

TWINCAP

METAR machines



The new generation of metar winding machines for your DC and X2 metallized film capacitors

- very high output and productivity
- winding 2 capacitors each cycle, pitch 10 to 27.5 mm
- two independent winding stations
- adjustable air guiding system for the metallized film for very narrow and accurate off-set
- pressure roller with electronic control
- very precise tension control
- thermo-sealing at the beginning of the winding (round core, no pull out or collapse)
- cover film insertion device
- burn off of the two metallized films
- brushless servo-motor
- high speed Fieldbus
- TFT Screen (long life)
- windows interface
- object oriented language
- Net working of several machines
- various interface features



METAR SA

CH-1753 Matran - Switzerland - phone ++41 (0)26/407 38 38 - fax ++41 (0)26/407 38 39 - <http://www.metar-machines.com>
We reserve the right to modify this specification at any time without prior notice and without necessarily revising this document

Edition 12/2007

Windings

Number per cycle	2
Minimum width	10 mm
Maximum width	27,5 mm
Minimum outside diameter	3,5 mm
Maximum outside diameter	28 mm

Metallized film

Material	MPP or MPET
Number of supply rolls	4
Inside Ø of supply roll	75 mm or 3 "
Outside Ø of supply roll	240 mm
Minimum width	9 mm
Maximum width	26,5 mm
Minimum thickness	2 µm
Maximum thickness	12 µm
Film tension	20 to 300 cN(g)

Cover film (optional)

Material	PP or PE
Number of supply roll	2
Inside Ø of supply roll	75 mm or 3 "
Outside Ø of supply roll	180 mm
Minimum width	9 mm
Maximum width	27 mm
Minimum thickness	12 µm
Maximum thickness	25 µm
Film tension	50 to 400 cN(g)

Foil for burn off

Material	Aluminium
Number of supply roll	2
Inside Ø of supply roll	33 mm or 40 mm
Outside Ø of supply roll	150 mm
Width	70 mm
Minimum thickness	20 µm
Maximum thickness	40 µm

Power supply

Three-phased voltage	3P+E 50/60Hz
Consumption	3.5 kVA

Standard Equipement :

Dereeler for metallized film	4
Burn-off	2
MMI with TFT screen	1
Thermowelding	2
Mandrel dia.min./max.	2 to 8mm

Electronic control on pressure regulator for metallized film tensions

Air guiding system for each metallized film

Optional equipment on request:

Winding according to capacitance bridge
Cover film winding
Mandrel diameter > 8 to 10

Other specifications

Pressure rollers on B1	100 to 500 cN (g)
Pressure rollers on B2	100 to 500 cN (g)
Rotation speed	max .16000 RPM
Linear winding speed	up to 15 m/s
Acceleration speed	up to 10m/s ²

Air supply

Pressure	6 bars
Consumption	2 m ³ /h

Physical characteristics

Length	1000 mm
Width	1000 mm
Height	1850 mm
Weight	800 kg

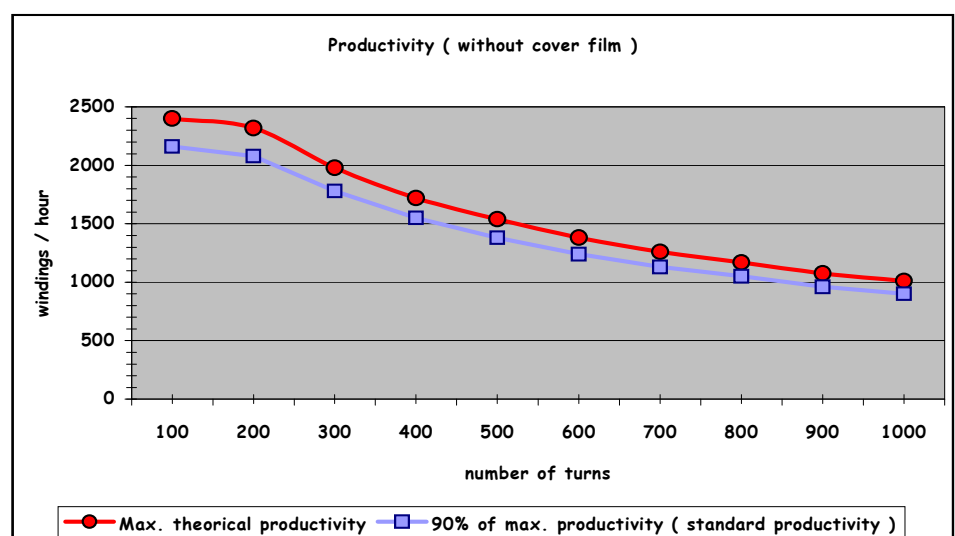
Safety

Compliance with CE standard



Winding parameters

Film : MPET 5 microns x 14 mm
Mandrel diameter : 2mm
Burn-off and core forming : 10 turns
Burn-off at end : 5 turns
Thermo-welding at end : 3 turns
Winding speed : 16'000 rpm
Linear speed : up to 15 m/s
Film tension : 56 gr
Burn-off speed at beg.300 mm/s
Burn-off speed at end 500 mm/s
Acceleration speed up to 10m/s²
Deceleration speed up to 15m/s²



Actual productivity will depend on film quality and operation conditions and does not include rolls change over time

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