

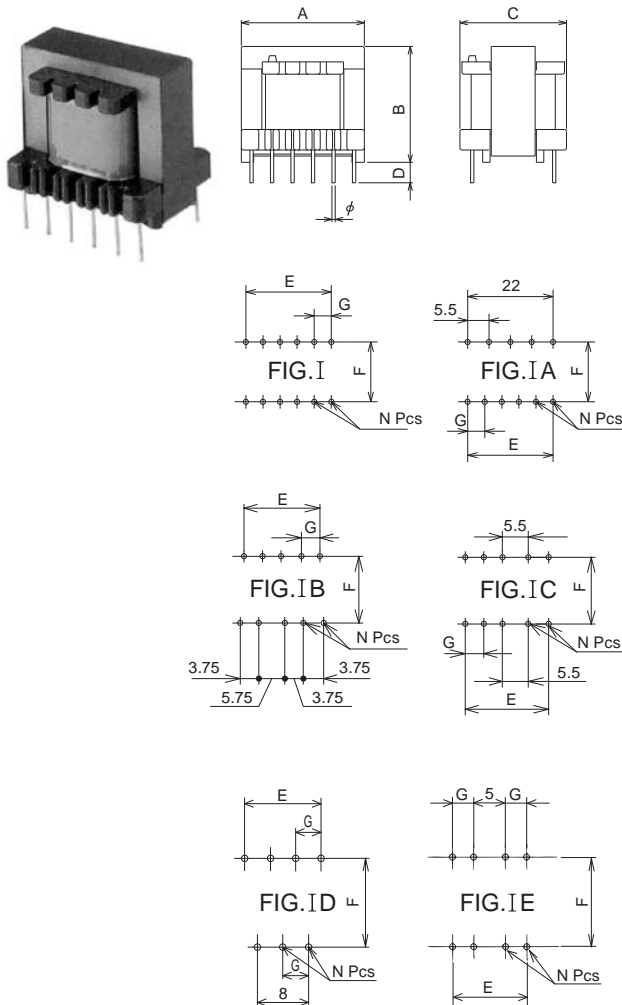
スイッチングトランス SWITCHING POWER TRANSFORMERS

●DOMESTIC(JAPAN) UL CSA IEC

Switching power transformers provide excellent safety, reliability, and cost performance. These are built to suit a variety of electronics products. The transformers come in three models : the AL regular type, the AS slim type which is restricted to PCB mounting area, and the AF flat type which is suitable for products with height limitations. All types are suitable for pulse power transformers, choke transformers, drive transformers, etc. These transformers meet to UL1446 class 130.

安全性、信頼性、経済性に優れ、あらゆる用途のエレクトロニクス機器に幅広く対応できるスイッチングパワー・トランスです。AL レギュラータイプ、基板実装面積を制限した AS スリムタイプ、機器の高さに制限がある場合に適した AF フラットタイプの 3 タイプがあり、パルス電源トランス、チョークトランス、ドライブトランスなどに適しています。UL1446 class 130 を取得しています。

