



■ Resolver Option Module (OPCRES)

OPCRES Resolver Option is used for interfacing resolver motor feedback to AF-650 GP™. Resolvers are used basically as motor feedback device for Permanent Magnet brushless synchronous motors.

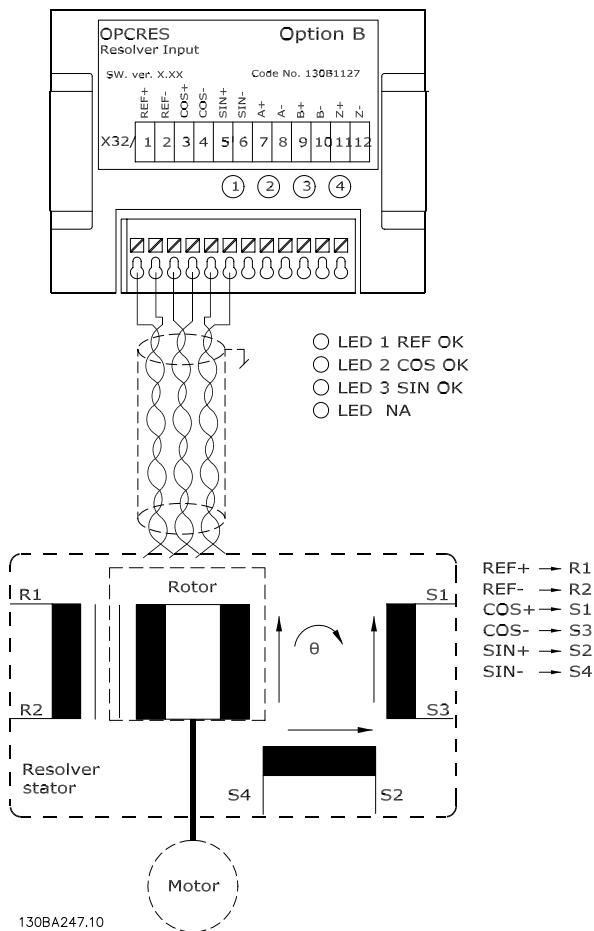
Resolver specifications:	
Resolver poles	Par. RS-50: 2 *2
Resolver Input Voltage	Par. RS-51: 2.0-8.0 Vrms *7.0 Vrms
Resolver Input Frequency	Par. RS-52: 2-15 kHz *10.0 kHz
Transformation ratio	Par. RS-53: 0.1-1.1 *0.5
Secondary input voltage	Max. 4 Vrms
Secondary load	App. 10 k Ω

When the Resolver option is ordered separately the kit includes:

- Resolver Option Module (OPCRES)
- Larger keypad cradle and terminal cover for Unit Size 12, 13, and 23 drives (230V to 10HP & 460/575V to 20HP)

Configure Resolver Option Module in parameter group RS-## and with par. EC-60 *Feedback Direction* & EC-61 *Feedback Signal Monitoring*.

The Resolver Option Module supports a various number of resolver types.



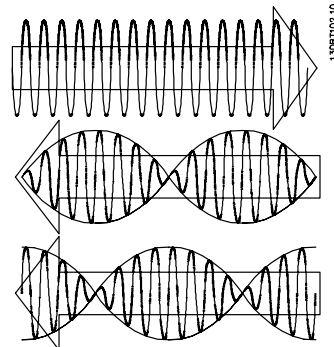
NOTE!
The resolver option Module can only be used with rotor-supplied resolver types. Stator-supplied resolvers cannot be used.



LED Indicators

- LED 1 is on when the reference signal is OK to resolver
- LED 2 is on when Cosinus signal is OK from resolver
- LED 3 is on when Sinus signal is OK from resolver

The LEDs are active when par. EC-61 is set to *Warning* or *Trip*.



Set-up example

In this example a Permanent Magnet (PM) Motor is used with the resolver as speed feedback. A PM motor must usually operate in flux mode.

Wiring:

The max. cable length is 150 m when a twisted pair type of cable is used.

NOTE!
Resolver cables must be screened and separated from the motor cables.

NOTE!
The screen of the resolver cable must be correctly connected to the de-coupling plate and connected to chassis (earth) on the motor to meet European EMC Standards.

NOTE!
Always use screened motor cables and brake chopper cables.

Adjust following parameters:		
Par. H-40	Configuration Mode	Speed closed loop [1]
Par. H-41	Motor Control Principle	Flux with feedback [3]
Par. P-20	Motor Construction	PM, non salient SPM [1]
Par. P-03	Motor Current	Nameplate
Par. P-06	Motor Nominal Speed	Nameplate
Par. P-42	Motor Contr. Rated Torque	Nameplate
Auto Tune (Par. P-04) is not available for use on permanent magnet motors.		
Par. P-37	d-axis Inductance (Ld)	Motor data sheet (mH)
Par. 1-39	Motor Poles	Motor data sheet
Par. P-40	Back EMF at 1000 RPM	Motor data sheet
Par. P-41	Motor Angle Offset	Motor data sheet (Usually zero)
Par. RS-50	Poles	Resolver data sheet
Par. RS-51	Input Voltage	Resolver data sheet
Par. RS-52	Input Frequency	Resolver data sheet
Par. RS-53	Transformation Ratio	Resolver data sheet
Par. RS-59	Resolver Interface	Enabled [1]

The instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the GE company.

AF-650 GP is trademark of the General Electric Company.

GE consumer & Industrial
41 Woodford Avenue
Plainville, CT 06062

www.geelectrical.com/drives



imagination at work

