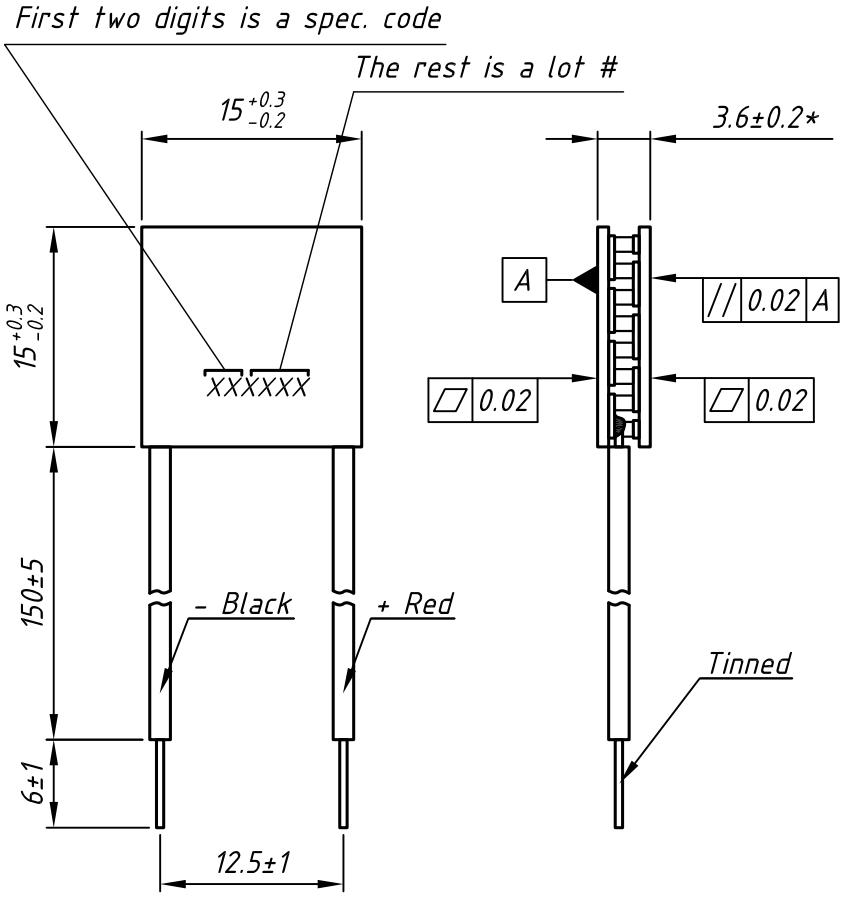
NORD
Ferrotec Nord Corp.

Thermoelectric module
TM-31-1.0-3.9 M

Technical Data

U max	3.5 V	T_{hot}=25°C Vacuum
Q max	8.9 W	
ΔT max	72 °C	
I max	4.3 A	
R	0.7 Ohm	
Lead wires	24 AWG	
Solder	mp ≥ 227 °C	
Hot side	Ceramics Al_2O_3, white 96% (Lapped)	
Cold side		
Maximum processing temperature +200°C		
Tolerances for thermal and electrical parameters ±10%		



Module drawing: STANDARD DESIGN

AVAILABLE MODIFICATIONS

Standard design
For thermal cycling applications
Porch-style design

ORDERING OPTIONS

Lead wires insulation	Max. processing temperature
PVC	105°C
Silicone	180°C
PTFE	200°C

Sealing	Max. processing temperature
Silicone sealant	180°C
Epoxy sealant	130°C

OPTION UPON REQUEST

Height tolerance	± 0.02
Unflatness and nonparallel	± 0.01

CERTIFIED ISO 9001:2008

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Ferrotec Nord Corp., 3, Peschany Carier, 109383 Moscow, Russia