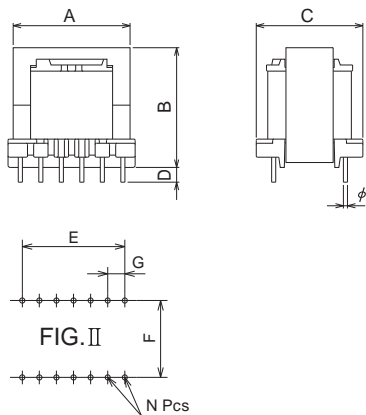
●TYPE EE. EI-AL



| Model | A | B | C | D | E | F | G | ϕ | N | Fig |
|----------|------|------|------|------|-----------|------|------|----------------|-------|-----|
| EE0804 | 8.7 | 8.0 | 8.0 | 3.0 | 5.0 | 6.0 | 2.5 | $\square 0.42$ | 3-3 | I |
| EE1005 | 10.5 | 11.0 | 10.5 | 3.0 | 7.7 | 8.0 | 2.6 | 0.5 | 4-4 | I |
| EI1205A | 13.0 | 9.5 | 12.5 | 3.0 | 10.0 | 7.5 | 2.5 | 0.6 | 5-5 | I |
| EE1306 | 13.5 | 13.0 | 13.0 | 3.0 | 10.0 | 8.5 | 2.5 | 0.6 | 5-5 | I |
| EE1605 | 16.5 | 14.0 | 13.0 | 2.9 | 6.2 | 9.2 | 3.1 | 0.6 | 3-3 | I |
| EE1605A | 17.0 | 16.5 | 13.0 | 3.6 | 13.0 | 10.5 | 3.25 | 0.6 | 5-5 | I |
| EE1607 | 16.5 | 15.5 | 14.0 | 4.0 | 13.2 | 11.0 | 3.3 | 0.6 | 5-5 | I |
| EE1905 | 19.5 | 16.5 | 17.0 | 3.45 | 8.0 | 12.5 | 4.0 | 0.6 | 3-3 | I |
| EE1905A | 19.5 | 17.5 | 15.0 | 4.0 | 15.0 | 10.0 | 5.0 | 0.6 | 4-4 | I |
| EE1905B | 19.5 | 16.5 | 15.0 | 3.5 | 8.0/12.0 | 11.0 | 4.0 | 0.7 | 3-4 | ID |
| EE1905C | 22.0 | 18.5 | 16.0 | 3.5 | 16.0/17.0 | 12.5 | 4.0 | 0.7 | 5-5 | IB |
| EE1905LT | 20.5 | 31.0 | 17.0 | 3.5 | 12.5 | 12.5 | 3.75 | 0.8 | 4-4 | IE |
| EE2206 | 22.5 | 20.5 | 17.0 | 3.6 | 15.0 | 12.5 | 5.0 | 0.8 | 4-4 | I |
| EE2206A | 22.5 | 19.0 | 17.0 | 3.7 | 16.0 | 12.0 | 4.0 | 0.8 | 5-5 | I |
| EE2206L | 22.5 | 30.0 | 17.0 | 4.0 | 15.0 | 12.5 | 5.0 | 0.8 | 4-4 | I |
| EE2206M | 22.5 | 19.0 | 18.0 | 3.7 | 17.5 | 14.0 | 4.0 | 0.8 | 5-5 | IC |
| EE2507 | 26.0 | 20.5 | 17.5 | 3.5 | 15.0 | 12.5 | 5.0 | 0.8 | 4-4 | I |
| EE2507A | 26.5 | 20.0 | 19.0 | 5.2 | 22.0/22.5 | 15.6 | 4.5 | 0.8 | 5-6 | IA |
| EE2507T | 26.0 | 21.0 | 18.0 | 4.0 | 20.0 | 12.5 | 5.0 | 0.8 | 5-5 | I |
| EI3011 | 31.0 | 28.0 | 25.0 | 7.0 | 20.0 | 20.0 | 5.0 | 0.8 | 5-5 | I |
| EI3011A | 31.0 | 28.0 | 26.0 | 5.0 | 25.0 | 20.0 | 5.0 | 0.8 | 6-6 | I |
| EE3313A | 34.0 | 31.0 | 28.5 | 7.0 | 25.0 | 22.5 | 5.0 | 0.8 | 6-6 | I |
| EE3313D | 34.0 | 31.0 | 28.0 | 3.3 | 30.0 | 22.5 | 5.0 | 0.8 | 7-7 | I |
| EE3313E | 38.5 | 33.0 | 28.5 | 4.0 | 35.0 | 22.5 | 5.0 | 0.8 | 8-8 | I |
| EE3313T | 44.0 | 34.0 | 28.0 | 5.0 | 40.0 | 22.5 | 5.0 | 0.8 | 9-9 | I |
| EE3510D | 38.5 | 45.0 | 27.5 | 4.0 | 35.0 | 22.5 | 5.0 | 1.0 | 8-8 | I |
| EI4012 | 40.5 | 38.0 | 28.0 | 5.0 | 25.0 | 22.5 | 5.0 | 0.8 | 6-6 | I |
| EE4012B | 43.0 | 41.0 | 33.0 | 4.0 | 40.0 | 25.0 | 5.0 | 1.0 | 9-9 | I |
| EI4012C | 40.5 | 37.0 | 30.0 | 7.0 | 25.0 | 25.0 | 5.0 | 1.0 | 6-6 | I |
| EE4016 | 43.0 | 41.0 | 34.5 | 4.0 | 40.0 | 25.0 | 5.0 | 1.0 | 9-9 | I |
| EE4215 | 55.0 | 50.0 | 35.0 | 4.0 | 50.0 | 25.0 | 5.0 | 1.0 | 11-11 | I |
| EE4220 | 55.0 | 50.0 | 40.0 | 4.0 | 50.0 | 28.0 | 5.0 | 1.0 | 11-11 | I |
| EE4415 | 45.0 | 39.0 | 34.0 | 4.5 | 35.0 | 27.5 | 5.0 | 1.0 | 8-8 | I |
| EI5015 | 51.0 | 44.0 | 36.0 | 9.0 | 37.5 | 27.5 | 7.5 | 1.0 | 6-6 | I |
| E16016 | 60.5 | 48.0 | 45.0 | 5.0 | 37.5 | 35.0 | 7.5 | 1.0 | 6-6 | I |

