

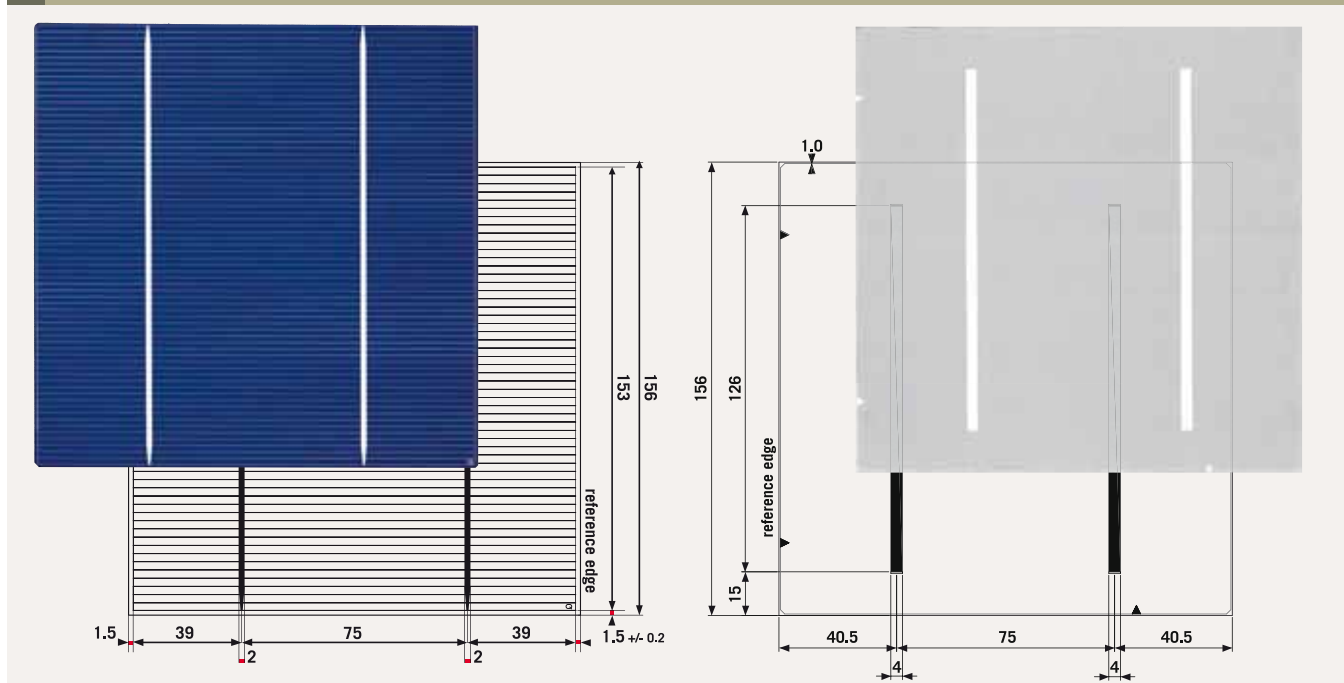
1	PRODUCT	PRODUCT CATEGORY	APPLICATION
	Q6LTT (EFF. $\geq 14.1\%$)	HIGH PERFORMANCE	HIGH EFFICIENCY MODULES

- High efficiencies up to 16.4% (corresponding to 3.99 Wp per cell)
- Multicrystalline cells with the proven long term mechanical stability of silicon
- Manufactured from highly purified poly silicon
- Two bus bars for maximum stringer compatibility
- Blue anti-reflecting coating ensures improved light absorption and increased efficiency
- Acid texturization offers a uniform appearance and virtually invisible crystal structure
- Excellent low light behaviour for improved energy yield
- All solar cells are classified electrically in accordance with IEC 60891 and IEC 60904
- Regular calibrations are traceable to PTB and verified by Fraunhofer ISE