Complies with RoHS

REACH compliant EC 1907/2006

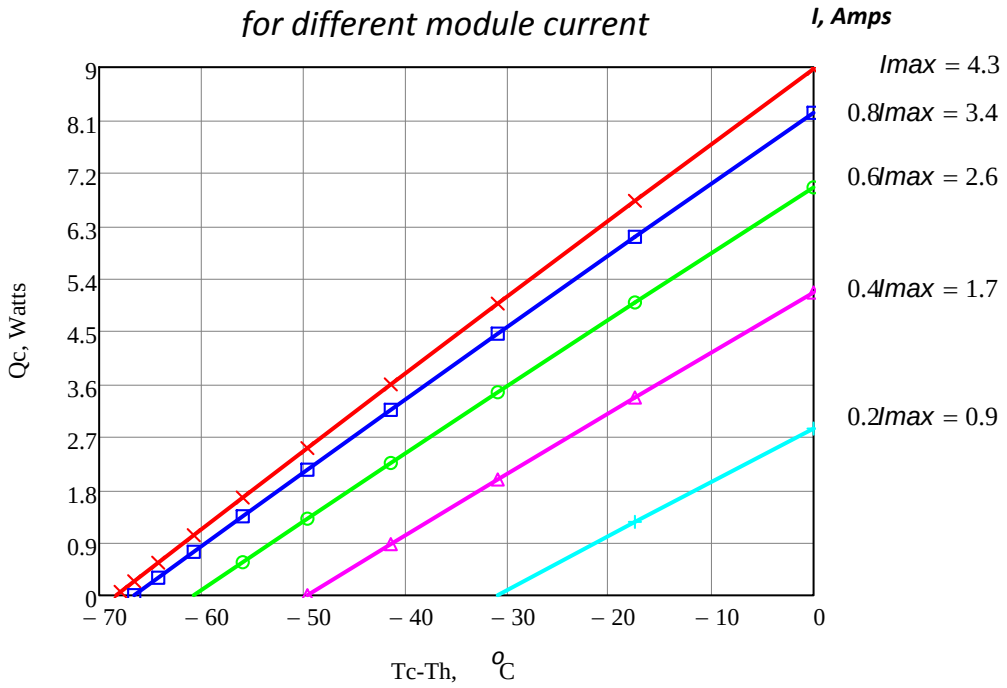
PERFORMANCE GRAPHS FOR MODULES:

TEPERATURE 25 ^{o}C

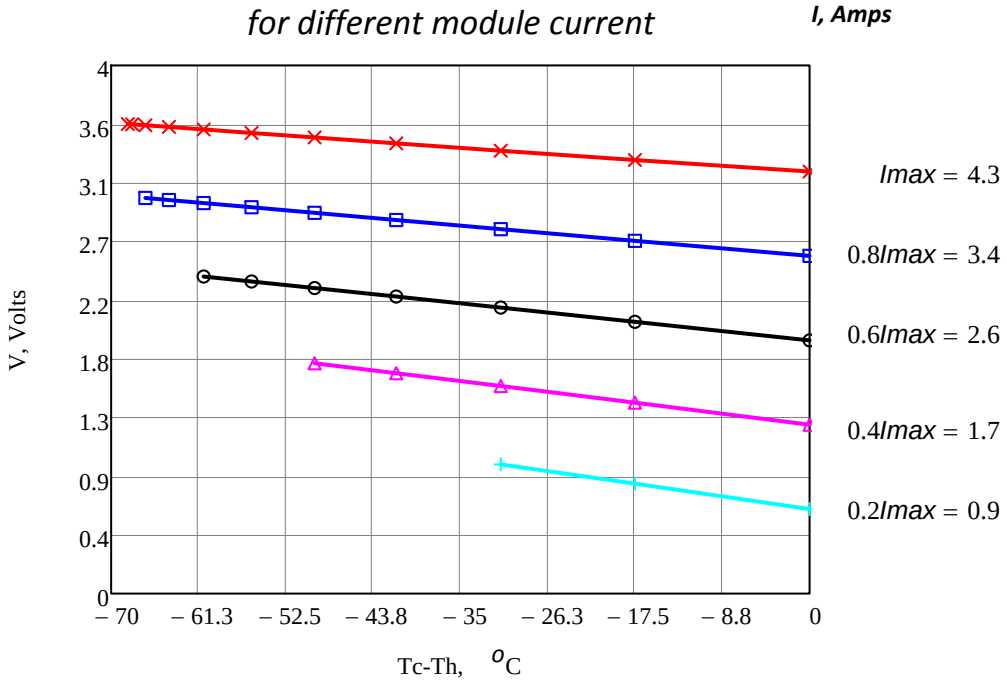
TM-31-1.0-3.9 M

ENVIRONMENT: DRY AIR

Cooling capacity Qc vs. ΔT
for different module current



Module voltage V vs. ΔT
for different module current



Qc -cooling capacity at cold side of the module (Watts),
Tc-Th - temperature difference between cold and hot sides of the module (^{o}C),
I - DC current through the module (Amps),
V - voltage applied to the module (Volts).