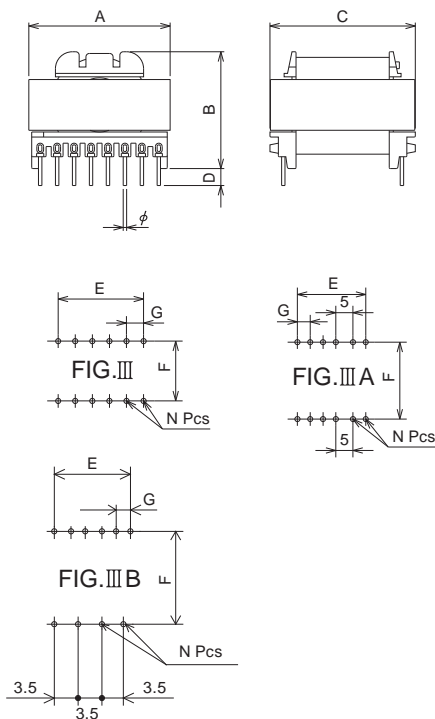
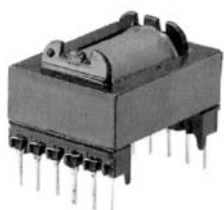
スイッチングトランス SWITCHING POWER TRANSFORMERS

