

# Master Controlled Activation System Nitrogen Generator with Touch Panel Controller

## 1.5 FOLD N<sub>2</sub> PRODUCTION IN EQUAL SIZE

\*conventional ratio

### THE FIRST IN THE INDUSTRY

The revolutionary PSA nitrogen generator. TZH Master series with control function on multiple PSA modules which correspond to required nitrogen volume. Easy operation with sophisticated touch panel display and remote surveillance is also available.

Equipment condition is anytime visible on the ethernet.



TZH503-4150Eco(150Nm<sup>3</sup>/h)

- EXTENSIONABLE** TZH Master series consist of single Master PSA unit which has control function and up to 3 additional PSA modules. Production 99.99% Nitrogen volume is from 50Nm<sup>3</sup>/h (Master unit only) to 200Nm<sup>3</sup>/h (Master + 3 PSA modules). If required Nitrogen rise double, you can add PSA module instead of buying new nitrogen generator.
- COST EFFECTIVE** Additional PSA module instead of buying expensive new nitrogen generator is cost effective. Not only that, Master unit can stop single or multiple PSA module if required nitrogen gas is decreased. It means you can save electricity expenses as well.
- HIGH DISCHARGE PRESSURE** TZH Master series N<sub>2</sub> discharge pressure is as high as 0.75MPa with the aid of consecutive gas production technology. Most of traditional 2 tower type N<sub>2</sub> generator produce gas intermittently since 2 adsorbent vessels work alternately. Gas production of TZH Master series is as close as consecutive since Master unit controls the timing of each pressure swing adsorption. N<sub>2</sub> buffer tank is always kept at high pressure with the aid of consecutive N<sub>2</sub> production.
- BUILT IN AIR TANK** Compressor air tank is very important to reduce pressure load which might be related to compressor's life time or failure rate. But new air tank installation will be a load in finance & factory space. TZH Master series have built in air tank which reduces unwanted pressure load to your facilities as well as your budget.
- NOISE REDUCTION** The noise might be doubled if additional nitrogen generator is installed to produce more nitrogen. On the other hand, TZH Master series with PSA modules have a function to controls & delay the timing of pressure swing adsorption, that means the exhaust noise is minimized while N<sub>2</sub> flow increased. TZH Master series is noise reduction design with built in silencer at each bases, so installation location can be anywhere in the facility.

### ●TZH MASTER SERIES SPECIFICATION \*at 99.99% N<sub>2</sub> density

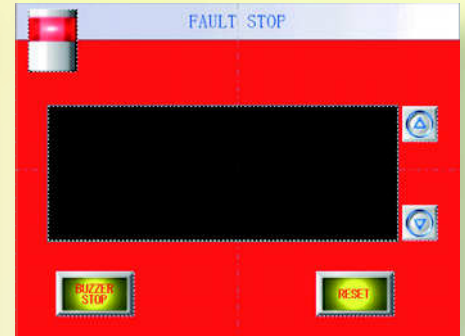
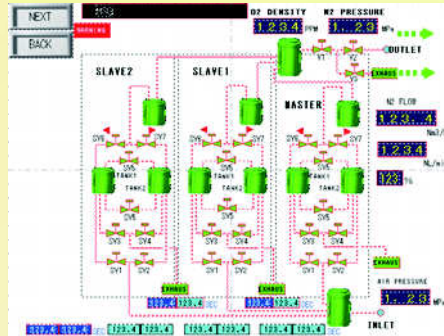
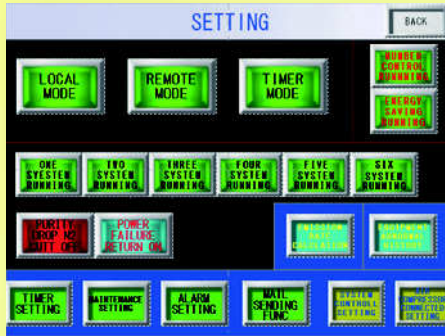
MODEL	N <sub>2</sub> flow rate	N <sub>2</sub> pressure	Size comparison *Master=100%	Cost comparison
TZH501-4050Eco	50Nm <sup>3</sup> /h	0.55MPa	Master (100%)	100%
TZH502-4100Eco	100Nm <sup>3</sup> /h	0.70MPa	Master + 1 Module (150%)	150%
TZH503-4150Eco	150Nm <sup>3</sup> /h	0.75MPa	Master + 2 Modules (200%)	200%
TZH504-4200Eco	200Nm <sup>3</sup> /h	0.75MPa	Master + 3 Modules (250%)	250%