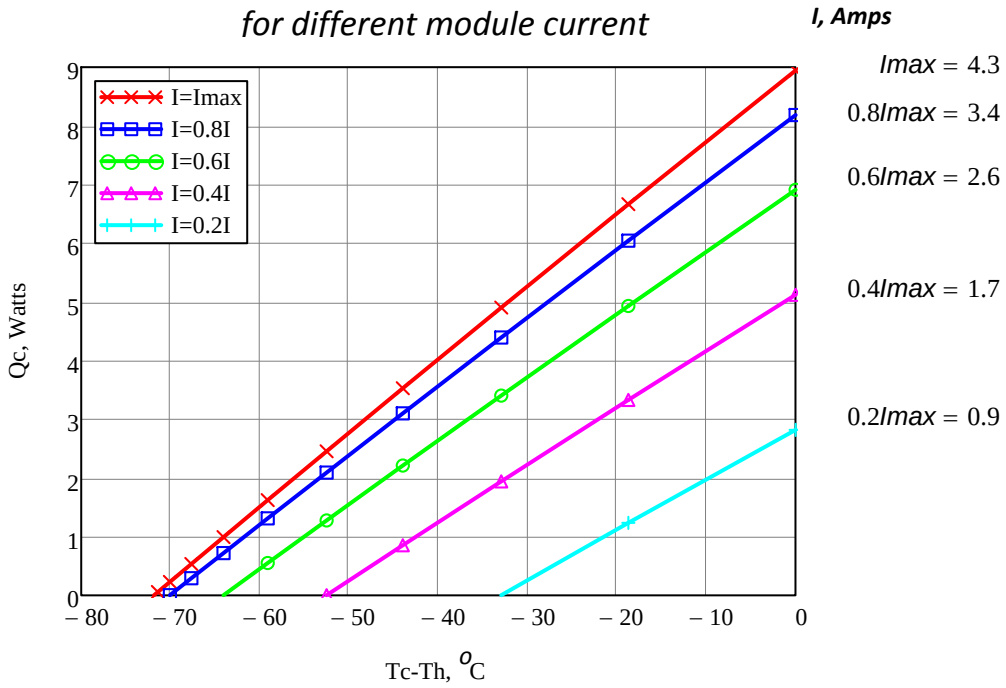
PERFORMANCE GRAPHS FOR MODULES:

TEPERATURE 25 ^{o}C

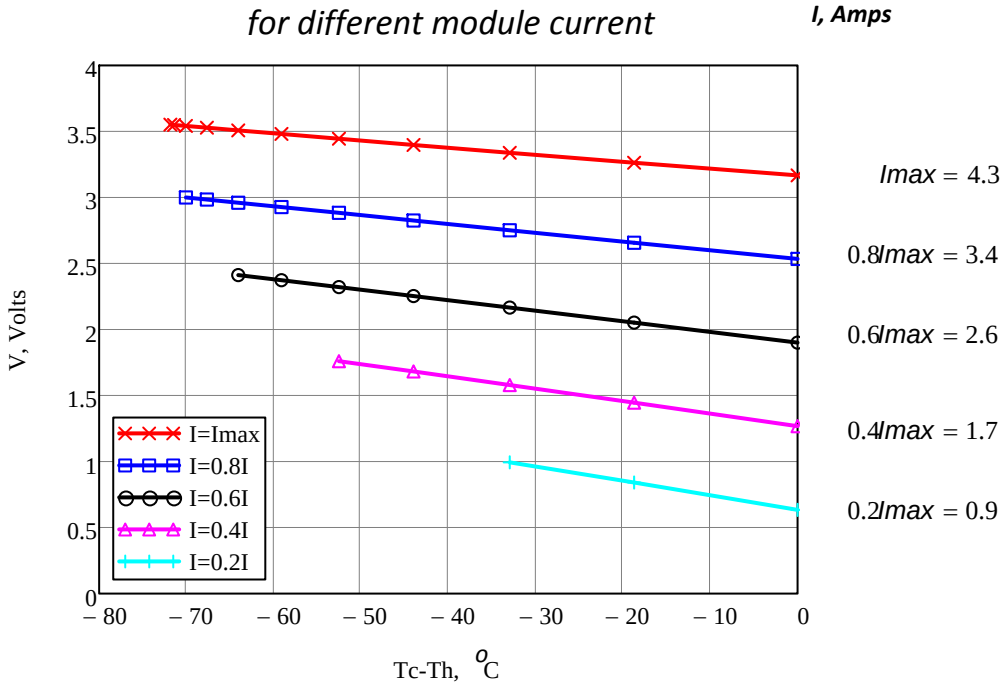
TM-31-1.0-3.9 M

ENVIRONMENT: VACUUM

Cooling capacity Qc vs. ΔT
for different module current



Module voltage V vs. ΔT
for different module current



Qc -cooling capacity at cold side of the module (Watts),
Tc-Th - temperature difference between cold and hot sides of the module (^{o}C),
I - DC current through the module (Amps),
V - voltage applied to the module (Volts).