●TYPE ER-AS



| Model | A | B | C | D | E | F | G | φ | N | Fig |
|-----------|------|------|------|-----|-----------|------|---------|-----|-----|-----|
| ER2507T | 26.0 | 21.0 | 19.6 | 5.0 | 15.0 | 12.5 | 5.0 | 0.8 | 4-4 | II |
| ER2507 | 26.0 | 20.5 | 19.5 | 3.2 | 22.5 | 15.0 | 3.75 | 0.8 | 7-7 | II |
| ER2810SSR | 29.0 | 17.5 | 23.0 | 3.6 | 20.0 | 17.5 | 5.0 | 0.8 | 5-5 | II |
| ER2810SB | 30.0 | 23.5 | 25.0 | 4.5 | 25.0 | 17.5 | 5.0 | 0.8 | 6-6 | II |
| ER2810SC | 30.0 | 23.5 | 25.0 | 4.5 | 25.0 | 20.0 | 5.0 | 0.8 | 6-6 | II |
| ER2810SG | 29.0 | 25.0 | 22.5 | 3.5 | 25.0/24.5 | 17.5 | 5.0/3.5 | 0.8 | 6-8 | II |
| ER2810SD | 30.0 | 21.5 | 22.5 | 4.5 | 25.0/24.5 | 17.5 | 5.0/3.5 | 0.8 | 6-8 | II |
| ER2810SE | 29.0 | 22.0 | 22.5 | 3.5 | 20.0 | 17.5 | 5.0 | 0.8 | 5-5 | II |
| ER2810 | 31.0 | 29.0 | 26.0 | 3.6 | 25.0 | 22.0 | 5.0 | 0.8 | 6-6 | II |
| ER2810T | 29.0 | 30.0 | 23.0 | 5.0 | 20.0 | 17.5 | 5.0 | 0.8 | 5-5 | II |
| ER2810A | 31.0 | 32.0 | 25.0 | 3.5 | 28.0 | 20.0 | 4.0 | 0.8 | 8-8 | II |
| ER2810N | 31.5 | 31.5 | 22.5 | 3.6 | 25.0 | 17.5 | 5.0 | 0.8 | 6-6 | II |
| ER2810LF | 29.0 | 35.0 | 26.0 | 3.6 | 25.0 | 22.0 | 5.0 | 1.0 | 6-6 | II |
| ER2810TL | 29.0 | 35.0 | 23.0 | 5.0 | 20.0 | 17.5 | 5.0 | 0.8 | 5-5 | II |
| ER2810LJ | 31.5 | 37.0 | 22.5 | 3.6 | 25.0 | 17.5 | 5.0 | 0.8 | 6-6 | II |
| ER3510T | 36.0 | 44.0 | 28.0 | 5.0 | 25.0 | 22.5 | 5.0 | 1.0 | 6-6 | II |
| ER3511A | 38.5 | 48.0 | 27.5 | 4.0 | 35.0 | 22.5 | 5.0 | 1.0 | 8-8 | II |
| ER3913T | 39.0 | 48.0 | 29.0 | 4.0 | 30.0 | 25.0 | 5.0 | 1.0 | 7-7 | II |
| ER4014 | 40.5 | 48.0 | 33.0 | 4.5 | 35.0 | 25.0 | 5.0 | 1.0 | 8-8 | II |
| ER4014T | 40.5 | 46.0 | 30.0 | 5.0 | 25.0 | 25.0 | 5.0 | 1.0 | 6-6 | II |
| ER4215T | 43.0 | 46.0 | 29.0 | 5.0 | 30.0 | 25.0 | 5.0 | 1.0 | 7-7 | II |
| ER4220T2 | 44.5 | 46.0 | 37.0 | 5.0 | 37.5 | 30.0 | 7.5 | 1.0 | 6-6 | II |
| ER4220T | 43.5 | 46.0 | 35.0 | 4.5 | 30.0 | 30.0 | 5.0 | 1.0 | 7-7 | II |
| ER4917T | 49.5 | 56.5 | 37.0 | 5.0 | 40.0 | 28.0 | 5.0 | 1.0 | 9-9 | II |

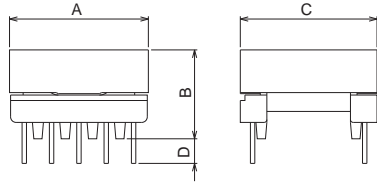
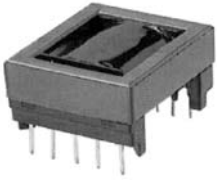
●TYPE EE. ER-AF



