

## Products & Company



Brochure



# 2000 & 4000 Series



## MiniEvo

### Supply Voltages

2000 Serie 1 x 110 - 230 VAC +10/-20%

Model	I <sub>nom</sub>	I <sub>max</sub>
2004	4 A	8 A



## Small AT-UL

### Supply Voltages

2000 Serie 3 x 35 - 93 VAC +10/-20%  
3 x 230 VAC +10/-20%

4000 Serie 3 x 400 VAC +10/-20%

4400 Serie 3 x 440 VAC +10/-20%

Model	I <sub>nom</sub>	I <sub>max</sub>
2005	5 A	10 A
2010	10 A	20 A
2020	20 A	40 A
4003	3 A	6 A
4005	5 A	10 A
4009	9 A	18 A



## Medium AT-UL

### Supply Voltages

4000 Serie 3 x 400 VAC +10/-20%

4400 Serie 3 x 440 VAC +10/-20%

Model	I <sub>nom</sub>	I <sub>max</sub>
4015	15 A	30 A
4025	25 A	50 A



## Large AT-UL

### Supply Voltages

4000 Serie 3 x 400 VAC +10/-20%

4400 Serie 3 x 440 VAC +10/-20%

Model	I <sub>nom</sub>	I <sub>max</sub>
4050	50 A	100 A

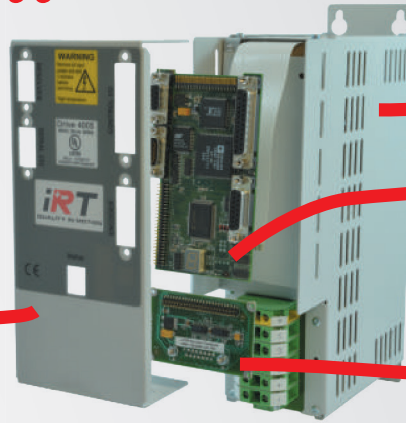
# Key Features

- Swissmade – High end, highly reliable and efficient drives at a competitive price sold as IRT or as OEM
- Drives synchronous, asynchronous servomotors and linear motors
- IGBT output stage for a fast, powerful and reliable motor control
- Regulation cycle of 125 us
- Galvanic isolation between control and power stage
- Motor and drive protection by I<sup>2</sup>T monitoring and limitation
- Safety fonction STO (Safe Torque Off) SIL-3 and SIL-3+ available
- Integrated strong braking resistor
- External DC Bus link for an enhanced dynamic braking power and motor movement dynamism (AT-UL)
- Easy and cost effective cabling by parallelization (AT-UL)
- Integrated EMC Line filter available
- Metal housing for an optimum EMC characteristics
- Optimal cooling with natural convection (MiniEvo) or forced and regulated cooling (AT-UL)
- Possibility to mount the heated part of the drive through the mounting plate of the electrical cabinet to optimize the cabinet's cooling
- Industrial conception guarantees long lasting operation in the most demanding applications
- Integrated motor brake control available
- UL-Listed E 208415 (AT-UL) / CE

# Control Units for 2000 & 4000

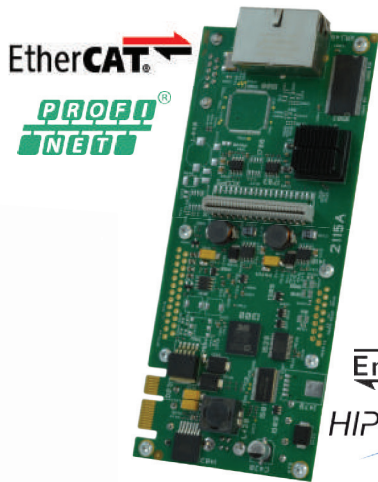
How does it work?

Covers & Labels will follow your choice!



Choose your **Power stage** through the whole range of the 2000 & 4000 Series

Select the **Control Unit** & the **Add-ons** that suit your needs



CU 2115

### Interfaces

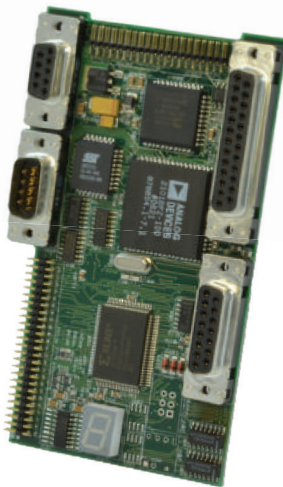
Analog, EtherCat®, Profinet®

### Motor feedbacks

Resolver, Hiperface® DSL, EnDat 2.1 & 2.2, 1 Vpp



Single Cable Solutions!



