

## Miscellaneous High Power Systems

**LIQUID RHEOSTAT**



**LOAD CONTROL**



**LIQUID RHEOSTAT FOR PLANT**



**LOAD BANK**



**CRANE RESISTORS**

**RESISTOR FRAME STACKING**

Motion	Motor Power (kW), 40%ED																
Motion	2.2	3.7	5.5	7.5	11	15	22	30	37	45	55	75	90	110	132	160	200
Hoisting	1	1	2	2	3	4	4	5	5	6	4+3	4+4	5+5	6+5	5+4+4	5+5+5	6+6+6
Travelling																	
Traversing	1	1	1	2	3	3	3	4	4	5							

Motion	Control Method	Control Steps	Remark
Hoisting	R	3, 4, 5	2ndary Resistance Control, Tst = 100%
	S	4, 5, 6	S.C Brake Control, Tst UP = 110%, Tst Down = 50%
	E	4, 5, 6	E.C Brake Control, Tst UP = 135%, Tst Down = 35%
	D	3, 4, 5	Dynamic Control, Tst UP = 120%, Tst Down = 35%
	T	3, 4, 5	Thyristor control, Tst UP = 200%, Tst Down = 100%
	C	3, 4, 5	Direct Control, Tst = 100%
Travelling & Traversing	R	3, 4, 5	2ndary Resistance Control, Tst = 70%
	P	4, 5, 6	Plugging Control, Tst = 70%, Plugging Tp = 40%
	T	3, 4, 5	Thyristor Control, Tst = 100%
	C	3, 4, 5	Direct Control, Tst = 70%

**OTHER RESISTORS**

**HARMONIC FILTRATION RESISTORS**

AC to DC and DC to AC conversion by thyristor-driven converters and inverters is a common requirement in uninterruptible power supplies, motor drives, speed controls and high voltage transmission links between unsynchronized distribution systems. Such devices act as sources of undesirable harmonic currents. These can be reduced to acceptable levels by passive filter circuits incorporating inductors, capacitors and resistors.

Example: 3phase 24KV for a Subway Station

