> Motor Continuous Force + Maximum Air support	N (lbF)	13918 (3129)	28330 (6369)	38860 (8737)	38660 (8737)	77720 (143240)
<b>Combined Peak Force</b> Motor Peak Force + Maximum Air Support	N (lbF)	22368 (5029)	44710 (10052)	58126 (13068)	71620 (16102)	143240 (32203)
<b>Peak Velocity</b> at Continuous Dynamic Force	m/sec in/sec	4.6 181	4.2 165	4.2 165	4.2 165	4.2 165
<b>Peak Velocity</b> at Peak Dynamic Force	m/sec in/sec	2.0 79	1.9 75	1.9 75	1.9 75	1.9 75
<b>Frequency Response</b> -3dB Velocity Roll-Off	Hz	149	149	149	149	149
<b>Temperature Monitoring</b>	Specimen	Monitored Non-contacting IR				
	Motor	Embedded PTC thermocouple with redundant safety KTY sensor				
<b>Digital Encoder Accuracy</b>	nm	10.0				
<b>Noise Level – Typical</b>	dbA	<55				
<b>Waveforms Supported</b>	Type	Sine, Triangle, Square, Frequency Sweep & Custom				
<b>Facility Requirements</b>	V	380-480Vac, 3φ, 50-60 Hz				
	A	Current Rating based on motor sizing and system performance requirements.				
<b>Air Supply, Rated</b>	psi (bar)	100 (6.9), higher Static Load Support possible at higher supply pressures.				
	CFM	<5				
<b>Recommend Liquid Cooling Flow,</b> approximately 20deg delta C	Lpm	5	5.5	6.5	6.5	13
	gpm	1.3	1.5	1.7	1.7	3.4
<b>Max Heat Removal</b> @100% duty cycle, full durability rating	kW	3.9	7.3	13.5	13.5	26.9
	Btu/hr ton	13208 1.1	2505 2.1	45928 3.8	45928 3.8	91856 7.7

**Notes:**

1. All performance parameters are estimates based on design considerations and are subject to change at any time. As such, eMpulse cannot be held liable for any incidental or consequential damages or losses arising from the use of this information.
2. Interpretation and use of the data are the sole responsibility of the user.