## ■ SOPHISTICATED TOUCH PANEL

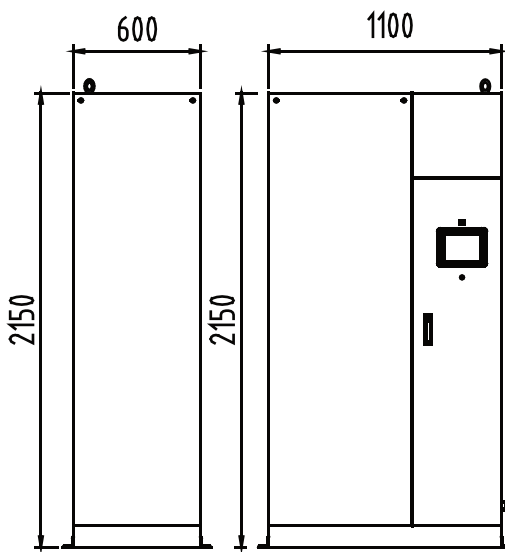
\*Chinese, English, Japanese and Korean languages available

TZH Master series's sophisticated touch panel display provide valuable information such as operation mode, operational condition, error status and etc. Detailed error information provide easy maintenance for engineers as well.

Touch panel offers easy settings for various functions such as energy saving operation including unit activation control system and pressure swing time-control system.



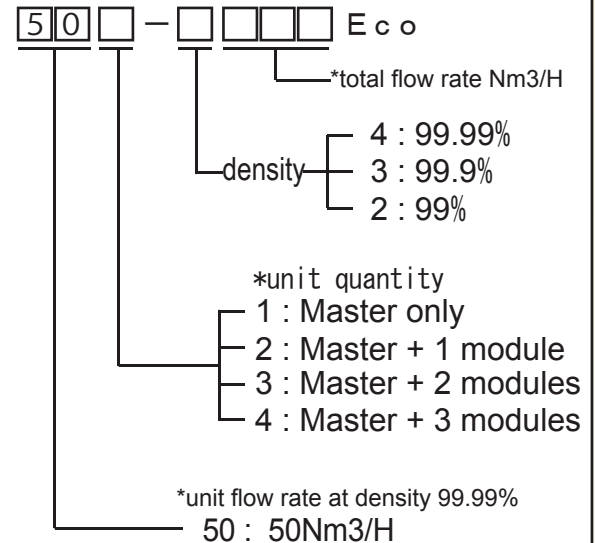
## ■ TZH 50 series & model number



TZH50 Module

TZH50 Master

Explanation for model number



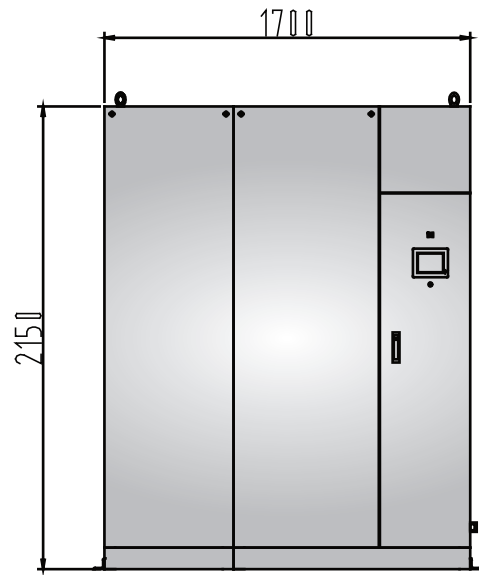
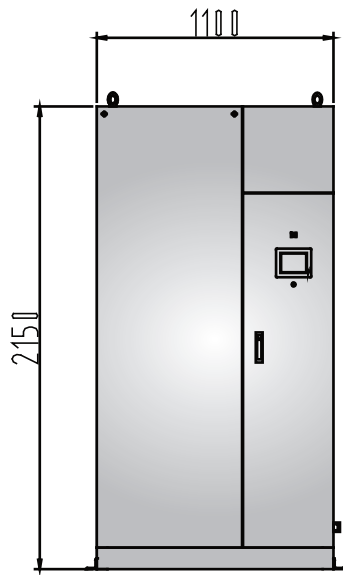
## ■ OIL MIST FILTER UNIT

TZH Master series' s material air must be oil-free-dry-air. In other cases, oil mist filter unit is required.

