POWER CONSUMPTION FOR K4000

Main hoist motor : 200 kW, 460 V, 320 A ac

Inverter : Siemens 6SL3320-1TE33-1AA0
Set max. converter current: 416 A dc

Slewing motors : 3 units, 10 kW, 460 V, 22.5 A (68 A) 4 units, 10kw, 460 V, 22.5 A (90A)

Converter : Siemens 6SL3120-1TE26-0AA3
Set max. converter current: 95 A dc

Trolley motor : 37 kW, 460 V, 72 A ac

Converter : Siemens 6SL3120-1TE28-5AA3
Set max. inverter current: 93 A ac

Flood lights : 8 pcs., 1000 W, 110 V, ~80 A ac

Load Cases:

1. Load when Main hoist, Trolley and Slew drives consume max. motor current, i.e. full acceleration on all functions simultaneously.

S1 = √3 x 460 x (416 + 95 + 93 + 80) = 545 kVA
I1 = 684 A ac

The duration of this load case will be max. 5 secs.

2. Load when Main hoist, Trolley and Slew drives supply nominal torque.

S2 = √3 x 460 x (320 + 68 + 72 + 80) = 430 kVA
I2 = 540 A ac

S2 = √3 x 460 (320+90+72+80) = ~448KVA
I2 = 562 A ac

The duration of this load case will be max. 60 secs.

3. The Main hoist motor supplies nominal torque.

S3 = √3 x 460 x 320 = 255 kVA
I3 = 320 A ac

The duration of this load case will be max. 10 min.

*Power consumption can be subject to change