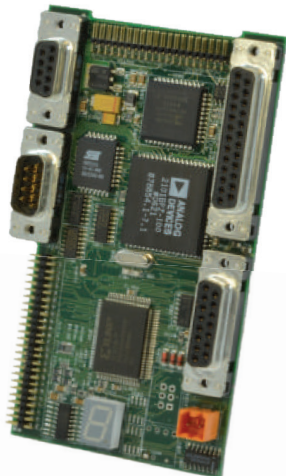
CU 2001

### Interfaces

Analog, Motion profile, CAN, SSI, Pulse/Dir, Digital shaft/Gearing

### Motor feedbacks

Resolver and Encoder



CU 2002

### Interfaces

Analog, SSI, Digital shaft/Gearing master

### Motor feedbacks

Hiperface®, EnDat 2.1

## Versatile & Modular

- Well proven Swissmade electronic design based on more than 35 years of experience
- Controlled by numerous interfaces from simple analog commands to the most advanced Field Bus
- Compatible with a Broad range of feedback, IRT's drives are working with virtually any motor
- Single cable solution with EnDat and Hiperface DSL®
- Smooth sinusoidal generated current output ensure even torque and optimum regulation though the speed range
- Easy recovery - connect an external safety/backup DC supply to keep the control unit up in the even of a main line outage or safety interruption of the AC line to get back up faster
- Easy setup - IRT's made software to setup, monitor, troubleshoot your drives, get surprised by the ease and flexibility of IRT's solutions





## Highlights

- IRT's last generation electronic based on more than 35 years of experience
- Swissmade – High end, highly reliable and efficient drives at a competitive price sold as IRT or as OEM
- Drives synchronous, asynchronous servomotors and linear motors
- IGBT output stage for a fast, powerful and reliable motor control
- Regulation cycle of 125 us
- Motor and drive protection by I<sup>2</sup>T monitoring and limitation
- Safety fonction STO (Safe Torque Off) SIL-3 and SIL-3+ available
- Integrated strong braking resistor
- Metal housing for an optimum EMC characteristics
- Optimal cooling with natural convection
- Industrial conception guarantees long lasting operation in the most demanding applications
- These products have one of the smallest electrical cabinet footprint of the market
- Available in two versions, standard with classical interfaces and Fieldbus version with EtherCAT® and Profinet®
- FlexSlim - a 2kW drive only 60 mm wide
- FlexTwin - 2 x 2kW in a single compact drive
- Easy recovery - connect an external DC supply to get back up faster in case of main line outage or safety interruption
- Easy setup - with IRT's made software