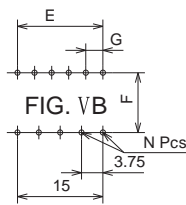
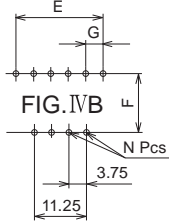
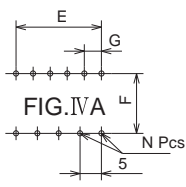
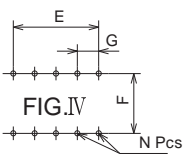
| Model | A | B | C | D | E | F | G | φ | N | Fig |
|----------|------|------|------|-----|-------|------|------|-----|-----|------|
| EE1605T | 16.5 | 13.5 | 15.0 | 4.0 | 9.0 | 11.0 | 3.0 | 0.6 | 3-3 | III |
| EE1605F | 16.5 | 15.5 | 26.0 | 3.5 | 10.0 | 22.0 | 2.5 | 0.6 | 5-5 | III |
| EE1605AF | 16.5 | 12.5 | 15.5 | 3.5 | 13.5 | 12.0 | 2.7 | 0.6 | 4-6 | IIIB |
| EE1905F | 19.5 | 16.0 | 16.5 | 3.5 | 13.0 | 12.0 | 3.25 | 0.7 | 5-5 | III |
| EE2206F | 24.0 | 20.0 | 31.0 | 3.5 | 20.0 | 22.5 | 3.75 | 0.8 | 6-6 | IIIA |
| ER2409F | 29.0 | 23.0 | 33.0 | 3.8 | 25.0 | 25.0 | 5.0 | 0.8 | 6-6 | III |
| ER2507F | 26.0 | 18.0 | 22.0 | 3.5 | 20.0 | 16.0 | 5.0 | 0.8 | 5-5 | III |
| ER2810AF | 29.0 | 26.0 | 38.0 | 4.0 | 25.0 | 30.0 | 5.0 | 0.8 | 6-6 | III |
| ER2810Z | 29.0 | 24.5 | 31.0 | 4.0 | 25.0 | 25.0 | 5.0 | 0.8 | 6-6 | III |
| ER3107 | 32.0 | 19.0 | 21.0 | 3.5 | 25.0 | 15.0 | 5.0 | 0.8 | 6-6 | III |
| ER3314 | 36.0 | 32.0 | 42.5 | 3.5 | 30.0 | 32.5 | 5.0 | 1.0 | 7-7 | III |
| EE3510DF | 40.0 | 29.0 | 44.0 | 4.0 | 35.0 | 35.0 | 5.0 | 1.0 | 8-8 | III |
| ER3511F | 40.0 | 29.0 | 44.0 | 5.0 | 35.0 | 35.0 | 5.0 | 1.0 | 8-8 | III |
| ER3913TF | 40.0 | 33.0 | 46.0 | 3.5 | 35.0 | 35.0 | 5.0 | 1.0 | 8-8 | III |
| ER4014AF | 40.5 | 33.0 | 46.0 | 5.0 | 35.0 | 35.0 | 5.0 | 1.0 | 8-8 | III |
| ER4014F | 41.0 | 35.0 | 45.0 | 3.0 | 35.0 | 35.0 | 5.0 | 1.0 | 8-8 | III |
| ER4216TF | 42.5 | 35.0 | 45.0 | 5.0 | 35.0 | 35.0 | 5.0 | 1.0 | 8-8 | III |
| ER4917TF | 50.5 | 42.0 | 60.0 | 5.0 | 44.45 | 50.8 | 6.35 | 1.2 | 8-8 | III |

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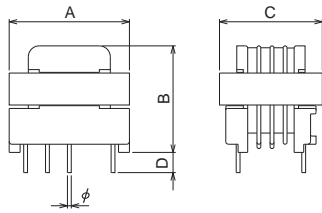
●TYPE EP-AF



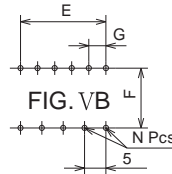
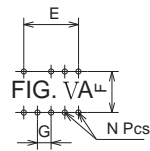
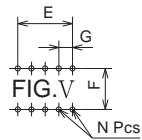
| Model | A | B | C | D | E | F | G | φ | N | Fig |
|-----------|------|------|------|-----|------------|-------|------|------|-----|-----|
| EP1305T | 13.7 | 8.0 | 13.7 | 2.6 | 10.0 | 10.5 | 2.5 | 0.49 | 5-5 | IV |
| EP1505HJS | 15.5 | 8.5 | 16.2 | 3.0 | 11.4 | 13.7 | 3.8 | 0.6 | 4-4 | IV |
| EP1706T | 18.0 | 12.5 | 17.5 | 4.5 | 12.5 | 15.0 | 2.5 | 0.49 | 4-6 | IVB |
| EP1906T | 19.5 | 12.0 | 20.0 | 4.5 | 12.5 | 16.25 | 2.5 | 0.49 | 5-6 | IVC |
| EP2508T | 25.5 | 16.5 | 25.5 | 3.5 | 20.0/18.75 | 20.0 | 3.75 | 0.8 | 5-6 | IVA |
| EP2708T | 27.5 | 15.5 | 32.5 | 5.5 | 20.0/18.75 | 27.5 | 3.75 | 0.8 | 5-6 | IVA |
| EP3008T | 30.5 | 16.0 | 35.5 | 4.5 | 25.0 | 30.0 | 5.0 | 1.0 | 6-6 | IV |