Model	Acceptable compressor	Remarks
TZF-100U	55KW~90KW	*Filter exchange time 8,000H (1year)



TZF-100U

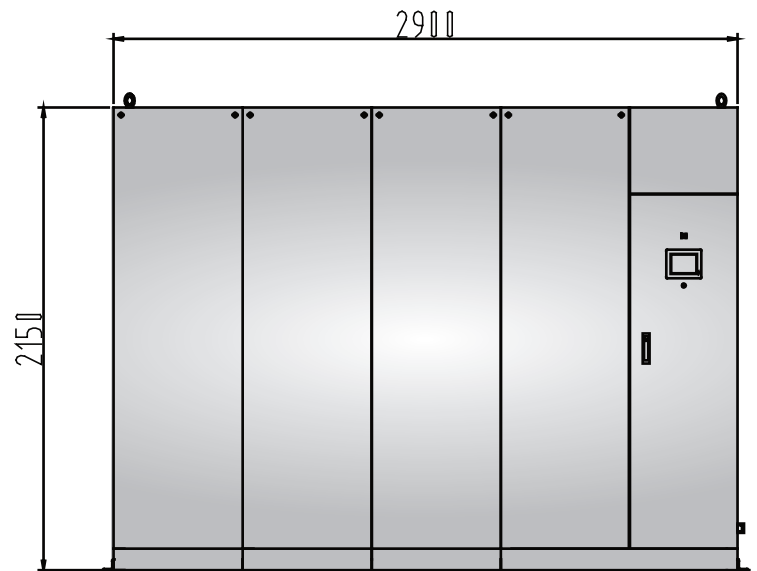
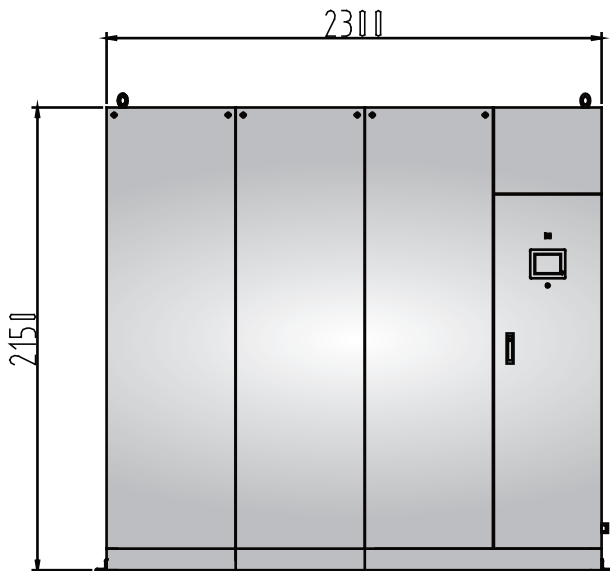


●Master Unit

Type	Density (%)	Flow rate Nm <sup>3</sup> /h	Discharge Pressure MPa	Power Supply	Dimension (W×D×H) mm	Weight (kg)	Acceptable Compressor
TZH501-4050Eco	99.99	50	0.55	single-phase AC100/200 400W	1,100×1,330×2,150	1,500	5.2Nm <sup>3</sup> /min 0.85MPa
TZH501-3070Eco	99.9	70	0.50				
TZH501-2100Eco	99	100	0.47				

●Master Unit + 1 module

Type	Density (%)	Flow rate Nm <sup>3</sup> /h	Discharge Pressure MPa	Power Supply	Dimension (W×D×H) mm	Weight (kg)	Acceptable Compressor
TZH502-4100Eco	99.99	100	0.70	single-phase AC100/200 400W	1,700×1,330×2,150	2,250	10.4Nm <sup>3</sup> /min 0.85MPa
TZH502-3140Eco	99.9	140	0.65				
TZH502-2200Eco	99	200	0.60				



●Master Unit + 2 modules

Type	Density (%)	Flow rate Nm <sup>3</sup> /h	Discharge Pressure MPa	Power Supply	Dimension (W×D×H) mm	Weight (kg)	Acceptable Compressor
TZH503-4150Eco	99.99	150	0.75	single-phase AC100/200 400W	2,300 × 1,330 × 2,150	3,000	15.6Nm <sup>3</sup> /min 0.85MPa
TZH503-3210Eco	99.9	210	0.70				
TZH503-2300Eco	99	300	0.65				

●Master Unit + 3 modules

Type	Density (%)	Flow rate Nm <sup>3</sup> /h	Discharge Pressure MPa	Power Supply	Dimension (W×D×H) mm	Weight (kg)	Acceptable Compressor
TZH504-4200Eco	99.99	200	0.75	single-phase AC100/200 400W	2,900 × 1,330 × 2,150	3,750	20.8Nm <sup>3</sup> /min 0.85MPa
TZH504-3280Eco	99.9	280	0.70				
TZH504-2400Eco	99	400	0.65				

\*Compressor's pressure value have influence to nitrogen flow rate and discharge pressure.

Make sure the material air meets above specification. \*refer [Acceptable compressor].

\*Information discribed in the document is subject to change without notice due to the improvement.

\*Higher nitrogen density 99.999% (O<sub>2</sub> density below 10ppm) model is available. Feel free to contact us.