### Model

205 - 1 or 3 x 230 VAC- 5A nom / 10A max

### Interfaces

Ethercat®, Profinet®, Analog, CAN, Pulses/Dir, Digital shaft / Gear box

### Motor feedbacks

Resolver, Encoder, Hiperface® DSL, EnDat



# FlexTwin

EtherCAT®

**NEW**



## Model

205 - 3 x 230 VAC- 2 x 5A nom / 10A max

## Interfaces

Ethercat®, Profinet®, Analog, CAN, Pulses/Dir, Digital shaft / Gear box

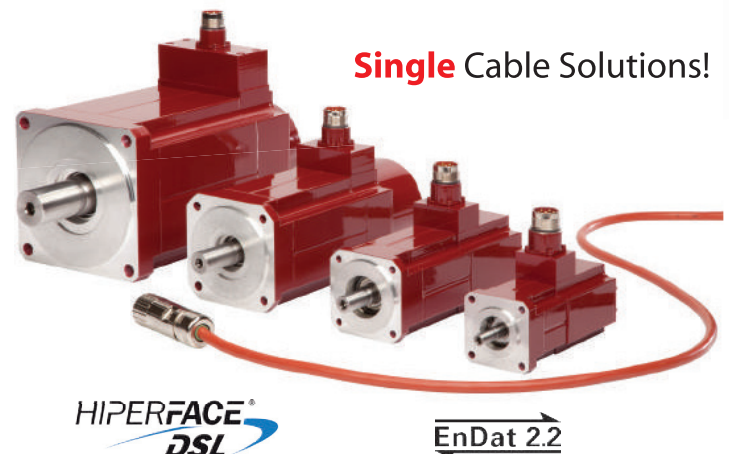
## Motor feedbacks

Resolver, Encoder, Hiperface® DSL, EnDat

**PROFINET®**

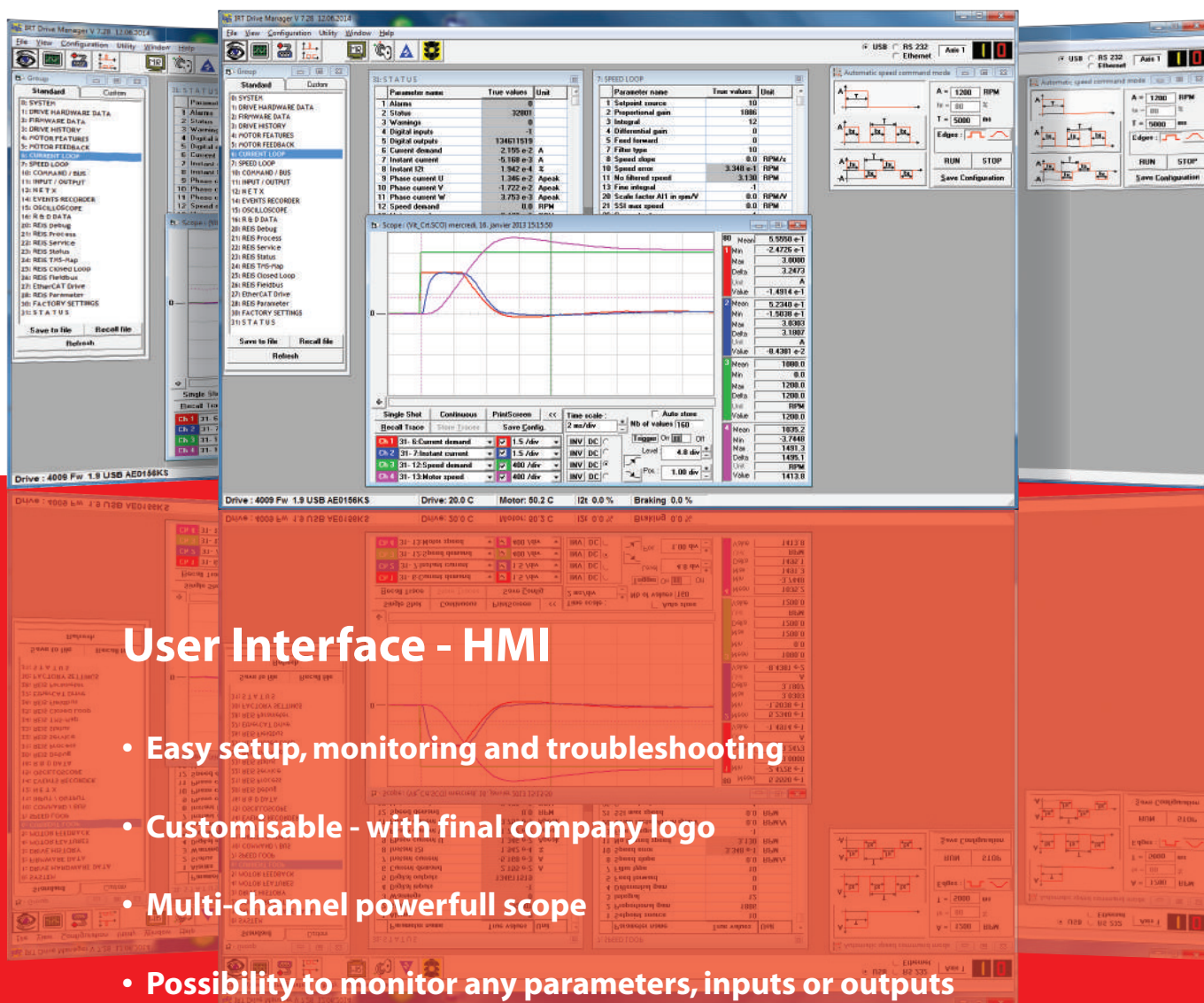
## Developments coming soon

- The whole FlexLine in 400 VAC
- Single cable solutions - with Hiperface® DSL and EnDat 2.2
- The FlexSlim electronic in a MiniEvo body
- Contact us for details or development requirements



**iRT**  
QUALITY IN MOTION

## Simplicity Versatility Functionality



**User Interface - HMI**

- Easy setup, monitoring and troubleshooting
- Customisable - with final company logo
- Multi-channel powerfull scope
- Possibility to monitor any parameters, inputs or outputs

## Drive's firmware

- Wide variety of standard and special functions already available
- Customisable for your specific needs on request





Created in the heart of the watch maker's canton of Neuchatel in Switzerland in 1980 by the Reis group, IRT SA is specialized in the development hardware & software and the production of motor amplifiers also known as drives and servo drives.

IRT's drives are widely used in the machine industry in general and were at the heart of the Reis robotic revolution and evolution along the years. IRT's products are not only used in robots but also on many types of machines mainly as OEM.

IRT's slogan "Quality in motion" represents the four main pillars of the company listed below.



#### Swiss Quality

Swissmade drives for your applications! The quality, reliability and simplicity of our technology is recognized throughout the industry. Our customers especially appreciate our industrial approach which guarantees stiffness and low failure rate.



#### Innovation & Flexibility

With more than 35 years of constant technology evolution, IRT is the right partner for your business. Our drives features a wide range of communication standards to fit any needs, from retrofit to cutting-edge concepts! Our structure and our well experienced and dynamic team ensure you of the fastest reaction time and provide you the necessary support and development.



#### OEM

Your Brand on our drives! You can benefite from our technology at your own name, IRT is already working with several major industry players.



#### Competitive price

Swissmade doesn't inevitably mean expensive! We always mind the cost as well as you do, with no concession on quality.



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