●TYPE EH-AF



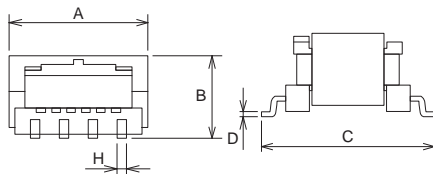
| Model | A | B | C | D | E | F | G | φ | N | Fig |
|---------|------|------|------|-----|------------|------|------|------|-----|-----|
| EH1605 | 16.5 | 12.5 | 15.5 | 3.5 | 12.5 | 12.5 | 2.5 | 0.6 | 6-6 | V |
| EH1906 | 19.5 | 11.5 | 22.0 | 4.0 | 12.5 | 16.5 | 2.5 | 0.49 | 6-6 | V |
| EH2207 | 22.5 | 19.5 | 18.5 | 3.7 | 16.0 | 12.0 | 4.0 | 0.7 | 5-4 | VA |
| EH2508T | 25.5 | 14.0 | 25.5 | 3.2 | 18.75/20.0 | 20.0 | 3.75 | 0.6 | 6-5 | VB |



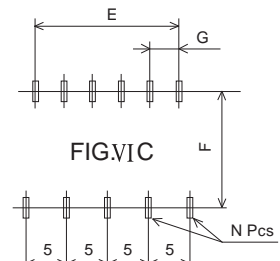
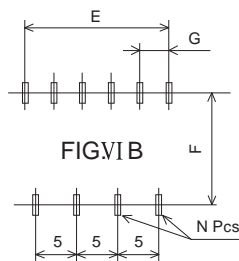
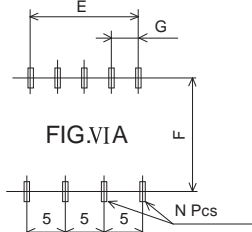
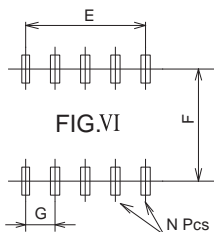
●TYPE SMD

Emboss carrier tape or tray can be prepared for package.

納品形態は、エンボスキャリアテープ又はトレイが可能です。



| Model | A | B | C | D | E | F | G | H | N | Fig |
|-----------|------|------|------|------|------|------|-----|------|-----|-----|
| ER0905 | 9.5 | 6.0 | 11.6 | 0.3 | 6.0 | 11.0 | 2.0 | 0.6 | 4-4 | VI |
| ER1104 | 11.5 | 5.5 | 12.4 | 0.35 | 8.0 | 11.8 | 2.0 | 0.52 | 5-5 | VI |
| ER1105T | 11.5 | 6.5 | 12.2 | 0.35 | 8.0 | 11.8 | 2.0 | 0.52 | 5-5 | VI |
| ER1406 | 15.0 | 7.5 | 16.0 | 0.4 | 10.0 | 15.3 | 2.5 | 0.7 | 5-5 | VI |
| EP1004AS | 11.0 | 5.5 | 11.5 | 0.35 | 6.0 | 11.0 | 2.0 | 0.52 | 4-4 | VI |
| EM1203 | 13.0 | 6.0 | 16.7 | 0.35 | 6.0 | 16.2 | 2.0 | 0.52 | 4-4 | VI |
| EM1203A | 13.0 | 6.0 | 16.7 | 0.35 | 8.0 | 16.2 | 2.0 | 0.52 | 5-5 | VI |
| EP1305AST | 14.0 | 8.5 | 20.3 | 0.4 | 12.0 | 18.8 | 3.0 | 0.6 | 5-5 | VI |
| EP1706AS | 18.0 | 11.0 | 23.0 | 0.5 | 14.0 | 21.8 | 3.5 | 1.0 | 4-5 | VIA |
| EP1906AS | 20.0 | 11.0 | 25.0 | 0.5 | 17.5 | 23.8 | 3.5 | 1.0 | 4-6 | VIB |
| EP2506 | 25.5 | 11.0 | 28.7 | 0.4 | 17.5 | 27.5 | 3.5 | 0.7 | 5-6 | VIC |



