## 75KW Kaplan Turbine Generator

Water Head : 5 meter, Water Flow : 1.5~2m ${ }^{3} /$ sec

HLT03-60 is a AC direct systems consist of a turbine-generator unit producing AC power which is used as needed. That is, it is fed directly to the appliances. No need of battery and inverter, HLT03-60 offers a complete water to wire system with integral Kaplan turbine, generator. Designed to deliver ready-to-use 380 V VAC power, it employs a Synchronous Generator. Output voltage and frequency are controlled by the built-in auto voltage regulator(AVR). As little as 1.5 to $2 \mathrm{~m}^{3}$ per second ( $1 / \mathrm{s}$ ) falling 5 meter through a pipe can supply enough power to comfortably run a small household. This machine is compact, easy to install and requires little maintenance except lubricating the bearing every few months.


The Kaplan turbine was designed for families in remote areas to produce power for their households easily and inexpensively. These units have been incredibly successful and today thousands are installed throughout the world.
Water is collected upstream from the turbine and channeled in a canal down to the turbine location. At the turbine, the water strike the turbine runner, and turn a AC single phase or three-phase Synchronous alternator. A auto voltage regulator(AVR) is built-in the generator to stabilize the voltage to 230 V or 380 V to protect electrical appliances during use.

| Turbine |  |
| :---: | :---: |
| Model | HLT03-W-45 |
| Type of turbine | Francis |
| Rated Head | 5 m |
| Rated Flow | $1.5 \sim 2 \mathrm{~m}^{3} / \mathrm{s}$ |
| Diameter of penstock | 1000 mm |
| Power | 75 KW |
| Efficiency | 90\% |
| Generator |  |
| Model | SFL75-6/530 |
| Type of generator | Synchronous Alternator |
| Rated Power | 75KW |
| Rated Voltage | $380 \mathrm{~V} / 400$ |
| Rated Current | 197A |
| FQCY | $50 / 60 \mathrm{~Hz}$ |
| Rated speed | $1000 \mathrm{r} / \mathrm{min}$ |
| Phase | 3 |
| P.F. | 1.0 |
| Altitude | $\leq 3000 \mathrm{~m}$ |
| Insulation Grade | B/B |
| Protection Grade | IP44 |
| Ambient Temperature | $-25^{\circ} \mathrm{C} \sim+50^{\circ} \mathrm{C}$ |
| Relative Humidity | $\leq 90 \%$ |
| Control Panel |  |
| Safety Protection | Short circuit,Over load,Over voltage |
| Packing Size/Weight |  |
| Standard | IEC international electrician committee standard |



