PowerWarp™
Enabling PowerWarp

• The following instruction enables PowerWarp

CTRL_setFlag_enableEpl(ctrlHandle,TRUE);

• The following conditions must be true in order to enable PowerWarp

CTRL_Obj *obj = (CTRL_Obj *)ctrlHandle;
ctrlState = CTRL_getState(ctrlHandle);
estState = EST_getState(obj->estHandle);
motorType = CTRL_getMotorType(ctrlHandle);

if( (ctrlState == CTRL_State_OnLine) && (estState == EST_State_OnLine) &&
    (motorType == MOTOR_Type_Induction) )
{
    CTRL_setFlag_enableEpl(ctrlHandle,TRUE);
}

PowerWarp™ Enabled

3.18 s

0.95 A

Configurable Current Slope

Agilent

Acquisition
- High Res
- 50.0 kSa/s

Channels
- DC
  - 100:1
  - 1.00:1
  - 10.0:1

Cursors
- ΔX:
  - +3.1800000000000000 s
  - 1/ΔX:
    - +314.47 mHz
- ΔY(1):
  - -950.00 mA

Texas Instruments
PowerWarp Current Slopes

Configurable Current Slope

PowerWarp™ Disabled

0.95 A

1.0 s
Case Study

InstaSPIN™-FOC with PowerWarp™ Enabled Vs. TRIAC Control

Savings of 1698 kWh = 81%
Case Study

InstaSPIN™-FOC with PowerWarp™ Enabled
Vs.
InstaSPIN™-FOC with PowerWarp™ Disabled

Savings of 438 kWh = 48%