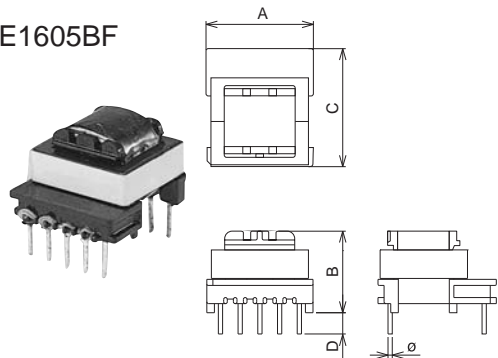
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●TYPE EE-EU

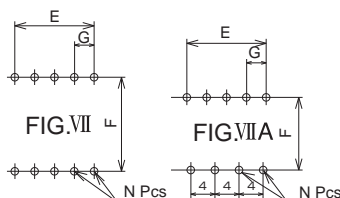
Suit to standard with the new bobbin.
Compact design with triple insulated wire.
Expanding other size now.

新設計ボビンに依り、ヨーロッパ規格に適合。
三層絶縁電線を使用した小型設計です。
新モデルを逐次追加します。

EE1605BF



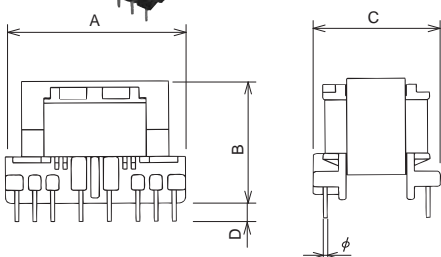
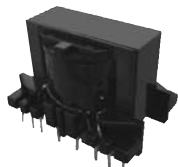
| Model | A | B | C | D | E | F | G | φ | N | Fig |
|----------|------|------|------|-----|-----------|------|---------|-----|-----|------|
| EE1605BF | 17.5 | 15.0 | 19.5 | 3.5 | 13.0 | 15.5 | 3.25 | 0.7 | 5-5 | VII |
| EE1905D | 19.5 | 19.0 | 16.0 | 3.5 | 13.0 | 12.0 | 3.25 | 0.7 | 4-5 | VIIA |
| EE2206B | 23.0 | 23.0 | 17.0 | 3.7 | 16.0 | 12.0 | 4.0 | 0.8 | 5-5 | VII |
| EI2811C | 28.5 | 21.0 | 30.5 | 4.0 | 20.0/25.0 | 25.0 | 4.0/5.0 | 0.8 | 6-6 | VII |
| ER2810BF | 35.0 | 23.0 | 43.0 | 3.5 | 25.0 | 37.5 | 5.0 | 0.8 | 6-6 | VII |



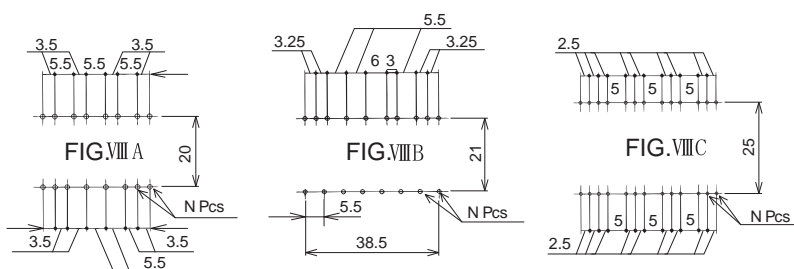
●TYPE EI·ER·ED-INV

This is superior to multi-output and insulation between outputs. It is most suitable for gate drive in inverter control.