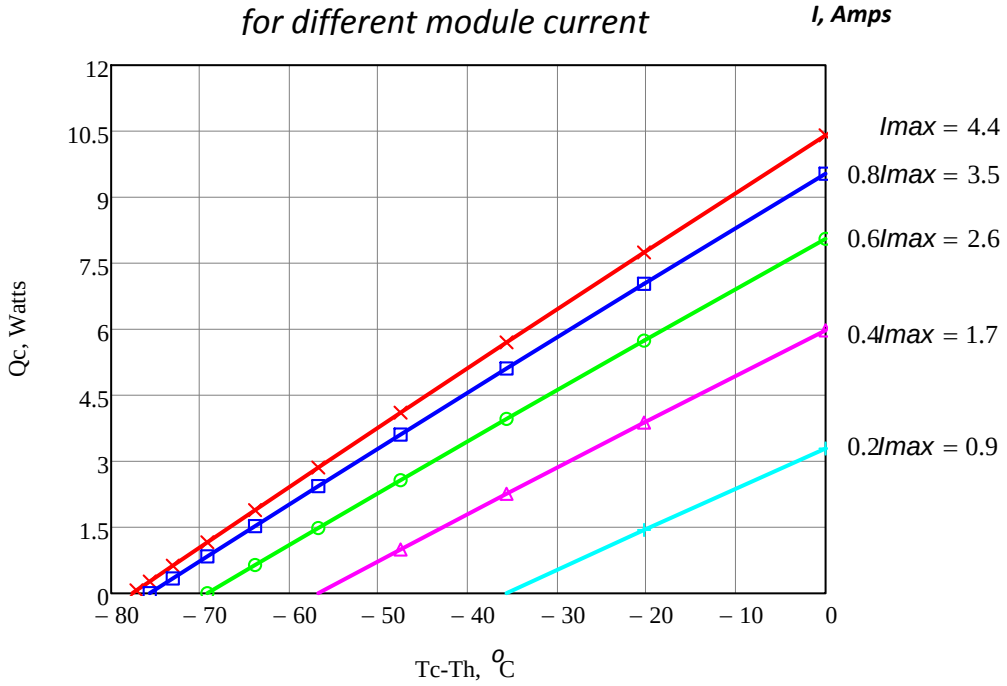
PERFORMANCE GRAPHS FOR MODULES:

TEPERATURE 50 ^{o}C

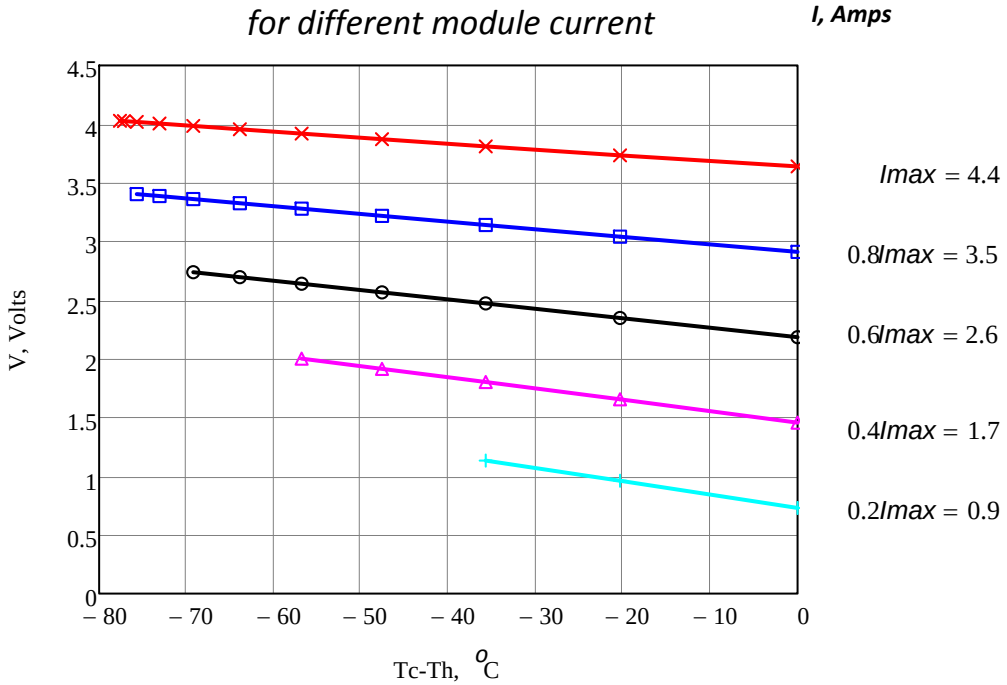
TM-31-1.0-3.9 M

ENVIRONMENT: DRY AIR

Cooling capacity Qc vs. ΔT
for different module current



Module voltage V vs. ΔT
for different module current



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