

DRY TYPE ISOLATION SINGLE PHASE TRANSFORMERS FOR PHOTOVOLTAIC PLANTS 230V/230V

The only one specifically designed for the construction of photovoltaic systems
Certified efficiency and losses

- ✓ Natural cooling AN-type, suitable for indoor installation.
- ✓ Electrolytic COPPER windings (Aluminum for Extra range – 50kVA Advantage range)
- ✓ Low-losses magnetic core
- ✓ Electrostatic insulation screen between primary and secondary to be connected to earth

ELECTRICAL SPECIFICATION

Rated power:	3kVA to 10kVA
Network side voltage:	230V
Inverter side voltage:	230V
Frequency:	50/60 Hz
Efficiency:	About 97-98%
Isolation level (effective value)	4.2 kV
Inrush current:	< 15 In
Short circuit voltage (Vcc%)	<4%
Temperature class	F
Maximum temperature rise	< 100°C
Ambient temperature	-5°C to +40°C
Acoustic pressure level 1m.	< 60 dB (A)
Relative air humidity	50% - 95%
Operating altitude without derating:	up to 1000 m.
Degree of protection	IP00
Protection class	I
Applied standards:	EN61558-2-4 Meets CEI 11-20 requirements



MECHANICAL FEATURES

Lifting lugs	Yes
Rating plate	Yes
Ground bolt	Yes

For installations at higher altitudes, an appropriate power reduction ("derating") should be considered.



Technical data and images may be subject to a change without notice

FVJ VERSION – HI EFFICIENCY RANGE

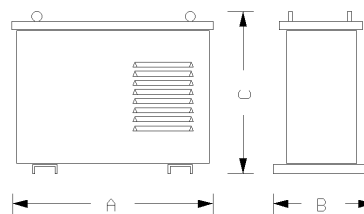
Code	Rated power	Losses			Efficiency %	dimensions WXDxH mm	Weight Kg
		Fe	Cu	Tot.			
TMIFV249636J	3 KVA	41,8	95,6	137,5	95,4	200x270x255	27
TMIFV267636J	4 KVA	52,2	121,0	173,2	95,7	240x280x305	34
TMIFV287636J	5 KVA	60,4	148,9	209,4	95,8	240x290x305	39
TMIFV307636J	6 KVA	70,7	179,4	250,1	95,8	280x300x355	46
TMIFV347636J	8 KVA	81,8	194,2	276,0	96,6	280x310x355	59
TMIFV387636J	10 KVA	124,3	178,9	303,2	97,0	280x350x355	78

OPTIONS AVAILABLE ON DEMAND

- voltage adjustment taps : 2 x 2.5%**

ACCESSORIES AVAILABLE ON REQUEST
PROTECTION BOX

- Installed in self-ventilated IP23 epoxy painted metal box (indoor use)**
 Provision for lifting lugs
 Cable input from the side and bottom
 Provision for input/output cable glands, and for forced ventilation with ip55 filters
 Internal and external rating plate



Code	RATING	dimensions mm.
SAM02	3KVA	430x290x395
SAM03	4:10KVA	475x355x460

Certifications

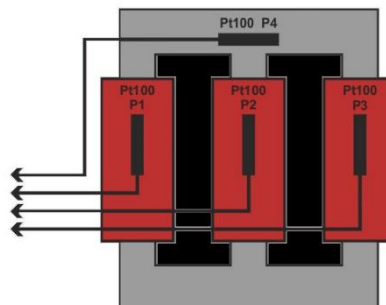
- Environmental compatibility certification (available for metal box models)**
 Sound Level < 50dB(A) @ 1mt
 Electromagnetic Emissions Level < 0.2ut
- CE Certification**

MONITORING UNITS

- Temperature control unit (price includes the insertion of the thermostats, but not the installation/installation of the control unit)**

Item Code	Description	Amount
PROTTDQ61	DQ61 MONITORING UNIT	1
PT1001M-25	PT100 SENSOR 3 WIRES 2500 MM.	3
PROTDQ61485	DQ61 MONITORING UNIT WITH RS485	1
PT1001M-25	PT100 SENSO 3 WIRES 2500 MM.	3
PROTT30	T30 MONITORING UNIT	1
PTC130-3	PTC 2 wires 3Mt. 130°C	3
PTC160-3	PTC 2 wires 3Mt. 160°C	3

**Device for protection, control, thermal monitoring of transformers
engines, electric generators, industrial applications model DQ61**



DQ61 device is a temperature controller specifically designed for electrical equipment such as transformers, motors, generators.

DQ61 protects the machine when overload can lead to a rise in the temperature of the winding. Moreover, it controls the fans to maintain the temperature of the machine and preserve the normal working conditions.

The DQ61 detects alarm conditions and intervenes disconnecting the transformers before they come to a dangerous situation.

A self-diagnostic system continuously monitors the status of the temperature sensors and of the internal system, reporting potential anomalies. It can handle up to four temperature sensors Pt100 and three alarm stages.

The model DQ61 is a front panel mountable with overall dimensions of 96x96mm (3.77"x3.77" 4.5" depth)

An Oled high contrast graphic display allows the simultaneous visualisation of the four temperatures monitored and of the alarms.

The scrolling menu helps and guides the parameters programming with clear messages, in the language selected by the operator

– Power supply	Universal 90...240Vdc/Vac 50/60Hz and 16...26Vdc/ac, <4VA
– Input voltage range	± 10%
– Available inputs	N°4 RTD Pt100 3 wires
– Cable length compensation	Up to 500m (0,5mm ²)
– External connections	Terminals wiring up to AWG 17 for Pt100 un up to AWG 14 for power and relays
– Temperature range	-20 ... +200°C
– Accuracy	Better than 0,4°C ±1 digit
– Output alarm relays	N°2 SPDT 5A 250V for alarm and TRIP
– Output fan relay	N°1 SPDT 5A 250V
– Output fault relay	N°1 SPDT 5A 250V
– Display	Graphic OLED 2,4" 128x64 pixel
– Keyboard	Touch Capacitive
– Alarms and signals	4 dedicated led with test message on display
– Menu Language	English, Espanol, French, Italian, more on request
– Unit of measure	°C or °F
– Dimensions	Front 96x96mm, depth 115mm
– Mounting	Front panel
– Panel cut-out	90x90mm
– Building according to CE directives	2006/95/CEE (Low voltage) and 2004/108/CEE (EMC)
– Protection against electric noise	EN61326-1
– Dielectric strength	2500Vca for 1 minute

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- **Isolation**
 - **Frontal protection**
 - **Ambient operating temperature**
 - **Ambient operating humidity**
 - **MTBF**
 - **Data storage**
 - **Recorded data**
 - **Remote control (optional)**
 - **weight**
- Better than 100MOhm at 500Vcc ground-other terminals
 IP40, IP65 optional
 -20 ... +60°C
 Max 90% not condensing
 Better than 100.000 h
 More than 10 years
 Max temp on each channel; Each alarm number of activations
 Optoisolated RS485, MODBUS RTU protocol
 330 g. (unit only) 350 g. (with manual and packing)

Self diagnosis with error signal on the FAULT relay.

Integrated counters (partial and total) for hours of work done

Ability to schedule the regular switch-on of the fans from the service menu

FCD function: ability to set an alarm if the temperature change is too fast (°C/s) from the service menu

Ability to disable alarms for probes P1 P2 and P3 from the service menu

Ability to disable alarm activation for probe P4 from user menu

TERMINAL BLOCKS