2 OVERVIEW

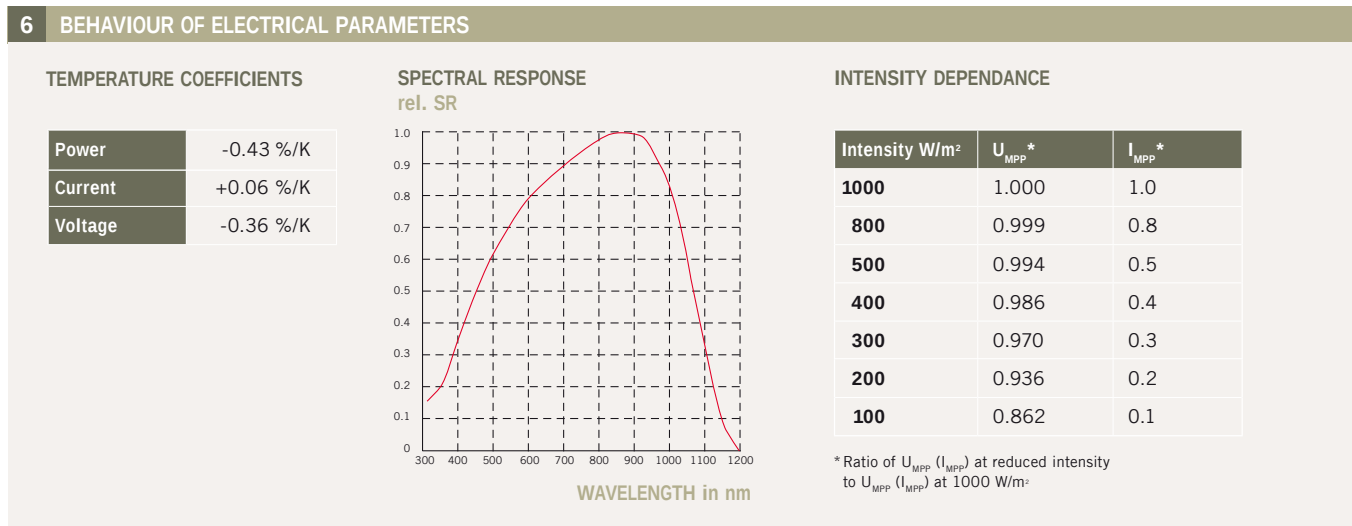
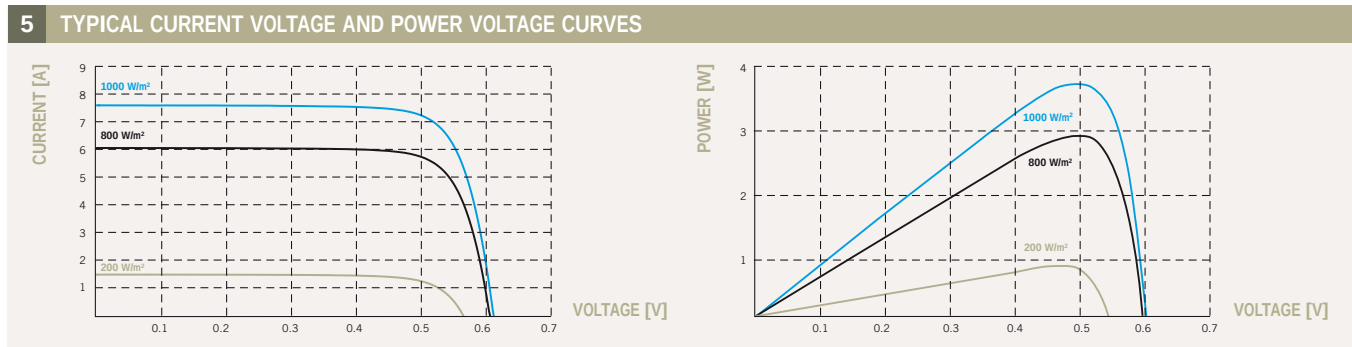
Product	Multicrystalline cell based on poly silicon
Format	156 mm x 156 mm +/- 0.5 mm
Average thickness (Si)	160 $\mu\text{m} \pm 30 \mu\text{m}$ / 180 $\mu\text{m} \pm 30 \mu\text{m}$ / 200 $\mu\text{m} \pm 40 \mu\text{m}$
Front contacts (-)	2 x 2 mm wide bus bars (silver) Acid texturized surface Blue anti-reflecting coating (silicon nitride)
Back contacts (+)	2 x 4 mm wide bus bars (silver/aluminum) Aluminum backside metallization

3 CELL LAYOUT



4	ELECTRICAL DATA						
Efficiency Class		1410	1440	1460	1480	1500	1520
Current at 0.5V	[A]	≥6.60	≥6.80	≥7.00	≥7.11	≥7.22	≥7.32
Ø I _{sc}	[A]	7.75	7.76	7.80	7.85	7.89	7.94
Ø U _{oc}	[mV]	600	601	602	604	605	608
Ø Efficiency	[%]	14.1	14.4	14.6	14.8	15.0	15.2
Ø P _{max}	[W]	3.43	3.50	3.55	3.60	3.65	3.70
Efficiency Class		1540	1560	1580	1600	1620	1640
Current at 0.5V	[A]	≥7.45	≥7.55	≥7.65	≥7.75	≥7.84	≥7.94
Ø I _{sc}	[A]	7.98	8.03	8.08	8.11	8.16	8.21
Ø U _{oc}	[mV]	610	611	613	615	617	618
Ø Efficiency	[%]	15.4	15.6	15.8	16.0	16.2	16.4
Ø P _{max}	[W]	3.75	3.80	3.85	3.89	3.94	3.99

All data at standard testing conditions, STC: 1000W/m², 25°C, AM1.5G (IEC 60904-3 ed.1) P_{MPP} +/-1.5% rel., Efficiency: +/-0.2% abs.



7 PROCESSING RECOMMENDATION	
Solder joint	Copper ribbons coated with 10 –15 µm: 62 %Sn / 36 %Pb / 2 %Ag
Cells per bypass diode	Max. 20 cells per bypass diode