

## Specifications TORKEL 840/860

Specifications are valid at nominal input voltage and an ambient temperature of +25°C, (77°F). Specifications are subject to change without notice.

### Environment

**Application field** The instrument is intended for use in high-voltage substations and industrial environments.

#### Temperature

**Operating** 0°C to +40°C (32°F to +104°F)

**Storage & transport** -40°C to +70°C (-40°F to +158°F)

**Humidity** 5% – 95% RH, non-condensing

### CE-marking

**EMC** 2004/108/EC

**LVD** 2006/95/EC

### General

**Mains voltage** 100 – 240 V AC, 50/60 Hz

**Power consumption (max)** 150 W

**Protection** Thermal cut-outs, automatic overload protection

#### Dimensions

**Instrument** 210 x 353 x 700 mm  
(8.3" x 13.9" x 27.6")

**Transport case** 265 x 460 x 750 mm  
(10.4" x 18.1" x 29.5")

**Weight** 21.5 kg (47.4 lbs)  
38 kg (83.8 lbs) with accessories and transport case.

**Display** LCD

**Available languages** English, French, German, Spanish, Swedish

### Measurement section

#### Current measurement

**Display range** 0.0 – 2999 A

**Basic inaccuracy** ±(0.5% of reading +0.2 A)

**Resolution** 0.1 A

#### Internal current measurement

**Range** 0 – 300 A

#### Input for clamp-on ammeter

**Range** 0 – 1 V

**mV/A-ratio** Software settable, 0.3 to 19.9 mV/A

**Input impedance** >1 MΩ

#### Voltage measurement

##### Display range 0.0 – 60 V

**Basic inaccuracy** ±(0.5% of reading +0.1 V)

**Resolution** 0.1 V

##### Display range 0.0 – 500 V

**Basic inaccuracy** ±(0.5% of reading +1 V)

**Resolution** 0.1 V

#### Time measurement

**Basic inaccuracy** ±0.1% of reading ±1 digit

### Load section

**Max. battery voltage** 288 V DC (TORKEL 840)  
480 V DC (TORKEL 860)

**Max. current** 110 A

**Max. power** 15 kW

**Load patterns** Constant current, constant power, constant resistance, current or power profile

**Current setting** 0-110.0 A (2999.9 A) <sup>1)</sup>

**Power setting** 0-15.00 kW (299.99 kW) <sup>1)</sup>

**Resistance setting** 0.1-2999.8 Ω

**Battery voltage range, TORKEL 840** 4 ranges, selected automatically at start of test

**Battery voltage range, TORKEL 860** 5 ranges, selected automatically at start of test

**Stabilization (For internal current measurement)** ±(0.5% of reading +0.5 A)

	Battery voltage	Highest permissible current	Resistor element (Nominal values)
<b>Range 1</b>	10 – 27.6 V	110 A	0.165 Ω
<b>Range 2</b>	10 – 55.2 V	110 A	0.275 Ω
<b>Range 3</b>	10 – 144 V	110 A	0.55 Ω
<b>Range 4</b>	10 – 288 V	55 A	3.3 Ω
<b>Range 5 <sup>2)</sup></b>	10 – 480 V	55 A (max power 15 kW)	3.3 Ω

<sup>1)</sup> Maximum value for a system with more than one load unit

<sup>2)</sup> TORKEL 860

### Inputs, maximal values

**EXTERNAL CURRENT MEASUREMENT** 1 V DC, 300 V DC to ground. Current shunt should be connected to the negative side of the battery

**START/STOP** Closing/opening contact  
Closing and then opening the contact will start/stop Torkel. It is not possible to keep the contacts in closed position.

**Delay until start** 200 – 300 ms

**Stop delay** 100 – 200 ms

**Battery** 480 V DC, 500 V DC to ground

**VOLTAGE SENSE** 480 V DC, 500 V DC to ground

**SERIAL** < 15 V

**ALARM** 250 V DC 0.28 A

28 V DC 8 A

250 V AC 8 A

### Outputs, maximal values

**START/STOP** 5 V, 6 mA

**TXL** Relay contact

**SERIAL** < 15 V

**ALARM** Relay contact