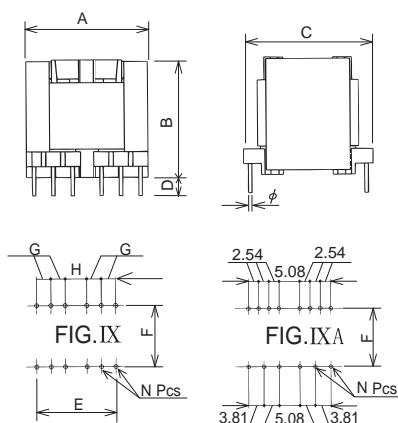
多出力かつ出力間の絶縁に優れています。
インバータ制御のゲートドライブ等に最適です。



| Model | A | B | C | D | φ | N | Fig |
|----------|------|------|------|-----|-----|-------|-------|
| ER2810SM | 35.0 | 24.0 | 25.0 | 3.5 | 0.8 | 8-8 | VIIA |
| ED3312 | 41.5 | 31.0 | 28.5 | 3.5 | 0.8 | 8-10 | VIIIB |
| EI3513F | 43.0 | 29.0 | 31.0 | 3.5 | 0.6 | 13-13 | VIIIC |



●TYPE PQ



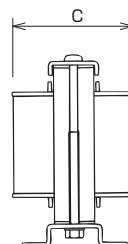
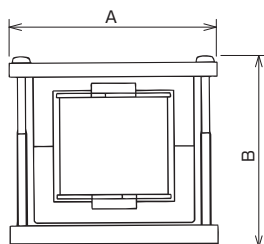
| Model | A | B | C | D | E | F | G | H | φ | N | Fig |
|----------|------|------|------|-----|-------|-------|------|-------|-----|-----|-----|
| KPQ2016 | 23.0 | 18.5 | 23.0 | 3.5 | 20.32 | 20.32 | — | — | 0.6 | 6-8 | IXA |
| KPQ2020L | 23.0 | 24.0 | 23.0 | 4.0 | 20.32 | 20.32 | — | — | 0.6 | 6-8 | IXA |
| KPQ2620 | 27.0 | 22.5 | 29.0 | 5.5 | 22.86 | 25.4 | 3.81 | 7.62 | 0.8 | 6-6 | IX |
| KPQ2625 | 27.0 | 27.5 | 29.5 | 5.0 | 22.86 | 25.4 | 3.81 | 7.62 | 0.6 | 6-6 | IX |
| KPQ3220 | 32.5 | 22.0 | 34.0 | 4.0 | 27.94 | 30.48 | 5.08 | 7.62 | 1.0 | 6-6 | IX |
| KPQ3230 | 32.5 | 32.0 | 34.0 | 5.0 | 27.94 | 30.48 | 5.08 | 7.62 | 1.0 | 6-6 | IX |
| KPQ3535Z | 35.5 | 40.5 | 39.0 | 4.0 | 30.48 | 35.56 | 5.08 | 10.16 | 1.0 | 6-6 | IX |
| KPQ4040 | 41.0 | 45.0 | 42.0 | 5.0 | 35.56 | 38.1 | 5.08 | 15.24 | 1.0 | 6-6 | IX |
| KPQ5050 | 51.0 | 56.5 | 51.0 | 6.0 | 43.18 | 45.72 | 7.62 | 12.7 | 1.2 | 6-6 | IX |

スイッチングトランス
SWITCHING POWER TRANSFORMERS

●TYPE EE・ER-HP

Large size transformers for high power.

大電力用の大型トランスです。



| Model | A | B | C |
|---------|-------|-------|------|
| EE8020 | 105.0 | 93.0 | 61.0 |
| EE8040 | 105.0 | 93.0 | 81.5 |
| ER7016 | 106.0 | 86.0 | 56.0 |
| ER9030 | 115.0 | 107.0 | 76.0 |
| ER12030 | 144.5 | 118.0 | 76.0 |